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FEDERAL COAL LEASING PROGRAM

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HEARING BEFORE THE SUBCOMMITTEE ON MINERALS, MATERIALS AND FUELS OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS UNITED STATES SENATE NINETY-THIRD CONGRESS

SECOND SESSION

ON

THE DEPARTMENT OF THE INTERIOR'S FUTURE LEASING
PROGRAM FOR THE FEDERAL COAL RESOURCES OF THE
NORTHERN GREAT PLAINS

BILLINGS, MONT., APRIL 20, 1974

Part 3



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FEDERAL COAL LEASING PROGRAM

SATURDAY, APRIL 20, 1974

U.S. SENATE,
SUBCOMMITTEE ON MINERALS, MATERIALS AND FUELS,
OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Billings, Mont.

The subcommittee met, pursuant to notice, in the Federal Building Courtroom, Billings, Mont., Hon. Lee Metcalf, presiding.

Present: Senators Metcalf and Hansen.

Also present: D. Michael Harvey, special counsel; W. O. Craft, Jr., deputy minority counsel; and Brent Kunz, legislative assistant to Senator Hansen.

Senator METCALF. The subcommittee will be in order.

OPENING STATEMENT OF HON. LEE METCALF, A U.S. SENATOR FROM THE STATE OF MONTANA

Senator METCALF. The subcommittee will be in order. Of course, I am delighted to be back in Billings today. It was a long road to get back. We detoured through most of Wyoming by helicopter courtesy of the Montana National Guard. I want to welcome my old friend and my good friend, Senator Hansen of Wyoming here today to sit with me. He was a very gracious host in Wyoming and we enjoyed our field trip yesterday. We spent 9½ hours in hearing 50-some witnesses in Casper. We have a little longer witness list today. I hope that we can finish by 6 o'clock. The purpose of this hearing is for the Subcommittee on Minerals, Materials and Fuels to look into the Department of Interior's future coal leasing program for the development of the coal resources of the Northern Great Plains. We want to learn the views of the people who will be most directly affected by the development of these resources.

Now the members of this subcommittee are aware that many members of the energy industry have expressed great interest in development of the coal deposits of the region. We have applauded the Administration's establishment of the Northern Great Plains Resources Program to consider the environmental, social, and economic impacts of proposed coal development. We are aware that the department is also developing an Energy Minerals Allocation Recommendation System which will be used as an aid to future leasing decisions.

However, the subcommittee is concerned about the possibility that the current energy situation will lead to premature decisions to proceed with large-scale coal leasing when the impacts of such action are not fully understood. We are particularly concerned that the issuance of leases would, for all practical purposes, commit the land,

the water, and the air resources of the area to development of surface mines, electric generating plants, coal gasification and liquefaction plants, water impoundments and new communities without adequate consideration of other energy alternatives and environmental, social and economic impacts, and without adequate opportunity for advance planning by the communities involved.

We are also concerned about the heavy burden that rapid large-scale development would place on state and local government for public services including schools, roads, police, and fire protection, and water and sewer facilities and others.

This hearing and the one we held in Casper on Thursday will give the people of Montana and Wyoming an opportunity to express their concerns. We hope that the coal companies will also be listening and we hope they will make positive responses.

The president of the National Coal Association, Mr. Carl Bagge, informed this subcommittee on April 2, that the coal industry intended to participate in a "cooperative effort on the part of government, industry, the consumers and the general public". I hope that Mr. Bagge's good intentions are implemented by the coal companies actually mining here in Montana.

The subcommittee has held 3 days of hearings in Washington on the Northern Great Plains coal leasing program. We have heard from representatives of the Federal agencies, from industry, from environmental groups and other interested citizens. Before these hearings, I asked the Administration to answer 36 questions. Copies of the questions and the answers are available here today for those who wish to have them. They are on the table to my left.

We are starting early today so that we can hear from as many people as possible. We may have to put a time limit later on oral presentations but all written statements will be printed in full in the formal hearings record.

I urge everyone of you as the hearing goes on today to check repetition, to check matters that have already been considered in other testimony, to highlight your testimony because we only have a limited amount of time. I will renew that request from time to time. This hearing record will be kept open until May 11th so that those who are not testifying may submit statements or any witnesses may submit additional written testimony. These statements can be sent directly to me in Washington or to Senator Hansen in Washington.

Senator Hansen.

STATEMENT OF HON. CLIFFORD P. HANSEN, A U.S. SENATOR FROM THE STATE OF WYOMING

Senator HANSEN. Thank you very much, Mr. Chairman. I am very pleased indeed to be in the great State of Montana, and I want to take this occasion to thank you, Senator Metcalf, for having come back to Wyoming day before yesterday to conduct the hearings that are similar to this one which occurred in Casper. I thank you also for looking at the coal operations we have in the State of Wyoming and for giving us a chance to view some of the activities in the great State of Montana.

Mr. Chairman, I have a resolution that was just handed me this morning prepared by the Board of County Commissioners for Sheridan County, Wyoming. If I may I would like to read it into the record. It is not too long.

Senator METCALF. Please do.

Senator HANSEN. Resolution: Whereas, Sheridan County is in the position of experiencing the impact of workers and people associated with the coal development just north of our country borders and do not appear to benefit from any increase in tax base because of it, we Sheridan County Commissioners feel that we are in a dangerous position and vulnerable to impact that we will be unable to cope with without the tax base needed; and

Whereas, the Federal moratorium on strip coal mining has nearly expired, and whereas development of coal is progressing in Sheridan County; Now Therefore Be It

Resolved, that the County of Sheridan by and through its Board of County Commissioners by unanimous vote supports any effort on the part of the citizenry to promote the extension of the Federal moratorium until such time as domestic needs of energy from the development of coal is proven.

Dated this 19th day of April, 1974 at Sheridan, Wyoming.

It is signed by the Board of County Commissioners, Sheridan, Wyoming, Kenneth Hawkins, Chairman, William J. Laya and Ruth Geier Rice, members.

I have no further statement to make. I just came here to listen and learn.

Senator METCALF. Ladies and gentlemen, now this hearing is your hearing. It's your opportunity to give your various and diverse views, and there are various and diverse views about Federal policy for coal leasing and development of the coal resources of Montana, Wyoming, and the West. Of course since this is a committee that's concerned with national policy and national programs we are also concerned with passing legislation for the various different developments in Appalachia and another different sort of resource in the Middle West. At the beginning of the hearings on S. 425, which is the surface mining bill that has passed the Senate and now a similar bill pending in the House, one of the leadoff witnesses was Governor Tom Judge, who gave forceful and hard-hitting testimony and statement in behalf of the strong strip mining and surface mining bill. Governor Judge, as we all know, just as Governor Hathaway, had to be gone to the Governor's Conference, but he has sent here to represent him Lieutenant Governor Bill Christiansen, who is the most knowledgeable man about coal in the State of Montana, and on behalf of Governor Judge, Lieutenant Governor Christiansen, and on your own behalf, I welcome you as our first witness this morning.

STATEMENT OF LIEUTENANT GOVERNOR BILL CHRISTIANSEN, REPRESENTING GOVERNOR TOM JUDGE

Lieutenant Governor CHRISTIANSEN. Senator Metcalf, Senator Hansen: For the record my name is Bill Christiansen. I am the Lieutenant Governor of Montana. I certainly want to thank you both

for bringing the hearings into the field. It gives the opportunity for Montana citizens to appear and to express their views hundreds of folds over what it might do were it held in Washington, of course. I recognize the time frames that you are operating in and for that reason I have somewhat shortened my testimony, but I do have a statement in my behalf as Chairman of the Montana Energy Advisory Council and I have a statement in behalf of Governor Judge, and as you have expressed, Senator Metcalf, he cannot be here today. He got in very late last night from the Western Governor's Conference. He had previously been on a trade mission in Japan and he is still on crutches unfortunately, so those circumstances preclude his being here today. Now a considerable portion of my allotted time will be devoted to the discussion of the Northern Great Plains Resource Program and testimony before this subcommittee. The Northern Great Plains Resource Program is a program of great significance to Montana because of the potential resources it could command. The program represents a commitment of an impressive number of persons to a difficult research task. More importantly program results will be used in formulating coal development decisions and policy. We have been informed by interior spokesman that the coal programmatic statement (due later this month I believe), the EMARS Program and the reports of the NGPRP will be the primary documents in developing that policy and those decisions. With that in mind we will talk about them. To date, only the NGPRP has been subject to critically important public review and comment—albeit minimally. While the coal programmatic and the EMARS statements are presumably to be later discussed publicly, they presently represent inhouse documents. The NGPRP is the document as I see it that represents an ecumenical approach to the crucially important coal issue. For this reason we wish to offer constructive criticism of that program and related federal policy in the hope that the NGPRP will continue and will be strengthened.

I will begin my remarks by referring to the testimony of Messrs. Horton, Alm, and Long given on March 13, 1974, in response to the subcommittee's questions. I refer to this testimony because it clearly documents that the consequences of renewed coal leasing are not understood and that there is need for a fully funded continuation of the northern Great Plains resource program.

We comment on Mr. Horton's testimony:

Question 1. What is the current status of the northern Great Plains resource program—NGPRP: How much is done and what else needs to be done to provide an adequate basis for decisions? When will it be completed?

Mr. Horton's response to this question is frustrating to all of us who have been involved in the program. We have been trying for many months to find out whether or not the NGPRP will be continued or will terminate June 30, 1974. It is difficult for us to conclude that no decisions have been made concerning the future of a program of this magnitude. It is more difficult still to understand why anyone would suggest terminating the program when so much

of its mission remains to be accomplished. Yet we, too, have been unable to learn the answer to this question. Many times Mr. Horton acknowledges the fact that the data that has been gathered are inadequate to the task of decisionmaking. I do think the public and Montana State government are entitled to an immediate and unequivocal answer to the question of program continuation.

We then comment on question 8:

Question 8. Is it correct that the basic underlying assumption of the NGPRP is that the strippable reserves of low sulfur coal in the northern Great Plains will be developed to meet the energy needs of the country? Who is looking at alternatives—other than different levels of coal development—such as energy conservation and efficiency and deep mining or low-sulfur coal reserves? To what extent will these alternatives be evaluated and completely investigated?

I am pleased to note that the Department of the Interior is conducting studies of alternative energy sources, and that the question of deep mining is being addressed. We had been informed by NGPRP personnel that such questions were beyond the scope of the program. We will be most pleased to review the results of these studies and urge that some means be found to incorporate those studies within NGPRP reports.

Question 9. Would northern plains coal be considered essential for the solution of this Nation's energy problems if that coal could only be deep mined? Is it perhaps only the fact that this coal can be cheaply strip mined that make it so essential for the national energy situation? How would the country solve its energy problems if we didn't have the possibility of strip mined coal from the northern Plains.

We in Montana consider this question to be of critical importance. We understand that the question will be addressed to some degree in the NGPRP report. We hope that the answers to this question will specify concrete percentages of the Nation's energy supply that are expected from our region and our State. We also hope that attention will be given to specific definition of needs left unsatisfied and the alternative fossil and nonfossil energy sources available.

Question 10. Will large-scale onsite development of northern plains coal have the effect of postponing intensive research and development in the most efficient use of energy and the production of renewable, less disruptive forms of energy?

Mr. Horton's answer to this question is encouraging, although we would appreciate an exposition of the means that will insure that research and development continue apace. The question raises an issue of significance to Montanans. We are very concerned that we are asked to embrace coal development and, hence, all its consequences, in order to provide an essentially short-term, stop-gap energy source for the Nation. We fear that many of the potentially deleterious side effects of coal development will long outlive the Nation's need for the coal resources underlying our State.

Question 11. Will a major coal development in the West lead to reduction of coal mining in the Midwest and Appalachia? Will there

be shifts of industrial plant locations closer to the major sources of energy?

Mr. Horton has indicated that no one has fully addressed the secondary impacts of coal development. As I have just implied, these effects are of critical importance to Montanans. I submit that examination of such effects should be a prime responsibility of the NGPRP and Montana would be much reassured if the NGPRP were charged with this responsibility. I further request that, if such responsibilities are assigned the NGPRP or some other body, a specific and reasonable timetable be derived for task fulfillment.

Question 12. What limitations does the availability of water resources place on coal development in the northern Great Plains? Is there sufficient water for mined land reclamation, gasification, et cetera? Will water have to be diverted from existing uses?

Mr. Horton has indicated that there is insufficient information at this time to warrant decisions on the appropriate role of water resources in coal development. We could not agree more. However, this admitted lack of data does lead us to question the advisability of offering water resources in conjunction with coal leases as is apparently being discussed by the EMARS program.

Question 14. At what point of development will the northern Plains be committed to full-scale development? At what point are options foreclosed? For example, if an extensive water delivery system is built to shippable areas, will strip mining be halted if reclamation proves unsatisfactory?

Our response to this: The incremental nature of development alluded to by Mr. Horton is quite disturbing to us. The Nation displays a number of examples of the tragic side effects of incrementalism, whether it be in land use planning, in forest and land management or in urban planning. We fear that an incremental approach to coal development may bring similar tragedy upon our State. Let us all hope that the critical questions of land rehabilitation, and economic, social, and ecosystem effects are thoroughly addressed before the National and our region are committed to the development of our water and coal resources. Further, if an incremental approach to development is to be undertaken, it must be analyzed in terms of its cumulative, rather than its incremental effects.

For the record we have answers to questions 15, 17, and 18 as follows:

Question 15. If agencies want to make decisions in 1974, what kind of decisions can be made based on the information that will be available by that time?

Montana has taken strong exception to the approach implied by Mr. Horton's statement alluding to impact mitigated decisions. Federal officials may be able to discuss impacts of coal development that will require mitigation, and they also may be able to identify appropriate means of mitigating impacts. I submit, however, that neither State nor Federal officials are in a position to rationally assess the need to take those actions which will require mitigation.

We maintain that such actions should be avoided until such time as their necessity is agreed to.

Mr. Horton also has indicated that major decisions on coal development are not exclusively within the Federal province, and that such decisions will be shared by industry, by local, State and Federal Government and by landowners. If this course is followed, it is commendable. However I wish to indicate that if this is indeed the case, a number of State officials, local officials and private landowners are woefully ignorant of the details of and their role in many decisions we have heard are pending. I hope this situation will be corrected quickly.

Question 17. What reclamation standards and procedures does the Department intend to put into any new coal lease or impose on existing leases? Is reclamation feasible on most of the lands in the northern Plains?

Mr. Horton has touched upon another sensitive issue in his answer to question 17. Montana is concerned that the Department of Interior will permit surface mining of federal estates under standards which are less strict than Montana's. Federal leases in Montana should be issued in compliance with Montana standards. Mr. Horton states that the public will have an opportunity to contribute to the development of Federal reclamation standards. I offer our surface mining statute, and pursuant regulations to Mr. Horton as the contribution of the Montana public to development of those Federal standards.

Question 18. Does the Department intend to require development on the existing coal leases? On new leases? Describe the proposed requirements.

Mr. Horton's response to this question will be viewed with great interest by Montanans. Regarding his answer, I must ask two questions. Under what criteria does Interior define "legitimate and long-term holding of coal reserves?" How can additional leasing of lands for mineral development be condoned until potential production from all existing leases—Federal, State, Indian, and private—is well defined, documented, and discussed in light of coal production? Finally, we suggest that Interior's "feasible options that will encourage coal production" be defined by the energy market, as constrained by applicable State and Federal laws. If coal is truly in great demand as a national energy source, industry will surely develop it without reliance upon Federal subsidies.

Question 19. Is new legislation necessary to assure prompt and careful development on existing and future leases?

We do not thoroughly understand Mr. Horton's statement that new legislation is not necessary to assure prompt and careful coal development. Montana statutes clearly define acceptable mining and reclamation—no comparable Federal statutes yet exist. We would prefer that mining proceed under statutory regulation rather than under discretionary authority. I urge that Congress provide us all the statutory limits that will allow necessary mineral production while preserving those values we hold dear.

We support Interior's intention to favor production of minerals from now leased lands, and to discourage leasing for purposes of speculation.

Question 23. What was the initial time frame for the NGPRP? Has it been shortened? Is this time frame adequate to generate new field information?

Again, Mr. Horton has failed to clearly indicate the intended fate of the NGPRP. Surely Interior has an opinion that can be articulated. I would add that we have not seen any materials concerning the "new field studies for fiscal year 1975." I would like to know the scope of these proposed studies and why we haven't been informed of them.

Question 24. What has been the administration policy for funding of the NGPRP? Has the funding been adequate to reach the objectives of the original program outline?

I cannot disagree more strongly with Mr. Horton's opinion of the adequacy of NGPRP funding and staffing. During our involvement with the NGPRP, our requests for additional research efforts, for additional efforts within studies, and for additional resources have continually been met with statements that time, money, and manpower limitations preclude additional efforts. Two cases in point are the Energy Considerations Work Group and the Socio-Economic and Cultural Aspects Work Group. The leader of the former group has indicated that time and manpower constraints preclude his addressing the serious shortcomings we and others have noted in this group report. The leader of the latter group has been forced to drop several items from his work outline for lack of funds to support studies. It is inconceivable to me that as significant a program as the NGPRP, which is addressing problems and issues of paramount importance, should be forced to operate on redirected funds and redirected manpower. If the program is to function efficiently and accomplish its mission, it should receive independent funding as a bare minimum.

Question 25. To what extent have the States participated in the NGPRP? The citizens of the region? Has the program afforded maximum input from the States and the citizens of the region?

The issue of public participation in the NGPRP is a vital one. We have seen an improvement in the NGPRP in this respect, since its inception. The earlier predisposition to hold meetings in Washington, D.C., has been replaced by an apparent willingness to hold meetings in our region. I hope that this trend will continue and that public and official participants will be kept adequately informed of meeting schedules and program developments.

I must say at this juncture that we do not consider the membership of only one State on the Program Review Board of the NGPRP to be adequate State representation. The NGPRP is sufficiently important and our State's attitudes sufficiently different to warrant representation from each State on the Board. Further, we believe that representatives of the affected Indian tribes in the study area should be represented on the PRB. I request assurance that this problem will be properly addressed.

Question 26. Have the Indian tribes of the Northern Plains been involved in the NGPRP? What has been the extent of their involvement? When was their active participation solicited? How is the program tailored to meet their needs?

Our response to the answer is this: I am pleased that Interior intends to increase Indian participation in the NGPRP. I suggest that the NGPRP consider supporting or participating in the support of the research program proposed by the northern Cheyenne research project, headquartered at the northern Cheyenne Reservation, Lame Deer, Mont. The Cheyennes have organized an impressive research proposal, which warrants support. Similar support should be available to the Crow Nation.

There has been some difficulty with the report on impacts of coal development on Indian populations, prepared for the Socio-Economic and Cultural Aspects Work Group. Our State reviewers consider that report simply inadequate and we have heard that this opinion is shared by others. I would appreciate hearing what is to be done about this report as soon as possible. This requires continuing study.

Question 27. Should the NGPRP be continued? Under what structure? How much would it cost to continue the program?

I will address this question more fully later in my testimony. At this point, I wish to state that we have heard rumors that at least one Federal agency participating in the NGPRP has made a decision regarding the continuation of the program. I would much appreciate this decision being made public, if it has been made. I would prefer a far more open and explicit discussion of this question that I have seen to date. We are aware of the preparation of a number of options for program continuation, but we are unaware of the results of discussion of those options, or that the options have ever or even been formally considered. We have been informed that this question will be addressed during the next Program Review Board meeting, which I believe will be mid May. I would like to know what discussions have taken place since the options were brought up earlier this year. There is a great void here of information and we would like it to be filled.

Regarding Mr. Horton's comments on the dependency of coal development on water delivery systems, we applaud his decision to require industry to pay the costs of such water supply facilities. We will expect these costs to include a full accounting of environmental, economic, and social costs of such projects.

With respect to water availability in the region, we ask that Federal plans to construct additional water diversions, impoundments, and aqueducts be evaluated not independently but in the context of the entire coal development question. Incrementalism here can be just as disastrous as incrementalism in coal leasing.

Just a few brief comments on Mr. Long's testimony:

Question 12. What limitations does the availability of water resources place on coal development in the Northern Great Plains? Is there sufficient water for mined land reclamation, gasification, et

cetera? Will water have to be diverted from existing uses? That is the question and our answer is as follows:

We perceive a difference of opinion between Mr. Horton and Mr. Long regarding the adequacy of water for coal development. We regard Mr. Long's statement that additional water storage and delivery systems are necessary to coal development to be premature. Such a statement assumes that the level, type, and rate of coal development has been decided for the Northern Great Plains region. To our knowledge, this is not the case. Until such time as that decision is made, water needs can hardly be accurately defined.

Regarding diversion of water rights from agricultural to industrial uses in the State of Montana have been postponed by a State-enacted moratorium on water development requests in the Yellowstone Basin. Only those water requests that are related to a specific energy conversion facility plan, subject to review under Montana law, will be considered during the moratorium, and then only when the proposed facility has been approved. We recommend that the Federal Government adopt a similar stand to guard against wholesale exploitation of water rights for purposes of speculation.

With respect to Mr. Long's statement that reclamation is a relatively sure thing, I will state that Montana has adopted a "wait and see" stance. Under Montana law, coal mining cannot continue if reclamation is not demonstrated. The variety of ecosystems and climatic conditions in the Fort Union Basin should caution against broad statements that reclamation will be successful. We feel that the Federal Government should approach leasing on a careful basis, compatible with Montana's policy, to guard against the loss of our land.

We are encouraged by Mr. Long's statement that the USDA will neither recommend nor consent to leasing of forest system lands for mining if reclamation cannot be achieved. We look forward to the evolution of USDA standards in defining successful reclamation.

Finally, I submit that the negative impacts of coal development upon the agricultural sector will not be limited to competition for water supplies, though this will be a major impact. Such other impacts as competing land uses, increased population, and possible alteration of air and water quality are likely to be also important.

Turning to Mr. Alm's remarks and responses of March 13, let me simply state that we are pleased with their general cautionary nature. We applaud Mr. Alm's recognition of the complexity of the coal development question and related issues. We also endorse his acknowledgement of the fact that the NGPRP has yet to accomplish its mission.

In concluding my remarks on the testimony of Messrs. Horton, Long, and Alm, I will refer to their repeated and frank discussions that, to date, insufficient data have been gathered to warrant rational and responsible decisions on the coal development question. In response to some 13 questions—I think this is extremely important to this discussion, (Questions 4, 9, 11, 12, 13, 15, 18, 21, S1, S2, S3, S5, and S6), Mr. Horton has indicated that either the data gathered to

date are inadequate for decisionmaking or that Interior is working on the question, and I might say against a very close timetable if they are looking to June 30, all of Mr. Alm's testimony is cautionary. Mr. Long, too, indicated that USDA is not completely satisfied with the data collected and that it is continuing relevant investigations.

Our long and consistent involvement with the NGPRP, which we regard as productive, if sometimes frustrating, has led us to similar conclusions. At least one Montana representative has participated, as I said, in each work group; in some work groups we have several participants. These Montana participants have indicated that the work group with which they have been involved will not achieve all the objectives outlined in the limits of the financial resources and time allotted.

The abbreviation of the NGPRP to 1 working year from the original 3 has been a source of constant concern to us. It is inconceivable to us that anyone can consider a task of the magnitude assigned the NGPRP to be amenable to accomplishment within 1 year. The vast amounts of existing data in files scattered here and there might be collected in 1 year. Much research (both inventory and analytic) remains to be done. Projects of this type often require a year for simple data gathering. Analysis of results and report preparation require additional time. The intent of NGPRP is commendable, as is an attempt to get some results within 1 year. Nonetheless, the task facing NGPRP is simply too immense to be adequately addressed in 1 year. The extremely crucial use to which NGPRP results will be put demands a careful, rational, and thorough approach—this in turn, can only be achieved through a research effort of more than 1 year's duration regardless of the resources allocated to the program.

Our fears that the NGPRP will be terminated at the end of this fiscal year, and that the "interim" report will not adequately discuss the shortcomings of the project would be somewhat allayed by some revelation that program directive 3 has been addressed. For your benefit, program directive 3 ordered the work groups to define the shortcomings of their research effort, and to identify research needs and research projects necessary to accomplishment of the NGPRP mission. To date, we have seen no evidence of response to this directive.

Without inclusion of the information required by the directive, the "interim" report can hardly be considered to be an objective document. I urge those responsible for the program to insist that a response to that directive be forthcoming.

Now Senators Metcalf and Hansen, I am not trying to violate the intent of the ground rules that you have suggested but I would like to make the following statement in behalf of Governor Judge.

The position of the State of Montana concerning the continuation and modification of the NGPRP is best expressed by Governor Judge's letter to Royston Hughes, Department of Interior, dated March 28, 1974.

[The letter follows:]

March 28, 1974

Royston Hughes
Assistant Secretary for Program
Development and Budget
Department of the Interior
Interior Building
Washington, D.C. 20240

Dear Mr. Hughes:

Montana has been actively involved in the Northern Great Plains Resource Program (NGPRP) since its inception and has closely followed program developments. Recently, we have been considering options for continuation of the program, realizing that some decision must be made in the very near future. While we have taken exception to many aspects of the NGPRP, our complaints have been directed toward program execution rather than toward the underlying concept of the program.

The energy challenge forces extremely critical decisions upon the nation, the western region and the individual states underlain by the vast Fort Union coal resource. Such decisions will shape national affairs and certainly will have great and lasting impact upon the coal rich states. For this reason alone, the existence of a broad-based, eclectic, and rational research program is essential. Further, the diverse interests of the nation, the region, and the individual states require a forum for discussion of the issues and information underlying coordinated decision making.

At present, the baseline information concerning national energy need and demand, national, regional and state resources, and potential impacts of massive coal resource development is simply inadequate to the task of rational decision making. Neither, in our opinion, will the interim report of the NGPRP provide such information in the detail and scope required.

The NGPRP is the only existing, if imperfect, organization capable of providing the information, the forum and the coordination required by the decisions we face. The program has provided the federal government and the states an opportunity to coordinate

our resources and to cooperatively pursue a common, if ill-defined, goal. Considerable progress has been made. To drop the program at this stage of its evolution would be improper. Rather, the participating states and the federal government should build on the strengths of the program and correct its weaknesses.

The following are Montana suggestions for continuing and improving the NGPRP.

1. The NGPRP should be extended for three to five years. The magnitude of the task precludes definitive answers in less time.
2. The relationship among the federal government and the participating states must be more clearly defined. In reaching this definition, a consistent and significant role must be afforded the participating states.
3. The participating states must have a stronger role on the Program Review Board. The existing three-to-one federal-state balance is one-sided and hinders effective action. The interests and problems of the participating states are sufficiently different to warrant representation of each state. Further, significant Indian representation in the program is sadly lacking and must be corrected. Some effort to provide adequate Indian representation is essential.
4. Support of the NGPRP should be more generous and specific. Some of the present difficulties of the program can be attributed to support only through redirected funds and manpower.
5. The goals and objectives of the program must be more clearly defined and delineated. Here again, the participating states must play a consistent and significant role. State input in development of original program goals and objectives was conspicuous by its absence. This lack of state input has lead to much misunderstanding and program delay. In refining the goals and objectives, the NGPRP should be given responsibility and authority for coordinating all federal coal-related research efforts in the Fort Union region. Further, means for insuring communication between NGPRP personnel and projects related to other energy research should be guaranteed.
6. The management structure of the NGPRP requires strengthening. Montana is pleased with the present program manager and his staff. However, the present program does not clearly indicate the program manager's responsibilities and authority. Such an omission does much to weaken program effectiveness. Montana endorses a far stronger position for the program manager in program administration.

7. The research structure of the program should be modified. Montana suggests the creation of a number of interdisciplinary field groups charged with specific responsibility for a specific problem. Such "task forces" would be able to more fruitfully address problems than would existing work groups confined by a scientific discipline.

We understand that a meeting to discuss the future of the NGPRP is imminent. I strongly urge that this meeting be held with full representation of each participating state. In addition, to facilitate full state participation, I suggest that this meeting be held in our region.

Sincerely,

THOMAS L. JUDGE
Governor

TJ/sb

cc: The Honorable Mike Mansfield
The Honorable Lee Metcalf
The Honorable John Melcher
The Honorable Richard Shoup

Lt. Gov. CHRISTIANSEN. I wish to reemphasize the importance of some organization being given the authority and responsibility for coordinating and disseminating information of all energy-related research in our region. The vast number of research projects, priorities, proposals, and funds, demands some coherent organization and control. Funds have been allocated to AEC, OCR, OWRC, RALI, and SEAM to name only a few, to support energy and coal research. A multitude of university proposals have been prepared addressing energy and coal topics. Out of this wealth of funds and proposals has arisen a disjointed hodge-podge of programs and projects. In some cases, duplicative proposals have been funded. In no case does any one organization have a handle on what is happening. This situation must be corrected and I nominate a reorganized NGPRP for the task.

Before I leave the subject of the NGPRP, and turn to the State's position on coal development, I wish to address another issue.

All of us here know how significant a change coal development portends for the coal area. I will add that most of the residents of the area also are aware of the potential magnitude of this change. Persons in Montana, as do other citizens, wish to feel in control of their lives and wish to live reasonably and responsibly. It is very difficult to achieve this life goal, knowing that great events are on the horizon, when information that can relieve uncertainty and fear is not made available. Uncertainty and rumor are now affecting many lives in the coal areas of Montana, as Dr. Raymond Gold's study for the NGPRP will attest. Those uncertainties have not been comforting. I challenge all here to take steps to provide the public we serve a better chance to learn what has and will transpire, to identify the matters affecting their destiny, and for that public to voice their opinions of and wishes for the final outcome of the leasing policy.

Montana government has prepared a preliminary State position paper on coal development and coal leasing decisions soon to be made pursuant to the EMARS program, the coal programmatic. In transmitting Montana views to BLM and Forest Service authorities, Governor Judge said:

I have studied this document and fully concur in its contents. It represents the collective thoughts of those in the executive branch who are involved in coal-related considerations.

The decisions the Federal Government is considering will have a profound, perhaps controlling, influence on the future of Montana. I believe that neither Montana's position nor your decisions should be finalized without the broadest possible public involvement.

Over a thousand copies of the preliminary Montana position have been mailed to those who have expressed interest in or concern about the challenges of coal development. We are asking for the broadest possible public review of the Montana preliminary position which I will now read.

1. For at least the initial 5 years of the EMARS coal leasing program, Montana people and their government would assent to leasing of coal only if its combustion or conversion will take place near the nation's high energy demand areas. Consequently, both the lease

terms and the characteristics of the coal deposits chosen for lease should dictate that coal will be burned or converted at load centers

This position can be modified only if it can be clearly shown that mine mouth industrialization is necessary to meet State needs.

Second point. If expanded Federal coal leasing is to proceed in Montana, determinations and allocations of acreages and tonnages to be leased should be minimized in recognition of the 1.7 billion tons of Federal coal currently under lease in Montana, extensive Indian coal leases, the 32,775 acres of State coal under lease, that's State coal, and the vast reserves of privately-owned coal committed to development.

3. If expanded Federal coal leasing is to proceed in Montana, all new Federal coal leases should reference and require compliance with the Montana Strip Mine Siting Act, Strip Mining and Reclamation Act, Utility Siting Act, Coal Conservation Act, and Water Use Act and I might add other applicable statutes.

Using the Coal Conservation Act as an example, we note that lease terms can do much to avoid conflict with State law. The terms should address such problems as coal wastage and unnecessary degradation by precluding the restripping of an area. Requiring higher royalties if only the uppermost seams are mined would certainly be an incentive to remove all seams.

4. If expanded Federal coal leasing is to proceed in Montana, it should proceed exclusively in those areas where all resource values and land uses have been thoroughly inventoried. Only upon the conclusion of such studies can areas of highest conflict be avoided.

This "selective denial" concept is critical to sound resource management and presently can be implemented on a large-scale basis only in the Decker-Birney study area. The Leasing of Federal coal should not proceed in other regions of Montana until and unless studies of at least equal magnitude have been completed. The historic method of simply responding by leasing in the areas of greatest corporate interest should not be resumed.

The fifth point in the Montana position paper: Bureau of Reclamation or other Federal water allocations should not be granted or transferred to corporations within the terms of new coal leases. Such package deals as now being considered by EMARS are unacceptable.

I would also like to read and re-emphasize portions of the discussions that support the five positions.

"Although Decker-Birney study officials have done a commendable job in evaluating conflicts between strip mining and all other public and private resource uses, time and manpower limitations have not permitted an evaluation of the even greater potential conflicts involved with mine mouth utilization of the coal. Therefore, if Federal coal is to be leased, the characteristics of the coal chosen and the lease terms should restrict development to levels and types whose impacts are understood.

Leasing coal for out-of-State use will allow subsequent evaluation of the consequences of mine mouth industrialization in Montana.

Another point I want to emphasize: New mine mouth power generation facilities for which commitments have not yet been made would

not be on line until 1980, and gasification plants are not likely to be commercially operative until later in the 1980's. I think this is very important, Senator Metcalf and Senator Hansen. Consequently, the Federal energy office has placed a high priority on the conversion of existing oil and natural gas fired power plants to coal. Many of those conversions require only 6 months to a year, much less time than it takes to open a new strip mine.

If the relatively low-sulfur coal of Montana is mined, shipped, and then utilized following the conversion of these existing plants, perhaps the SO₂ emission standards in the centers of industrialization can be maintained.

Should the Federal Government make industrial water available to corporate lessees at the time coal is leased, Montana government and the people it represents will have diminished influence upon the future of our State and our way of life. Such actions would make a travesty of local planning efforts presently underway.

If interior officials insist on granting coal and water rights at the same time they will be totally disregarding the intent of the Yellowstone River water moratorium.

Even more distasteful would be the realization that Montana's future was determined in offices along the Potomac rather than by Montana citizens.

Most of the pending Federal coal development decisions will be within the Department of Interior. Mr. Horton honestly observed that relatively little is known about long-term consequences of mine site industrialization. Given that and our peoples' concern that this region's social and environmental amenities be preserved, how can Montana government remain silent? We must demand that new leasing be of minimal scale, that any new coal production be destined for use out of the State of Montana, and that Federal agencies leave the water of the Yellowstone inviolate for the present.

The preliminary Montana position has received widespread public support. I hope that this subcommittee will see fit to help ensure that the Department of Interior and Agriculture respect Montana's wishes. Mr. Zaidlicz and Mr. McIntyre represent those agencies well at the State and local level. They are true custodians of the land. Our concerns are that arbitrary decisions will be made by distant, high-level officials who do not know Montana.

I will leave you with the concluding paragraph of the position paper.

The State of Montana wishes to reiterate its desire to help meet the essential energy needs of our Nation. However, we believe a careful distinction must be drawn between "energy needs" and "energy demands," and we do not believe that our region should be asked to bear a disproportionate share of the social and environmental costs of meeting nationwide needs.

Thank you.

Then, Senator, if I may, just for the record enter a document on behalf of Dorothy Eck, State-local coordinator. I will not read it but I would like it to be made a part of the record.

Thank you very much.

Senator METCALF. That will be made a part of the record.

[The letter from Dorothy Eck follows:]

STATE OF MONTANA,
OFFICE OF THE GOVERNOR,
Helena, Mont., April 18, 1974.

To: Senator Lee Metcalf, Chairman,
Subcommittee on Minerals, Materials, and Fuels of the
Committee on Interior and Insular Affairs,
Hearings on the Future of Coal Leasing in the Northern Great Plains,
Billings, Mont., April 20, 1974.

From: Dorothy Eck, State-Local Coordinator, Office of the Governor.

Re: Considerations relative to the Impact of Coal Development on Local
Governments.

Federal decisions on the leasing of federally owned mineral deposits will obviously influence the rate of coal related development in southeastern Montana. If local governments in this area are to cope effectively with the demands for increased services which would accompany this development, their problems and needs should be considered prior to the adoption of a leasing program which would trigger rapid development.

There are many studies underway which will predict the impact of various projected levels of development on local governments. It is generally agreed that these studies will conclude that local governments will not have the administrative, technical or financial capabilities to plan and implement a program of orderly growth.

Local officials have been frustrated by the lack of information regarding proposed development. They cannot initiate planning on the basis of rumor. They are further incapacitated by the lack of funding. For at least two years the Rosebud County Commissioners have been seeking methods of funding to build and maintain their roads. They have been totally unable to keep up with the maintenance required on the Forsyth to Colstrip road. The road needs to be completely rebuilt but unless some new sources of funding become available all of Rosebud County's allocation of state-federal funding for secondary roads for the next 20 to 35 years would be required to rebuild this one road. Yet if the development is to occur in the Decker Birney area, south of Ashland, a whole new system of roads would need to be upgraded. The approximate cost of a two lane paved road is \$80,000 a mile. There is no way the county with its present funding limitations can do the job.

Counties already have experienced increased costs in many other areas. Providing for new schools is a major problem. Law enforcement costs have been rapidly increasing. Local governments are responsible for costs associated with providing social services, health services, waste disposal, water and sewer systems, for providing jails, ambulances, nursing homes and hospitals, for regulating subdivisions and mobile home developments and for planning for orderly development within their jurisdictions.

In time coal development will bring increased revenues for local governments but not in time to provide for the initial costs of development. While counties and municipalities of this area should be able to make good use of many of the studies that are underway, they need more than studies. They need dollars to cover the immediate costs of providing for planning, for maintaining and building roads and other public facilities and for the cost of building adequate systems for the delivery of services.

Federal decisions which will influence the rate of coal related development in this area should consider the impact of these decisions on local governments. Local governments should have several years of lead time before the initiation of a major development so that they can adequately prepare for that development. Some new mechanism for financing the building of new systems of planning and service should be developed.

The quality of life in this area will be dependent upon the quality of services and public facilities that can be provided by towns and counties. Good housing, good schools, good roads and good health; law enforcement and social services need to be insured along with all the other environmental considerations. The cooperation of federal, state and local governments as well as the private sector will be required.

DOROTHY ECK.

Senator METCALF. Thank you for a very comprehensive statement. You have touched on one phase of our concern on this committee and that is the oversight concern as to administrative policy. Much to my regret you haven't touched on the very urgent concern that we have on the surface mining legislation that is pending in the Congress of the United States except in one point when you talked about the item in the national forest and I wasn't assured just exactly what your position on that was. The Senate bill of course is passed, and he who runs may read it, it's been passed for a long time, and that's the bill we are going to conference on. In the House bill, Governor Christiansen, I am told that there is a prohibition against mining of coal in the National forests. Now what is your position on that?

Lieutenant Governor CHRISTIANSEN. I support that position.

Senator METCALF. You take the position that there should be coal mined in the State of Montana to support these 33 areas, but that there shouldn't be any coal mined on the forest reserves and you haven't mined any coal in the State of Montana and of course I support the Mansfield amendment where you are not going to mine coal where there is split ownership. Now where are you going to get any coal?

Lieutenant Governor CHRISTIANSEN. Well, the Decker-Birney study indicates that by invoking on those 900,000 acres——

Senator METCALF. Is that BLM land?

Lieutenant Governor CHRISTIANSEN. It has that mishmash, the unfortunate situation of about 93 percent mineral ownership by a combination of the Federal Government, and the State of Montana, with the surface just reverse situation. Let me say that I don't want to seem inconsistent here, I hope that you haven't arrived at the conclusion that I have taken the position that I want coal developed and show you no opportunity where it should be developed from. Is that part of your question, Senator Metcalf?

Senator METCALF. Well, part of my question is if we are not going to mine coal on the primary land owned by the Government of the United States, that's Forest Service land where they own the surface and mineral, and we are not going to mine coal on the land where there is a split ownership, where the Government owns the subsurface, and the State of Montana isn't going to mine coal, where are we going to mine coal except on the BLM land?

Lieutenant Governor CHRISTIANSEN. I do not support, if what you are saying, the Mansfield amendment, so that opens up some other areas of coal.

Senator METCALF. Well, you have gone into a rather comprehensive discussion. We have been in session an hour today, Governor Christiansen, and you haven't talked about the Mansfield amendment which is going to be a critical part of the contracts, and you haven't told us what the State of Montana's position on that is.

Lieutenant Governor CHRISTIANSEN. Well, it seems to me that that situation, the Mansfield amendment, I think I should be very careful in indicating to you why I do not support it. I think it precludes the option of the landowner. We talk about the landowner saying that I am sorry, I own the surface, you can't take the mineral, which is of course in opposition to the way the contract is drawn, assuming that

that mineral is leased, and then we take the other position that the landowner has no opportunity to decide whether the development goes.

Senator METCALF. The mineral in that land, Governor Christiansen, belongs to the people of the United States.

Lieutenant Governor CHRISTIANSEN. I would agree with that.

Senator METCALF. And the responsibility of administering that land in behalf of the people of the United States is vested in the Congress of the United States by the Constitution, and we can say in the Congress of the United States, as Senator Mansfield has said, and the Senate has said, that we are going to hold that land with split ownership in reserve, we are not going to mine it, we are not going to lease our coal where there is a divided surface and subsurface ownership, and that is what the Mansfield amendment says. Now it doesn't take any right away from the surface owner, no right whatsoever.

Lieutenant Governor CHRISTIANSEN. In other words, if we would want to develop the coal we would not have that option, am I correct on that?

Senator METCALF. The surface owner hasn't any coal.

Lieutenant Governor CHRISTIANSEN. But there have been, Senator Metcalf, some pretty substantial contracts made where the surface owner has participated in royalty. Now I am not defending this, I am—

Senator METCALF. Well, I am going to try to inquire what some alternatives are, but the coal in that land, Governor Christiansen, belongs to the people in this audience, the people in New Jersey, the people in California just as much as it belongs to that surface owner, it belongs to the people of the United States, and if you look into the history of the development of it, it was intended to belong to all of the people of the United States.

Lieutenant Governor CHRISTIANSEN. I think that my question that you have addressed me would be much more difficult to answer. I think you are saying, Senator Metcalf, we are saying about all the things where coal should not be mined and then we are saying where it should be mined.

Senator METCALF. Well, I am trying to find out where it should be mined. Should it be mined on BLM land owned in fee by the Federal Government?

Lieutenant Governor CHRISTIANSEN. Yes, and I am not so sure, Sir, how much response could be made from that isolated part when the Federal ownership and the Forest Service work together because that's a very small part of the Decker-Birney study which I am most familiar with. Could I defend my statement about the Forest Service? You asked me why I take that position. I am really against what I call contour mining, as I have seen devastating results of contour mining on steep slopes, and I think it's a most unfortunate situation and lends itself to almost no possibility of reclamation, and because forest lands very obviously have those steep slopes, I do support that situation in which forest land would not be mined. Now I realize that that withdraws a lot of reserves from development, but it seems to me when we talk in terms of areas where production can be as

much as 80,000 tons per acre, that we can make a responsible response in the whole Fort Union situation. I am not isolating this discussion now to Montana, and still produce coal that will in quantities go back and go to those places where they are now burning oil. Our projections, Senator Metcalf, are under just the existing mines now, and of course the Federal Government as you well know has kind of eased the policy of the freeze by giving additional coal lands to those who have active ongoing mining, I think that's about the only thing that's been allowed during this 2-year time freeze. I would only say that our projections indicate that by 1980 Montana through the existing mines only, Senator, will produce about 41-million tons. Now I think that that is a responsible answer to the quantity of coal required. Montana has gone from about a million tons 3 years ago to 11 million tons in 1973. If we move, as I see the situation now, to about 40-million tons in 1980 I think we have made a responsible response to the national energy needs.

Senator METCALF. The second thing before I turn it over to Senator Hansen is, you mentioned Indians and Indian participation. When we originally considered S. 425, there was a provision for Indian participation in the Federal regulations. At first it met with the acquiescence of many Indian tribes of America, but subsequently the Indians objected that they hadn't had a complete input into the area and into the discussions and so that portion relative to Indian participation was removed. Now I am told that they have had hearings in the House, they have had an opportunity to testify and justify their position, and that the House bill provides for Indian participation. Certainly that will be a matter of concern also in the conference. Now, Governor, I am hopeful that the House of Representatives will pass a bill shortly after we return on Monday. I am hopeful that by the end of June we will have resolved the conference and sent to the President of the United States a bill for the regulation and control of surface mining in the United States, not a complete bill, we don't regulate hard-rock minerals, but for coal. I am hopeful that will trigger a relief of the moratorium and give the administration guidelines. When you completely talk about some of the guidelines that the administration has laid down, don't forget the chief guideline that we are going to lay down is the surface-mining legislation that is going to be enacted I hope before the end of the fiscal year. And I hope that we will resolve a conference in a comprehensive bill that will provide both the State and the Federal Government a means to develop in the future, a basic and stabilized policy.

Lieutenant Governor CHRISTIANSEN. Senator, I am pleased of the hard work you and Mansfield both have done in respect to S. 425. I totally endorse Federal legislation to control strip mining and I hope that that legislation will not prevent the State of Montana, if their laws should be stronger, would not preempt the State of Montana from enforcing their laws.

Senator METCALF. Have you read Senate Bill 425?

Lieutenant Governor CHRISTIANSEN. Yes.

Senator METCALF. Do you think it preempts the State of Montana?

Lieutenant Governor CHRISTIANSEN. I think there are provisions in one of the bills, Senator, I am not sure which one actually forbids

the preemption if the standards are stronger. We meet the level of Federal standards and then we have the opportunity to go beyond that.

Senator METCALF. That's S. 425.

Lieutenant GOVERNOR CHRISTIANSEN. And that's exactly the way we hope it will come out of your Congress.

Senator HANSEN. Would you yield?

Senator METCALF. Certainly.

Senator HANSEN. I can think of no more appropriate time to ask the distinguished Chair to yield than now, because I would like to say to you people in Montana that Senator Metcalf assisted in an unparalleled degree in the adoption of this provision. I was wholeheartedly in support of his belief and his persuasive logic that states should have the right to impose restrictions more demanding, more critical, and more severe in their application than those contained in the Federal law, the so-called Metcalf-Hansen amendment.

We think that when one considers the difficulty in trying to impose by Federal law specifics that deal with mining everywhere, it just isn't going to work. I know that the conditions of coal deposits in the west and the Powder River Basin, this Fort Union area, are far different than they are in the east. If we were to try to achieve the kind of restrictive legislation and to demand the kind of a reclamation program that would be acceptable to us here, it would in our judgment shut down most of the eastern coal operations. I am told that between 60 and 65 percent of all of the coal we presently use today in the United States is recovered by surface mining.

Senator Metcalf and I felt that it made far better sense for the Federal law to spell out in broad guideline fashion what the rules and our national objectives would be, but to leave to State implementation the specific details under which surface mining could be accomplished and what would be demanded by the states in the way of a reclamation program. I think that we can easily understand if we were to say you have got to return lands to the original contour, you can't mine coal beds that dip more steeply than a certain number of degrees, that you can't carry on an operation where the available moisture is less than a certain amount, you are talking about a country that exhibits a greater variety of conditions and what would fit us here would not fit at all in the East. I wanted to say that I think Senator Metcalf very wisely called attention to this fact.

Now he has referred to S. 425 and the language in that bill as passed by the Senate. It does recognize the supremacy of state law if it excludes Federal standards. It wasn't quite as strong as Senator Metcalf and I had hoped it would, because we weren't able to sell it to the rest of the full committee, so they took a little bit of a cutting edge off of it. But nevertheless what is in the bill is there because Lee Metcalf wanted it in there and because Cliff Hansen agreed that it should be in there, and I thought you might like to know that. Thank you very much, Mr. Chairman.

Senator METCALF. Thank you.

Lieutenant GOVERNOR CHRISTIANSEN. If I may clear the record on one item. One of the most difficult things that I have had to say is

that I do not agree with the Mansfield amendment. For more years than I can count I have had the greatest admiration for Senator Mansfield. I take that position personally and I take responsibility for it as a person. I do not reflect that that is the position of Governor Judge, our Montana Governor, and I will not debate it with you because I am not able to, but I could state that that is my statement that I think it does preclude quite a number of acres from mining where environmental considerations would allow mining to go on. It does relate to a checkerboard pattern and I will leave it at that if I may.

Senator METCALF. Governor Christiansen, Senator Hansen and I are not here to debate. If you felt our questions indicated that we want to debate these matters, please excuse us. We will be asking similar questions of other people as we have asked of you. I'm going to say to you, however, as I said to dozens of people in Casper, and as I said to Mr. Carl Bagge the other day in Washington, that if you don't agree with the Mansfield amendment come up with a solution for the split ownership on Federal and private lands and submit it to us in the committee so that we can consider it before we go to conference on this matter.

Lieutenant Governor CHRISTIANSEN. Well, I am sorry that you asked me that because I have no adequate answer.

Senator METCALF. Well, I don't expect you to have an adequate answer today. You are skilled and knowledgeable about the coal lands in the State of Montana and have a staff that is skilled and knowledgeable about it. I doubt if there is anyone in the State that knows more than you and Mr. Schwinn the commissioner of State lands about coal. Would you put your staff to work and send what you would do if you were sitting up here with that divided ownership.

Lieutenant Governor CHRISTIANSEN. Yes.

Senator METCALF. And I don't expect a response now. Well, go ahead.

Lieutenant Governor CHRISTIANSEN. This seems like a very cursory observation and I certainly don't totally defend it, but I think you are perhaps considering, and I know it has constitutional problems, you know the first session of the Montana Legislature, you become a constitutional expert, and I have been through that so I guess you will forgive me for this, but I would say that one of the considerations I believe before you, and it's not an easily solved problem, is perhaps the signoff of the surface owner that would then allow the mineral to be developed and without that signoff there would be no development. Now I don't defend that, Senator, but I am pleased that you let me say that for the record.

Senator METCALF. Sure. We are delighted to have your opinion.

Senator HANSEN, do you have a comment?

Senator HANSEN. Governor Christiansen, let me first compliment you on the excellent statement you made. You do speak specifically on a number of issues, and I think that will be very helpful. Many of the concerns, many of the questions I might have asked have already been asked by the Chairman, so I will not repeat that part, but I would like if I could to explore with you some of the concerns that I gather you have about the Mansfield amendment.

Is it not true that there may be instances where the surface owner, though there has been earlier separation of the surface and the mineral rights by the actions of the Federal Government, might it not nevertheless be true that a surface owner could have the lease on the minerals? In my State of Wyoming it is my understanding that there are under lease a lot of acreage to coal companies and because of the concern about what the Congress may do with respect to the rights of the surface owner, some of the mineral developers have purchased those surface rights. I would suspect, though I don't know, that there may be the opposite situation wherein the surface owner applied for and received a lease or has one pending for the development of the minerals. In either situation would it not be true that the Mansfield amendment could in effect deny a person who otherwise complied with every facet of the law, a right that he had previous to that amendment if that amendment were to become law?

Lieutenant Governor CHRISTIANSEN. I think that is stated fairly, Senator Hansen.

Senator HANSEN. One other concern that I have about the effect of the Mansfield amendment involves the pattern of ownership. Considering the checkerboard pattern of ownership, and considering the mechanics of the coal mining business, if you are removing overburden, if you are pursuing a reclamation program, it would seem to me to make it difficult for a coal company to go up to the corner of a section and have to stop there and then leapfrog over into another section. Wouldn't this in your judgment be quite a serious impediment to the orderly development of the mineral resources and to the implementation of an on-going workable reclamation program?

Lieutenant Governor CHRISTIANSEN. I would have to agree with you now and if I might develop it for a moment. I have seen this very instance in the East where there have been small tracts. I am not here to tell you that reclamation is a cinch, but I think when it is in a contiguous area it has a better chance of working as you go through it, so I would very frankly agree with that analogy. If I might develop one thing further about the Mansfield amendment, and I hope I can convey this thought, Senator Metcalf and Senator Hansen. It seems to me that we obviously from the results of the Birney-Decker study can arrive at a conclusion that some area are much more compatible to mining and the results of that mining for rehabilitation. I think it is undeniably true and it depends on the criteria you pour into the situation. Now I hope that I can convey this. If through the Mansfield amendment you preclude certain development in some areas they may be the areas, by the way, and I am making a hypothetical case of this, where mining could be done with the least adverse results and if you do lock out that then you don't have the broad areas of consideration. Now the Birney-Decker study is a very vivid illustration. Here is a 900,000 acre tract under which there lies 16 million tons of coal but in a very, I think indepth study of various criteria that this precludes mining it was arrived at that a fraction should be developed. I haven't got the actual acres, but it results in about more than half of the 16 million tons being locked in as not available for mining and compatible to reclamation. Now I hope I have made my point. The same analogy of my very good friend, Sen-

ator Mansfield, I hope we can still keep that relationship. I think that that same situation might be applied that those lands that would be precluded by the Mansfield amendment might be some that were compatible to the best reclamation.

Senator METCALF. I am not a reporter and I can't write as fast as he does, but I think I caught the gist of what you said. Some areas are more compatible to mining than others. Now may I paraphrase the next statement? If through the amendment prohibiting mining on the Forest Service land you block out large areas, you inhibit the development in the most desirable areas. Wouldn't that carry over? You said if through the Mansfield amendment you block out large areas, you inhibit development in the most desirable areas. The Forest Service Land is the largest blocks of land in the whole United States. Forest Service land is steep as you suggested. Forest Service land is flat, a lot of Forest Service land isn't even forested. Isn't the same analogy true as far as Forest Service land is concerned as it is in the land that you suggested on the Mansfield amendment?

Lieutenant Governor CHRISTIANSEN. I think that is very true, and those lands that don't have 20 degree slopes you are very right.

Senator METCALF. Well then if we just adopted the amendment you suggest, and inhibit and prohibit all mining on the Forest Service land which is often an artificial thing. Sometimes forest land is administered by BLM and sometimes non-forest land is administered by the Forest Service just because it is a geographic accident. If you just say we are going to block it all out aren't we doing the same thing that you object to in the Mansfield Amendment?

Lieutenant Governor CHRISTIANSEN. I think you are absolutely right. I probably should amend my comments about Forest Service land and contour as opposed to the broad inclusion of all Forest Service lands.

Senator METCALF. I think that that clarifies it a good deal. Thank you.

Senator Hansen?

Senator HANSEN. Just one further observation. Governor Christiansen, there is an understandable great concern in the West about our water courses, not only the streams that we see but underground aquifers as well. On the field trip yesterday we had an opportunity to view firsthand some of these aquifers, not any great big ones, but we saw water moving into the bottom of pits from which considerable amount of overburden and coal material had been removed. Having in mind our desire to protect sources of water and our ability to return to a condition as nearly as that in the original case as is possible, would it not seem to you that the application of the Mansfield amendment could pose some real difficult problems for a reclamation program in trying to cope with returning a stream to anything like what its natural course had been? I have in mind particularly areas like those in the Decker area and in the Gillette, Wyo., area where enormously thick beds of coal are being removed and it happens to be as oftentimes is the case, through an area traversed by a smaller or larger stream. I should think that there wouldn't be enough fill material, no matter what was done to bring back that surface near its original elevation and again the checkerboard problem would seem to me to be an extremely difficult one. Would you comment on that?

Lieutenant Governor CHRISTIANSEN. Well, you might actually be resulting in almost a trapping of the water in an area because it couldn't flow on through. I am very concerned about surface water in the instance of strip mining and this is satellite to your question, but I have equal concern of underground water, the aquifers, and it seems to me that when we take and interrupt an aquifer, which unfortunately in our areas is most of the coal-bearing strata and put in a material of different porosity, permeability, we have very substantial situation. I think that your analogy would be true in the instance of surface water. I am not so sure I would agree with you in the instance of underground situation.

Senator METCALF. It's a matter that merits study, however.

Lieutenant Governor CHRISTIANSEN. Oh, yes.

Senator METCALF. We know very little about the underground situation. We probably know more about the surface water, but as you say, we take the coal out, which is the natural source of the aquifer and then we put in another material, it's a matter requiring a lot more study than we know today.

Lieutenant Governor CHRISTIANSEN. Yes, I might share this. If somebody made me place a priority of concern I would have more concern of what happens to the underground aquifer than I would have to the surface reclamation. I know that's a strong statement but I think that is so intangible and the damage that can be done underground might take us 30 years to find out and that's what worries me.

Senator HANSEN. There is a great deal we have yet to learn about these underground aquifers. I saw a couple of examples yesterday where it seemed as though the material which actually yielded the water were soils or sediment beds between the coal deposits themselves. Now I don't mean to imply at all that this is where you find water in these underground aquifers where you have strata coal, but I do recall two places where this was the case.

Lieutenant Governor CHRISTIANSEN. Well, Senator, I have already confessed I was an instant constitutional expert and now I will be an instant geologist. It seems to me that when you fracture the aquifer, and I will state quite frankly in Montana that the strata of coal-bearing material is the aquifer in most instances, when you fracture that for the purpose of mining you sometimes get seepage from that aquifer, or the next structure, and that might be the case, I don't mean to say that that is the situation, but I have seen that happen myself, sir.

Senator HANSEN. I have no further questions.

Senator METCALF. Thank you, Governor Christiansen, for coming to us and helping us open these hearings with a very broad perspective of knowledge of the whole coal mining problems of the State of Montana. I repeat, that both Senator Mansfield and I, and believe me, one amendment or one disagreement doesn't change the respect that we have for the senior senator or the respect that you enjoy in our regard. We do appreciate your coming here. We will continue to work with you and advise with you and Governor Judge and his State administration in the development of legislation and in the development of oversight in national coal leasing policies as well as other policies. Thank you very much.

Lieutenant Governor CHRISTIANSEN. Thank you, Senator Metcalf and Senator Hansen.

Senator METCALF. Our next witness is sitting on the front row right down on the hot seat, in one of the coal development areas of the State of Montana. Senator Carroll Graham of Big Horn County. Senator Graham.

**STATEMENT OF HON. CARROLL GRAHAM,
MONTANA STATE SENATOR**

Senator GRAHAM. Senator Metcalf and Senator Hansen, I am most pleased to be here to be able to testify. I am really pleased that you held these hearings so close to the coal mining area. It gives the people of the State of Montana a chance to participate and give our views. Certainly I am within just a very few miles from the coal development we are talking about and certainly it is going to have a great impact on our State of Montana. For the record, my name is Carroll Graham of Lodge Grass, Mont., and I am a State senator from District 28 which is all of Big Horn County, Powder River County and two-thirds of Carter County.

Very large coal deposits lay in two of the counties I represent, namely Big Horn and Powder River. I have had the opportunity to view the area and know the terrain very well. Most of this land is very fine cattle and ranching country and is supporting, and would continue to support many head of cattle for years to come, unless it is disturbed by the strip mining of coal.

I am very much distressed that the Federal policy on reclamation of strip mined lands does not measure up to our Montana law. I am sure that unless the Federal law is strengthened to meet our law that much of the Federal coal mined lands will never be returned to any beneficial use such as the production of food. It will not only be a vital loss to Montana but to the people of future generations in all America.

I think that the time has come that our State and Federal governments must seriously study the results and consequences of disturbing the agricultural land that is used in farming and ranching operations. The day will inevitably come and in the not too distant future, when a food shortage will be a reality added to the other shortages our Nation is suffering. Millions of acres of agricultural land is being taken out of production every year for the construction of housing for the growing population, shopping centers, highways and parks, and now the stripping of land for coal.

I realize that our huge coal reserves are a blessing in our energy-short Nation and that the mined coal would be put to beneficial use for electric power and possibly gasification plants unless more oil is produced or imported. This past years' experience has shown that the oil shortage occurred because of dependence on foreign imports and the short sightedness and poor planning on the part of the Federal Government in determining what the needs of the country would be. I sincerely hope that we have learned a lesson from this unfortunate experience and that the same situation does not occur with our coal supply.

I would trust that because we do have a large coal reserve that our generosity does not become too great and we allow huge exports of this precious commodity to be sent to foreign nations. Our grandchildren and future generations will be the ones to suffer if we let this happen, in that they would have a shortage of coal for energy the same as we are experiencing a shortage of our oil supply that has been depleted. I would hope that any future Federal contracts would be written so that no exporting of coal would be permitted.

In reading the Congressional Report of April 9, 1974, I detect that much research must be done and that many questions need to be answered before any more Federal contracts are made.

I think that the whole problem needs to be examined, and the questions asked; do we want to, at this time commit all of our coal mining so that there is a surplus above ground, or should we consider the needs of future generations as yet unborn and set up reserves that can be utilized as the needs arise? Gentlemen, the answer is obvious. We do not want or need a coal shortage in the future such as the oil crisis we have just gone through.

I firmly believe that it is the duty and the responsibility of the people we have chosen to represent us in Congress to protect and hold in reserve for the people of these United States, the great amount of coal fields that is federally owned and under Federal jurisdiction until such time as there is a positive need.

Senator METCALF. Thank you very much, Senator Graham for your usual succinct and forthright statement. Senator Graham, I know that you will be pleased to know that we do have a provision that whatever you pass in the State legislature, that's going to be the law of the land as far as the Federal Government is concerned. And you have two senators up here that are going to fight very hard for that proposition in the conference. The second proposition we have is that we believe that there should be some area of selective zoning that was so eloquently defined by Governor Christiansen, and I am hopeful that with more experience and reclamation we won't have either the fuel shortage or the food shortage that you have outlined. Thank you for raising these questions.

Senator GRAHAM. Thank you very much.

Senator METCALF. I am told now that the witness list has been posted outside. Also during the hearing and one of the hearings in Washington a map was presented to the committee showing some of the diverse checkerboard ownerships that rendered this question so complex. One of those maps, the BLM land ownership map is also posted in the hall outside for inspection, so that you can see the land that has divided ownership on the surface and subsurface, State land, private land, land that has divided private ownership, and the national forest land, BLM land. As we go through the hearing it is useful that we will all be aware of that very complicated land ownership pattern in these various States. You are welcome and invited to inspect that map. Now our next witness is Mr. Dave Robinson, Sr., of the Land Owners Association. Mr. Robinson?

We are delighted to have you, Mr. Robinson. Come forward and present your statement.

**STATEMENT OF DAVID C. ROBINSON, SR., CHAIRMAN, NORTHERN
CHEYENNE LANDOWNERS ASSOCIATION, MONTANA**

Mr. ROBINSON. I am a member of the Cheyenne Tribe, an enrolled member of the Cheyenne Tribe, and we are organized as the Northern Cheyenne Land Owners Association, Lame Deer, Mont. It was organized a year and a half ago, and the imminence of strip mining on the Northern Cheyenne Indian Reservation is bringing about a questionable future for the resources of Indian lands as well as the lives of the people espoused to it. The magnitude, nature, and rapidity with which this development will be brought upon the Cheyennes can only be felt as modern day genocide. A tradeoffs will subject the tribe into a decadent future from which they will never recover. Contrary to belief by the benefactors, that such a development is a utopian dream for the Cheyenne to forever rid themselves of the leech of poverty. Without due regard to massive and comprehensive planning to meliorate our primitive past with the modern day technological world can only mean disaster to our lives as well as our children. Mutual effort and cooperation between all levels of government through technical assistance and financial aid to the Cheyenne to determine their own future can and will result in meeting the needs of our society and nation. The time for the Indians to be maneuvered as pawns on a chessboard is long past, but must be allowed the opportunity to exercise the extrinsic coinage of "self-determination." The benefactor's cognizance of the Indian as being incompetent and incapable of directing his future must be replaced by collective and coherent partnership in the policy and decisionmaking process of all government entities.

The permit and leasing procedures involved in the eventual commitment of 49 percent of the Cheyenne Reservation lands for development clearly indicates disregard and ignorance to Interior Department, Bureau of Indian Affairs policies as outlined in 25 CFR 177., regarding Indian Lands.

25 CFR 177—Purpose

It is the policy of this department to encourage the development of the mineral resources underlying Indian lands where mining is authorized. However, interest of the Indian owners and the public at large requires that, with respect to the exploration for and the surface mining of, such minerals, adequate measures be taken to avoid, minimize, or correct damage to the environment—land, water and air—to avoid, minimize, or correct hazards to the public health and safety.

Totally ignored by BIA.

177.4—(a) 1. Technical Examination

The superintendent shall make, or cause to be made, a technical examination * * *

Further quote: CFR 25, section 177.4, part (2)b

Based upon the technical examination, the superintendent shall formulate the general requirements which the applicant must meet * * *

Procedures involved on the Northern Cheyenne in reference to this part was ignored at the beginning when permits and leases were made. In 1966, approval for exploration permit to Peabody Coal was made without reference to the technical examination. Leases with

Peabody Coal was approved and signed in 1970 with no reference to a technical examination. (No records available.)

The technical examination which should have been done 8 years ago was finally initiated in May of 1973. It was divided into two areas, permits and leases. Totally ignored by BIA.

177.5—Basis for denial of a permit or lease totally ignored Part 177.

USGS defaulted its obligation to provide the required scientific and scientific expertise in the performance of the technical examination formulation of general requirements, evaluation of exploration of planning and mining plans setting of performance bonds. This was not done.

171.27: There is no authority for the issuance of a permit which compels a right to lease and these permits are issued.

171.9: Leases in excess of authorized regulations limited to 2,560 acres only on special authority of the Secretary of Interior may be larger. One lease of Peabody in 16,000 acres.

177.12 Consultation: A superintendent shall consult with the Indian landowner with respect to actions he proposes under CFR 25 (Indian) 177.4, 177.6, 177.7, 177.9, and 177.10. This was not done and, therefore, creates a breach of trust duties by the BIA and Interior Department.

The surface owners were not consulted about exploration or mining and exploration was accomplished without signing of easements or any consultation for damages caused by drilling so, therefore, this is a failure by the BIA and Interior Department to perform their trust duties.

The surface owners own 33 percent of the land on the Northern Cheyenne Reservation. Approximately one-half of this 33 percent is in the prospecting permit and lease areas. 49 percent of the reservation is under prospecting permit and one lease. The 49 percent is tribal, allottee, and surface owned land by the individual.

Reclamation or restoration is an issue that needs a great amount of study in this area. Do we have enough water for this? What sort of vegetative cover must be planted and type of fertilization? Also to be taken into consideration is the actual restoration of the land after mining in the sense of contour of the reclaimed area. The land must be restored so that the surface may be used again in a way that the tribe or surface owners can realize a profitable use thereof.

Two \$15,000 bonds were required by the superintendent of the Northern Cheyenne agency—it is unknown how this is arranged—whether both or one of each apply to the exploration and the mining plan. Based on the 16,000 acres now on lease to Peabody Coal and assuming both bonds are applicable to either the exploration or mining plan—the cost insured by Peabody Coal for reclamation on the Northern Cheyenne lands amounts to \$1.88 per acre. It is even less if one \$15,000 bond applies to the exploration plan alone—amounting to \$0.90 per acre.

If the performance bonds are required in reclamation and restoration on drill-hole sites under the exploration plan, the Peabody Coal Co. has defaulted in its commitment to reclaim and restore the drill holes and tailings. To date, no monetary remuneration to individual landowners for surface damage costs has taken place.

25 CFR 177.9—Reports: "Within 30 days after the cessation of operations, the operator shall submit an operation report * * *"

This regulation is ambiguous to the point that it does not delineate its application to the exploration plan or the mining plan. Furthermore, under this regulation, the terminology does not allow for tribal participation. It does not give the tribe the opportunity to review and approve reports as specified in this regulation.

25 CFR 177.10—Inspection: Again, this regulation completely ignores the tribe's involvement.

25 CFR 177.11—Appeals: Ambiguous in procedures. It sets the advantage with the BIA and suppresses any appeals procedures of the permitter.

25 CFR 177.12—Consultation: "A superintendent shall consult with the Indian landowner with respect to actions * * *"

The Cheyenne landowners have never been consulted about the leasing of their individual lands nor been informed by BIA about the full implications of the permits and leases.

This is being viewed as a gross violation by the Cheyenne landowners on the part of the Bureau of Indian Affairs.

In addition to my comments on the regulations and policies as outlined in the 25 CFR BIA pertaining to permits and leases, please allow me to include comments on various reports being compiled by such groups as NGPRP, SMARS, RAIT and others. To my knowledge, input and involvement by the Northern Cheyenne has been a fragmentary effort. All the preliminary drafts compiled by the seven work groups under the Northern Great Plains program have not been made available to the Cheyenne, except one. A preliminary draft of the socioeconomic, cultural aspects work groups was received by the Cheyenne Tribe for approval or disapproval. The Northern Cheyenne Tribal Council has been requested to reject this report. The report does not reveal a valid impact upon the Cheyenne. In fact, the report attempts to define and primarily addresses itself to the Crow Tribe. In no way is the report representative of the Northern Cheyenne and should not be accepted as an entry into the final report of NGPRP.

It must be made known to all concerned in this hearing, that the policies and regulations for mining permits and leases as specified in 25 CFR, Bureau of Indian Affairs, Department of Interior, have been less than indicative of the present administration's Indian policy of self-determination. Let it be known to all that, we, as Cheyennes will no longer tolerate forced compliance to permit and leasing policies often ignored and changed according to the wishes of the Bureau of Indian Affairs and the energy companies. Must we continue to be subservience to all the Watergates and Teapot Domes as allowed in the policies of the Department of the Interior? When are the Indian tribes going to be allowed to exercise the liberties and freedoms for which this country stands, to chart and design their own destinies?

In a final analysis of the whole situation as it exists in southeastern Montana and on the Northern Cheyenne Reservation, all of the items we have discussed must be studied and remedied and laws enacted and enforced.

The people must be educated to all phases of coal development, generating plants and gasification plants. This way they will realize

what the sudden influx of people and the problems of the above-mentioned plants and operations can do to the environment, air quality, schools, communications, law and order, water, soil, housing, and health problems.

Also, to be considered is what can be done by the Northern Cheyenne in other areas of economic development in the event coal is not mined. There are several possibilities such as hydroponic farming, raising of Christmas trees, fish hatcheries, truck gardening and possibly the Northern Cheyenne mining their own coal.

The Northern Cheyenne research project is geared to do these studies and present alternatives of what needs to be done on the reservation. The need for a minimum standards reclamation code to protect the people and the land is so great that no mining be allowed until all of these studies and alternatives measures are set up.

The Northern Cheyenne landowners aids the research project as much as possible and also the Northern Cheyenne Tribal Council and we intend to work in cooperation with our neighbors off the reservation because their problems can affect us and our problems affect them.

What will become of this great section of our country when it is mined out and the people are left with no way to earn a living? This calls for a study and sound policies established to insure that this does not happen. Congress must maintain control and not the treasuries of the huge energy and oil corporations.

Bureaucracy has a tendency to become stagnant in the performance of their lawfully assigned duties and always attempt to cover up.

So now as the present situation exists as we have outlined it, we, the people ask and urge you, Mr. Metcalf and your honorable associates of this Subcommittee of the Interior and Insular Affairs, to set up a committee to investigate this whole mess and find out why the Interior Department and Bureau of Indian Affairs has allowed such a blatant situation to occur.

We, of the Northern Cheyenne landowners thank you for the privilege to voice our opinions.

Senator METCALF. Thank you very much, Mr. Robinson for a very fine worked out statement and presentation. As you know Senator Mansfield and I have asked the Bureau of Indian Affairs and the Department of the Interior to give us a report on this leasing situation on the Northern Cheyenne Reservation. In that request we have secured the cooperation of our colleagues from adjacent States who are interested and concerned also in the report. As soon as that report is available along with the testimony such as you have presented, and other testimony that will be forthcoming and available to this subcommittee, I will call a meeting of the subcommittee and ask for a discussion of the various matters before us and see if then we can't follow through on the suggestion that there be an investigation by the Congress of this matter. At the present time, however, your two Senators and as I say, they have been joined by our colleagues, are asking for report on this matter.

Senator Hansen.

Senator HANSEN. I have no question, Mr. Chairman.

Senator METCALF. Thank you very much for bringing forth this splendid presentation.

We were privileged to visit the Western Energy Co., operation at Colstrip yesterday and we thank you very much for the hospitality and for the organization you had on the trip and for the very informative way in which that was presented, so we are looking forward to hearing from you, Mr. Schmechel, and for your testimony today.

**STATEMENT OF W. P. SCHMECHEL, VICE PRESIDENT AND
GENERAL MANAGER, WESTERN ENERGY CO.**

Mr. SCHMECHEL. Senator, we are very pleased that you and your distinguished colleague visited our properties. Mr. Chairman and Senator Hansen, I have a statement that I would like to submit for this hearing. My name is W. P. Schmechel, and please do call me Paul. I am vice-president and general manager of Western Energy Co., a wholly-owned subsidiary of The Montana Power Co., with headquarters in Butte, Mont. Western Energy Co. is engaged in the development and mining of coal, principally in Montana and Wyoming, and currently is producing coal at its surface mine at Colstrip, Mont. for sale to Montana Power and midwest utilities as fuel for electric generating plants and to small industrial plants.

I appreciate very much the opportunity to appear here today on the important subject of coal development in this area of the Northern Great Plains region. The enormous coal resources extant in Montana and Wyoming, as well as in other parts of the West, are vital to the maintenance of adequate energy in the United States today. Thus, it is especially timely and significant for your committee to consider all of the circumstances under which this coal can contribute to the economy and well-being of the entire Nation, as well as to the economic growth of Montana.

Western Energy Co. currently controls more than 1-billion tons of subbituminous coal and lignite principally in Montana but with a small reserve in Wyoming. These coal reserves involve 39,000 acres.

At Colstrip, where our only active mining operation is located, we have 25,655 acres of coal lands, of which 7,175 acres, or approximately 30 percent, are U.S. coal leases. In addition, we filed in 1972 an application for 6,082 acres of federal coal leases contiguous to that area.

The Federal lands are situated in a checkerboard pattern with intervening coal lands leased from Burlington Northern, Inc., and the State of Montana. The surface overlying all of the Federal coal under lease and application by Western Energy was homesteaded except for a 40-acre tract where the surface has been retained by the United States. Surface mining is the only feasible method for recovering the coal because the overlying shallow sediments are not structurally competent to provide a roof for a large scale underground mining operation. Further, surface mining permits recovery of essentially all of the coal, while underground mining results in recovery of only 50 percent-60 percent of the coal.

We have at Colstrip approximately 837 million tons of coal reserves, if the Federal coal under lease application is included. Coal production started modestly in 1968 when the mine operated for half a year and produced 150,000 tons. Production increased to 521,000 tons in 1969; to 1,658,000 tons in 1970; to 5,161,400 tons in 1971 and

5,500,700 tons in 1972, dropping back to 4,253,700 tons in 1973 as some short-term contracts phased out. Based on long-term contracts executed in 1972, we expect production to increase to 13,800,000 tons by 1978.

Based on the long-term contracts, which become operative in 1974 and 1975, Western Energy Co. is committed to a capital investment of nearly \$40 million during the next 5 years to meet the growing demand for this coal. This large investment is for additional and larger coal mining equipment and facilities and for the discharge of our responsibility to provide excellent working conditions and attractive living conditions in the town of Colstrip for the people who are and will be involved in the production of coal and the operation of steam-electric generating plants utilizing the coal on site.

The Colstrip Mine is more than 50 years old. It was opened in 1923 to supply fuel for the Northern Pacific Railroad and it operated for that purpose until 1957, reaching its peak production year in 1943 when its output was 2,700,000 tons.

The Montana Power Co. purchased the Colstrip properties in 1959, when the utility acquired the leases and mining equipment. Production was resumed, as previously noted, in 1968 to supply fuel for the J. E. Corette steam-electric station in Billings. Contracts with several midwest utilities subsequently were entered into and the mine has been operating commercially since then.

Along with Western Energy's commitment to develop Montana's coal resources for the economic benefit of Montana and her people, we are committed to a continuing program of environmental concern and reclamation practice as an integral part of the mining process. Our objective at Colstrip—and wherever else we operate—is to restore mining lands to their highest possible use by contouring the land, replacing the topsoil and re-establishing the vegetative power.

Our land reclamation program was started in 1968 before we disturbed any new area at Colstrip. At that time, we engaged the experts of the agricultural experiment station of Montana State University to study the area, suggest appropriate reclamation practices and conduct experimentation and research to determine the best methods of restoring the land to productive use. Research has continued since then under the direction of the agricultural experiment station and we are convinced the program has developed outstanding environmental practices that not only will benefit the Colstrip area but provides knowledge necessary to make equally important contributions to land reclamation and environmental quality in other areas.

Mr. Chairman, you and your associates toured the Colstrip area yesterday and I hope you were impressed, as other officials have been, by the environmental activity that is going on down there. I want to assure you and the committee that this type of operation, designed to restore the mined land to a condition as good as, or better than it was before mining started, will be a continuing and important commitment by Western Energy Co.

Equally important, in our view, is the enormous economic impact that properly-conducted coal mining operations can have on the State of Montana. As an example of what future coal development will mean to eastern Montana, Western Energy's operations alone provide a dramatic illustration. By 1977 or 1978, our best estimate is that:

We will have invested from \$200 to \$250 million in expanded coal operations and in power generation and transmission facilities.

There will be more than 550 persons employed mining coal and operating the Colstrip steam-electric plants.

Wages of more than \$6,000,000 (at current wage rates) will be flowing into the community of Colstrip and Rosebud County each year.

The population of Colstrip will have increased from 200 to 1,800 or 2,000 persons living in a modern, well-planned, well-equipped community.

Taxable valuation of coal mining and electric power properties in Rosebud County will have increased by $3\frac{1}{2}$ times over the 1968 level, to upwards of \$35 or \$40 million.

We could be accused to being optimistic or being partisan—which certainly is true—but we view what is happening at Colstrip as an economic rebirth for much of that part of the country. We all hear that Colstrip development is going to disrupt life styles. We would be the first to admit that. As Colstrip grows to a population of 1,800 to 2,000 persons in the next few years, the influx of people certainly will be noticed by nearby ranchers. We can tell you something else—we have a certain amount of sympathy for those ranchers who prefer the solitary life. I'm afraid nothing can be said to emotionally comfort those residents of the Colstrip area who wish for the good old days.

But socially and economically, there are a few things that have to be said. Those who regret the change in life styles would do well to remember that just a few decades ago their life styles were changed appreciably for the better—when electricity was introduced in Montana's rural areas. Today, we are dependent on coal for the continuance of those life styles. And, those who regret alteration of their life styles have not appreciated the destruction of life styles that made their ways of life possible. I refer to the thousands of people who were forced off the land by an economic situation that dictated that only large agricultural operations could survive. That has been the real economic story of eastern Montana since World War I. Each year has seen fewer and fewer people surviving on more and more land. The trend accelerated after World War II and today you need only drive the country roads to see the abandoned buildings that once were home base for family farms and ranches. To define the problem of population erosion in eastern Montana if we exclude the urban counties of Yellowstone and Cascade, the second congressional district lost 12.1 percent of its population between 1960 and 1970. More than half of Montana's population is concentrated in seven counties, most of them in the western part of the state. Dr. Roy E. Huffman, vice president for research at Montana State University, has observed, on this subject: "Problems associated with sparse population in eastern Montana are becoming more difficult. Growth of any kind is not popular today but there are situations where some growth could result in a more viable balance among natural resources, the economic base and the population."

Bringing things closer to home, by the time the 1970 census was completed, some reverse in the population decline had taken place in Rosebud County because of the mining operations. During the 10-

year span, only a 2.5 percent drop in population was experienced in this county—a total reduction of 155 persons. This compares with a 15.2 percent population decline in Powder River County to the southeast of Rosebud County.

The abundant coal of eastern Montana and Wyoming is vitally important in meeting the energy needs of this region and our nation, energy needs that continue to grow with population increases and expanded industrial activity.

The steam-electric generation under construction and planned at Colstrip is essential to meet the energy requirements of Montana and help alleviate the power deficiencies that are forecast for the Pacific Northwest. Without the Colstrip plants, the Montana Power Company would be required to increase its purchases of electric power by more than 124 percent through 1978, an increase in purchases of 1,365,000 kilowatts.

In light of the forecasts which indicate annual deficits in the west region of the Pacific Northwest of up to nearly 3 million kilowatts during the next 10 years, it is obvious there would be no power available for purchase by Montana. The April 5, 1974, forecast of the Pacific Northwest Utilities Conference Committee shows the following situation with respect to average loads and resources under critical water conditions:

[In megawatts]

	1974-75	1975-76	1976-77	1977-78	1978-79
Average loads ¹	15,252	15,640	16,758	17,622	18,432
Resources ²	13,771	15,044	15,890	16,206	16,685
Surplus (deficit).....	(1,481)	(596)	(868)	(1,416)	(1,747)
	1979-80	1980-81	1981-82	1982-83	1983-84
Average loads ¹	19,331	20,310	21,145	21,976	23,003
Resources ²	17,221	18,019	19,535	20,043	20,027
Surplus (deficit).....	(2,110)	(2,291)	(1,610)	(1,933)	(2,976)

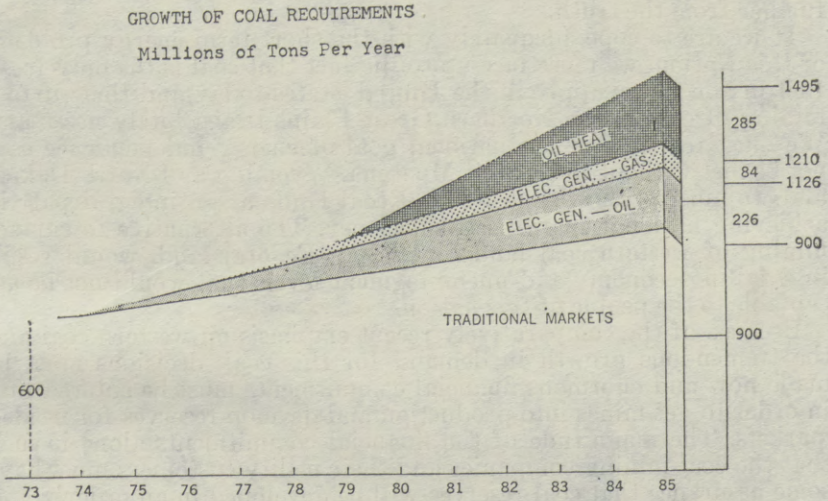
¹ Average loads of private utilities, public agencies, Federal agencies, and Bonneville Power Administration industrial customers; includes exports under purchase and exchange agreements.

² Existing, under construction and planned generation, including Colstrip 1, 2, 3, and 4; imports under exchange agreements, less reserve requirements and hydro maintenance.

On a larger scale, the development of coal is urgently needed in the United States today to meet the Nation's growing requirements for energy and to fill the gap that has developed and will grow wider because of the diminishing supplies of petroleum and natural gas. The enormous coal reserves in the west, particularly in Montana, Wyoming, and North Dakota, thus become more and more important. The size of the reserves makes them a vital element in meeting energy needs, and their low sulfur content makes them environmentally acceptable in providing the needed energy resources.

The following chart, figure 1, demonstrates graphically the future growth of coal requirements in the United States. The forecast presented on the chart, taken from Department of Interior and National Petroleum Council projections, indicates the demand for coal will increase 2½ times between now and 1985, rising from 600 million tons per year in 1973 to almost 1.5 billion tons per year by 1985.

Figure 1



Approximately 900 million tons, or 60 percent, will be required just to serve traditional markets by 1985. It is expected that another 310 million tons will be needed to replace oil and natural gas as fuel for electric energy generation, and still another 285 million tons will be needed to replace oil as heating fuel.

The availability of western low-sulfur to meet these very substantial future requirements of the Nation is especially important because of the value of this coal as fuel for electric power generation. We must meet the increased energy requirements if we are to maintain a healthy economy which includes acceptable levels of employment. The availability of electric power also is essential in meeting our environmental objectives of clean air, clean water, and pollution-free transportation.

Because of the dominant position of the Federal Government in coal holdings in the West, it is essential that affirmative action be taken now to open up these lands to coal development. Federal coal lands not only are vast but are checkerboarded between private and state leases to the extent that, without utilization of U.S. coal leases, it may not be economic in many areas to mine the amounts of coal that are needed.

Of the estimated 31.8 billion tons of strippable coal in the United States, with 1 percent or less sulfur content, the three-state area comprising Montana, Wyoming and North Dakota contains 21.2 billion tons or two-thirds of the U.S. total resource. Without utilization of U.S. coal leases, much of this resource cannot be produced for the benefit of the regional or national economy.

Where the need for Federal coal can be demonstrated, it would be self-defeating to tie it up for a period of years, as has been suggested by some. We have heard the observation that coal development

could be delayed without detriment and that the Nation could get along without coal from this region in the interim. Nothing could be further from the truth.

If we are to cope adequately with the short term energy problems of this Nation, we must face up to the fact that coal is the only fossil fuel in adequate supply in the United States today and that surface mining of coal in the Northern Great Plains is absolutely necessary. We must realize that the national goal of energy independence cannot be met without the coal of Montana, Wyoming and North Dakota and we must acknowledge Federal coal lands as an integral part in achieving national energy self-sufficiency. The alternative to surface mining of western coal lands, including Federal land, would result in a failing economy and unemployment levels that would not be acceptable to the people of this nation.

Because of the comparatively recent emphasis on western coal and the tremendous growth in demand for this coal, decisions must be made now and enormous financial commitments must be entered into in order to get mines into production and develop reserves for needed markets. The magnitude of the financial commitments alone is such that the coal mining companies and their utility customers must have some assurance that coal reserves will be developed in an orderly and timely manner.

The demand for large mining machinery is soaring throughout the world and the only suppliers of such machinery are in the United States. The sudden demand placed on suppliers already has increased the lead time for delivery of mining equipment from 14 months to 6 years. Manufacturers are quoting deliveries in the first quarter of 1980 for equipment ordered today. Because this demand is worldwide, with Canada, Australia, Africa, and other countries placing orders, the lead time, we are told, could increase to 10 years.

If they are to make commitments—financial and otherwise—to meet United States energy needs, the coal mining companies must have some assurance that they will be allowed to develop the coal that is available today.

We are extremely sympathetic to the concerns of this committee and to the public demands that coal be mined and marketed under conditions that will not result in degradation of the land or adverse effect on the environment. Western Energy Co. as a pioneer in effective land reclamation programs and practices, is committed to such a policy.

We voluntarily entered into this type of operation, as stated, even before we disturbed an acre of land, and we have continued with the same goals and objectives since we opened the mine. Today, the State of Montana has one of the most stringent and most effective sets of regulations governing the mining of coal of any area of the Nation, and we are operating successfully under those regulations.

Those who oppose the leasing of Federal coal lands submit that intelligent decisions can be made only if the development of our coal resources is delayed for years. We submit that intelligent decisions can be made today, that Federal coal lands can be opened up for leasing and development under reasonable and effective regulations, that the development of urgently needed coal can move ahead in an orderly

and acceptable manner, and that this type of programs will provide for the region and the Nation, both from an economic and environmental standpoint, the kind of growth and progress that all of us desire.

Mr. Chairman, on behalf of Western Energy Co. and for myself, I would like to express to the chairman and the members of the committee our appreciation for allowing us to testify here today and for the courtesy that has been extended. Thank you.

FIGURE 2.—ESTIMATE OF COAL RESERVES IN MONTANA, NORTH DAKOTA, AND WYOMING
[In millions of tons]

	Total reserves ¹		Recoverable ²		1 percent or less sulfur	
	Quantity	Percent of United States	Quantity	Percent of United States	Quantity	Percent of United States
Montana.....	378,701	13.2	189,347	13.2	215,438	21.3
North Dakota.....	530,680	18.5	265,328	18.6	(³)	(³)
Wyoming.....	445,710	15.5	222,843	15.6	120,715	12.0
3-State total.....	1,355,091	47.2	677,518	47.4	336,153	33.3
U.S. total.....	2,872,955	100.0	1,429,010	100.0	1,008,885	100.0

¹ Total coal resources, excluding anthracite, 0-3,000-foot overburden as of Jan. 1, 1967.

² Recoverable reserves, 1971, assuming 50 percent recovery.

³ Not reported.

Source: "Factors Affecting the Use of Coal in Present and Future Energy Markets," background paper prepared for Chairman Jackson of the Senate Interior and Insular Affairs Committee, 1973, pursuant to S. Res. 45—National Fuels and Energy Policy Study. (Table 6, pages 17-18.)

STRIPPABLE COAL ¹

[In millions of tons]

	Total	Percent of United States	1 percent or less sulfur	Percent of United States
Montana.....	6,897	15.3	6,133	19.3
North Dakota.....	2,075	4.6	1,678	5.3
Wyoming.....	13,971	31.1	13,377	42.1
3-State total.....	22,943	51.0	21,188	66.7
U.S. total.....	44,986	100.0	31,787	100.0

¹ Stripping reserves by sulfur content, Jan. 1, 1969.

Source: "Factors Affecting the Use of Coal in Present and Future Energy Markets," background paper prepared for Chairman Jackson of the Senate Interior and Insular Affairs Committee, 1973, pursuant to S. Res. 45—National Fuels and Energy Policy Study. (Table 6, pages 17-18.)

Senator METCALF. Thank you very much, Mr. Schmechel for your presentation that outlines the position of the Western Energy Co. I first went down to Colstrip with the late Daly Stortz, who was then a member of the House of Representatives of the Montana Legislature from Forsyth, and Mr. Stortz was chairman of a subcommittee of which I was a member, George O'Connor who was then a freshman member of the House of Representatives from Carbon County was also a member, and we saw that operation when it was being run by the Northern Pacific. I was impressed yesterday by the fact that over all the years the Northern Pacific had left those banks of soil and so forth and nothing had been done about it, Burlington Northern has come in and made the development, but I want to emphasize that it seems to me that the desire of the whole group of people over

the years has been the inspiration for the kind of environmental protection that you are giving down at Colstrip today, and so that we don't have the gaps that we had between 1937 and 1960 or 1965, when nothing was being done.

Mr. SCHMECHEL. Senator, I appreciate that comment. As you know Montana is home to me and it's home to the 1,200 employees of Montana Power and Western Energy Co., and we are not anxious and will not leave a heritage of dissipated lands and beer cans.

Senator METCALF. Yesterday while we were going around I was impressed by the various activities and we asked: "What is the future of the development of these plantings and vegetation," and too Senator Hansen was concerned about the water, he said what happens to the aquifers. Mr. Huffman, who is your Montana State University expert, said it was too early to tell. So not only are the eyes of the people of the State of Montana on Colstrip but the eyes of the nation will be on you as to whether or not this reclamation really will work and restore the land to its former productivity or even better. The second thing that I witnessed since I have come to Montana and I heard the same thing in Wyoming, Senator Hansen, is a concern over the length of your operation. Now when we were down there in 1937 it seems as if Colstrip was going to go on forever and then all at once there was nothing down there, and people are concerned that there is going to another boom and burst. Could you comment on that?

Mr. SCHMECHEL. I would be very pleased to, Mr. Chairman.

The contracts we have entered into with the utility companies are at their shortest, 20 years, and the contracts that we have entered into for the coal supply to the two power plants being constructed at Colstrip extend for 35 years. Now based on our forecast of production we would have enough coal at the Colstrip location, enough reserves there to carry on at that level of production for 65 years. We don't look for any boom and bust cycle at Colstrip.

Senator METCALF. We can anticipate at least 20 years and hopefully up to 65 years of production at Colstrip?

Mr. SCHMECHEL. That is correct, Senator.

Senator METCALF. Senator Hansen?

Senator HANSEN. One of the concerns that has been voiced many times by many people, including Members of the Congress, is that land should not be surface mined that cannot be reclaimed. Is it your judgment that your activities in the Colstrip area can be treated in a manner so as to bring about an effective reclamation of that land.

Mr. SCHMECHEL. Senator Hansen, based on our research which now carries on through its 6th year, we feel definitely that we can effectively reclaim that land. The plantings that were made 6 years ago continue to grow. They have increased in density by natural revegetation and plantings we have made subsequent to that time are still similarly propagating themselves, and we feel that by approaching reclamation perhaps in the most difficult manner, by restoring range lands to range lands where it requires planting some 23 varieties of plants and proving that that is successful, that we feel that other forms of reclamation of less difficulty would even be equally successful.

Senator HANSEN. A number of people have expressed the belief that there is already sufficient coal under lease to provide for the

energy requirements of this Nation for some long period of time, maybe even several decades. Yesterday as we made a field inspection, I was told I think on at least one or two instances, maybe more, that all of the coal that was then under lease to some of the companies we visited was under contract, and that without additional Federal leasing those companies presently operating, or at least some of them, would not be able to participate in the bidding to supply or to provide additional coal as a power source. Have you any observations to make on that situation as it affects your company?

Mr. SCHMECHEL. I do have, Senator. It is a little broader than our own experience. While much of the coal is committed there is some that is being held for future use by these companies. They simply cannot afford the luxury of running out of resources and if we withhold additional coal leasing what will develop I am afraid is a black-market in coal, so to speak. I think prices will be elevated artificially high, artificially high levels. By making coal more abundantly available and introducing more competition in the field of coal production and sales I think that we can keep the price level of coal at respectable levels. In our own situation we have made application for some 6,082 additional Federal coal leases and our situation there is a matter of tying up our existing coal holdings. If we do not mine some of those additional lands at the time the other mining goes on it may mean that there would be pockets of Federal coal left behind and it may be uneconomical in future years to go back and mine that coal.

Senator HANSEN. Your statement now would infer or have some reference to the Mansfield amendment possibly?

Mr. SCHMECHEL. No. No, I had no reference to the Mansfield amendment. This simply was the situation at Colstrip in our lease position.

Senator HANSEN. One of the concerns that was addressed by the county commissioners from Sheridan County, Wyo., and which we have heard repeated many times is the real problem that is faced by subdivisions of government in trying to prepare for an influx of people. All too often this has occurred without adequate provisions being made to have schools ready, to have housing ready, to have other necessary services that we have grown to become accustomed to, expect from cities and county governments. What do you think is the role that mining companies ought to assume in helping local units of government meet this problem?

Mr. SCHMECHEL. Senator Hansen, in the first instances industry, as soon as it has firm plans made should reveal those plans to the community in which it is to operate, and advise that community of the numbers of people who will be moving in, the type of payroll that might be involved, the tax base that they anticipate, and if beyond that they need additional assistance it seems to me that the industry can provide that assistance. Let me describe to you briefly what we have done at Colstrip, Mont. Because of the impact of large numbers of families with children and the inability of the school to raise funds through bond issues on short notice, we have provided a number of classrooms down there to take that burden off of the school district. Additionally, we are constructing all of the streets, all of the water system, all of the sewer systems, the housing facilities as we need to, that is where people choose not to build their own

homes, but rather rent them, the commercial facilities totally including a shopping center, hardware type stores, sporting good stores, a bank as necessary, service stations, and all of those facilities that are essential for a community that would grow to a population of 1,800 or 2,000 persons. We will lease all of those facilities out. We do not want the oneness of a company town.

Senator HANSEN. Several of us from the West have joined in co-sponsoring two amendments to address this problem. One would amend the 1920 mineral leasing act to provide that the States and their subdivisions of government could use the State's 37½ percent share of the Federal revenues, mineral revenues, which are returned to the States for purpose other than the presently uses exclusive for roads and schools. We have another similar amendment which would provide that the moneys coming from bonus bids or leases for oil shale might also be used by subdivisions of government for planning and for providing of any type of service that you would have a right to expect subdivisions of government to provide.

In addition to that though I think we all recognize the need for additional help. I can think of two or three towns in Wyoming, I have in mind Rock Springs and Gillette, where industry came in and dumped many, many people on the communities which were certainly ill prepared to handle the greatly increased and expanded population. Would industry favor and support a proposal to provide money, maybe a rather significant amount of it to communities on the basis of an investment tax credit or a tax advantage. Having in mind that what the cities need is money ahead of time, when a company has firmed up its plans and has decided definitely that it will be operating in an area and can foresee bringing in 500 workers or however many there may be, do you think that industry would support an amendment that could provide for a tax consideration in exchange for providing money. I guess this is the sort of thing we might call a tax loophole, I use that term with some reluctance because it is used so many times these days. But it is my opinion that many of the so-called tax loopholes were passed for very sound reasons. I should think that if someone chooses to call this proposal a tax loophole I would have to defend it because there is a very good reason for it. Recognizing that property can't be put on the tax rolls until it is physically in place, there is a need for planning and construction to occur before people come. Do you think industry would support or at least give serious consideration to a proposal which might make this kind of money available to local units of government in order to prepare for an influx of people?

Mr. SCHMECHEL. Senator Hansen, I cannot speak for all of industry in regard to the tax incentive approach. I know that it would be appealing to my company. I think industry would however support the concept of utilizing the bonus bid moneys and the amount of the percentage of the royalty accruing to a State for the purposes you describe.

Senator HANSEN. Thank you, Mr. Chairman.

Senator METCALF. Thank you much, Mr. Schmechel, for your fine presentation. Governor Christiansen, I wonder if you would make a note of that very same proposition of a diversion of money away

from the roads and school funds to the general fund of the State along a revenue-sharing basis, especially for assistance to the local communities in meeting their burdens of transportation facilities and sewers and schools and hospitals and all those various needs that they have. Some time give me a note on it or have Governor Judge give me a note on it.

Our next witness will be Dr. Roy Huffman, who has submitted his statement for the record, a most applaudable means of presenting testimony. We will have a recess now. Immediately after we return at 10:30 by that clock, I will call on former Governor Anderson who will be followed by Allen Rowland and Pat McDonnough. We will be in recess for 10 minutes.

PREPARED STATEMENT OF ROY E. HUFFMAN, VICE PRESIDENT FOR RESEARCH,
MONTANA STATE UNIVERSITY, BOZEMAN, MONT.

This statement is concerned with the need for adequate information on a continuing basis to insure objective decision making with regard to coal-energy development in the Powder River Basin. Montana State University has been engaged in research on some aspects of the coal development problem for as long as four years. Major areas of research emphasis include reclamation of strip-mined lands; stack emissions and air quality; the socio-economic impacts of strip mining; and values related to alternate uses of the available water supply.

Aside from research needs in eastern Montana and Powder River Basin, it is assumed that the national interest will require continued research and education with regard to energy conservation and continued research and development with regard to alternative sources of energy. In a general way, the research problems in the Powder River Basin itself can be listed in three categories:

(1) Ecological problems involving use of the land and other surface resources; the quantity and quality of both surface and groundwater; and matters of air quality.

(2) Socio-economic problems involving the benefits and costs of economic growth and including the social requisites of modern communities providing an acceptable quality of life.

(3) Environmental problems involving non-quantitative values and including the impacts of development and growth on existing life styles.

Policies and programs with regard to land use, then, are the central focus of coal energy development in the Powder River Basin. Federal coal leasing policy will have an important bearing on land use in the region. Whatever may be determined as the Federal coal leasing program at this time should not be viewed, however, as a decision that will necessarily stand for all time. Public policies are always subject to the changing needs and values of the society. We have seen numerous examples of that fact in recent years. Changes in public policies and programs can move in either direction from the position established in relation to a particular set of circumstances.

The certainty of continuing changes in the society and the economy emphasizes the need for coordinated research extending into the future. In many areas of knowledge and understanding, we lack the complete information desirable for objective decision making with regard to coal development. There should be no excuse in the future for continuing this deficit knowledge position. Continuing research should provide the basis for a better understanding of the bio-physical characteristics of coal development situations and of the ecological limits of resource use. Such research should also include a continuing monitoring of the socio-economic values and goals of the people in the region. The nature of the land ownership in eastern Montana means that this kind of continuing research is of great significance to the Indian citizens on the several reservations.

This statement, then, is a request that the need for continuing research be recognized and that current decisions with regard to Federal coal leasing programs not be viewed as providing answers to the use of land in the Powder River Basin that will necessarily stand for all time.

[Recess.]

Senator METCALF. The subcommittee will be in order. You know they say that the U.S. Senate is a club, but one of the most exclusive clubs in America is the club of which Senator Hansen and our next witness belong, and that's the members of ex-Governors of the various States. It is a very great privilege and honor for me to have as the next witness before us, Senator Hansen, the ex-Governor of Montana, and as you very well know Forrest Anderson pioneered much of our coal mining legislation. Forrest, it is a privilege to have you before us.

**STATEMENT OF HON. FORREST H. ANDERSON,
FORMER GOVERNOR OF MONTANA**

Governor ANDERSON. Thank you, Senator Metcalf and Senator Hansen. I have prepared a statement for this committee and I have handed copies of it to the clerk.

Mr. Chairman, thank you for this opportunity to present my views on the Department of Interior's future leasing program for Federal coal reserves in the Northern Great Plains. I feel that the most critical concern of the people of my State, Wyoming and North Dakota is the potential for large scale coal development. I know you also are very familiar with the situation here and its relation to our long-range energy problems nationwide. The entire area is facing over the next 25 years a variety of socio-economic changes if industry moves in upon this coal-rich area.

In order to deal with these problems effectively, I feel very strongly that a regional planning effort is required to coordinate all Federal/State research and development activities and those decisions dealing with energy resource development in the region.

Every day there is a news item in the papers regarding a study, a contract, a program or what have you relating to coal and/or its development impact.

Federal and State agencies are currently separately considering the need to fund additional data gathering and studies regarding the water, surface resources, atmospheric and socio-economic impacts of this potential development.

This multiplicity of studies means one thing—there is significant national and local interest in the subject. However, from my background and experience as chief executive of this State, there does not appear to be a single coordinating office to pull together the maze of studies and maximize the results.

We already have a legislatively-established body to perform this role. I am speaking of the Old West Regional Commission, which is an ongoing Federal-State partnership. Since the Governors of the participating States control 50 percent of the organization, it provides an effective and institutionalized role for the States in this region.

When Governor of Montana, I led the effort to establish the five State Old West Regional Commission—composed of the States of Montana, North Dakota, South Dakota, Wyoming, and Nebraska—the same States that are the target of all these studies; in addition the

Congress appropriated to the Commission the sum of \$2 million to initiate a study on the impact of the coal development within the region.

Attached is a brief description of what the Old West Commission has advised me of its program for fiscal year 1974.

I confess that I have not laid out any elaborate plans for implementing this coordinative role, but I submit that the details are not a great problem. My view is that we have a vehicle that provides for State participation in executive decisions, and that vehicle is ready now. It would appear to me the only Federal/State governmental structure with authority by legislative action to coordinate the effort of the Federal Government and States in this endeavor is the Old West Regional Commission.

OLD WEST REGIONAL COMMISSION COAL RESOURCE PROGRAM
FISCAL YEAR 1974

First, with industry endeavoring to move in at an increasing pace, we are attempting to establish criteria by which States can assess proposed development projects and weigh the advantages and disadvantages in practical long-range terms.

Second, we are attempting to develop further criteria by which States and communities can determine which type of generating, processing, or extraction technologies would bring the greatest benefits to the area in terms of support facilities, water use, ambient air impact, and similar matters.

Third, we are attempting to put the legal and regulatory framework into a digestible form so that the public or decisionmakers can more wisely assess the alternatives. For instance, the gold rush of the 1850's proved to be the formative period for much of our present water and mineral law—likewise with the oil boom of the 1880's; dry farming and land reclamation around 1900, and reclamation of abandoned lands in the 1930's. Questions of taxation, economic protection, population, corporate law, shipping and routing, area compacts, and financial incentives now must be considered in an entirely new light.

Fourth, we are endeavoring to help the States determine water requirements of the various processes and projects. Both demand and supply sides of the water equation have been studied in geographically piecemeal fashion, but the demands for water under the new conditions will require closer analysis of water requirements for various extraction or processing alternatives. More importantly, they will require analysis of the trade-offs with regard to agricultural uses, other forms of industrialization, and population growth.

Fifth, we will be evaluating the capabilities of the region's educational systems to determine that they are capable of supplying skilled manpower necessary to staff the industries moving in.

Finally, we have added to our program a contingency phase in which we will undertake related or complementary efforts dictated by findings in the other phases of the work.

Basically why I came here this morning is I believe that we have in connection with the coal problems in this region a proliferation of research being made by so many groups and I think this is best spelled out by an article in the Bismarck paper where it names a

great number of groups who are making studies of coal and what should be done with coal and so on and so forth. What I would like to see is an opportunity for some agency to put this research into some kind of form where it can be used both by the Federal Government and by the States involved, and I am suggesting to this committee this morning that in my judgment the best group who is situated presently to actually move in and do a job of coordinating all of the studies and all of efforts that are being made, the best group that I know of is the Old West Regional Commission. For your information I had much to do with the establishment of the Old West Regional Commission when I was Governor of the State of Montana. As you know the Old West Regional Commission is made up of the States of Montana, North Dakota, South Dakota, Wyoming, and Nebraska. We have a great number of problems which are common and we feel that one of the greatest problems is that of the development of the coal in our region. Now the reason I think that the Old West Regional Commission is about as good an organization as can be used for making the determinations of the study which are being made by everybody, is that this is a partnership arrangement between the Federal Government and the States involved. You have at the Federal level a Federal coordinator. You also have the five Governors of the five States. Now true, South Dakota and Nebraska are not necessarily directly involved in that they do not have the coal that we are talking about in their State, however I don't believe that the Federal Government should be the total one to make the input that necessarily goes into the coal development. I think that the Governors of the States ought to be involved and I can't think of a better place to give some consideration to the subject matter than for the Congress to concern itself with using the Old West Regional Commission as a catalyst to bring about I think some semblance of what should or should not be done within the region as it relates to coal.

I will be perfectly honest with the committee, I did not give a great deal of study to this, this idea came to me just a couple days ago, but I have given a great deal of my time since I left the governorship and while I was Governor, and this Old West Regional Commission is working real well. What I am trying to say here is this: I believe that the States where coal is involved have to get together. Not only as it relates to the development of coal but as it relates to the problems of the cities, as it relates to the people problems, to the socio-economic problems, and all the other problems. I think this is the greatest thing that we have going for us right now in our region, to take care of the things that are going to happen to us. I think all of the Governors recognize the need for the coal on the part of our Nation. I think we probably do need the energy that's under the ground, expressly in our three States. I think we have got to get together in all these problems and I think if the Federal Government gave the Old West Regional Commission the opportunity where you have the three Governors particularly, it is really five, they get along real well. As a matter of fact the Federal Government did just recently give the Old West Regional Commission \$2 million to do another study and gentlemen, if I may say so, I think study is great, I have had stacks and stacks and piles and piles of studies in my office, but

somebody has got to coordinate these studies, and I am here today to suggest to you that some thought be given in this direction and if it's the committee's desire that we make a great effort to show you why we would be most suited for this purpose, I think we would be happy to, I know we would be happy to do it.

But this gives the governors an opportunity to be heard and that in turn gives the people at home an opportunity to be heard, namely in the States involved. We are afraid, and I think I speak for the Governors of this region, and I think I speak for the people of this region, that before this whole thing is through some bureaucracy in Washington will be telling us what to do from day to day and we just kind of would like to have a piece of the action, if I may put it that way. Really that's why I came down this morning and I want to thank you for giving me the opportunity to be heard.

Senator METCALF. Governor Anderson, with your usual innovative approach you have made a splendid suggestion that hasn't been made before. I want to say that in Casper we had witnesses from South Dakota and Nebraska who were concerned about the impact of Wyoming and Montana and North Dakota coal, and impact of use of upstream water, and impact of population growth upon their States, so this problem isn't just where the coal is, the impact also is in other areas immediately adjacent thereto.

Governor ANDERSON. It's everything, Senator.

Senator METCALF. Yes. Of course, the impact is all up and down the river, but these five States are especially concerned. I am in wholehearted accord with the activities of the Old West Regional Commission. I think it's a fine going partnership. I thank you for coming down and telling us about it. Senator Hansen?

Senator HANSEN. Governor Anderson, I am certain that my Governor, Stan Hathaway, shares your enthusiasm and high regard for the ability of the Old West Regional Commission to tackle almost any problem. Certainly there is always a need for coordination. I suppose each of us all too often in trying to undertake a study and to reduce to writing the relevant information that we think such a report would deserve, get carried away and finally what happens is that the studies become totally unmanageable. No one knows better than you the importance of brevity and conciseness. I share your enthusiasm for an agency or an organization that could bring the pertinent relevant facts together and see that those persons charged with making decisions have them at their disposal. I think it is an excellent idea you have and I compliment you for it.

Governor ANDERSON. Thank you, Senator. I might say this, if I may, that since we set up the Old West Regional Commission, of course you know that we along the line died and we re-enlivened it, and it's now back in existence. My job has been, and I have enjoyed it, and still do, to sort of keep not only the people that are working within the agency with the States, but also the Governors, to understand the concept of regionalism, and it's coming about for the first time. At first really the Federal Government gave us some money and each State, not through the Governor but through the agency within the State, they wanted a piece of the money to take home and make another study, and it's been my job to keep that from happening,

and I have done a good job of that, I will tell you that. Now this is what we don't want. Now what we do want is to be of some service and if we think together we can have a great service as relates to the problems that are presented today in relation particularly to coal and all the things that go with coal, water, and the whole gamut, and I do appreciate having this opportunity and thank you very much.

Senator METCALF. Thank you very much, Forrest, for coming down and sharing your ideas with us.

Our next witness is Allen Rowland of the Northern Cheyenne Tribe. Mr. Rowland is an old friend of the committee. He has appeared before the committee several times before and we are delighted to have him before us today. Mr. Rowland.

STATEMENT OF ALLEN ROWLAND, PRESIDENT, NORTHERN CHEYENNE TRIBAL COUNCIL

Mr. ROWLAND. My name is Allen Rowland. I am the president of the Northern Cheyenne Tribal Council from Lame Deer, Mont. I consider this a distinct opportunity to be able to present testimony at this hearing on the Federal leasing program. Undoubtedly, the most crucial problem facing the Northern Cheyenne people is the question of coal and coal development. We have one of the largest coal deposits in the West and we have a number of different companies that are vitally interested in exploiting that mineral. The question of leasing is essential to all our concerns and plans.

Our position on the Federal coal leasing program is that all techniques of land use and reclamation should be considered in writing pertinent regulations. The issuance of Federal leases is a very real threat to our continued existence. The similarity of other Federal leases made on behalf of us by the Bureau of Indian Affairs is frightening. We question whose interests are being protected and served under these leases.

We feel, very strongly, that special interest groups, such as coal companies, gas and oil companies, and others, are served first and last. That the individual landowner takes a back seat position, against his will and desires, and is taken for a ride he does not care to take.

As an example of special interest groups' desires being served, I present to you a portion of the contents of our leases—these are Federal leases, concerning coal:

A. The regulations specifically call for the completion of a technical assessment before a permit or lease is entered into and that this assessment should or could be used to insure the addition of specific conditions to the lease or permit. This was never done! The omission of this was for the specific benefit of the special interest group.

B. The lease calls for a bonding rate. The U.S. Government unilaterally reduced this rate far below that of any resemblance to adequate coverage.

Thus, in these two instances, the special interest groups were considered over and above our rights.

Federal leasing must protect the Indian and the general public and not be a blind servant to special interest groups.

Federal leasing must insure full and complete reclamation. In fact, it is our stated position that valid and full-scale efforts be undertaken to conduct realistic studies on reclamation for a minimum period of 10 years. The over-publicized findings of fragmentary, unrealistic reclamation studies are misleading. Far, far too often, the tremendous expense to grow a blade of grass on a demonstration plot is prohibitive and when projected on a large scale would result in an astronomical cost.

A major factor to consider in Federal leasing is to insure that energy companies will set aside moneys to bring about the above guarantees. We would like to see not just a bond to bind the company but an escrow account, based on a per acre rate, be set up so that hard, cold cash is available to undertake restoration.

As Federal leasing and strip mining applies to us, as we see it, is no different than the Nation as a whole, in the following context:

First, we want to have complete control over strip mining activities. We want to be able to guarantee that reclamation and production are geared in such a way that the strip mining does not disturb too much soil and that reclamation or restoration efforts will begin almost simultaneously.

Secondly, we also would like to see Federal leasing regulated in designated areas in order to control population distribution. We do not want to have a high influx of non-Indians coming into our reservation and destroying our culture and our life style. If we can control population distribution, then we can assure the continued survival of our Northern Cheyenne culture and our life style. If we can control population distribution, then we can assure the continued survival of our Northern Cheyenne culture and life style.

A third factor that we would like to be considered is that the type of reclamation be geared to natural grass production. One of our major economies on the reservation is cattle; and cattle need plenty of grass in order to survive and to enable our operators to continue to make a living. In this way, if reclamation is geared in this fashion, we can continue to insure a good cattle industry.

A fourth factor is that of water reclamation and quality of water. We want to insure that the water does not become contaminated. If it does become contaminated, the coal company should be held solely responsible and must bring about the same quality of water that we had before strip mining was undertaken.

A fifth factor that we want to consider is the control of air pollution and odor pollution. We feel that with strip mining comes the plant operations which will convert the coal to other forms of energy. In this way we want to be able to have the assurance that laws will regulate this and will continue to provide us the necessary type of environment that we are accustomed to.

A sixth factor deals with a combination of interrelated concerns which deal with the placement of generating plants or gasification plants whereby they do the least damage. Also in connection with this we are concerned with the type of security that will be needed to safeguard these plants and other strip mining operations. The need to safeguard plants will become even more critical as the energy crisis increases.

Another major concern of ours is that a base study should be conducted before any strip mining activity is undertaken. In this way we will know what type of pollution and to what degree the pollution exists once the land is leased and mining is undertaken. At the present time, there is not a base study concerning the Northern Cheyenne Reservation. We feel that it is the trust responsibility of the Bureau of Indian Affairs to bring this study to completion and we would urge that this be done immediately. In this request, we are concerned about our ground water. We do not know what the ground water table is nor do we know precisely the quality and quantity of this particular life sustaining mineral. How would we know the degree of damage or contamination if we do not have information about this particular mineral at this point in time?

A very real concern that we have involves the type of plants that will be located in our area in conjunction with strip mining. If mine mouth generating plants are to be established, we feel that stringent laws should be enacted which will regulate all aspects of a mine mouth generating plant. This would include air pollution, fly ash, and any other contaminants and pollutants that would be emitted from this type of plant. We would want to have full control to regulate how many and where these plants should be located. Also in conjunction with this is the development of gasification plants. We would also want to have full control in determining where these plants are located and the number of plants to be constructed. Laws should be enacted which will stringently control gasification plants. We are fully aware that all the technology involving gasification plant operations have not been fully developed nor are they fully understood. We know that the process of gasification has not been perfected, and this is why we feel that strong laws must be enacted at this point to insure that they have little or no impact on the environment.

Also, we are vitally concerned about the method of transportation of coal should no gasification plants or mine mouth generating plants be established. We are aware that currently the slurry method and hauling by rail and/or by truck are in full use. We would want to be able to control what type of transportation method is used to assure there will be very little impact on our environment, on our people, and our reservation. One of the most crucial concerns we have is the sociological impact that coal strip mining and related development will have on our reservation. We know that there will be a large number of employees connected with any coal developing operation. We are fearful that with the high influx of non-Indians, we will begin to lose our culture and life style. We love our country, we love our land; we don't want it destroyed, uprooted or made unliveable. We, as Northern Cheyenne Indians, have a close attachment to our land which too often the white man cannot comprehend. We see it as one with us rather than something to be exploited. If strip mining is to be the method used to take out coal, then there are many things to consider. The most important item is the enactment of strong stringent laws to control and regulate strip mining. We don't want another Appalachia out in our country nor do we want Appalachias growing up all over the United States because coal companies are failing to do the kind of proper strip mining. Along with strict laws, the

laws should reflect that the top soil be set aside and replaced once reclamation and restoration efforts are undertaken. There should be provisions to do pretesting of soil composition so that the coal company will know what kinds of chemicals are in the soil and this way they can insure that the soil does not become contaminated. We fear for our young and we fear for the yet unborn who will be brought into this type of environment and this type of situation. We would want to be able to control the number of people who would come into our reservation and where they would live and how they would relate to us. We feel very strongly that this is not asking too much for the non-Indian. We are proud of our way of life even though our way of life is not fully understood by the non-Indian, we believe it is one of the most beautiful on the face of this earth. We would hope that any laws that are enacted would be sensitive to this point and be enacted accordingly.

In conclusion it is our position that strip mining on Indian lands should be used only as a last resort. And if it is used only as a last resort, then strict Federal leasing laws must be enacted to fully assure that the land will be restored and made productive once again. We firmly believe that this is a very small thing to ask for in view of the fact that the land will be damaged and scarred and disturbed and will never be the same again.

I thank you for this opportunity to present testimony before your distinguished committee. Thank you.

Senator METCALF. Thank you very much, Mr. Rowland for your statement on behalf of the Northern Cheyenne Indians. It is typical of the usual eloquent statement presented by our Indian Americans who have been environmentalists and advocates of conservation for many, many years, long before the white man arrived in this country. It's the idea of the Senate as expressed in Senate 425 that whether an individual owns land and leases it to a coal mining company, whether the States owns land and leases it to a coal mining company, or the Federal Government owns land and leases it, in West Virginia, Kentucky, southern Illinois, southeastern Montana, or northern Wyoming, they have to subscribe to certain mining regulations. We will no longer condone this idea that somebody will go in and acquire the surface and the subsurface rights and indiscriminately mine the coal, move away and leave a spoil pile. Now when we originally approached this legislation, Mr. Rowland, we included the Indians as a part of that mining regulation, so that they too would be required in their leases, in their administration of the land, to adhere to the various Federal regulations that are put in a mine bill. The Indians themselves, through the Association of American Indians and your other Indian organizations asked that we take them out so we have no provision in the Senate bill. We now have a provision in the House bill. Mr. Rowland, there isn't any law anywhere except something in the BIA that Mr. Robinson has called our attention to, and we will investigate that, that forces the Northern Cheyenne Tribe to lease any land to anybody, and we want to keep it that way. So that the Northern Cheyenne Tribe can go in and say we don't want any coal development on our reservation. So that you can say to them, as you say here, we don't want strip mining. We don't want interference with

our land, and of course that's the privilege of any private owner and you are a private owner and the privilege will be protected. Mr. Robinson earlier pointed out some alleged violations of the Code of Federal Regulations as far as the leases you have already entered into. Your first place to go is right down to your tribal council and say let's write these regulations into our lease, because it's your land and we are going to try to keep it your land.

Senator Hansen?

Senator HANSEN. I have no questions. Thank you, Mr. Chairman. And thank you, Mr. Rowland.

Senator METCALF. Thank you, Mr. Rowland, for a very persuasive and helpful statement that will help us when we have to take this matter up in Congress.

Mr. McDonough is a very experienced operator of coal industry in Montana and known to both Senator Hansen and I. He is respected as a very knowledgeable person. We are glad to have him before us.

STATEMENT OF PATRICK J. McDONOUGH

Mr. McDONOUGH. Thank you for allowing me to appear before your committee. My name is Patrick J. McDonough. I have lived in Montana all my life and have been primarily engaged in the exploration for oil and gas in the Rocky Mountains. For the past 5 years, I have been actively engaged in exploration for coal in the Powder River Basin of Montana and Wyoming.

Apparently in the hearing in Casper on Thursday, there was confusion on the part of some participants as to the position the landowners are taking in relationship to the surface ownership of lands over federally owned coal; which surface land may or may not have a federally issued coal lease on all or part of the land.

Prior to commencing this venture we did considerable legal research as to what Congress intended in the mineral reservation in the Homestead Act of 1909. After such research we came to the conclusion that it is better to buy the surface land over federally owned coal which would solve the problems that occur when the surface estate and mineral estate are separated. In nearly all cases we have made an agreement to purchase the surface land or lease the surface land with the present surface owner having the right to use the land for agriculture purposes until such time as the surface is needed for mining.

The legal research was done in the Library of Congress, Washington, D.C., and a photocopy of all the testimony before the Interior Committee is in this file.

I will not read for the record the results of our legal research which prompted us to go to this method of property acquisition. I would also like to refer to two law articles, one by Fred E. Ferguson, Jr., entitled "Severed Surface and Mineral Estates—Right to Use, Damage or Destroy the Surface to Recover Minerals," Rocky Mountain Mineral Law Institute. Another by Jim Haughey, "Memorandum Opinion," Western Coal Development Institute Manual.

In view of the above, it seems logical that the Federal Government should encourage industry and the surface owner to negotiate. There is no reason why the Federal Government should undertake to solve

individual problems. Industry has demonstrated a willingness to negotiate with the surface owner—more than 50 percent signed already—the individual problems—95 percent—can be handled by negotiation. There may be a small percentage of holdouts. A solution to this problem might be to treat it like oil and gas 85 percent force pooling.

Prior to the enactment of the Mineral Leasing Act of 1920 [41 Stat. 438], the act which governs coal leasing today, federal coal leases were obtained pursuant to the act of 1873 [17 Stat. 607], which provided that an individual could enter up to 160 acres of vacant and unreserved coal lands in the public domain. It was possible to obtain 320 and 640 acres by associating with another or others. The cost was \$10 per acre if the land was more than 15 miles from a railroad.

Under this law prior to 1907 there were frauds by the use of dummy claimants. And, apparently coal lands were being acquired under the homestead laws under a land office rule that if there was no outcropping of coal on 40 acres, even if it were known to be underlain with coal, it was officially "noncoal" in character and subject to homestead entry. It should be borne in mind also that Theodore Roosevelt was President in 1906 and that he was obsessed with (a) monopolies and (b) conservation of natural resources, not necessarily in that order.

For whatever reason, by Executive order Roosevelt's Secretary of Interior suspended all entries on the public domain, whether for coal or for homestead, on July 26, October 10, 15, 27, and 31, and November 12, 1906. The suspensions affected 64 million acres of public domain, not counting Alaska. He followed the suspensions by calling on Congress to provide for development of surface lands separately from mineral fuels, and for disposition of mineral fuels by lease. He later rescinded the order so far as existing bona fide coal applications were concerned, but homestead entries were effectively stopped.

Early in 1907 the House Committee on the Public Lands began hearings on the subject of coal lands and coal land laws. Several bills were before the committee and the committee reported out H. R. 24471. It failed to pass. Homesteading and coal entries were in limbo until 1909 when Public Law No. 323 was passed [35 Stat. 844, 40 U.S.C. sec. 81]. Public Law No. 323 provided that a homestead entryman who took up land in good faith under the homestead laws on land which was later classified as coal lands could obtain a patent with a coal reservation to the United States. And, it prevented others from prospecting the lands without consent of the owner. The significant thing is that this act permitted severance of the coal from the surface. The next Congress (the 60th) passed Public Law No. 227 [36 Stat. 583, 30 U.S.C. sec 83-85], which permitted homestead entry on public lands even after they had been classified as coal lands, with a reservation of coal to the U.S.

Even though Public law No. 323 was enacted by the 60th Congress, and Public Law No. 227 was enacted by the 61st Congress, the significant material bearing on legislative intent was found in the hearings of the House Committee on Public Lands in the 59th Congress. Many of the same Congressmen were involved during this span of time, and the committee report concerning Public Law 227 indicates an awareness of the whole problem beginning with President Roosevelt.

GENERAL CONCLUSIONS

The overwhelming impression received from the material examined is that the Executive, the Congress, and the Interior Department personnel in the executive department, contemplated that traditional coal mining methods would be used to mine the coal severed in ownership from the surface.

On the other hand there are a few references to exposed lignite, which obviously would not be mined by tunnels, shafts and rooms. However, the congressmen did not take lignite very seriously.

EXECUTIVE ATTITUDE

President Roosevelt set the tone when he sent a message to Congress after the lands had been withdrawn from entry. The pertinent parts of the message said:

I recommend to Congress the enactment of such legislation as would provide for title to and development of the surface land as separate and distinct from the right to the underlying mineral fuels . . . and the disposal of these mineral fuels under a leasing system . . . Such a leasing system is by no means an untried policy . . . In Great Britain leases are granted almost entirely by private landowners, but there, as in other countries, the surface culture and the mining operations are conducted independently of each other . . . It is gratifying to note that in these States as in foreign countries these two great industries—agriculture and mining—are conducted with the same boundaries, and the country thus attains its highest dual development without conflict of interests." [Emphasis supplied.]

GEOLOGICAL KNOWLEDGE

Apparently the lands withdrawn from entry were withdrawn without, in most cases, any concrete evidence that they were specifically coal lands. A Mr. Campbell of the Geological Survey testified that no "Borings" were made to determine the presence of coal and that the lands were declared to be coal lands on the basis of surface examination. He acknowledged that as to "some of them" it was plain to see that they were coal lands. He testified that the coal fields in the Western States were comparatively small, and recognized the existence of large lignite fields in North Dakota and Wyoming. And he testified about deeply buried coal in the center of basins, evident from outcroppings which he questioned would ever be available. He identified the Big Horn Basin as one having the coal in the center. He said he had never been down the Powder River and was not familiar with the region. He had doubts about the depth at which coal is "workable." He said the Geological Survey had records of good coals in the Tongue River region, apparently in Wyoming. He described Montana coal as similar to the brown lignite of North Dakota in the eastern part of Montana, turning black as you go west, with "fairly good coals in Montana" but "largely being worked" in 1907. This last, of course, means that the Geological Survey had no knowledge of any "fairly good coals" in Montana other than the ones being worked. Campbell observed that low grade coals would increase in value, but it is difficult to know whether he meant lignite or lower grade bituminous.

Congressman Mondell, who apparently had some practical experience as a coal prospector and mine operator, stated that "the poorest coal is generally exposed"; that "the poorer lignites are exposed so that on riding through the country on horseback you can see the exposed coal, often 20 or 30 feet thick." Whether he meant lignite in both statements is not clear. Mondell also was of the opinion that there probably was coal in the valleys which was already owned by homesteaders who acquired it in good faith.

EVIDENCE OF LEGISLATIVE INTENT

The following are items which indicate that Congress contemplated the traditional mining techniques, using shafts, tunnels, and rooms, which would leave the surface undisturbed except for ingress, egress, stockpiling, railroads, waste dumps, etc.:

Congressman Lacey observes that if the surface and subsurface ownerships were severed the homesteader would not be hurt—that the land would be undermined, except as to his buildings.

Colloquy between Congressman Lacey and Campbell of the Geological Survey, discussing ventilation plants, airshafts, and water shafts in connection with coal mines, none of which has anything to do with strip mining.

Colloquy between various Congressmen and Interior Department witnesses on the subject of leaving "pillars" to support the roof and mining "rooms."

Testimony of Montana coal mine operator Gebo about length of time necessary to "open any considerable room underground," after you have "your entries open," about "pillars" and the "block system."

Chairman Lacey refers to the coal lease being "under the ground" and tunneling through a fault.

Congressman Mondell talks of driving through faults.

Secretary of the Interior Hitchcock testifies to the need, when surface and coal ownership are severed, of reserving for the coal operator land for miners' houses, erection of shafts, switches, dumping ground, "and all that sort of thing."

Congressman Mondell talks of the need of land for "railway tracks, for houses, for various structures necessary for mining operations and refers to a "point of entry." And in a speech on the House floor on February 8, 1907, he refers to the price of coal at the "pit mouth."

Statement of the Commissioner, U.S. Land Office, that surface occupation of lands "would probably be interfered with by mining operations." (It seems to me that if strip mining were contemplated the Commissioner would have used stronger language, such as: "the surface will be destroyed.")

Majority Committee Report on H.R. 13907 (which became Public Law No. 227) in which the need for dual use of the public domain for agriculture and coal development is recognized, and which indicates that reservation of coal should be made only on lands where coal is known to exist, or as to which it might be ascertained with reasonable certainty.

Separate report of Congressman Craig to the Committee Report on H.R. 13907 refers to damage to surface improvements by mining under or near them. (Could be interpreted as contemplating strip mining.) Craig also suggests that homesteaders will only enter lands which they think have no coal, or minimum coal, to avoid surface damage. (This could indicate an awareness of extensive potential surface damage.)

Colloquy between Congressman Martin and Byrd in which Martin informs Byrd that the land could be used for agricultural purposes after the coal removed.

Statement of Congressman Martin that the proposed severance of surface and coal is a radical departure.

Statement of Congressman Mondell that inferior coal, and coal in limited quantities, are "never likely to be worked."

Statement of Gebo which could be interpreted to imply that coal mining would render the surface useless. However, it appears to me that he is saying that the coal operator, when he has mined the coal, has no more interest in the property.

CONCLUSIONS

1. The geological information just prior to 1910 indicates a disregard for the value of exposed lignite.

2. The geological information just prior to 1910 was that there were probable coal beds throughout the area, the exact location, depth, and extent of which were not known, but which would be mined by the traditional shaft, tunnel and room method.

3. There is no evidence that anyone considered the possibility of strip mining in 1910 except possibly as to the exposed lignite which, though classified, was considered unimportant.

4. The Congress, based on the committee hearings and reports, contemplated that the reserved coal would be mined by the traditional shaft, tunnel and room method, with incidental damage to the surface for ingress and egress, shafts, dumps, rails, etc.

Senator METCALF. Thank you, Mr. McDonough. Now you have gone out and entered into leases with landowners in Montana, maybe other States?

Mr. McDONOUGH. Mainly in Wyoming.

Senator METCALF. For land that has this divided ownership. You have been lessee for the subsurface rights, and in negotiation with the surface owner, do you pay about the surface value of the land, the grazing value?

Mr. McDONOUGH. No, we pay much more than the agricultural value of the land.

Senator METCALF. Would you give me some examples of how much an acre you give as bonus for permission for access?

Mr. McDONOUGH. Well, I think that's privileged between the landowner and I wouldn't want to say that, but like I say, it's considerably more than the agricultural value of the land.

Senator METCALF. Now, do you prefer to buy the land or just to lease it?

Mr. McDONOUGH. We prefer to buy it and lease it back to the landowner and the normal rule is to lease it back for the amount of taxes that are on the land.

Senator METCALF. And then what do you do with the land allegedly reclaimed to the same productivity as before, after you are through with it as a coal operation?

Mr. McDONOUGH. Well, in my opinion after we are through with it, and with the money we are going to spend for reclamation the land will be much much more productive and will be used for agricultural purposes or whatever at that time it can be used for.

Senator METCALF. And will you use it for agricultural purposes with a corporation that you set up or will you sell it back to the existing landowner?

Mr. McDONOUGH. Some of the contracts read that the existing landowner, his successors or heirs have a right to purchase it back at a price.

Senator METCALF. They have a prior right?

Mr. McDONOUGH. Right.

Senator METCALF. And then you may just sell it to others also for agricultural or grazing purposes?

Mr. McDONOUGH. Right.

Senator METCALF. Senator Hansen?

Senator HANSEN. Mr. McDonough, you say that you believe the Federal Government should encourage industry and the surface owner to negotiate in that the Federal Government shouldn't undertake to solve all individual problems, and then you say industry has demonstrated a willingness to negotiate with the surface owner, pointing out that more than 50 percent have signed already, and that the individual problems, 95 percent can be handled by negotiation. Then you say there may be a small percentage of holdouts. A solution to this problem might be to treat it like oil and gas 80 percent force pooling. For my benefit and for the benefit of others here could you detail what do you mean by that? Let's assume that I live in an area and I have 20 neighbors and we have varying tracts, varying sizes of ranches, but I am the only one who doesn't want to enter into a contract at the same figure I suppose, or roughly the same figure as the others do. How would this proposal you suggest operate with me?

Mr. McDONOUGH. You would be forced to go along with the rest of the landowners. If you got 80 percent for the landowners, I am using oil and gas and the State of Montana law, in a given oil field if you have 80 percent of the landowners go along with your deal then the 20 has to go along.

Senator HANSEN. And the terms would be the same to everyone?

Mr. McDONOUGH. The terms would be the same to everyone.

Senator HANSEN. Thank you.

Senator METCALF. Mr. McDonough, you heard the testimony down at Casper and you heard Mr. Wold's proposal that there be a sharing with the surface owner, 2 percent royalty or some similar suggestion. There have been several suggestions, would you favor that?

Mr. McDONOUGH. Yes. I would like to qualify that. In many of our private contracts we made with landowners we agreed that we

will pay them a certain percentage of overriding royalty on Federally owned coal.

Senator METCALF. In addition to the Federal royalty?

Mr. McDONOUGH. Right. And I think that it would be a real can of worms if it was by Federal statute that the surface owner was to get whatever, because maybe the original patentee and his heirs should be entitled to it, so I think there may be some legal problems. I think it should all be handled by private negotiations.

Senator METCALF. Now you are familiar with the Wyoming law where there is an arbitration procedure established?

Mr. McDONOUGH. Yes.

Senator METCALF. Do you think that would work?

Mr. McDONOUGH. I think the ultimate result of that might be years of litigation in courts.

Senator METCALF. In spite of the fact of arbitration there would be necessary appeal to the courts and legal process?

Mr. McDONOUGH. Right.

Senator METCALF. And you feel that that would lead to delay and years of litigation?

Mr. McDONOUGH. Yes.

Senator METCALF. Well than you very much. I think you have been very helpful and we are certainly knowledgeable about your experience.

The next witnesses are from the Tri-County Rancher's Association.

ANNE MCKINNEY. Due to the fact that there are only a few Tri-County members here, could we testify individually?

Senator METCALF. Surely, if you want to. Who is going to be first?

ANNE MCKINNEY. Anne McKinney.

Senator METCALF. Fine, glad to have you.

STATEMENT OF ANNE MCKINNEY, TRI-COUNTY RANCHERS' ASSOCIATION

ANNE MCKINNEY. Senator Hansen and Senator Metcalf, I am pleased to have the opportunity to submit my testimony to you today. My name is Anne McKinney. I am testifying for the Tri-County Ranchers' Association. We are a group of ranchers who have formed because of our growing concern for the agricultural economy of eastern Montana. We feel that coal development would be a threat to our ranching operations. Our area is under intensive pressure for leasing. In response, the BLM has done a resource study (the Birney-Decker Study) and come up with the recommendation to open up six new areas to large scale strip mining.

All the Federal lease recommendations fit closely with lease applications. It frankly looks as though these recommendations may have been made because of speculator or industry pressure. In talking to the Montana BLM office, we found that 64 percent of the leases applied for in our area are from speculators. There are tremendous profits to be made from speculation: for example, one series of lease transferrals in Wyoming netted the two speculators involved 15 cents a ton royalty. We see no reason why the Federal Government should commit coal because of private nonproductive profit, or simple

industry pressure—with no proof that more coal is really needed by the country.

We have looked into how much coal Federal agencies have already leased in our region and have discovered the total for Montana, Wyoming, and North Dakota is 333,413 acres. This acreage is broken down as follows:

	<i>Acres</i>
Montana BLM.....	36, 232
Wyoming BLM.....	203, 615
North Dakota BLM.....	16, 407
Montana BLM.....	¹ 77, 159

¹ Crow and Cheyenne Reservations.

In doing research for this testimony, we contacted the Wyoming and North Dakota BLM offices. They do not know how much tonnage they have leased in southern Wyoming or North Dakota. The BIA office said they knew, but would not tell us how much they had leased in tonnage values. Tonnage information is unavailable for 45 percent of the acreage leased. The other 55 percent of the acreage (183,167 acres) is estimated to contain 14.6-billion tons of coal.

There appears to us to be enough Federal coal already leased in the three counties involved in the Birney-Decker study. Most of the existing BLM leases are in minable blocks around Colstrip and Decker. The BLM estimates they have leased 1.7-billion tons of strippable coal in Montana. If these 1.7-billion tons were mined alone over the next 15 years, we would be contributing almost twice as much strip-mined coal as Kentucky—the United States' largest producer of strip-mined coal at 62-million tons a year. In our counties, large railroad tracts and 77,159 acres of Indian coal are also committed to development.

In the press for leasing, the agricultural importance of our region seems to be ignored. The BLM's Birney-Decker study in our area is being called a "one of its kind" in the depth of its information. But nowhere even in this study is the impact of coal development on our business, the ranching industry, suitably discussed. We don't think the Federal Government understands the ranching industry. A rancher's assets are his hayland, rangeland, and water. If development takes one or more of these assets, the ranch cannot function. The only way, the impact of development on agriculture can be predicted is by individual interviews where the Government tells the rancher how much of his land and water is going to be affected. Then let the rancher tell the Federal Government if he will be able to operate under these conditions. Leasing policy must have more respect for the agricultural value of the region.

It is my organizations' position that Federal coal leasing should be strictly limited to what can be proved is necessary to help meet national energy needs. We do not believe this can be proved as there are 14.6-billion tons of federally administered coal known leased in our three State region and unknown more billions in the 150-thousand-odd acres for which tonnage figures are not obtainable. Therefore, in February, the tricounty ranchers adopted a resolution supporting a continued Federal moratorium on the leasing of Federal coal. Only if the Federal Government can prove that more coal is

needed beyond the Federal, Indian, State, railroad, and other private coal already available should any more leasing be allowed. We feel that the present informal leasing moratorium should be extended 5 years by legislation and reviewed at that time. The Rosebud County commissioners, the Big Horn County commissioners, and the Sheridan County Wyoming commissioners all support our position. I am submitting their resolutions to this effect.

In further support of a continued moratorium is that our counties have more coal development than they can cope with right now. Rosebud County is suffering because of the influx of new people. Our county taxes have gone up. The schools in Forsyth and Colstrip must be enlarged; new teachers hired; new teacherages required; the county highways must be maintained because of heavy industrial traffic; the county needs more police protection—which means more policemen and more police cars—and the county health nurse needs more help. Yet it is not the mining companies or their employees that are expected to foot the bill for these additional services; it is the county taxpayers. Colstrip is being heavily subsidized by Federal funds. We find this unfair; no one ever subsidized long-term residents. We feel that until we can make the development pay for itself, we do not want to see more land committed to development.

The original reason for the informal leasing moratorium was that reclamation could not be guaranteed. We do not feel that the Government is in any better position now than it was then to guarantee reclamation. Vegetative growth has been artificially maintained with heavy applications of fertilizer and water. But nowhere in Montana have they established an acceptable mix of self-sustaining vegetation capable of withstanding normal grazing pressure. To us, the guarantee of reclamation has to be the carrying capacity of reclaimed land over a period of time. Until this guarantee can become a reality, you must not commit any more Federal coal.

Of the existing 36,232 acres leased in Montana, as of January 1, 1974, only .02 percent of the tonnage available has been developed. We feel that the coal industry should develop what it has already leased before it is allowed to lease any more Federal coal.

In a discussion with Lieutenant Governor Christiansen last week, we discovered that western coal is selling much cheaper than eastern coal or any other fuel for the same amount of energy. It looks to us as though the big push from the energy companies is to buy coal while it is still cheap. One these companies control the coal, they will take over Montana. Right now, the administration is deciding how much western coal should be leased. We feel this is dangerous with our present administration so tied to the energy companies. We feel that Congress should demand that it be proved—to its satisfaction—that more coal is needed. Don't you think, Senator Metcalf, that control of the Federal role in western coal development should be in the hand of Congress?

In closing, I would like to thank you for your support of the Mansfield amendment and to urge you to continue to press for its passage.

Senator METCALF. Thank you very much, Mrs. McKinney. And I am delighted to have the ranch wife in here and have you represent

a group of ranchers. Is the land that you ranch on patented under a grazing homestead or do you have some private minerals.

Mrs. McKINNEY. Yes, part of it is private.

Senator METCALF. Some of it you own both the surface and the subsurface rights?

Mrs. McKINNEY. Yes.

Senator METCALF. Is there coal underneath?

Mrs. McKINNEY. Yes, there is.

Senator METCALF. And is the coal on the land that your colleagues who you also represent in this group of ranchers, do they have that same sort of situation?

Mrs. McKINNEY. Yes, they all have coal.

Senator METCALF. Do you want to sell that coal?

Mrs. McKINNEY. No, we don't.

Senator METCALF. You don't want to sell it for any price?

Mrs. McKINNEY. No.

Senator METCALF. If Mr. McDonough comes around and offers you substantial price above the grazing value of the land you don't want to sell?

Mrs. McKINNEY. We don't want to sell. I have already talked to Mr. McDonough.

Senator METCALF. Please, this isn't a ballgame, and let's not have a cheering section. Your position is whether you own the land or whether the Federal Government owns the land, or whether it's BLM land, whether it's Forest Service land, we have enough coal under lease at the present time to take care of our present energy requirements and we should have a moratorium on leasing?

Mrs. McKINNEY. That's right.

Senator METCALF. Thank you. Senator Hansen?

Senator HANSEN. I have no questions of Mrs. McKinney.

Senator METCALF. We're pleased now to have Carolyn Alderson of the Tri-County Ranchers' Association. Just go right ahead with your testimony.

STATEMENT OF CAROLYN ALDERSON, BONES BROTHERS RANCH, BIRNEY, MONT.

Mrs. ALDERSON. Senator Metcalf, I would like to begin by thanking you for holding this hearing here in Billings. I am Mrs. Irving Alderson, Jr. I live at Birney, Mont. I am here today representing myself, although I am the secretary of the Northern Plains Resource Council. So many of the decisions which profoundly affect our future, are made in Washington, D.C. by people who are thoroughly insulated against, and isolated from, the people and their representative government. This is a healthy step away from that and we welcome it. We are hoping that these hearings will result in Congress resuming the reins of control for Federal decisions of this kind. We also thank you and Senator Mansfield for taking and reiterating that responsibility so courageously with the Mansfield amendment to Senate bill 425.

There are several reasons why it is imperative that the Federal Government refrain from leasing any more coal in these western

States. There are not any sound reasons to lease any more at this time.

The reasons not to lease are as follows and I used the Decker-Birney study as my frame of reference, since it is the document with which I am most familiar. The BLM is proud of it and justifiably so or it is the only step towards responsible planning that has been made so far, it is still woefully inadequate.

1. The Decker-Birney study bases recommendations for lands to lease and to withhold from leasing entirely upon the strippable reserves in the unit and upon what strip mining would do to the other resources in the unit. The deep coal reserves are not even considered. Our question is, how much coal will in fact, be wasted because strip mining precludes deep mining or the developing technology of in-situ gasification? There are many more billions of tons of deep coal in that area than there are strippable.

2. The original rationale for the de facto moratorium on leasing was that reclamation was not yet proven. That rationale still holds.

3. There is still as you know no Federal legislation in regard to strip mining and there are many unsolved questions of a legal nature in regard to surface and severed mineral rights. The hobnailed book approach to rights is unacceptable.

4. It is well known that, if leased, most western coal will be converted to electricity or synthetic fuels at the minesites rather than exported. There are many reasons for this, mostly economic ones. The carrying capacity of the land will not support a large, sudden influx of people. Recent events associated with development in Rosebud County, Mont. alone give us cause to believe that it is not within the capacity of State or local government, financially or logistically to cope with the demands for services and facilities these multitudes will require. What will have to happen then, is that the Federal Government will have to assume the financial and governmental responsibility for all of this area. Therefore, what is at stake, is not merely the abridged and aborted rights of a few cowboys and Indians, insignificant as that may seem to some, but rather the removal forever, of the possibility for people by the tens of thousand, to govern themselves through State and local channels.

5. There are several documents which clearly demonstrate that there is not enough water in the rivers to accommodate both the energy industry and agriculture.

6. In the face of a national and global food shortage, and a possible drought in this part of the country, it is insanity to cannibalize the Nation's breadbasket to produce energy, over half of which will be wasted in production, generation, transmission and transportation.

7. Enough coal has already been leased in the three states of Wyoming, Montana, and North Dakota to accommodate the short term energy requirements and our share of the energy production pictures.

8. When confronted with all of the above reasons for not leasing any more coal at this time, we are told that the Nation needs the energy. Of course, the Nation needs energy. Perhaps the demand growth projections are high.

This we believe Congress should determine on its own, independently of the American Petroleum Institute and the Edison Electric

Institute. The fact remains that there are billions of tons of deep coal, both high and low sulphur, in the eastern part of the country where the energy is the most needed. The exorbitant cost to the American taxpayer of the move west could be prevented by developing that resource.

The final straw in all of this, even with people who agree with us that the leasing and development of western coal is unwise and unnecessary, is the tired old saw, that it is "inevitable". This has a way of becoming a self-fulfilling prophecy and is the least defensible argument of all. Nothing is inevitable unless it is made to be. This could be put to rest by congressional recognition in the form of policy such as the Mansfield amendment, that each region of the country has a special contribution to make to the national economy and its wellbeing. The contribution of this region is the production of food and also of recreation.

It is our observation that the Federal Energy Office is dictated to by the energy industry. Sending the wolf to guard the sheep with such programs as EMARS and NGPRP isn't helping. Those programs begin with the assumption that this area will in fact, become the Nation's boilerroom. Unless policy decisions are made by Congress rather than the executive branch, the destruction of the northern Great Plains will indeed be inevitable.

Senator METCALF. Thank you, Mrs. Alderson, for a very splendid statement. You were here and heard the questions I propounded to Mrs. McKinney and in order to save time I wonder if you for the record would tell me what your response would be; would they be the same to that as she gave to my questions?

Mrs. ALDERSON. More or less. As the Birney-Decker study outlines, there are the coal reserves under our particular ranch, are not in the economic superior reserves, but the head of our creek is and the head of Hangman's Creek is scheduled for leasing and given the uncertainties and vagaries of water situation we are entirely dependent upon that creek for our winter stock watering and we wouldn't sell.

Senator METCALF. And if adjacent landowners did sell it could have a substantial affect upon your ranching operation?

Mrs. ALDERSON. Yes, sir.

Senator METCALF. As far as your water is concerned?

Mrs. ALDERSON. Well, as far as our water and our fence wouldn't keep out much air pollution either.

Senator METCALF. It wouldn't keep out a bulldozer.

Mrs. ALDERSON. No, and our population as scheduled would probably go up and down the creeks, and we are fairly close to the existing community of Birney and I don't think we could bear the pressures or the taxes.

Senator METCALF. Well, thank you very much, Mrs. Alderson. Senator Hansen?

Senator HANSEN. Let me compliment you, Mrs. Alderson, on a very eloquent statement. I know as you do, that others in the audience may not know, that your brother, Senator Malcolm Wallop, of Sheridan County, testified in Casper 2 days ago. We found him to be a very knowledgeable, eloquent witness, just as you are.

I do have a couple of questions. One is, Mr. McDonough, I think implied, if I understood him correctly, that insofar as his negotiations were concerned that about 50 percent of the people whom he had contacted exhibited a willingness to sell their places at a price, he didn't say how much or at least I didn't understand him to say how much. Would you say that your attitude is typical of most of the ranchers in Montana, I mean maybe not yours, so much as was true with the previous witness, that she would not sell at any price.

Mrs. ALDERSON. I think it's true of a great many and I am not prepared to give percentages. I think it's true of most people as they find out more and more information that some of those agreements to lease were based on some promises that there would be no energy conversion facility built here, but I don't know you can reclaim the land with a gasification plant setting on it.

Senator HANSEN. One of the witnesses in Casper 2 days ago concern over quite an obvious attitude or willingness on the part of ranchers to sell if the price got to a certain figure. That particular witness felt that some change in royalty arrangements was indicated or we might anticipate that very sizable number of ranchers under whose lands coal exist would be selling out. I gather that that is not the situation as you view it in your particular area of Montana.

Mrs. ALDERSON. I think much of the attitudes in Montana are very different from some of the attitudes in Wyoming, and I think that great many of us are thinking in terms of we have had the ranches, they have been in the family for a long time, and we would like to have something in terms of land, value of money is fluctuating, value of the dollar is decreasing every day, and land is a concrete value which most of us would like to have.

Senator HANSEN. There were some witnesses in Casper who expressed the opinion that the revenue they could receive from entering into a contractual relationship with an energy company would permit them to wind up later with ranches far more productive than they would be able to do absent that sort of arrangement. Is there any feeling in this State that too might be true.

Mrs. ALDERSON. It depends. It's a very large area that you are talking about with coal under it. If we are all looking for ranches it's going to get a little tight some place.

Mr. HANSEN. I didn't mean to be unfair, but I do recognize that you are very eloquent spokeswoman and I am certain because of your wide visibility I just thought you would be as apt to know as anyone. Now with respect to the Mansfield amendment, would it be your feeling that if the owner of the surface happened also to be the lessee of the minerals that he should not be permitted to develop those minerals?

Mrs. ALDERSON. Sir, I cannot believe that it was ever the intent of Congress to put into the hands of a very few people a very large amount of minerals. It is my impression, and I think it will be backed up by a witness from the Tri-County Association, that will come later, that it was the intent of Congress in 1910 in fact to withhold the coal for the purposes of preventing this sort of large-scale ownership of the resource by a few people and the people who have been called lessee. If they intend to mine it, they still don't own

it, it still belongs to the Federal Government is my impression so if the surface is privately owned the coal is owned by the Federal Government, that is a chance that they have taken.

Senator HANSEN. That the Federal Government has taken?

Mrs. ALDERSON. Yes.

Senator HANSEN. I have one final question.

Mrs. ALDERSON. It doesn't preclude deep mining, either.

Senator HANSEN. Yes, I recognize that. Your point No. 6 is that in the face of a national and global food shortage, and a possible drought in this part of the country, it is insanity to cannibalize the Nation's breadbasket to produce energy, over half of which will be waster in production, generation, transmission, and transportation. I think in yesterday's paper or perhaps the issue the day before there was comment on the drought in India and the imminence of rather widespread starvation there. I gathered from the story I read that one of the major problems was not so much the absence of sufficient agriculture land but rather the unavailability of energy. Because the cost of energy had increased, the typical Indian was not able to acquire the fuel necessary to continue the sort of operation or to get on with the kind of operation necessary to produce the food that was needed. And we know in this country that for each man hour of labor we put in on farms and ranches, we consume 1.2 gallons of fuel. I believe those are the figures, at least I know the gallons of fuel are greater in terms of consumption than the man hour contribution by labor. Would you think that we had sufficient energy in this country today and in the next say 4 or 5 years without any surface coal mining going on to provide the energy necessary for us to maintain an acceptable standard of living?

Mrs. ALDERSON. It is my belief, from the various things that I have read, Senator Hansen, that with the deep coal that there is that we would, and also with the somewhat decentralization and the use of such things that have been termed exotic such as wind and solar energy for individual buildings and home heating and things like that, that are economically feasible and possible right now, but also one of the things in terms of a drought situation is not only the noninability of energy but it's the water. The availability of water. Drought means absence of water. And we have, as my husband says, in the drought in the 1930's or in the 1920's people could make kind of a mistake with a walking plow in terms of turning over land that would be blown away. Well, they have an opportunity to make a real mistake now with some large tractors they have and number of acreage that stands a chance of being blown away.

Senator METCALF. Thank you.

Mrs. ALDERSON. Thank you very much.

Senator METCALF. Our next witness is Mrs. E. M. Daniels. Mrs. Daniels.

STATEMENT OF MRS. E. M. DANIELS, BIRNEY, MONT.

Mrs. DANIELS. Thank you, gentlemen, for taking the time to come to Montana, to listen, and to allow us to more fully participate in our Government.

These questions seem to be unanswered:

1. Why the rush to obligate any more Federal coal, until all possible aspects of development have been explored, such as extensive ground water studies? Why do nearly all the current studies have a deadline of about December first? Have leasing areas been in reality decided upon, and these hearings just another governmental exercise? Every statement made by responsible Government agencies, reveal how much they don't know about the effects of coal development. Why has there been no commitment to, or authorization of studies for deep mining, when nearly 92 percent of Montana coal is only deep minable? The obvious conclusion is, the mining profits-return to capital holders outside the area, who are far removed from the hazards and results of living with a coal exploitation economy. If the Governor of Montana asked, and the legislature saw fit to vote a 3-year moratorium on the appropriation of water, surely this is indicative of the need for further evaluation of all the effects from leasing more coal lands.

2. We are lead to believe through publicity and rhetoric, little coal is being stripped from this area, or that the Federal Government had given no leases on Federal coal. When in fact, 235,000 acres of federally-owned coal lands are under lease in Montana and adjacent States. The tonnage now is approximately 20 million ton a year from the three mines in this area alone. We are at present, making a great contribution toward the energy problem.

3. Hearing and reading industry arguments, one gets the overall impression that the rush to Federal leasing, is not in the national interest or need, but the competitive stresses among industry themselves.

4. How can further leasing of Federal coal be considered, when the important issue of land ownership, the private surface, over Government-owned coal, has not been legally defined? Could it be that industry fears the outcome of such a definition? Senator Metcalf and Senator Hansen and Lieutenant Governor Christiansen, I thought it was most revealing how you spoke of the problems of checkerboard land patterns and the areas that are compatible to mining or not compatible to mining and the problems of reclamation, and I should imagine that the Mansfield amendment would not compound all of these problems, but would solve them, or at least eliminate a lot of them. And I shall tell you why I think they would. When the patent to our ranch was issued in 1912, it states the Government retains the coal and the right to extract it. However, the method of extraction was not defined, because strip mining was not yet in existence. Therefore, it is the belief of many in the legal profession, that the intent of Congress in the retention of the coal, was to protect the surface owner. That is what Carolyn was referring to.

This belief is partly based on the following: As a reference I use "U.S. Congressional Committee 61st Congress, 3d Session, *Investigation Into the Interior Department and Forest Bureau*, Senate Document No. 719, 1910-11, and commonly referred to the the "Glavis-Ballinger Dispute." I shall quote from this document:

As with other public lands, including homestead lands, individual coal land claims of limited size were opened to purchase at the nominal fee of \$10 an acre. In an attempt to prevent appropriation by corporate groups, the laws on the sale of public lands provided that each claimant take up the land in his own interest for his own, and specifically forbid consolidation of claims before

entry. This type of provision had been designed to provide individual ranches and homes in the western States.

Now, attempts were made by the Morgan-Guggenheim interests, which already had acquired vast copper lands in Alaska, to further acquire immense coal lands there too. President Theodore Roosevelt, therefore issued on November 12, 1906, an executive proclamation, withdrawing the Alaskan coal land from further purchase. The ensuing investigation as to the validity of the previous claims resulted in the aforementioned dispute. However, this resulted in Congress passing legislation that title to the land be given for the surface only, and the Federal Government merely leasing rights to the surface wealth.

The Mansfield amendment to the present Senate bill is, in reality, reaffirming this protection of the surface owner, therefore freeing the Government of being a party to the exploitation of the surface owner. Remember, this amendment does not preclude the extraction of the coal, only its being strip mined.

In summation, I believe further and thoughtful examination should be made into the congressional intent of Government retention of coal under private surface, and I ask you to please re-examine your true functions as representatives of responsible government. If a need for this coal has been established, and you allow 1 more acre to be leased to be strip mined, rather than deep mined, your role has become that of a merchant peddling a commodity—not that of guardian and custodian of the lands owned by all. You have needlessly become advocate, planner, and therefore, destroyed of these lands.

Senator METCALF. Thank you very much, Mrs. Daniels for your statement. You have contributed a historical footnote to this discussion. I certainly appreciate the research that you have done. You have presented to us. You have made a significant contribution to our hearing. Senator Hansen?

Senator HANSEN. I have just one observation and I make the point only in order that it might be helpful. I can't speak with respect to the situation in Montana, but I did raise the question of how the Mansfield amendment impedes the development of coal where there is a checkerboard ownership of land and you referred to the exchange between Senator Metcalf, Governor Christiansen, and myself. In Wyoming, of course we have many kinds of ownership. Where lands were homesteaded before the mineral reservation, the minerals and the surface are both a part of the fee simple title and are held by one individual unless of course there has been a separation of them by sale. In regard to the railroad grant lands that cross Wyoming, we have two major areas which are traversed by now the Burlington Northern and the Union Pacific. To encourage development, every other section was given in a strip 10 miles wide on either side of the track, the minerals went with the surface in that situation. Now since that time much of the between sections has been homesteaded so that there is a separation on every other section within that.

Mrs. DANIELS. You mean the railroad retaining the coal?

Mr. HANSEN. Yes.

Mrs. DANIELS. Yes, I see.

Mr. HANSEN. As to the lands in between, the sections have been homesteaded, and in this 20-mile-wide checkerboard area we find that there is a separation between the surface and the minerals. This typifies the situation to which I referred when I asked Lieutenant Governor Christiansen if the Mansfield amendment as it is now written would not impede coal development.

Mrs. DANIELS. I though you were referring to the federally-owned coal. This is what we refer to usually as checkerboarding.

Senator HANSEN. I am. I am referring to the federally-owned coal under every other section of those lands that were homesteaded after the railroad grant lands had been conveyed to the railroads. Do I make myself clear?

Mrs. DANIELS. Yes, but apparently I am not making myself clear, but what I am saying is you were talking about in terms of what lands should be reclaimed and you were talking about the hazards of this checkerboard pattern and I am saying that if it were deep mined, if there were no strip-mining of Federal coal under private surface you wouldn't have the problem, you would be eliminating one of the problems.

Senator HANSEN. Well, that of course raises another issue.

Mrs. DANIELS. It doesn't eliminate them all any more than deep mining being a panacea, but as far as that goes there are problems there, too. My belief is that there would be less problems.

Senator HANSEN. I'd just like to say this: that the strippable areas that are under active development or for which there is an active interest at the present time are coal beds that maybe go down not below 200 or 300 feet. I think it could fairly be said that in the Gillette area, in the Hanna area, in the Big Horn area there really isn't any practical way to underground mine coal beds with for example only 27 feet of overburden.

Mrs. DANIELS. Well, I am sure. I am obviously not an authority but there are also surely ways, now underground gasification has not been developed, surely there are enough millions of tons of coal that can be underground mined, plus what they already have leased and allowed to strip mine until this coal, if it is so important, underground gasification, that's in the future yet.

Senator HANSEN. Please don't misunderstand me. I wasn't trying to argue with you.

Mrs. DANIELS. I know.

Senator HANSEN. I thought maybe I hadn't made my point clear when Governor Christiansen was here.

Mrs. DANIELS. I just heard about the last 10 minutes of that.

Senator HANSEN. Thank you very much.

Senator METCALF. Thank you very much.

And now we have Mrs. Art Hayes, Jr. Mrs. Hayes, we are pleased to have you with us.

STATEMENT OF MRS. ART HAYES, JR., BIRNEY, MONT.

Mrs. HAYES. I am Mrs Art Hayes. Jr. from Birney, Mont. I am here to ask you for a continuation of the Federal coal leasing moratorium as the stability of this region's agricultural economy and

the Nation's deep-mining industry is at stake. If the Federal coal is leased now from strip mining, then the administering agencies will be instrumental in initiating the shift of coal production from the deep mines of the East to the strip mines of the West. They will have to rationalize as necessary and good the abandonment of the deep mines of Appalachia and the destruction of the agricultural productivity of the Northern Plains.

There are billions of tons of low-sulfur coal in the Eastern States, closer to market than western coals and higher in BTU's. But still the coal companies eye the strippable reserves of the West and demand their release so that energy producers can go about their business of relieving the "energy crisis." Are only our strippable western coal reserves needed? Because their extraction is cheaper? Or is it necessary that they remain cheap in order to generate demand? Every strip mine opened in the West shall forecast the closing of deep mines in the East, for deep mining cannot compete economically with strip mining and industry by necessity will seek out an energy supply that is least expensive.

When the shift to the West is committed, the strippable reserves of the Fort Union Basin shall match all the coal once produced in Appalachia. Production can be matched ton for ton with less jobs offered, with expediency and above all, cheaper. But, how many pounds of beef can Appalachia put on this Nation's supermarket shelves? How many bushels of grain will come flowing from Kentucky's cornucopia? When the Northern Plains become this Nation's producer of energy and Appalachia is left with a still more depressed economy, where will this Nation look to find the agricultural products now produced by these plains and valleys of North Dakota, Montana, and Wyoming? Are the reclaimed lands of Appalachia going to make up for the loss of sheep, cattle, corn, wheat, sugar beets, and alfalfa hay? Are the unemployed miners of Kentucky and West Virginia going to turn into farmers and ranchers? Would they, in 5 or even 10 years, be able to acquire the lands, knowledge, and equipment needed to provide this Nation with pounds of meat and bushels of grain?

This country is faced with not only an energy shortage but also an impending food shortage. While the United States is fortunate to have vast deep reserves of fossil fuels, its productive land base is finite, and ever shrinking as it makes way to provide room for a growing population which must also be fed. If coal is required to ease the energy crunch then the emphasis must be on deep mining. That is where the massive reserves this country needs are located. Deep mining could be stepped up significantly without jeopardizing the agricultural economy of the West or the jobs of eastern miners.

The energy produced from deep-mined coal will not be so inexpensive, but it will not be prohibitive either. At least people will have the option of turning off that energy "necessity." But when the price of food continues to soar this Nation will need more than "food czars" to appease a hungry public. There will be no vast land reserves to fall back upon.

Food, energy, and jobs are needed by all of us. Only Congress, elected by and answerable to all of us, is capable of fairly representing all of us. This administration, and its supporting agencies, in

their single-minded pursuit of energy production, energy independence, and energy exportation have recognized neither our basic needs, nor the suggestions of our elected representatives pertaining to these needs.

Our Senator Mansfield, with his amendment to the Senate Surface Mining and Reclamation Act of 1973, has introduced the best incentive possible for the re-establishment of deep mining. I would like to thank Senator Metcalf and the other Senate Members who have had the foresight to pass this amendment for it alone will insure the productivity of the land and the maintenance of the deep mines.

Senator METCALF. Thank you very much for a most persuasive statement Mrs. Hayes. You and the other group from the Tri-County Ranchers Association have approached this from the different point of view and each of you have given us a separate statement. I congratulate you for the organization you have put together and the way that you have presented your testimony.

Senator HANSEN. No questions, Mr. Chairman, but I too would like to join you in congratulating Mrs. Hayes and her colleagues for being very effective, persuasive witnesses for the industry. I am in the cow business myself, I had to go moonlighting to keep our operation going but nevertheless we need more people like you for the business.

Senator METCALF. Our next witness is Mr. D. L. Harding.

Mrs. DANIELS. Mr. Harding has presented a written statement for the record.

[The prepared statement of Mr. Harding follows:]

STATEMENT OF DARRELL HARDING, SOUTH SUNDAY CREEK

I am Darrell Harding, a rancher on South Sunday Creek.

I am very definitely opposed to any planned development that is being considered on either North and/or South Sunday Creeks. I will work and help in anyway possible to stop any planned dam on this creek.

We live on the banks of South Sunday Creek and our winter pasture and buildings would be completely under water if proposed dam were permitted to be built.

This is a small (300 cow unit) family ranch which has been built up and improved by our own hard work. We are not wealthy but make a comfortable living and are very happy with our way of life. We have two boys who are very interested in ranching and are learning all they can as they become old enough with future plans of owning the ranch themselves in future years.

We are not the least bit interested in the "get rich idea" of the coal development in this country at all. We have no intentions of leasing any of our lands for local exploration. We *do not want* any of the *riffraff* that has come with the coal development in and around Colstrip, Montana.

We enjoy and really know how lucky and privileged we are to live in this clean country air. Our little hometown is a very "friendly, know everybody town" which we consider a privilege to have.

We have both, my wife and me, having been born and raised in this country and want to keep the good life for our two boys to grow up in.

We are talking to people all over trying to get them to see what a ruination of good cattle land this coal and coal industry can and will be to our country. We know through common sense that once the great country of ours is disturbed that it can *never ever* be put back the way it was. I do not believe all the promises or money these coal companies make or offer could ever change my mind and I hope I can get the majority of our people in and around this area to fight the coal and big industries with us.

I will be glad to help any I can in getting any and all of these proposed dams throughout eastern Montana *stopped*.

Thank you.

Senator METCALF. Mr. Don Patterson of the Center for Interdisciplinary Studies of the Montana State University has also submitted a written statement for the record and that will be inserted in the record at this time.

[The prepared statement of Mr. Patterson follows:]

STATEMENT OF DONALD PATTERSON, RESEARCH ASSOCIATE, CENTER FOR
INTERDISCIPLINARY STUDIES, MONTANA STATE UNIVERSITY

Originally, when the opportunity was presented to appear before this subcommittee, I expected to be able to testify concerning findings of a study to assess social, municipal, and health service needs in six counties in three states of the Fort Union region where rapid coal development has been expected. The purpose of this study is to help local, state and federal officials project future service needs as coal development and related population growth occur. However, since scheduling the opportunity to appear before this committee, I have received a request from the management of the Northern Great Plains Resource Program, the study's sponsor, asking that I not release information to this services study until after the management team has formally released its summary of the findings of the entire research program. Reportedly, this summary is scheduled for release in July.

In spite of my desire to be governed by this request from the NGPRP Management, I had before receiving it, with the permission of my contracting officer, already sent copies of a preliminary statement of general recommendations and population projections to 400 service providers and other officials in the six counties where this survey was conducted. These counties are Oliver and Mercer Counties in North Dakota, Big Horn and Rosebud Counties in Montana, and Campbell and Sheridan Counties in Wyoming.

In addition to mailing this preliminary statement of general recommendations and population projections, copies of the entire preliminary report including specific service recommendations by category, cost projections and revenue projections were sent to sixty people on a mailing list provided by the NGPRP Social and Economic Work Group Coordinator. This group of people included state and federal, Indian reservations officials as well as concerned citizens. The purpose of this letter mailing was to solicit comments that may be helpful in the preparation of the final report covering the same subjects. Thus, although I have been requested not to release further information at the present time, the preliminary report has already received relatively wide circulation even among members of the press. Since this is the case, I would like to take this opportunity to caution the committee and others who have received these reports that the population projections upon which this study is based are not firm forecasts of what will occur. They provide only a rough idea of what could occur given certain developments. As nearly as I have been able to informally determine, they are in accord with the vague outlines of what companies seem to be preparing to do, at least insofar as it is possible to know. Nevertheless, these population projections should not be used as a basis for budget planning by any service provider until they are backed up by more firm public statements of company plans.

In light of the NGPRP request, I believe that this is as much as I can offer in the way of testimony at present. However, if any clarification of these details is needed, I would be glad to try to provide it.

Senator METCALF. Our next witness is Mr. Willie Day of the Yellowstone Basin Water Users Association.

Evidently Mr. Day is not here at this time. We will come back to him later. Mr. Bill Gillin, Rosebud Ranchers.

We have some ranch associations and ranchers' groups and we have highlighted our early testimony with propositions by the Tri-County Ranchers' Association. I suspect that your problems are different in some ways but some of them are the same and I hope you people will go through and highlight your statements and remember that they are going to be printed in their entirety. Mr. Gillin.

Mr. GILLIN. Thank you, Senator Metcalf and Senator Hansen. Now the statement that I wish to present at this time I hope will answer some of the questions that Mr. Hansen directed to Mr. Schmechel, but some of my testimony will be contrary to his. May I have the privilege of directing testimony to that?

Senator METCALF. Please do. When you have testimony that will contribute to either side of the question. The only thing I am going to talk about now is that our time is limited and I would just as soon not have repetition. Your statements and your testimony will be printed in the record, but please respond to the questions that have been developed this morning and I am not just saying that to you, Mr. Gillin, but to everybody in the audience. Go right ahead.

STATEMENT OF BILL GILLIN, RANCHER, ROSEBUD, MONT.

Mr. GILLIN. Thank you. In respect to coal development impact on small rural Eastern Montana communities. The recent coal development in the Colstrip area of Eastern Montana is having a very serious impact on the small rural community where it is taking place. Small communities such as Colstrip was prior to the present development are not in any way prepared to or capable of absorbing the large influx of people that are coming in with the coal development. Our school is being completely overwhelmed, we even use shower rooms for classrooms. The roads that were previously adequate for the rural traffic are now entirely inadequate for the heavy traffic accompanying coal development and other social facilities such as recreation and law enforcement are totally inadequate for such a large influx of people. Now the Colstrip road, there was a traffic pattern of approximately 50 vehicles a day before this coal development. Last fall they showed 1,050 vehicles a day and now a projected traffic to 2,500 in the coming year, and this is over a little road that is what you call a paved road and there is some question about that now. The tax base is not expanding nearly fast enough to take care of the needed services and the older established residents are being faced with ever increasing taxes for services they do not need and will not benefit from as well as losing much of their former way of life. In my own case I would like to point out that I have a small ranch which I operate without hired help, but my taxes last year were increased \$500 now on the same land and the same number of cattle and some of that came about because of changes in the State law, but much of it basically is due to this coal development. The taxes in the Colstrip district increased over 20 mills from 1972 to 1973 and apparently will increase as much or more for the 1974 tax year. These increases are still only part of the picture for the planning for new roads and schools are in the preliminary stage and will call for much greater increases in our mill levies once construction is begun.

It is my firm belief that if the present administration is sponsoring or encouraging the coal development in Eastern Montana the Federal Government should assume the cost of the needed social services. In the case of schools this should be done under Public Law 874 and Public Law 815 and for roads through Federal high-

ways or Federal matching funds to the State. If the development is being done by the companies without Government support or encouragement then these companies should be required to assume full financial responsibility for the needed public facilities such as schools, roads, recreational facilities, and law enforcement costs. This should be an absolute requirement before these companies be issued leases of Federal coal or permits to mine any coal in Montana.

The development in the Colstrip area is by Peabody Coal Co. at their Big Sky Mine, and Montana Power, Western Energy, Pacific Power and Light, and Washington Waterpower Co., and there may be other companies but those are the ones I understand are in there, with their mines and complexes of steam-electric plants.

It is apparently the company policy of Peabody to contribute nothing to the immediate community and the other companies a bare minimum and this only after much pressure and adverse criticism and long after the impact had become devastating to the community. I therefore believe that Congress must pass legislation absolutely requiring the energy companies to provide the necessary social facilities whenever they move into the small rural communities in Eastern Montana.

Now Mr. Schmechel's testimony implied that they are doing this, and I will not dispute that. They have offered to help with the schools. This after 3 or 4 years of this impact. This after a group of us protested to the county selling municipal bonds for them which would make those bonds tax free. Mr. O'Connor then agreed to put money into the school and not until then. They have given general assurances but not 1 penny was committed until we were able to bring that out at this hearing in Forsyth about 3 weeks ago. This is a little humorous sidelight on this, but immediately he changed his attitude around and made it appear it was their idea all the time, but the school board has been contacting Montana Power people without success, the superintendent had been contacting them without success, but Mr. O'Connor immediately switched over and made it appear as though it was his idea. And his quickness on this reminded me of the story of the old cowboy who was telling about having a horse killed out from under him and he says, "If I hadn't been so quick it would have got me too." Now as far as water and sewer and housing and so forth, I think they are way behind on that. Their development is way ahead, the coal development and power plants. The sewer and sewer treatment system I think has been paid for through Government grants. They have a \$90,000 grant and a \$65,000 grant, so I don't think that that credit should accrue to Montana Power. Now as to this bonus bid money accruing to a fund to create these things, that again, especially where they are leasing Federal coal or State coal, and leaving it up to the Federal Government or the State to pay for these facilities, that should not be, these companies should pay. I thank you.

Senator METCALF. Thank you very much for your contribution. Members of the committee have inquired as to whether or not there should be a law requiring industry to participate. We have wondered whether there should be a Federal law, as you suggest or whether we should adhere to the assurance that the industry has given that

they are going to help. Senator Hansen of Wyoming suggested that we provide a way that they advance the money for schools, sewers, and so forth in substantial funds, several million dollar chunks, and then get it back out of tax payments as they begin to mine the coal. Now would you be in favor of that?

Mr. GILLIN. I really think it should come out of the profit of the coal, but yes, it would be better than the present situation. The thing that we see here in our area, being now we have had this development 5 or 6 years in the Colstrip vicinity, one of the first to start up, and what we are seeing here are the real costs of this whole thing are being left out here.

Senator METCALF. Even after 5 or 6 years you haven't as a local taxpayer caught up with it?

Mr. GILLIN. We don't expect to. We lived on assurances for 4 or 5 years, we are finally beginning to get dubious.

Senator METCALF. You are telling me it is rather dubious benefit for the county to increase your taxes \$500 every year to have this new tax resource in your county.

Mr. GILLIN. That's just exactly what it amounts to, yes.

Senator METCALF. Senator Hansen?

Senator HANSEN. Mr. Gillin, I am sure a great many people have the same concern and anxieties that you have so eloquently expressed here this morning. I don't know whether—Have you been here all during these hearings?

Mr. GILLIN. Yes, I have.

Senator HANSEN. Well then I won't repeat what I said about the towns or the cities of Rock Springs and Gillette, Wyo., but there is no doubt at all but what most of the time industry has impacted on a community by bringing people in and city government is left almost helpless. If it does try to cope with the problem through increases taxes it penalizes the people already there, and it doesn't seem ever to catch up with that group that ought to contribute. Despite the stories about windfall profits and all of that sort of thing, some investment bankers testified before the Senate Finance Committee about how deplorable the New York Stock Market has gotten despite the profits that industry is making. More and more investors seems to be exhibiting a reluctance to put money in the corporate management and the sort of thing that results in stock being offered for sale on the various exchanges.

My feeling is that in the long run we must look at those who use the energy to bring about the kind of a reclamation program that I think has to be demanded in the West, and in order to give communities the money and lead time necessary to anticipate and to provide for the inflow of people. We can tax the power companies, you have Montana Power, we have P.P. & L. and Utah Power & Light, but unless they can pass some of that extra cost on to the customers, whether they are in Utah or whether the power goes to Chicago or wherever, I don't think we are going to be able to get nearly enough money to do the job. In other words, it's my feeling that the people who flip the light switches on in the long run are going to have to pay the bill. I think they should because most of our coal is going to go to other parts of the country. While we want

to keep plenty here most of the coal if it is mined is going to go to other parts of the Nation. I think those places that want to have the energy ought to help pay the bill. My proposal was that we try to devise some mechanism so that companies either will be required to—in which case they could pass the bill on—or be encouraged to—if it's through a tax arrangement of one kind or another—to put money into a community in order that that community can get on with meeting the problems and have the schools, the sewers, and all of the other facilities that are needed in place before the problem is dumped on top of them.

Mr. GILLIN. That is very right and that's just the way I feel about it.

Senator HANSEN. Thank you very much.

Senator METCALF. Thank you very much for your contribution to our hearings.

Mr. Wallace McRae, Rosebud rancher.

Thank you for coming, Mr. McRae and go right ahead with your testimony.

STATEMENT OF WALLACE D. McRAE, RANCHER, ROSEBUD, MONT.

Mr. McRAE. My name is Wallace McRae. I own and operate a live-stock ranch in Rosebud County, a few miles southeast, or downwind from Colstrip, Mont. Although I am a director of the Northern Plains Resource Council, I am speaking today on behalf of myself, and my Rosebud rancher neighbors.

I appreciate the opportunity to be able to express my views upon what I consider to be the third great tragedy perpetrated in the Western United States by the Federal Government on consort with exploitative economic interests.

The first was the calculated elimination of the Indian who was a threat to economic progress and resource development.

The second was a hoax called the Homestead Act and it was also dedicated to economic progress and resource development.

Both of these were fostered with idealistic fervor to "develop the West," and both were tragic failures in a sociological, humanistic, and environmental sense. The price is still being paid for these mistakes, and the Homestead Act was never even a success as an economic experiment.

So now we are faced with the third great opportunity, or tragedy, here in the West. That of coal-oriented industrialization.

Like the solution to the red menace, and the Homestead Act, this is being sold as a vast benefit for the West, and the Nation as a whole. It is said that coal development will broaden and expand the tax base. It will create employment, and culturally and sociologically lift us from the deep depths of decadence. The products coal can provide will eventually cleanse the skies, and cleanse our polluted rivers, and cause our land to bloom with a bountiful harvest. The minor resistance from the sparse rural population will either be ignored, overcome, or to use the current term, be mitigated.

It is significant that the same arguments and tactics that were used to promote the solution to the Indian problem, and in selling the

Homestead Act, are now utilized towards solving the current energy crisis. The story is so old, and so trite that it should properly begin with; "Once upon a time" * * * and end with * * * "and they all lived happily ever after." We as a Nation should recognize, as we approach our 200th year, that we are a bit too old for fairytales. We should realize that the development or industrialization myth which is being perpetrated and perpetuated by the executive branch of the Federal Government, is not in actuality going to end * * * "and all lived happily ever after."

Let me assure you that we ranchers are not going to be mitigated into believing that we are going to live happily ever after. We have seen through our neighbors the Indians, and the Homesteaders, the frustration, misery, and eventual economic problems that exploitation of human, and natural resources bring. So we are not lulled into believing that the northern Great Plains resource program, the Decker Birney study, and the north central power study are actually studies. We are convinced that these are implementation programs. They are justification and implementation programs for decisions made by the executive branch and carried out by the Interior Department.

That these study programs are merely window dressing for executive decisions is substantiated by a memo to John Whitaker, Undersecretary of the Interior, from Earl Butz, who was at the time the memo was written, a counselor to the President. Butz called for the NGPRP to plan to develop the region's coal resources. The memo said:

I understand that the Northern Great Plains Resource Program has been under way for almost one year . . . The President's Energy Message places great emphasis on the utilization of coal to meet our energy requirements for the balance of this century. If we are to be responsive to the President's Energy Message, we should move this Program along with all possible dispatch . . . I am convinced that the scope of the Program is so broad that it will fail to yield useful information and a plan for action within the next year. I would like to receive recommendations by May 4 of how the Program can be restructured to provide, no later than June 30, 1974, critical information and a plan to develop the coal resources in the Northern Great Plains area. By copies of this memorandum to the Administrator of EPA and Assistant Secretary Robert Long of the Department of Agriculture, I am asking them to have appropriate persons on their staffs cooperate with your assistant secretary to provide the results we must achieve if we are to be able to make prompt use of the vast coal resources in the Great Plains area.

The rationale behind these decisions, and the subsequent implementation, and justification plans were articulated by an official of Gulf Mineral Resources who when referring to Montana's resistance to headlong coal development said:

Because most of the known and unknown mineral deposits of the West are publicly owned, the disposition of these minerals will be determined by the desires of some 150 million megalopolitans living outside of the Northern Great Plains . . . providing we still have a representative form of government, then the West's minimal population with their opinions, hopes, desires, and dreams about certain tracts of real estate will be of little or more probably of no consequence to the voting majority.

All we ask is that we of the West's minimal population with our opinions, hopes, desires and dreams about certain tracts of real estate be included as individuals, and through our organizations, and through our elected members of Congress. I don't believe that

we, nor our representatives, should allow our tracts of real estate, and our States, to be subjected to executive and corporate omnipotence.

Let me give you some examples of how coal development is being implemented without any local input into the decisionmaking process.

1. A neighboring rancher was not supplied either a draft nor a final environmental impact statement by either the Federal Government or the coal company that will mine on his ranch.

2. No neighboring, or downstream or downwind ranchers were provided impact statements nor any opportunity to submit statements or recommendations.

3. Many ranches have been extensively core drilled under the assumption that they could not prevent the drilling when in fact, no prospecting permits were issued by the BLM.

4. I and three of my neighbors have been threatened with condemnation for a 130,000 acre foot storage reservoir. We do not know the use for which the water is intended. We were not provided a copy of the permit application, did not know the location of the land threatened with condemnation.

5. Another rancher's land has been selected for a 1,200 megawatt powerplant. He did not know his ranch was involved until he read about it in an item in a newspaper.

6. Another rancher's land has been selected for an ash disposal pond for the Colstrip power generation complex, but he, nor his neighbors have been advised of the site selection.

7. The Westinghouse study on the 2,100 megawatt Colstrip complex was not provided to a single landowner in the Colstrip area for review or comment.

8. A sociological survey for the Westinghouse study was conducted in the Colstrip area, but did not include a single rancher.

9. An effort is being made to have the Department of Interior rush an environmental impact statement to completion to beat the State Department of Natural Resources to the punch. The Federal EIS, if done quickly, must by necessity be based on the biased Westinghouse study.

10. The draft Indian portion of the sociological and economic analysis of the NGPRP almost completely ignored the impact on the northern Cheyennes, although nearly 100,000 acres are currently under lease for coal development on their reservation.

11. The EPA's attempt to come up with an industrially acceptable definition of "nondegradation" is perhaps the epitome of executive meddling. Congress passed the Clean Air Act. It would appear that EPA would have an obligation to enforce the act, rather than to twist the intent of the act by saying in effect: "Congress really didn't mean it when they included the nondegradation clause. What they really wanted was for us to arrive at a definition that will be compatible with the desires of the Executive Branch and the energy conglomerates." I say this is blatant hogwash.

For those critics that say we can't live with the nondegradation clause, I might point out that argument did not influence the Federal Government on the stringent enforcement of the Delaney amendment as it applied to DES. For those same opponents of enforcement

of the nondegradation clause, I might further point out the ban on 1080 and its effect on my industry. I guess the energy conglomerates hopes, desires, and dreams are somehow more noble, lofty, and righteous than ours.

The great, gaudy, grasping development schemes by Government and the resource exploiters have been a mistake in the past. We must retain local input into local questions. Raynal, a French historian and philosopher once said: "There is an infinity of political errors which, being once adopted, becomes principles."

I hope that the political error of executive fiat will not become a principle.

Senator METCALF. Thank you Mr. McRae for that forceful and scholarly presentation, and I respectfully thank you for the itemized statement of individual situations that have particularly occurred and are in your experience as a result of increase of coal mining activity. You have presented a very helpful statement to the committee.

Senator Hansen?

Senator HANSEN. I can just say, Mr. McRae, I think it's very helpful when you detail, as you have done here, specific errors of omissions or failures on the part of Government to do its job well. One of the things that on-the-site hearings provide to Congress is an opportunity to learn how the laws of the land have not been implemented or have been twisted or have been ignored by those in the executive branch. I can assure you that in due time, and I hope that's not too long, the things to which you refer here that seem to violate what was intended by the Congress will get to the proper people and they will be called upon to respond.

Mr. McRAE. Thank you.

Senator HANSEN. Thank you for that very effective statement.

Senator METCALF. I am going to take a lunch break now. It's 12:30 and we will adjourn until 1:30. When we reconvene in this room, the first witness will be Mr. Don Bailey. Thank you very much for your attention this morning and we will look forward to seeing you this afternoon.

AFTERNOON SESSION

Senator METCALF. The Subcommittee on Minerals, Materials and Fuels, of the Committee on Interior and Insular Affairs hearing on Federal coal leasing program is now in order.

When we had concluded we had just heard from Mr. Wallace McRae, Rosebud rancher, and the first witness this afternoon is Mr. Don Bailey.

Mr. Bailey, we are delighted to have you as our lead-off witness this afternoon and you may present your testimony at this time, go right ahead.

STATEMENT OF DON BAILEY, RANCHER, ROSEBUD, MONT.

Mr. BAILEY. Thank you Senator Metcalf and Senator Hansen.

I am Don Bailey. I operate a ranch on the Rosebud Creek 12 miles south of Montana Power Co.'s Western Energy Mine and Gen-

eration Complex. My home is 2 miles south of Peabody Coal's Big Sky Mine.

My interest in coal development began somewhat passively, and has evolved to the point where it is quite intense, to say the least. Having lived my entire life near Colstrip, the specter of new coal development was not as traumatic at first because we had been conditioned by previous operations of the Northern Pacific Railroad at Colstrip.

What many of us did not realize at first, was the copious amount of attention being cast on the vast coal deposits of the region by the high financial institutions of this country. They have amassed their wealth with exploitative ventures around various types of natural resources.

It is quite obvious that it has become coal's turn to satisfy the "International Bankers" quest for wealth and power.

The decision to develop the Fort Union coal reserves has been perpetrated by the energy companies as the only way to meet the intermediate energy needs of this Nation. I believe the primary consideration is one of economics, and not that it is the only feasible and available alternative, that they have shrouded it under.

The race is on in what may finally prove to be the champion of all rip-offs. The stage was set by national and international policy that would lend credence to a contrived energy crisis. The people of this country are being blackmailed by the throttling hand of the energy giants. To disguise their true ambitions under promises of economic growth and stability is economic and political folly, to say the least.

In March of 1973, I attended the meeting of the energy work group leaders of the Northern Great Plains Resource Program in Washington, D.C.

I was quite alarmed by the insensitive manner in which the puppets of bureaucratic perpetuity discussed the ground rules for the development of coal in this region.

The Department of the Interior, under a mandate from the executive branch of the U.S. Government, is providing an umbrella for the developing procedures of the energy companies.

Federal programs and studies are not really designed to determine feasibility or to assure orderly development or minimize impacts, but are actually to develop rationale to justify both the actions of the energy companies and the Government itself.

Because coal mining and conversion facilities are very capital intense industries, the Federal Government, and energy companies, will suppress any significant alternate forms of energy until such time as investments are completely realized and depreciated. If development proceeds at the rate suggested in the second scenario of the Northern Great Plains Resource Program, which is the most probable, it would be economically devastating to unveil other competitive energy sources in less than 30 years. It appears to me to be more than a coincidence that the energy gap is projected to be about 30 years, the amount of strippable coal available will last about 30 years, and the estimated life of the conversion facilities will be about 30 years.

Montana's role in this outlandish conspiracy has been promulgated many times. Because some of us are concerned about the environmental, social and economic effects of massive coal development, we have been involved in efforts to assure that coal development is done in an orderly fashion or not done at all. If the energy companies are not willing to accept this responsibility, then let's leave the coal in the ground, the water in our rivers, and the clean air in our skies.

The inference, by some, that Montana must become an area of national sacrifice, is infuriating to me. Even more disturbing is the fact that the energy giants are calling on the Federal Government to intimidate and coerce the State of Montana into accepting this classification as unavoidable due to national priorities.

We have some good laws in Montana providing for environmental compatibility and social and economic stability. We intend to make them better. Our State government has assumed a responsive and conscientious position in the implementation and enforcement of these laws.

If industry does not want to meet the criteria set before them, they have alternatives available, only one of which is to ask Washington to override Montana's reasonable restraints.

History has proven that the long term adverse effects of this kind of development far outweigh the short term gains. I would suggest that you economic opportunists, who are so vehemently in favor of massive coal development, take another look in the long range sense, and not only in the short term sense of economic selfishness.

I call it selfishness because I have never seen anyone who favors development, publically testify in favor of any restraining legislation, nor have I seen any developing companies take responsible actions in this regard unless forced by law, pressured by public opinion, or were seizing upon an opportunity to promote their public image.

The leeches of a booming economy are ever present, with the sole purpose of making a fast buck at someone else's expense. Not one of them has emerged as a vocal proponent of orderly development. Not one of them has come forward with suggestions or solutions to problems that have been or will be the result of the propositions they foster.

In closing, I can only say that we know we have a tough battle on our hands, but we are determined that the harvest of all of our natural resources in the state be done in the best interest of all Montanans of present and future generations. We cannot tolerate exploitation for the benefit of a few economic opportunists.

We cannot tolerate bureaucratic intervention and subversion. All Montanans should join together so that Montana will remain the master of its own destiny.

Thank you.

Senator METCALF. Thank you very much, Mr. Bailey. You are a fine anchor man for the Rosebud Ranchers. We appreciate your testimony. Senator Hansen?

Senator HANSEN. No questions, Mr. Chairman.

Senator METCALF. Now we move into another group, the Northern Plains Resource Council.

Mr. Tully, are you going to be the lead-off witness?

Mr. TULLY. Yes, Senator.

Senator METCALF. Please come forward, then. You are No. 1 on the firing line. You will be succeeded by Ellen Withers, is that right?

Mr. TULLY. Yes, sir.

Senator METCALF. And then followed by Bill Jensen representing the Central Yellowstone Valley Association. Is there someone else from the Northern Plains Resource Council?

Mr. TULLY. I don't believe so, Senator.

Senator METCALF. We will find out if there are any others later. Well, we are delighted to have a person of your experience and we know about your long term interest. We are pleased to personally welcome you here today, Mr. Tully. Go right ahead.

STATEMENT OF ROBERT TULLY, CHAIRMAN, NORTHERN PLAINS RESOURCE COUNCIL

Mr. TULLY. Thank you, Senator Metcalf and Senator Hansen. For the record I am Bob Tully, rancher of the Blue Mountains near Roundup and I speak today as representative of the Northern Plains Resource Council. I promise to be brief and avoid needless repetition, but I feel you, as referees, would acknowledge that a fight over the good punch shouldn't be limited to just once during the battle.

It is satisfying and fitting, I feel, that, you, Senator Metcalf chair this subcommittee, not only because you represent one of the States where the action is, so to speak, but because for a number of years you have been well informed on and responsive to concern about the grave dangers inherent in the proposed stripping of the West. In fact, Eastern Montanans can feel justifiably proud of their Congressional delegation. Senators Mansfield and Metcalf were most prominent in developing the Senate's Reclamation Bill, and currently Representative Melcher has a leading role in House consideration of the matter.

This history of Federal coal leasing is best described by the words—speculative and nonproductive. Despite more than hundreds of thousands of acres of Federal coal presently under lease, these publicly owned reserves contribute less than 2 percent of national coal production tonnages. There has been no correlation between levels of Federal leasing and productivity. The so-called energy crunch is not notably affecting this state of affairs. Speculation in coal leases is typically revealed in the recent Birney-Decker Study Report. Some 64 percent of the acreages under lease application are being sought apparently by brokers rather than miners.

Demand for massive Federal coal lease increases by these groups should not be confused with the much smaller production actually needed by the nation's consumers. This, in spite of a swing to coal, but in view of tremendous reserves already committed to leases.

It is not a satisfactory response to say "We're going to do a better job now." There exist today simply opportunities for enormous increases in low sulphur coal production without commitment of additional publicly owned resource reserves.

The transfer through leasing of such huge national reserves from public control to industry or corporate control seems to be irresponsible management of public property. This is particularly galling when the resource may well be committed today at bargain basement prices in exchange for skyrocketing future energy costs to the consuming public. The offering of package deals combining both coal reserves and water allocations for its development is even more reprehensible.

Reliance on the development of western strip mined coal as an answer to our nation's energy situation is fraught with problems. A recent National Academy of Sciences report admits little encouraging evidence to suggest that reclamation is possible in this semiarid region. There are those who feel that the nation's agricultural production base cannot sustain the damage it faces from the onslaught of large scale strip mining, and that the food and fiber short-fall of the future may well put the energy crisis in the shade.

The focus of my testimony is that our Government has failed to develop a real National Energy Policy, and that the Department of Interior under present statutory or legislative provision cannot effectively and satisfactorily manage the national natural resources by continuing to do business on a piecemeal expediency of the moment basis that is merely responsive to the initiative of the energy industry.

I submit that the commitment to possible plunder of one of our nonrenewable resources may preclude future use of various other renewable resource values. Apparently the energy industry's answer to the energy crisis is "business as usual, only more so."

I would like to digress here for a little bit and, Senator, you invited a little comment I feel with a prior witness when you said feel free to rebut if possible past testimony. Also Senator Hansen has seemingly put it to some witnesses in a sense of asking if you don't believe in producing this coal or if you don't believe in producing that coal, what do you believe in? I would like to answer that in part by referring to some testimony of Mr. Schmechel of Western Energy to the effect that his company has been called upon or is being called upon or will be called upon in the future to provide huge increases in the amount of electricity and I have no doubt this is true. However, I think we should be cognizant of the fact that Mr. Schmechel's business, according to some, is implementing British Thermal Units or potential energy from below ground sources, in possibly the least efficient method known to man, steam generation of electricity has a very low coefficient of efficiency. Now again I share the conviction with many of the Congress should through whatever enabling legislation necessary, exercise and maintain control of our national natural resource reserves. In so doing, Congress may, while possibly alleviating our energy problem, see to it that the excesses and abuses of past exploitation activities not be repeated.

Thank you.

Senator METCALF. Thank you very much, Mr. Tully, for a good hard-hitting presentation. We appreciate your appearance here and

we appreciate your calling our attention to some of these important matters. Senator Hansen?

Senator HANSEN. I don't have any questions, Mr. Chairman. Thank you very much, Mr. Tully, for your testimony.

Senator METCALF. The next witness will be Ellen Withers, Northern Plains Resource Council.

We are delighted to have you here, Mrs. Withers. You testified in Washington before us when we had under consideration S. 425, and the other bills on surface mining. We are delighted to see you again today.

Mrs. WITHER. Thank you, Senator, and I would like to express my appreciation to the subcommittee for bringing the hearings to Billings this time so that I don't have to go to Washington because I don't like it back there.

Senator METCALF. You are not the only one.

STATEMENT OF ELLEN WITHERS, NORTHERN PLAINS RESOURCE COUNCIL

Mrs. WITHERS. Today I wish to testify basically on the effects of the mineral leasing act of 1920 taken in conjunction with some of the patent reservations on the surface owners interests.

Congress has never seriously considered the problems created by its surface-mineral severances in the Western patents. It has delegated the solutions to the Secretary of the Interior in the Mineral Leasing Act of 1920 and in portions the Stock Raising Homestead Act. Congress has failed to deal with this problem of its own creation in anything but a piecemeal fashion, however, I am glad to see that the Mansfield amendment and Senate bill 425 is an attempt to deal with a part of the problem that has been created by the massive mineral severance over the entire western area.

For the surface owner, information on his rights is difficult to obtain, and the commonest answer is "You don't have any." It makes no difference what mineral is involved, the problem is the same. From Tucson to Birney the Federal ship, USS *Mineral*, steams on leaving bobbing in her wake upset surface owners, who thought they were property owners.

Cases such as *Holbrook v. Continental Oil Co.*, and *Kinney-Coastal Oil Co. v. Kieffer*, a 1928 case, makes one wonder why the settlers ever paid the government for what they got. The following language from the Kieffer case is illustrative, and I quote:

The exercise of the mineral rights involves the taking of nothing granted by the patent. Nor is the one who under the patent owns the surface, with those rights reserved, entitled to compensation for the minerals taken or the use made of the surface. The only compensation which he may fully demand is, as the Act of 1914 says, for 'damages caused' by the mining operations.

The case, which involved a townsite in Salt Creek Field, went on to say that the only compensation for improvements allowable was for "agricultural improvements", and that only if the mining was so negligently conducted as to damage them.

The case of *Chapman v. Sheridan-Wyoming Coal Company*, also a Supreme Court case in 1950, stated that the Secretary of the In-

terior had broad discretionary powers as general leasing agent for the Government and that it was not necessary that the Secretary be internally consistent in administering his regulations. It would appear from this case that neither the mineral lessee nor the surface owner knows exactly where he stands in dealing with the "Secretary".

The Mineral Leasing Act of 1920 presumes that the leases granted under its terms affect only two parties, the U.S. Government and the mineral lessee. One can read the entire Mineral Leasing Act and find no disposition of the rights of the surface owner, and even the "public" is considered only in section 184, title 30 U.S.C.A., and that only in the lease application for additional acreage over and above the 46,080 acre limitation. This additional acreage application is the only thing that triggers a public hearing in the act. One can hardly credit the logic which permits the leasing of 46,080 acres to one party initially with absolutely no public involvement allowed for by the law, and then for a relatively small acreage of 5,120 call for a hearing. This is like calling for closing the door after the horse is gone. NEPA would now bring the public in to some extent, but would give no guidelines for dealing with the surface-mineral problem and certainly none that would be obligatory for the Secretary to consider.

Supposedly the minerals were reserved in these Western lands for the purposes of conserving and wisely administering the extraction of the minerals and to prevent us ignorant settlers from trading our minerals for \$50 and a mule as did the people of Appalachia a few years earlier.

However, after Congress had "wisely" withheld the minerals from the Western homesteaders in the land patents, the minerals being subject to later disposition by the United States, Congress passed the 1920 Mineral Leasing Act with no mention that there might be other interests involved beside the one of mineral extraction.

To give an example of how the act works: My mother, Mrs. Louise Pfister, who owns a ranch in the Bull Mountains northeast of Billings, found out about 3 weeks ago, after I went to the Federal Building and checked, that part of the section on which our ranch headquarters site has been leased by the United States for oil and gas about a year ago by a leasehold who subsequently assigned the lease to Tenneco Oil. The only reason I checked the Federal records is that we have been approached three times in the last year to lease for oil and gas—incidentally after all federal oil and gas on our place was already leased and each time by an oil company with a coal division. Mother has not leased because she feels that if she leases for oil and gas, coal may also be explored for in a rough manner by keeping logs while drilling oil and gas exploration. We are suddenly having this flurry of oil and gas activity after 20 years of no activity. As nearly as I can tell, there is nothing in the Mineral Leasing Act that prohibits leasing for oil and gas and running down whatever else you may find for future reference. It would be interesting to run a check to see if this is regionwide in the Fort Union area. The Mineral Leasing Act does

not prohibit the leasing of one mineral and prospecting for another under that lease.

The leases issued under the act coupled with the patent interpretations have permitted such things as permanent employee housing installations complete with basements and cesspools and the total use of the surface to the exclusion of the surface owner. The State director of the bureau of land management assures me that new leases, for coal anyway, will be tailored specially to meet the individual situation existing on the lease and that the shotgun breadth of times past will be controlled. But in the face of section 189, title 30, U.S.C.A., what real assurance does any surface owner have unless the order comes directly from the top that the use of his land will only be occupied by the mining and not the miners, too.

The Mineral Leasing Act sees only a limited world. The impact of what happens to the land and to the people involved has been delegated to the Secretary, and he can change what he does with them as political fancy changes. Congress in 1920 simplified things for itself by simply delegating to the Secretary the difficulties in dealing with reality, but when it did that, it also delegated the property rights of large numbers of people in the Western States to the realm of administrative limbo. For the Western landowner, the saying "This is a government of laws, not of men" does not hold true, but rather "this is a government of regulation, not of laws", and I hope it is the resolve of these hearings that Congress will attempt to resolve a workable solution in the problem that is forced upon us. Congress can change this situation if it wishes—if it legislates rather than delegates. Congress might then regain the respect of the people.

Thank you.

Senator METCALF. Thank you, Mrs. Withers. We are considering, as you know, revisions of the general Mineral Leasing Act of 1920. We also are considering general provisions related to surface mining that are not contained in S. 425. As soon as legislation is concluded on S. 425, there is a whole area of legislation that will have to be taken up. This includes what we do about open-pit mining, quarries, sand pits and things of that sort, what do we do about the mineral leasing law, what do we do about claim recordation provisions. So you have pointed up one of the things that we are not only immediately concerned with, but which are of concern to everybody out in this area.

Senator HANSEN?

Senator HANSEN. I want to tell you how much I appreciate your statement. I think that I can't believe that the Federal Government or the Congress could have anticipated the widespread possibility that there would be surface mining when it started withholding mineral rights a long time ago. Being a rancher myself and having some land on which we own the surface only, I understand perfectly well how you and others feel. I have talked at various times with my colleagues and with Senator Metcalf specifically about what we could do in providing an opportunity to the surface land owner to buy the minerals under that ground where there were not known

minerals in place. Obviously, if you have land and there are minerals there I would suspect judging from the temper of the typical Congressmen, they would say, as they have so many times, as indicated by our efforts to try to change the revenues that come back to the states for minerals taken from Federal grounds, that "you don't own these lands, you don't own these minerals, they are owned by all the people." It's a case on the one hand of trying to do what we feel in equity should be done and on the other, trying to put together a saleable package that can go. But I would ask you, would the average rancher in your opinion, given an opportunity to purchase minerals under his land, if there was not at that time and place a known value, avail himself of that opportunity?

Mrs. WITHERS. I don't know, Senator Hansen. It's difficult to say what the average rancher would do and most of us are kind of sluggish and we don't begin to react until our ox gets goaded. In 1966 when my father died, when I read the abstracts I had no idea what a coal patent was for, I never heard of the animal, and so it's real hard to say. Some people might want to clean up their land and get it all, I think they would. Others may think it a free ride and let it go.

Senator HANSEN. Well, I think that's very accurate answer. I know people in those parts of Wyoming where there has been an intensive amount of activity in minerals. They have been forced to include a great amount of detail in bringing patents and abstracts up to date. They know perfectly well what complications arise from the separation of the surface and the minerals. But I suspect you are quite right. Most of us don't do anything unless we find to our painful awareness that maybe we waited too long.

I would hope that out of all of this could come realization by the typical surface owner that if he had an opportunity to join together the minerals and the surface, he would do that. It poses all kinds of problems. I think that it could be very helpful in resolving a good many of those problems if landowners had an opportunity to acquire those minerals. I think your statement is very helpful. Thank you very much.

Senator METCALF. Mrs. Withers, we have a real problem in this related area. You have raised the question that we have subdivisions for instance in and around growing cities and the Federal Government has retained the mineral rights and that's a flaw in the title. As a result we have little private bills to convey the mineral rights to the surface owner. We pass those private bills and provide that the surface owner at that time can obtain subsurface rights and then he can subdivide into lots and sell the lots. We would like to at least extend that principle as a general bill to eliminate the need to come back to Congress on a private bill. The general bill would provide that at least in nonmineral lands there will be an opportunity for surface owner to go in and acquire all of the rights. I think you have raised some of the questions and so had Senator Hansen. Thank you very much, for your testimony today and thank you for your testimony in Washington.

Mr. Bill Jensen of the Central Yellowstone Landowners Association.

Thank you, Mr. Jensen, for coming.

STATEMENT OF WILLIAM JENSEN, COCHAIRMAN, CENTRAL YELLOWSTONE LANDOWNERS ASSOCIATION

Mr. JENSEN. Honorable Senator Metcalf, Honorable Senator Hansen, it is indeed a privilege to be here to give you a few of our ideas and some of our problems.

I am William Jensen of Pompeys Pillar, Mont., co-chairman of the Central Yellowstone Landowners Association.

This association was formed to give landowners a say as to routing high voltage K.V. lines from Colstrip to Hot Springs, Mont.

The proposed route crosses my irrigated land and crosses Yellowstone River from my land.

Montana Power Co. agents, known as Universal Field Service have called and been to my place six or eight times and have informed me this is the only feasible route to cross Yellowstone River. I have tried to get them to move about 2 miles east to an ideal spot for river crossing, as our Yellowstone Valley Electric Co-op has crossed the river from this point. Montana Power Co. says this is impossible, as they would have to land on and cross Federal land and it would take too long to get a permit to cross Federal land. They also say if they use Federal land, the Government will tell them what to do with the power. Therefore, they have zigged and zagged to miss all Federal sections.

Montana Power Co. has informed me that the power from Colstrip is going to Washington, Oregon, and California, but has informed commercial clubs, electric co-ops and other organizations this power is for Montana use to get their support for the strip mines, powerplants, lines, and our precious water.

Why not ship coal to power shortage areas rather than build these dangerous high voltage lines across our State ruining timber, grass, crops, endangering livestock, wild life, and human lives.

We all know the interference in radio and television from the ordinary lines now. What will be from these large corridors of 500 and 700 kV.'s? This is the main source of entertainment, television, and radio, for farmers and ranchers.

Certainly none of us want to run short of power. We do not want to go back to the kerosene light, splitting wood for heat or milking cows by hand, but a shortage of food is predicted in the very near future, and certainly we can get along without power easier than without food. Of course, none of us want to go without either.

Montana Power Co. wants a 300-foot right-of-way for one line, and 150 foot additional for each additional line. They are talking about nine lines, so what will be left of my little farm? I have nine utilities crossing me at present.

I have not given permission to Montana Power Co. to survey on my property, and do not intend to do so. I need every foot of ground I have to make a living, so I am fighting to the end.

My operation involves a 200-cow grade A dairy, with over 100 head of heifers for replacements, selling around 100 head of feeder calves for beef feeders. My milk production of about 3 million pounds of milk a year furnishes nearly 300 families with their year's supply of milk along with a good share of the beef.

Honorable sir, this is a very serious problem and I felt it should be brought to your attention. I am giving my experience and damage here, but it is only one in many. I hoped to present this so all of the ranchers and farmers will get your support.

Any advice and support you can give us will be greatly appreciated.

Senator METCALF. Thank you, Mr. Jensen. You say that you are not about to let the Montana Power Co. cross your land and have condemned a right-of-way across your land. Have they condemned a right-of-way across your land?

Mr. JENSEN. No, they have not. They have merely asked permission for survey and showed us the map of the route and to me it is kind of ridiculous because the crossing below is an ideal place, but they say they will land on Federal land, I think they can do it without landing on Federal land, but I don't sympathize with them a bit, as far as landing on Federal land is concerned.

Senator METCALF. Well, I want to call your attention to the recent report of the stockholders from the Montana Power Association. I bought 10 shares of stock a few years ago in Montana Power Co., so I could get that stockholders' report. There is a picture of a lineman working on the pole, on the Bison Reservation. The lineman is working on the pole and the line is not activated and then there is one of the Bison scratching against the pole, but you activate that line and livestock and buffalo and wildlife won't stand under it. They are a little wiser than we in the human race. And so I hope that you will at least get some way to get that Montana Power Co. away from this 100 head of calves and this milk production that you have in your area. Thank you, Mr. Jensen.

Senator HANSEN. Do I understand you to say that Montana Power Co. is talking about nine lines across your place and the first line would take 300 foot right-of-way and each additional line 150 foot right-of-way?

Mr. JENSEN. That's the way I understand it, yes.

Senator HANSEN. That would be 1,500 feet of right-of-way if my arithmetic is correct.

Mr. JENSEN. Yes.

Senator HANSEN. Would that be what you are talking about?

Mr. JENSEN. Something about like that, yes.

Senator HANSEN. I am amazed. I don't know what the situation is, but I would sure agree with you that that's a pretty wide right-of-way.

Mr. JENSEN. Yes, it is.

Senator HANSEN. Thank you very much.

Mr. JENSEN. One other thing I would like to add, is that I employ four men year around, and according to Ocia these men can't work under these high voltage lines. Now that's another thing that may make it impossible.

Senator METCALF. Thank you, Mr. Jensen.

Now our next witness is a distinguished member of the Montana community, Mr. Clyde Jarvis of the Montana Farmers Union. I don't see him here.

Clyde Jarvis? Well, we will skip over him and maybe he will come back.

We will call on Arthur Hayes.

Dr. HAYES. Senator, with your permission this is a joint statement of the Nance Cattle Co. and the Brown Cattle Co.

Senator METCALF. Do you have a colleague that is presenting a statement too?

Dr. HAYES. That's right.

Senator METCALF. Would you come forward and have him identified.

Dr. HAYES. We have a joint statement of both cattle companies that we prepared together.

Senator METCALF. Would you identify your colleague, Dr. Hayes.

Dr. HAYES. Senator Metcalf, my colleague here with me is Marcus L. Nance of the Nance Cattle Co. of Birney, Mont.

Senator METCALF. We are delighted to have you here with us.

Mr. NANCE. Thank you, sir.

STATEMENT OF ARTHUR F. HAYES, PRESIDENT, BROWN CATTLE CO., ACCOMPANIED BY MARCUS L. NANCE, NANCE CATTLE CO.

Dr. HAYES. I am Dr. A. F. Hayes, a veterinarian. I am president of the Brown Cattle Co. of Birney, Mont. Today I am representing the Brown Cattle Co. and the Nance Cattle Co. We appreciate the opportunity to present our interest and views concerning the Federal coal leasing policy.

We have presented publicly and in writing, our views on the Decker-Birney study, conducted by the Bureau of Land Management and the U.S. Forest Service.

We assume that coal reserves are exactly that and will be eventually mined. There is a great demand for our coal so we assume there must be a need for it as well as our beef. We believe that with proper reclamation, strip mining and agriculture can be compatible. As we have mentioned, we believe the private surface owner over government coal has a definite right, both morally and legally.

Under this complicated diversification of ownership of land and minerals, the only equitable way for the Government to put up coal leases under private land ownership would be with the permission of the land owner. Under this policy there are three things which would deter wholesale mining of the area:

(1) A number of ranchers would not give permission and their rights should be recognized.

(2) Some of the coal leased will be held by industry as reserve to generate capital.

(3) You still have a tremendous amount of Government land over Government coal which can be used as a control.

The rights of property owners should include the right to develop it. Landowners should not be required to bear the costs of restric-

tions on their land without compensation. To be denied this is an expropriation by the Government of individual rights, which also infringes on property values and should not have a place in Federal coal leasing policy or any other Federal policy. If individual rights are denied, we believe that the coal leasing policy must consider ways and methods where not only private but also State owned lands, whose values are infringed upon, in the name of public interest, should be compensated. Where present private and State lands contain merchantable coal, such values must be considered. Where the overall value of a ranch unit is impaired due to Government restrictions on the use of Government lands for the handling of the accompanying people and industrial use, thus putting the burden on private lands and ranches, such ranches should be fully compensated. The Federal coal leasing policy should not preclude the trading of like values in the overall picture. Compensation should not be denied where the individual or state rights and values have been devaluated. Regulations that might force people into costly law suits make an effective barrier to justice. The formation of a governing body or an appeals board, properly structured, could effectively handle many injustices outside the courts and could facilitate settlements of claim that may be presented.

We sincerely hope our suggestions to you have been helpful.

Senator METCALF. Thank you very much Dr. Hayes.

And Mr. Nance?

Mr. NANCE. I would like to comment, Senator Metcalf and Senator Hansen. I am the man that sent you the petition about 3 months ago with approximately 500 signatures covering 3-million acres of deeded land opposed to the Mansfield amendment which I have heard brought up here many times today.

Senator METCALF. It will be brought up many times before the legislation is passed.

Mr. NANCE. I would like to make a comment on that.

Senator METCALF. Please do.

Mr. NANCE. I have heard here today that this protects the land. I am speaking principally of the private landowner over Government-owned land and when I speak of the Government I speak to you as you. It's easier for me to put it that way, so that you understand it. The purpose of the Mansfield amendment, as I understand the Mansfield amendment, there was no government coal to be let under any private ownership period unless it is underground mining, is that correct?

Senator METCALF. Yes.

Mr. NANCE. That protects people as you say that do not want their land mined. It also equally denies the people whereas particularly last year, and you heard from Mr. McDonough that land valuations have gone up on those lands where there is Government control. The Mansfield amendment equally denies those people the right to sell their land with the increase valuation as well as it does to protect those people that do not want to sell. I feel that you, the Government, are using, as you said earlier, and which is true, the Government, the 250 or 200 million people own this coal, that is absolutely true, but the surface I believe has been brought up here today is questionable whose title it is. It's not clear. If we have a clear title to that you are using coal which you do not have a clear title

to, to control something which you do not have a clear title to. Now what the law would come out on that I do not know, but in addition to that, and when it comes back to Senator Hansen's block arrangement he mentioned awhile ago, where we sit down there with 4,000 acres of fee coal intermingled with Government coal, intermingled with State coal, intermingled with Burlington Northern coal, you are using liberal amount, the Government, and please get this clear when I say you I am talking about the Government, you are using Government coal, not Government surface, to control the whole block. To me this is monopolistic, it's discrimination, and in restraint of trade. That's all the comments I have.

Senator METCALF. Thank you very much. I am glad you made that presentation because such presentations as that should be in the record in the course of our consideration of the various complexities resolved in a very complex picture of land holdings. I am somewhat confused about Dr. Hayes.

Dr. Hayes, are you saying that when the Federal Government adopts such a program as the Mansfield amendment, which as Mr. Nance says deprives the landowner of this special bonus that not only Mr. McDonough, but dozens of other people are leasing, offer for the leasing of land, that the Federal Government should pay damages to the surface owner?

Dr. HAYES. What I am saying, Senator, is that in our particular area the rights-of-way for power lines, aqueducts, pipelines, and the handling of the people problem on private lands eliminates the ranchers and the ranch unit. Now I know we will be compensated for the right-of-way and we will be compensated for this, but we may have to go to court.

Senator METCALF. I am in accord with you on that, but the right of eminent domain is a right that is reserved by the states and is exercised under the jurisdiction of the State Legislature. It can be given to a power company or a cemetery association or ditch cooperative or it can be taken away, but 500 people sent in a petition and said that, look, we want to sell our land to the people who want to come in and mine the coal under our land and that coal belongs to the—

Mr. NANCE. Could I make just one comment I forgot?

Senator METCALF. Surely. Please do.

Mr. NANCE. I forgot to mention one thing. When I sent you that petition, and I wish I had written a better explanation in the letter, I don't believe that all those people that signed that petition are particularly for strip mining. I think the reason they signed that petition was their rights of ownership and their options to do what they see fit. I want to get that clear and I don't think I ever indicated that to you.

Senator METCALF. Yes. Well, I am not trying to put words in your mouth, of course. I am just trying to explore what seems to me that some of you are suggesting. I was pleased to have that petition. I like to have that kind of communication, but you, on your land, and somebody comes out and says look, I will give you \$500 an acre for that land, we will buy your whole ranch, although only a third of it has coal, we will give you \$500 an acre for it. Now, the Mansfield amendment says, look, you can't mine that coal by surface

mining methods because it's split ownership, and so you lose that \$500 an acre and what you get, you get \$150 an acre or something like that or a little less.

Mr. NANCE. Well, that's a little high.

Senator METCALF. I read in the paper where somebody was going to condemn land and there was over \$169 an acre, they tell me in Wyoming it's \$50, but suppose you get \$100 an acre, you have \$400 damages, are you saying, Dr. Hayes, that the Federal Government should pay that \$400 damages for something he didn't get?

Dr. HAYES. I am saying when the increments of coal mining come in and there is a ranch that has no control and has a small amount of surface value, but as a ranch unit if they run these increments through the ranch, the people that condemn the land must pay the total price.

Senator METCALF. I am in accord. I understand. People have said, look, it just isn't what happens on that specific acre of land, it's the impact on the community around, on the people downstream, and people unwind and downwind.

Mr. NANCE. I am glad you brought that up. This part does have an affect on the neighbors, but I don't know of an measuring device on that. It just depends on how frustrated your neighbor is.

Senator METCALF. Sometimes they can get pretty frustrated. Well, thank you, I am glad you clarified that and you made a contribution. Thank you Mr. Nance and Dr. Hayes.

Senator HANSEN. I have no questions.

Senator METCALF. During the course of this hearing today and in our field trip yesterday Senator Hansen was with us and he has devotedly attended each and every minute of every hearing in the course of our consideration of legislation. He and I have been able to work very closely together in adopting and formalizing legislation. I regret very much that he is going to have to leave. We have a committee markup in Washington Monday morning, and he has to get back down to Wyoming. I express my gratitude to him for his hospitality in Carper and his graciousness.

Senator HANSEN. Thank you very much, Mr. Chairman. My wife was born in Lewiston, so it's always a privilege to get to come back to this Big Sky country, and to participate with you in these important hearings.

I would say that you people, as I take leave of you, have two great senators in Washington. I know both of them and admire both of them very much, though I do not agree with Senator Mansfield on the so-called Mansfield amendment. I would be less than honest if I did not say that the State of Montana is very ably represented in the U.S. Senate.

I appreciate this opportunity to hear firsthand from you the things that are concerning you. I know that few of us get precisely what we would like to get as changes come about, but we certainly will give serious consideration to what we have learned in these 2 days of hearings. Thank you, Mr. Chairman, for permitting me to be here.

Senator METCALF. Thank you, and come back again.

Michael Gustafson is our next witness.

STATEMENT OF MIKE T. GUSTAFSON, WESCO RESOURCES

Mr. GUSTAFSON. My name is Mike Gustafson. I represent Wesco Resources, a small independent natural resource firm engaged in coal activities in Montana and Wyoming. We have substantial surface and coal holdings in both Wyoming and Montana. I am most pleased to participate in this hearing of the Senate Subcommittee on Minerals, Materials, and Fuels on the proposed Federal coal leasing program for the Powder River Basin of Montana and Wyoming. In response to the committee's desire to secure public and industry input, I would like to set forth the following comments and suggestions.

(1) The passage during this session of Congress of a good and operable Federal strip mining reclamation bill should not be delayed. Before Federal leasing takes place, there is a need to set minimum Federal reclamation standards and to assure the surface owners that there will be a resolution to the surface-mineral severance dilemma.

(2) The committee should encourage the early and proper completion of the Northern Great Plains resource program (NGPRP), the energy minerals allocation recommendation system (EMARS), and an environmental impact statement (EIS), on the Federal coal leasing program. Close coordination with all agencies and timely input should be emphasized.

(3) The Department of Interior's objective, should be that through its respective policy studies and special programs like NGPRP, EMARS, and others it will have accumulated sufficient and adequate information during 1974 to permit leasing of Federal coal. Initially these Federal coal leases should be issued in areas where industry's interest is (1) to continue or expand an existing mine operation, (2) to permit or facilitate the opening of a new mine operation where it is clearly demonstrated that a market and need exists, (3) to assure and encourage the proper and orderly development of non-Federal coal rights, that is, Burlington-Northern, State, private, and Indian) and (4) to assure that waste is prohibited and conservation is practiced. Issuance of Federal coal leases should be permitted and encouraged in an incremental fashion. However, an expedient and coordinated effort must be made to develop a timely plan which permits and encourages legitimate and necessary major long-term resource commitments. This procedure is necessary to develop a plan that will allow coal to play a major role in meeting this Nation's energy requirements.

(4) Federal coal leasing should be encouraged in areas where restoration and reclamation would be highly successful and increased agricultural productivity a reality. Reclamation provisions should be carefully analyzed on an individual project basis. They should be tailored to the particular area. In addition, Federal leasing should be encouraged in areas where adequate water exists and can be developed for proper restoration.

(5) It should be recognized in the Federal leasing program that the timing of coal development is regulated or influenced by such factors as markets, economics, present coal lease holdings, Federal

and non-Federal, transportation accessibility, mineral ownership patterns, the nature and size of other investments in the area, surface owner consent, environmental compliance, availability of existing or developable water sources, and the potential for excellent restoration. Within the framework of its decisionmaking process the Federal coal leasing policy should establish criteria which allows adjustments and flexibility to changes which are presently and continually taking place under the aforementioned factors.

(6) The Federal coal leasing policy needs to realistically respond to the multiplicity of coal mineral ownerships which particularly occurs within the Montana portion of the Powder River Basin. Federal coal policy should accommodate the proper and orderly development of these reserves. Federal inaction, indecision, or undefined policies will result in waste, inadequate conservation, and a major detrimental impact on the economic values of private property interests.

(7) The Federal coal leasing policy should implement incentives for industry that would encourage the resolution of the surface-mineral severance problem. The Federal Government through legislation and its coal leasing policy should require industry to responsibly resolve the potential conflict between the surface owner and the holder of the Federal coal rights.

In addition to these general comments, I would like to set forth some specific suggestions regarding the terms and conditions under which Federal coal leases should be issued and offered.

There are several bidding alternatives, that is, bonus bidding, royalty bidding, and profit share biddings, which have historically been reviewed by the Department of Interior in attempting to arrive at a resource allocation policy. Although each of these alternatives have certain advantages, in our opinion a combination of oral bonus bidding with a refusal price and a graduated rental requirement and a modified royalty payment appears to offer the best compromise among these bidding alternatives. The refusal price should approximate the estimated fair market value to protect the public interest against inadequate competition. An escalating annual rental and/or minimum royalty payments should be required to stimulate early development and production.

Competitive bonus bidding can be a barrier or prohibition for smaller, less capitalized firms to enter the bidding. Provisions should be made to permit installment payments and/or allow credit against production of the initial bonus bid. Deferred payment schedules and/or recoupment against production would not only reduce the barrier to entering the bidding process but would also avoid low bonus problems arising out of high discount rates employed by firms in calculating present bonus values.

The bidding policy should recognize that the interest in acquiring Federal coal leases is shared by a great diversity of business interests. Major oil companies, independent oil companies, mining companies, chemical and agricultural companies, public utilities, and the coal industry all have an expressed interest in the development of western coal. The high capital requirements, the needed research investment, and the high risk particularly in early years,

would make it impossible for a number of these interested companies to enter into Federal coal lease bidding as a single bidder. Therefore, and because of these factors, joint venture bidding should be encouraged and in our opinion the potential risk of collusion among bidders can be properly regulated. Such a policy would encourage the diversification of coal holdings, it would encourage a competitive development atmosphere, and allow the delivery of an energy product of the American consumer at competitive rates.

Because a great deal of the Federal coal rights are comingled with other coal rights, that is, Burlington-Northern, State, Indian, private, oral competitive bidding should be implemented. As long as a refusal price is established, oral bidding is more suitable under these circumstances as it permits the buyer to react to challenges from other bidders and to protect his fixed investment and resource position. Further, it facilitates the proper and orderly development of Federal coal which is comingled with non-Federal coal and prohibits "punitive bidding" on the part of other firms.

Finally, the Department of Interior should consider a plan which would make available a portion of the Federal bonus funds to State and local governments to aid in the resolution of certain lead-time problems, that is, schools, public services, housing, associated with the development of Federal coal rights before there is any substantial increase of the local tax base. It should also be considered that under the terms of the Federal coal leases, the Federal lessee's should stipulate that they would fully cooperate and assist State and local governments in resolving the demands of coal development.

I wish to express my sincere thanks to the Subcommittee on Minerals, Materials, and Fuels for this opportunity to express our views. Should the committee desire further comment or clarification of our views, I would be most pleased to respond to your inquiry.

Senator METCALF. Thank you very much for that most thoughtful and well-prepared testimony. It is my hope that Congress will shortly achieve the first suggestion, that is, the enactment of a minimum and let me stress this, a minimum Federal Surface Mining Act. We will heed the admonitions that you have in following statements and try to apply the criteria that I think are excellent that I think should be involved in the enactment of that bill. On another matter I have been reading some of the Federalist papers on a matter of some concern relative to things that are going on in Washington. I ran onto a statement by Madison who said that he hoped that the Federal Government would establish one-sort of government, but that the States in their sovereign capacities would be laboratories for other schemes of government. I suppose he thought that we might have some of the continental system of parliamentary government and so forth. Probably the only State that has really done much about that is Nebraska with the unicameral legislature, but I think we should also consider the fact that that is one of the basic propositions of our Government. That we in the Federal Government apply only a minimum standard and maybe some of these innovative suggestions would come from the Montana legislature or the Wyoming legislature, and you have laid down some criteria that I hope both we and they can comply. Thank you very much.

Mr. GUSTAFSON. Thank you.

Senator METCALF. Now I am going to call on Dr. Mark Weber. You will be followed by Dr. Carl Wombolt and then before we call on the next group of witnesses I will call on Francis Maroncelli. Dr. Weber.

STATEMENT OF DR. W. MARK WEBER, CHAIRMAN, ENERGY SUB-COMMITTEE, NORTHERN PLAINS REGIONAL CONSERVATION COMMITTEE, THE SIERRA CLUB

Dr. WEBER. Thank you Senator Metcalf. For the record I am Dr. Mark Weber, an environmental geologist affiliated with the Northern Plains regional conservation committee and the Sierra Club.

By virtue of my training as a geologist I am familiar with the complex framework of interactions which characterize alterations of the environment and the probably time-frame of these interactions.

I am pleased to have the opportunity to testify here today. I also wish to express my thanks to Senator Metcalf for arranging these oversight hearings as well as providing background information to me.

I would like to divide my testimony into three sections: a review of previous testimony; the reclamation problem; and conclusions. The focus of my testimony will be upon the latter portion of question 17 of the list of questions submitted by the Subcommittee on Minerals, Materials, and Fuels to the Department of the Interior. Most of my comments will be specifically directed toward the question: Is reclamation feasible on most of the lands of the northern plains?

Much of the previous scientific and public debate on the topic of the feasibility of reclamation has been conducted in a rather superficial and linear fashion. The terms restoration, reclamation, and rehabilitation have typically been used interchangeably, leading to comments and conclusions which are contradictory and confusing. The National Academy of Science report on the rehabilitation potential of western coal lands defines somewhat inadequately these terms in the following manner:

"Restoration" implies that the conditions of the site at the time of disturbance will be duplicated after the action.

"Reclamation" implies that the site is habitable to organisms that were originally present or to others that approximate the original inhabitants.

"Rehabilitation" implies that the land will be returned to a form and productivity in conformity with a prior use plan including a stable ecological state that does not contribute substantially to environmental deterioration and is consistent with surrounding aesthetic values.

The Academy's often quoted findings that "those areas receiving 10 inches or more of annual rainfall can usually be rehabilitated provided that evapotranspiration is not excessive, if the landscapes are properly shaped, and if techniques that have been demonstrated successful in rehabilitating disturbed rangeland are applied" has,

if anything, added to the confusion about the feasibility of reclamation. Typical of this confusion is the followup answer to question 17b submitted by the Department of Interior [Congressional Record, 1974, p. S5480] which cites the previously given NAS quotation and then concludes: "As lands in the northern plains do in fact receive over 10 inches of annual rainfall, it should be expected that mined areas can be feasibly reclaimed if properly planned."

Scientific data is lacking at this time to support either the NAS findings that rehabilitation is usually possible, or the Department of the Interior conclusion that reclamation should be expected in the northern Great Plains area. While it may be linear, it is certainly illogical to assume that research on revegetating western range lands, disturbed roadways, and other denuded areas bears more than a superficial resemblance to the problems of reclaiming western lands that have been surface mined. No long term, extensive, controlled experiments have been conducted which can be used to determine the feasibility of restoration, reclamation, or rehabilitation. Several site-specific studies are underway in the northern Great Plains area like Sindelar & Hodder, Mont.; Bond & Sandoval, USDA, N.D., but these studies, though of high quality, fall far short of answering the multifaceted question of reclamation feasibility, for the greater portion of the western coal lands.

Presumably one of the objectives of the northern Great Plains resource program and the Department of Agriculture project SEAM is to provide a more quantitative answer to the question of the feasibility of reclamation but I am unaware of any acceptable full-scale reclamation of strip mined lands anywhere within the semi-arid to arid region of the northern Great Plains. I assume, therefore, that both the NGPRP and SEAM have much to accomplish before the feasibility of reclamation can be demonstrated. In this frame of reference, it is also very difficult to understand how, under the Energy Minerals Allocation Recommendation System (EMRS), the individual BLM district manager can adequately consider the rehabilitation potential of the lands underlain by Federal coal as a criteria for tract selection for coal leasing.

The "reclamation problem," typical of most environmental problems, is not amenable to solution if we continue with the current linear thinking wherein we narrowly define the problem and then merely require more time and money with which to effect a "technological fix" or solution to the problem. While such linear solutions appear to solve the problem they, in fact, only serve to displace the problem, upsetting the environmental equilibrium of other systems and precipitating a plethora of second- and third-order problems.

All natural systems, including man and his social subsystems, are governed by circular, closed-loop, feedback processes or cycles. Such feedback loops characterizes the problem of reclamation. Vital components of the loop consist of, but are not limited to—climatic, geologic, pedologic, biotic, hydrologic, topographic, societal, and temporal components. In order to further the understanding of the multitude of interacting factors that need to be considered when dealing with the problem of reclamation, I would like to emphasize certain critical factors.

Climate, as expressed by available soil moisture, is a primary limiting factor in the reclamation potential of western coal lands. However, it is the ratio of potential evapotranspiration to precipitation, rather than arbitrary distinctions based upon absolute levels of precipitation (such as 10 inches of PPT), which delineate the availability of soil moisture.

The map illustrates areas of the conterminous United States where present potential evapotranspiration exceeds precipitation. The Northern Great Plains coal lands all lie in an area in which potential evapotranspiration exceeds precipitation and, in other words, there is a deficit of soil moisture.

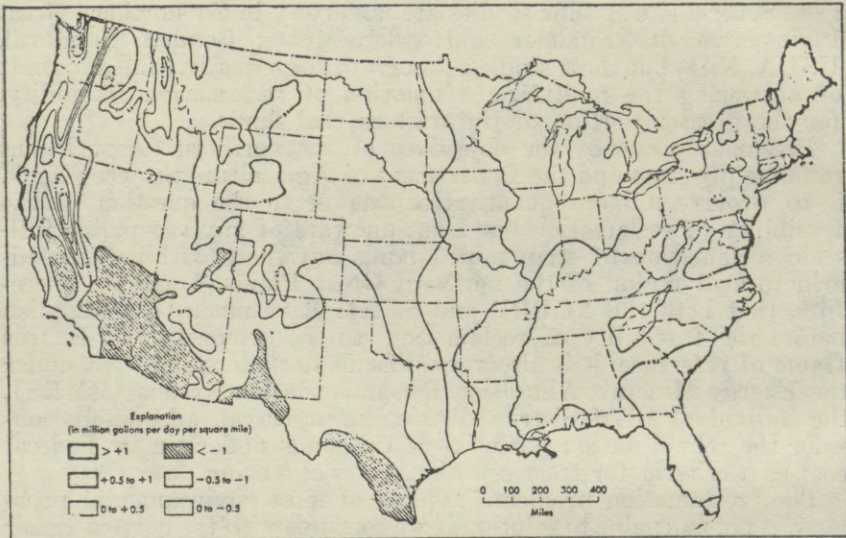


FIGURE 1 The balance between potential evapotranspiration and rainfall precipitation. In regions where rainfall exceeds evapotranspiration, there is a water surplus that appears as a perennial stream flow. When potential evapotranspiration exceeds rainfall, there is a net water deficiency. (After A. M. Piper, U.S. Geological Survey, Water-Supply Paper #1797, 1965.)

The deficit of soil moisture is expressed as very slow rates of chemical weathering and correspondingly low rates of soil formation. Soil is a living biogeochemical substrate composed of minerals; delicately bound nutrients that are available to plants upon demand, but not to leaching rainwaters, and living organisms and decomposed organic substances that participate in the nutrient cycle between plant and substrate. In recent years geologists, pedologists, and paleoclimatologists have learned that throughout much of the arid west there appears to have been relatively brief periods favorable to soil formation which have punctuated longer intervals of time characterized by landscape evolution. Thus, the soils of this region can be viewed

as relics of shorter, wetter intervals within the last 10,000 to 1 million years. We are now living in a period of time when natural conditions cannot be expected to maintain present ground covers should these soils and their geologic substrates be disturbed. To achieve restoration the vegetative cover and nutrient cycles must be as "closed" as they were before man-caused disturbance.

The water deficit is further expressed in terms of imperfect leaching of the soils and geologic substrates of soluble cations such as calcium, magnesium, and sodium. Thus, "the physiochemical properties of materials, presently left as spoils, provide a very poor environment for vegetative growth." Potential nitrate pollution of surface and groundwater from exposed spoil materials appear to be yet another expression of imperfect leaching and geochemical immaturity.

The semiarid or arid environment of the Northern Great Plains coal lands implies a hydrologic regime of limited streamflow and groundwater. Erosion rates in this area are among the highest in the United States (see map). It is evident that disturbance of slopes and stream channels will greatly accelerate the erosion and sediment yield of the area. In view of the difficulty of establishing vegetation cover subsequent to disturbance, the on-site sediment yield may be great for a long time interval as well as will be the potential adverse impact on water quality. As the shape, density, and viability of vegetation cover of spoil materials all have a great impact on the hydrologic regime of the area, the hydrologic parameters of the site must be understood before the decision to strip mine is made.

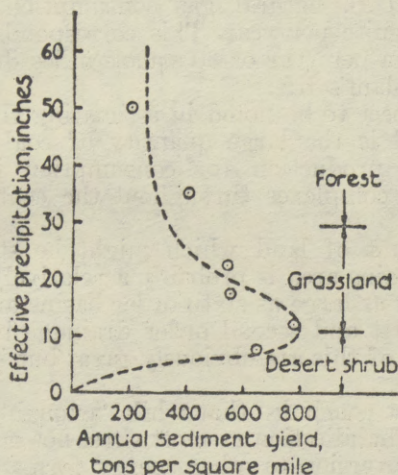


Figure 2

Climatic variation of yield of sediment as determined from records at sediment-measuring stations. [From Langbein and Schumm, 1958.]

The ability to predict the magnitude of disturbance that would accompany the proposed surface mining activity may offer the opportunity for policymakers to make more informed choices. Estimates of the amount of area potentially to be stripped and the water resource allocations necessary to energy development are integral components of the reclamation problem.

The NAS report indicates that the acres disturbed per million tons coal produced in the Northern Great Plains is as follows:

<i>State</i>	<i>Acres per million tons</i>
Montana -----	46
North Dakota -----	64
Wyoming -----	24

Further estimates indicate that 140 square miles of western coal lands would be disturbed by 1990 in order to meet current projections of coal production [NAS, 1973, p. 2]. However, a brief review of the north central power study indicates a possible maximum coal demand of 900 million tons per year for electric generation plants. This maximum development scenario would correspond to a minimum of 32 square miles of new strip mined land per year at the height of development.

While it is difficult to determine the exact number of coal gasification and liquifaction complexes as well as COG's which are being contemplated or planned at this time, it is instructive to note that a single Lurgi-type coal gasification plant of the type planned for North Dakota by Michigan-Wisconsin Pipeline Co. will have a capacity of 250 thousand cubic feet of synthetic gas per day [0.3 percent of 1972 U.S. natural gas consumption] and require 10 million tons of lignite per year. This corresponds to 1 square mile of strip mined area per year or 30 square miles during the 30 years of the proposed plant's life.

Yet another aspect to be noted in estimating the amount of land to be strip mined is the large quantity of coal and lignite committed to export production for consumption in industrial and power generating complexes throughout the central region of the United States.

Thus, the amount of land which might be strip mined in the northern Great Plains area is probably a relatively large percentage of drainage basins as large as sixth-order basins and will completely eradicate many first and second order drainage basins. The hydrologic implications of this are obviously great but imperfectly understood at this time.

The NAS report concludes that while "enough water is available for mining and rehabilitation at most sites, not enough water exists for large scale conversion to other energy forms. The potential environmental and social impacts of the use of this water for large scale energy conversion projects would exceed by far the anticipated impacts of mining alone." Obviously this critical dimension of the reclamation problem requires extensive analysis before we can more specifically evaluate if reclamation is feasible on most of the lands of the northern Plains.

The extent to which restoration or full reclamation is not attained will determine the extent to which the true costs of coal and

lignite strip mining are externalized. The land must be considered to be a resource in its own right. Every year which a strip mined site exists at a level inferior to full restoration is a year in which the quality of the watershed, the atmosphere, the lithosphere, and the biosphere, including man's own social subsystems, are adversely affected. These external, long-run costs must be internalized.

With 10 billion tons of coal under Federal lease at the present time, it appears to me that it is both unwise and generally unnecessary to resume leasing of the Federal coal lands until such time as the feasibility of long-term reclamation has been established. If the Department of the Interior has set some level of rehabilitation as its goal, then the likelihood that this goal can be achieved is moderately high, although if drought conditions arise during or after rehabilitation the chance of success is markedly reduced. However, if environmental degradation of the northern Great Plains is found to be an environmentally unacceptable alternative then higher levels of reclamation or full restoration must be attained. With present technology the probability of reaching these objectives ranges from moderate to zero under optimal conditions.

Several research priorities appear to be indicated in the future for the NGPRP and SEAM projects. These include the following:

1. Close coordination of effort by NGPRP and EMARS to develop a holistic approach to the problem of evaluating the rehabilitation and/or reclamation potential of the land prior to strip mining.

2. Evaluation at the drainage basin level of the feasibility of and total cost of reclamation.

3. Thorough evaluation of the potential of soil amendments and synthetic soils, such as sewage slurries, as supplementary reclamation strategies.

4. Formulation of strip mining plans or methods which will avoid stockpiling of soils in order to maintain the natural viability of these soils.

Thank you.

Senator METCALF. Thank you so much, Dr. Weber, for coming over here from Minot and giving us the benefit of your scholarship and your research in a very thorough and professional manner. You made some important contributions and I am grateful and I will continue to be in correspondence with you as we develop this legislation.

Dr. WEBER. Thank you, sir.

Senator METCALF. Dr. Carl Wambolt, Society for Range Management.

STATEMENT OF DR. CARL WAMBOLT, SOCIETY FOR RANGE MANAGEMENT

Dr. WAMBOLT. Mr. Chairman, I am Carl Wambolt, representing the Society for Range Management. The society is international, representing more than 35 countries, with a majority of its members being professional resource scientists and managers. Members of the Society for Range Management are for the most part trained ecologists.

gists with a special aptitude for practical application of ecological principles and a common interest in the rational use of rangeland ecosystems.

To members of our society range is not a kind of land use but rather a type of land with its associated resources. Therefore, we are concerned with entire ecosystems and not limited to any specific land use.

With the structure and function of ecosystems, the basis for our science, we are naturally quite interested in all natural and man-induced actions to those systems. We are definitely considering such an action of major importance here today. Certainly, the development of the Fort Union coal formation has every potential to be the most influential force that the northern Great Plains has experienced since the advent of civilized man. The society believes that it is essential that a total systems approach of planning must be implemented to study the potential changes that may be forthcoming from various levels of energy development. Proper planning is essential in order to minimize disruptive effects of any newly introduced force on an ecosystem. We feel that there is great potential for deterioration of the northern Great Plains through energy development if the upmost in total ecosystem resource planning does not precede alteration of this region. Certainly, complete accountability must be made for all resources within the ecosystems comprising the coal bearing region and within the framework of alternative levels of energy development. Our most basic resources, land, water, and air must be given the consideration they merit.

The society believes there is a need to question just what land capabilities will be following mining. We raise this question because our society, although comprised of thousands of perhaps the most capable individuals in this country to deal with the problems of land reclamation, does not believe that we yet have the answers to adequately handle semiarid land reclamation, given the many permutations of environmental variables that will be encountered in mine development. We realize that our experience with revegetating rangelands and other areas denuded of vegetation, has not provided us with an adequate background needed to cope with strip mine reclamation. We do not believe it to be in the best interest of our Nation to accept as a viable alternative any "national sacrifice areas" following mining, as described in the National Academy of Sciences report, because the resources in these areas now provide are renewable, unlike the finite satisfaction that will be provided from fossil fuels.

We also recognize the great importance of water in the Western States where the northern Great Plains is no exception. From the information that has been made available, we must assume that water will be in great demand in many phases of coal development. Great caution must be exercised when allocating the region's limited water resources. No irreversible commitment of the region's water for energy development should be considered and certainly not within the terms of new coal leases. Even more difficult to plan for, with present understanding, is the potential effect of strip mining operations on the watertables in the region as it is known that many coal seams are aquifers.

Because some level of energy conservation appears nearly certain in this region, we also express concern for air quality as the detrimental effects of polluted air on flora and fauna of other regions is a matter of record. In view of real concern for the water and air resources of the region, the society is in agreement with a policy statement issued by the State of Montana indicating that energy conversion should take place near the Nation's high energy demand areas.

We also vividly recognize that implications go far beyond those of a purely ecological nature to social and economic considerations. The complete lifestyle of the region could be dangerously disrupted if careful, practical, and applicable planning is not provided. Such a change in the northern Great Plains would be on the magnitude of disemploying the industrial complex in our country's midwestern or eastern regions and informing the populace that a shift in resource use was being made to provide solely for the production of food and fiber, increased quantities of high quality water and a variety of recreational experiences that can be derived only from an area where a tired nation recharges itself in response to being a part of an uncontaminated ecosystem. Consideration of socio-economic factors further emphasizes the wisdom in the State of Montana's position that energy conversion be accomplished at load centers.

The Society for Range Management feels that it should be involved in the planning process regarding changes of resource use within rangeland regions such as the northern Great Plains. We believe it is essential that national legislation be forthcoming soon that is environmentally responsible to the region's basic resources. In the meantime we feel that coal leasing must not be allowed on an indiscriminate basis or to suppress State authority to regulate development. It appears at the present time that there are adequate committed volumes of coal to more than provide for the Nation's energy needs. If our country's energy needs are to be even partially fulfilled by western coal, we recommend further examination of the wisdom behind over extended resource commitments when it appears that energy requirements for untold decades can be met by existing leases and so many renewable resources are in certain jeopardy from such action.

Thank you, sir.

Senator METCALF. Thank you, Dr. Wambolt. Would you tell me a little more about the Society for Range Management, about how many members do you have?

Dr. WAMBOLT. We have slightly over 5,000 members at the present time. As I pointed out most of these people are professionals, you might say college trained scientists and managers of land resources. We do have a number, I couldn't tell you the percent, of lay people, ranchers, and those interested in wildlife, reclamation uses and so forth of land.

Senator METCALF. And you have members in almost every State or are you just the Western States, or just in the range States?

Dr. WAMBOLT. We are not limited geographically in any respect like that. I couldn't tell you, but I think we have members in virtu-

ally every State in the Union, certainly at least three-fourths of them. I couldn't be sure if we are represented in all 50.

Senator METCALF. And where do you live?

Dr. WAMBOLT. I live at Bozeman, Mont.

Senator METCALF. And are you testifying on behalf of the society because you live nearby or are you an officer member of the society?

Dr. WAMBOLT. I am a member and I was asked primarily because of my interest in this field and am quite close by.

Senator METCALF. You are not an officer, however?

Dr. WAMBOLT. No, I am not.

Senator METCALF. Well, of course we appreciate very much this dissertation on the part of the professionals. You say that you do not yet have answers. We have heard that over and over again to this whole, not only the land use but the whole ecosystem. Do you think that we will have an answer soon or are we on our way, are we doing the necessary research, to discover the way to handle this problem if we are going to make the most important change in the history of man.

Dr. WAMBOLT. I think we need more research, certainly a greater scope to our research. As far as when we will have answer, it's going to take a lot of time.

Senator METCALF. A long time.

Dr. WAMBOLT. Certainly. I wouldn't be sure of reclamation in less than a couple decades because it's going to have to stand the trial of use.

Senator METCALF. Water use would have to be considered?

Dr. WAMBOLT. Well, as far as water quality you mean?

Senator METCALF. The aquifers and the water quality and the change of the surface water and so forth.

Dr. WAMBOLT. I can speak more directly to the surface water. I am not a hydrologist by any stretch of the imagination, but I think this is correct. We won't be sure just how or what quality or quantity surfacewise will be affected for a decade because we won't be sure about this ground cover provided by reclamation revegetation, what it will be. So that's a correct statement in my opinion.

Senator METCALF. And I am not sure. I visited a whole lot of places yesterday and saw a lot of very devoted and I think dedicated attempts at reclamation. I think it was down at Colstrip that they pointed out some of the slopes that have been reclaimed by the Burlington Northern after they had been left idle for all these years. I have nothing but highest praise for the Burlington Northern going in there and doing something to the destruction caused by the Northern Pacific, but they have been planted for 6 years and there still wasn't a cow grazing on it. So I'm inclined to think that you have made an important point today, that's going to take a longer time than we know and this is only an experiment down there.

Dr. WAMBOLT. That is correct. I have to agree with the previous speaker. I don't know of a single acre in that semiarid region that has been reclaimed, and certainly this is going to take time to see if it will bear up under stress that it will be put to.

Senator METCALF. Well, thank you very much for this important contribution. And now I am to understand that we have a group of witnesses that we are going to have to wait for, so at this time I am going to ask Mr. Francis Maroncelli who is from Billings to read the statement into the record on behalf of the executive committee of the Montana AFL-CIO.

**STATEMENT OF FRANCIS MARONCELLI, PRESIDENT,
YELLOWSTONE VALLEY CENTRAL LABOR COUNCIL**

Mr. MARONCELLI. My name is Francis Maroncelli. I am president of the Yellowstone Valley Central Labor Council and I will read this communication from James Murry, executive secretary.

Dear Senator Metcalf, events of recent months give us cause for great concern that under the guise of an "energy crisis" an all-out effort is being plotted by the Nixon administration and major energy corporations to emasculate state environmental quality laws, such as have been enacted in Montana in recent years.

The working people who are the Montana State AFL-CIO, have repeatedly expressed their support for legislation to maintain the quality of living in our State. Their active interest has been a substantial factor in securing legislative enactment of sound air and water pollution control, utility siting and coal strip mine land reclamation laws—laws which are the envy of the entire nation.

The Montana State AFL-CIO is unalterably opposed to any Federal preemptive action which would in any way weaken Montana's environmental quality laws. To the contrary, we will do everything within our power to expose such proposed weakening as just another salient by major energy companies to exploit our resources at the lowest possible cost. We are determined that Montana shall not become another wasteland, such as maximizing of profits has accomplished in large areas of West Virginia, Kentucky, Pennsylvania, Illinois, and Ohio.

We recognize that Montana's enormous reserves of strippable, low sulphur coal can be of major import in meeting the much-heralded "energy crisis." Assuming it is more real than contrived, we also recognize that Montana owes a responsibility to the nation to help meet that crisis.

The Nation in turn must recognize it, too, has a commitment to Montana. Our coal, to be mined, must be so done in a manner that meets the approval of the people of Montana.

Montana's environmental laws, although stringent, are not unreasonable. They are based upon a century-long bitter experience. A century of exploitation that has left portions of our state a heritage of unsightly mine dumps and placer tailings, of air polluted by the emissions of smelters and oil refineries, of once sparkling trout-laden streams poisoned by mining, lumber and pulp wastes. Montanans are determined that that experience will not be repeated in the century ahead.

This is not to say we are against the wise use of our resources. Quite to the contrary, Montana needs the jobs that increased resource utilization will create. However, we know that the technology is

available to keep the adverse environmental impact of the exploitative industries to levels which will do a minimum of damage to our environment.

Montanans have always rallied when crisis faced our nation. We will do so in the present crisis, but in so doing it must be understood by the Nixon administration, the Congress, and the Nation as a whole that such support will only be willingly given on the basis that "cooperation is a two-way street."

It is signed, James W. Murry, Executive Secretary, Montana State AFL-CIO.

Senator METCALF. We will skip down to Mr. Stephen Knapp.

Mr. Knapp, we are delighted to have you here. We are calling you earlier because the other group hasn't arrived.

STATEMENT OF STEPHEN KNAPP, BIOLOGIST, MONTANA DEPARTMENT OF FISH AND GAME

Mr. KNAPP. Senator Metcalf, my name is Stephen Knapp. I am a biologist for the Montana Department of Fish and Game. I was asked to testify here today by my neighbors on behalf of their wildlife resource.

With approximately 600,000 acres of coalland already leased in Montana, and 37,000 of these acres in the Birney-Decker area, the Montana Department of Fish and Game is extremely concerned about the tremendous potential impact on our wildlife resource.

To start off, I'd like to dispell a myth I've heard repeatedly by industrial interests, that is, southeastern Montana is a desert or a great "Big Ugly." It's not. In fact it is probably one of the most productive areas within the State of Montana.

Unfortunately many people evaluate the worth of land simply by a casual glance. This area does not receive the rainfall of western Montana mountains, but heavier rains and longer period of green are not the only indicators of productivity. The plants and animals of this region have evolved into a very productive community.

Evidence of this can be seen in the wildlife resource of this region. Approximately 30 percent of the deer harvested in the State of Montana every fall comes out of southeastern Montana. This is approximately 25-30,000 animals.

We've been having good deer harvests for 20 years with no sign of letting up. By this, I mean the productivity of the deer is still good. And wildlife, being a byproduct of the land, reflects the fertility of that land.

In 1972, almost 29,400 deer were harvested from southeastern Montana. There were 37,600 sportsmen hunting these deer, spending over 141,000 days in the field. That provides a lot of recreation. 12,800 people hunted antelope, harvesting 9,200 of these animals. Many of the hunters were nonresidents—an example of sharing a state resource with the rest of the Nation.

Every year more and more people are wanting this kind of recreation, but every year open land, and consequently the opportunity to enjoy this resource is dwindling. With extensive and multiple strip mines we lose from both sides. We lose the land resource neces-

sary for wildlife habitat and we get heavier pressure on the use of the land that is left.

Another important aspect of our wildlife resource is its usefulness as an indicator of the condition of the environment. They breathe the same air and drink the same water as we do. About a month ago, I counted 80 bald eagles on the Yellowstone River between the mouth of the Bighorn River and the town of Custer, about 15 miles of river. When I told one of my friends this, he said, "How can the bald eagle be considered a rare and endangered species?" He didn't stop to think that on a national level it is, but because of the pureness of Montana's sky and cleanliness of its water, we have one of the few strongholds left for our national symbol.

Someone might be thinking, so what! Is this country for eagles or people? To that I say, looking at the abundance of environmental laws over the last 5 to 7 years, the increased interest in the development of a land ethic among people of widely varied backgrounds, and the increased use of our national recreation areas, it appears that people not only want, but need rural areas, open land and wildlife. Unfortunately we can't fully convert these values to dollars and cents which often cause them to lose priority in the face of heavy economic values.

Russell Train, Administrator of the Environmental Protection Agency, feels that the country must have growth to survive but suggests that it be in a different guise from what we know today—a more humanly satisfying growth, concentrating more on services like health and education, and less on production.

The desirability of growth should be judged within the context of a value system. As our society has come to attach a steadily higher value to clean, healthy air, it has imposed steadily higher controls on sulfur oxide emissions from fossil fuel power generation. Such controls have important implications for growth. But the fact that such ordinances exist prove that our society will no longer tolerate unrestrained growth.

We have all heard it suggested that environmental programs will stop or slow down economic growth. I submit that just the opposite is the case. It is pollution—not its control—that promotes limitations on our society and its growth. The American people and the people of Montana will not, and indeed cannot afford to tolerate unrestrained activities that adversely affect the public health and welfare.

Growth has been associated with prosperity, expanding opportunity and social progress and that's really good, no one can argue with that. It has produced so many benefits that it has been unquestioned. But many are beginning to ask whether we should continue to regard growth, of population, of technology, of affluence, as the primary measure of progress. Simply stated, is more necessarily better?

It is this More, the projected energy demand, that is used as a chief argument for mining western coal on a grandiose scale.

According to Assistant Secretary of Interior, Jack Horton, the policy of the Department of Interior, as presented in the testimony to the Senate subcommittee, is to lease more coal with the tongue-in-cheek stipulation that land will not be leased unless rehabilitation

is feasible. Then he quotes the National Academy of Science study entitled "Rehabilitation Potential of Western Coal Lands," land "receiving 10 inches or more of annual rainfall can usually be rehabilitated provided that evapotranspiration is not excessive, and if techniques that have been demonstrated successful in rehabilitating disturbed rangeland are applied," and he comes up with the simplistic, conclusion that since the Northern Plains do receive over 10 inches of annual rainfall, then mined areas can be feasibly reclaimed. I shudder when I see how a bureaucrat taking a scientific report, probably carefully prepared, and came to such a quick and simple conclusion. I say that because that's how he answered the question. Is he going to make a national policy on his interpretation of this report?

It is nice to say that the land can and will be reclaimed, it is nice to predict that the land has the potential to be reclaimed, but it would be a lot nicer if someone did it. As Dr. Wambolt has just said, we have only one hard fact to go on. Even though there are four on-going strip mines in this State of Montana, none have demonstrated any permanently reclaimed land. If the Congress of the United States is truly interested in preserving and/or restoring the several renewable resources to be affected by strip mining and possible associated facilities, I would strongly recommend from both a personal and professional point of view that further Federal leasing be postponed until more data has been collected and analyzed and the preliminary results of what will be considered "totally reclaimed land" are in our hands. I go on to make one further recommendation. I would like to suggest that consideration be given to including federal coal leasing under the Fish and Wildlife Coordination Act. In this way, a method for mitigating wildlife losses resulting from unsuccessful coal strip mining reclamation could be developed.

Senator METCALF. Thank you very much for bringing us that last suggestion. That hasn't been advanced during the course of these hearings and that is a new idea I know that the member of the staff here listening to me will give me some advice as to how it can be incorporated or what could be done under the Coordination Act.

I want to thank you also for a very eloquent statement in demonstrating that an environment in which wildlife can survive is an environment for human survival, and if the wildlife can't survive the humans are going to have a very difficult time to get along too.

Mr. KNAPP. Yes, sir. I think the Montana Department of Fish and Game's philosophy is that of a livable environment for wildlife is a quality environment for man.

Senator METCALF. Thank you very much.

Mr. Roger McKenzie.

STATEMENT OF ROGER McKENZIE, POWDER RIVER BASIN RESOURCE COUNCIL

Mr. McKENZIE. I am Roger McKenzie. I am from Dayton, Wyo., a small town west of Sheridan, Wyo., at the foot of the Big Horn Mountains. I am a board member of the Powder River Basin Resource Council.

The Powder River Basin Resource Council wishes to emphasize that the frantic rush to strip mine coal in Wyoming and Montana has little or nothing to do with so-called "energy-crisis," but rather the "energy crisis," which is real in some respects, is being used as the rationale by industry as a "get-rich-quicker-scheme."

According to the Bureau of Land Management Office in Casper, 132,192 acres of Federally owned coal has already been leased which has estimated deposits of 12.25 billion tons of coal. At the projected rate of consumption, this will last more than 20 years. During those more than 20 years, it is very likely that, due to alternative sources of energy or to the decision to save this coal for more important and more efficient uses, that it will be decided not to use the coal for the purposes now contemplated; therefore, it would be very short-sighted and unwise to lease more at this time. If more leasing is permitted now or in the near future it would only assure that additional acreage would be disturbed with no assurance that it can be reclaimed, additional acres would be ruined for the purpose of ranching and farming and likewise the way of life of more people would be disrupted.

Industry is able to organize and wage their battle for this coal on a 24-hour a day, 365 days a year basis by paying their engineers and public relations people very generous salaries. The public must rely on their own efforts and time at their own expense in their attempt to convince their elected representatives that the public's interest will best be served by proceeding cautiously rather than being stampeded by industry into getting all that they want right now.

Another major concern of ours is that at the very time that all sorts of studies are being done by County, State, Regional and Federal groups, industry is proceeding as though they have full agreement from the public concerning their plans. If at some point industry is told they haven't followed the rules or that they cannot do something they have already begun, they point to their capital investment and say, "You shouldn't stop us now because we will lose our investment." In other words, at times it seems that we are being consumed by industry, while we are studying how, when, where and even if we should be consumed.

The Powder River Basin Resource Council has concluded there are "good guys" and "bad guys" even among the giants of industry. For example, we have found that those who buy expensive television time and take out full page ads in major newspapers and magazines, who use scare tactics and subtle psychological manipulations to get-rich-er-quicker are not necessarily the ones who are the most credible or who will take the most pertinent factors into account while mining the public domain and energizing the populace. Who the Federal Government leases to should be based as much on company responsibility as it is on the highest bidder.

Finally, if the alternative sources of energy, as for example, wind power, solar energy and thermal energy were given the same tax incentives that are given to the producers of fossil fuels, our environment would be more liveable and our future existence would be more assured.

Thank you very kindly.

Senator METCALF. Thank you very much, Mr. McKenzie, for a splendid presentation on behalf of the Powder River Basin Resource Council.

Mrs. Dorothy Reno? Is Mrs. Reno here? She is not here.

We will call her again then later.

Mr. David Palmerlee? He is not here?

I think I will call a recess for 10 minutes right now and maybe some of them will show up. We will be in recess for 10 minutes and we will reconvene at 3:30. The first witness will be Mr. Bob Wallick.

[Recess.]

Senator METCALF. The subcommittee will be in order.

Our first witness will be Mr. Bob Wallick. Mr. Wallick informs me that he is just back from a brief trip and he does not have a prepared statement, but we are delighted to have you here. We hope that you can give us some help by impromptu and extemporaneous testimony. Go ahead, Mr. Wallick.

Mr. WALLICK. Thank you, Senator Metcalf.

STATEMENT OF BOB WALLICK

Mr. WALLICK. Senator Metcalf, I certainly appreciate the privilege of giving a verbal statement, even though I haven't had time to prepare one.

One thing I wanted to bring up was that I attended a hearing in Buffalo a short time ago and it was an Exxon Oil Co. and they were applying for a water right or it was an issue over a water right on the Powder River Drainage, and there was an interesting thing brought out in that hearing, and I think people here should know about it. It concerns the Yellowstone River Compact of 1950. Wyoming's share of the unappropriated water as of 1950 was 42 percent, Montana's was 58 percent. That 42 percent is 120,700-acre feet, Montana's share is 166,600-acre feet, or a total of 287,300-acre feet of unappropriated water. Of course the Wyoming water program No. 10 of 1972 indicates that in order to use the water we would have to have more storage facilities. Well, also in that planning report it is interesting to note the State engineer says that in a drought year such as 1961 little if any unused and unappropriated water would be available. Now since 1950 the State Engineer of Wyoming has continued to issue water rights on Wyoming's share of the unappropriated water, and is continuing to issue these water rights to industry today in huge amounts of unappropriated water. In fact, he has already issued far in excess of Wyoming's share of the unappropriated water in the Powder River Drainage. Now they say there is no problem here because a later 1974 water right, if there is, you know not enough water, the 1870 water right holder will get his water because these new water rights are being structured to industry, power plants, coal gasification plants and do you think these plants will shut down and let the old rancher have his water? I don't think so. I think that it's a planned effort to change the law, when the plants get on the line and they are using the water there

is no way that they are going to shut them down, the water is going to come off of the land. The water rights will be changed at that time just the way they were changed in Colorado, from the—they changed to the first in need rather than the first water right. To me this is an indication that our State government is planning the sacrifice of the agricultural industry in the northeast portion of Wyoming. Now less than 5 percent of the northeastern section of Wyoming is agricultural, good agricultural land, beautiful hay meadows and river and creek bottom land. That land is being threatened by the coal development, because most of our strippable coal, at least overburden, is in the river and creek bottoms. An example is the Big Horn Coal Co., just now they are breaking out of pit mining and they have moved the Tongue River to the north side of the valley, starting down the Tongue River Valley. Now water storage. They are going to need to store a lot of water and of course the best storage areas are in the creek and river bottoms. Then in come the people. They want to live where it is the easiest to develop and build. The urban sprawls will be in the river and creek bottoms, the roads and the railroads. What I am saying is that all the impact to me appears to be in this small 5 percent of our land that's most valuable to agriculture in the northeast section of Wyoming.

The north central power study clearly shows that there just simply is not enough water for the industry that they would like to see in that area. Therefore they plan aqueducts to bring water in from elsewhere. It's generally agreed that for reclamation they are going to have to have a lot of water and fertilizer for a long time to get anything to grow on that reclaimed land. There isn't even going to be enough water left for agriculture, let alone reclamation. I don't know where they plan to get the water from, if they allow the industry in that is planned for the area. To me food is going to be the critical shortage, not the energy shortage. Man has lived without the aid of fossil fuels for thousands of years on the earth, but there is no record of man having been able to live without food.

Senator METCALF. Not for very many days.

Mr. WALLICK. Not too long. And there are some pretty wild predictions. I read one article in the *Denver Post* just a few months ago where they are predicting over a billion people would be starving to death in just the next 5 years due to the food shortage. The cost of the production of coal over the last 50 years has actually not been in the price of the coal. The strip mining areas in Pennsylvania, they are spending, as you probably well know, millions and maybe billions of dollars in Pennsylvania just to try to get rid of the acid in the streams caused by strip mining. In Kentucky over a 10-year period they lost some 75,000 people from the state because that much land was just simply removed from the inventory of the State, the people had to go elsewhere. We haven't been paying the price of the strip mined coal, and I think we are going to have to start paying the price, and if we do reflect the true cost of strip mining, when the land is put out of production, the social costs, the present and the future economic costs, the reclamation is im-

possible. If we would reflect all those things into the price of strip mined coal I am sure the deep mining would become very attractive. And in conjunction—I would like to say that I think this amendment to the strip mining bill that Broncolio of Wyoming supported is a disaster, permitting the strip mining of the river and creek bottoms, being allowed to move the rivers from one side to the other in the valley in order to strip the valley. That makes the strip mining bill useless as far as I am concerned. Our social, economic and political system I believe is based on the continued and increased consumption of minerals. An MIT study reported, clearly reflects that we are going to be running out of critical minerals long before we run out of coal. And therefore I firmly believe that there is enough coal leased already to see us through the completion of other critical minerals, and if the Government must lease more coal I wish they would please consider my point. Do not lease coal in the river and creek bottoms.

SENATOR METCALF. Thank you very much, Mr. Wallick. The Roncalio amendment that you spoke of, was put in the bill, as I understand it, and then a motion to reconsider was made and it was taken out, so the way that house bill now consists of a defeat of the so-called Roncalio amendment so that you can move the creek bottoms and river courses back and forth with impunity.

MR. WALLICK. That's the way it stood when I left for Australia.

SENATOR METCALF. Things happened while you were gone. Well, Mr. Wallick, I think you performed a fine service for us in Montana as well as the people of Wyoming, to point out some of these dangers as to the change of water courses and the change and possibilities of appropriation of water over and above even the flood flow of the rivers and the streams of our states. In justice to Senator Hansen, I hope that when you correct your statement in the record, you will be given an opportunity to do so, you will not openly impune the motives of the State of Wyoming in doing so. Just leave it that you pointed out the dangers of such a policy. I think that if Senator Hansen were here, he would suggest that there isn't any devious or underground policy as far as the State of Wyoming is concerned, so let's just leave it that this is a very dangerous possibility to keep on allowing appropriation of their water, but it isn't a deliberate criminal design.

MR. WALLICK. I appreciate the suggestion. I think you are right. I probably would be in real trouble right now.

SENATOR METCALF. You are not in real trouble, but in justice to both of us, let's leave it that way. Well, thank you, Mr. Wallick.

And now we have Mr. J. K. Kuzara. Mr. Kuzara you have been sitting back there so patiently all day, and now it's your turn. Mr. J. K. Kuzara, Resource Information Association.

STATEMENT OF JOSEPH K. KUZARA, EXECUTIVE OFFICER, RESOURCE INFORMATION ASSOCIATION

MR. KUZARA. Senator Metcalf and ladies and gentlemen, for the record I am Joseph K. Kuzara, of Roundup, Mont. I am here today as an owner of surface lands underlain by Federal coal, also some of which is underlain by Northern Pacific coal, as an urban business-

man concerned with "Main Street Economics," and also as the executive officer of the Resource Information Association, which is a non-profit Montana corporation. We are composed of about 400 members, organized last fall to encourage what I like to call a reasonable "eco-industrial balance." I am also secretary of the Musselshell County Planning Board, a newspaper journalist and a candidate for the Montana legislature.

My comments today will relate to what I perceive as being the current and probable future policy of the U.S. Department of the Interior with respect to Northern Great Plains coal leasing and the effects of that policy on me as an individual, those people from whom I speak, and possibly the nation as a whole.

I will not waste time quoting you statistics in favor or in opposition to development of these resources, primarily because as you know, virtually any statistical data can be easily manipulated in support of those who offer them and because you should already have at your disposal those data which you consider relevant. And further, I will not bore you with an eloquent dissertation on such values as scenic beauty, archeological significance, ecological importance or the so-called cowboy mystique.

I consider those things as nebulous values which differ vastly among different individuals and I am confident that you already have or soon will be subjected to much discourse on these values by professionals either more or less qualified than I.

In an overview of the Department's current efforts at formulating leasing policy, I can only say that the Department is apparently attempting to add justification to your colleague, Senator Thomas J. McIntyre's criticism of the Government's \$33 billion dollar a year paperwork jungle which is already strangling the American citizen in general and both small and big business in specific. I favor orderly development of the Northern Great Plains resources, but I don't believe that order can result from complicated formulas for establishing, directing, analyzing, publishing, correlating, coordinating, reanalyzing, and republishing equally complicated and costly findings of the Bureau of Land Management, Northern Great Plains Resource program, Geological Survey, Energy Minerals Allocation Recommendation System, Environmental Protection Agency and heaven knows who else. I was forced to that conclusion after examining the Senate record of Department answers to Senator Metcalf's questions of March 13 and the subsequent followup answers.

More than eight pages are devoted to these answers which can generally be summed up on saying:

The Department knows neither the answers to the Senator's questions, nor even the questions it wants to answer about Northern Great Plains Resources. But it is, however, in the process of setting up the bureaucratic monsters which will examine the questions if there even are any.

What I'm saying is that you, gentlemen, the American people, and myself, are getting the royal "Let's justify our existence" run-around, and that probably more time is being spent at wasting time than at anything else.

Just for example, it took about three months to receive an answer from the Secretary of Interior to a letter I wrote in regard to the Department's suspension of leasing last year. And for one Montana

mine, it took more than eight months for the Department to compile a 400-page draft environmental impact statement which contained hardly anything but already published and commonly available data. It took the BLM nearly a year to put together a couple of 15 or 20 page reports on the Bull-Mountain, Petroleum and Buffalo Creek planning units which also contained primarily previously available data. And then, the essence of recommendations were that leasing await completion of the Northern Great Plains resource program studies which will take several more years.

What really irks me is that two BLM officials told me what those recommendations would be and that they would be based on political expedience rather than studied reason—on the same day, mind you, that the study was first begun.

Consider that in view of Interior's partial response to one of Senator Metcalf's questions, and I quote, "At this time, we need the courage to put aside needless fears and to seek rational solutions which are now within our reach." That statement itself explains the whole situation. Validly re-stated, it should read, "There are rational solutions, they are now present, our fears are needless, but we lack the courage to put those fears aside. However, in 10 years or so, after we've spent a few hundred million dollars and generated hundreds of tons of useless paperwork, we'll be able to drum up that courage."

To that, I say, it is about time for Congress to find someone who does have the courage—now.

Continuation of this method will not be in the best interests of the Nation. Businessmen, ranchers, school districts and local government simply cannot plan for the future in this sort of an atmosphere. We can't wait 10 years to make long-term improvements, that are needed right now. We can't risk beginning them now with the possibility that in a year or 2 or in 10 years, we'll be making them again.

I believe that the real solution rests in allowing things to happen within the normal framework of commerce. Why can't the time proven rule of supply and demand dictate the rate at which Federal coal should enter the market instead of some ambiguous and artificial formula derived through EMARS? Why can't tract selection be based on already proven reclamation success, examples of which are abundant, and on energy company ability or inability to negotiate surface damage agreements with landowners, instead of complicated time-consuming and mostly redundant studies by long lines of bureaucrats motivated by political expediency? Why can't social environments be allowed to adapt to changing times as they always have, instead of through manipulation of time to accommodate an increasingly unrealistic social atmosphere?

In conclusion, I'd simply state that Government's rightful role in this situation should be to demand an end result through simple enforceable contract—and nothing more. Time and human nature will take care of the rest.

I am going to depart from my statement at this time and state in essence that I rather severely criticize the Department of the

Interior for its handling of the situation so far with respect to coal leasing. I think as Governor Anderson pointed out this morning there have been hundreds of studies conducted in reference to this subject, millions upon millions of dollars have been spent and considerable time wasted not only by the Department but by other organizations also. To me this is almost criminal because I think that a great deal of it could have been avoided had a central body undertaken this problem several years ago. To me the continuation of these studies in quantity and continued costs to the taxpayers and the wasting of man hours is simply a "let's justify our existence move." And really results in little overall good. What really irks me is the BLM undertook a study of the Bull Mountain and Buffalo Creek planning units a couple of years ago or so and I think that study took about a year to complete. The recommendations essentially were that leasing be held up pending completion of the Northern Great Plains resource program study which also are going to take a few more years. The thing that graveled me the most on that was that two BLM officials told me right when they first started this study what those recommendations were going to be, and the fact that in their estimation that it was going to be decided more on political expediency than studied reason, and I just can't understand how our bureaucratic process will allow such things to happen. The Department in my estimation completely failed to answer the questions that you posed, and from reading those responses I question seriously whether or not the Department even knows what the questions it wants answered. However, they do say that within a few years they will know those questions and hopefully, some of the answers, but right now they are just simply in the process of creating a bureaucratic monster that is going to address the situation and I would like to see Congress really take the lead in this matter, and come up with somebody that can find these questions and find the answers and really get to moving on this thing.

The problem being that businessmen, ranchers, school districts, local government, and no one else can really plan in such an atmosphere. We can't wait 10 years to make these improvements, long-term improvements that are needed right now and we can't risk beginning now with no idea of what's going to be down the road a year or 2. With my experience in dealing with energy companies I think that the real solution to the problem rests in a normal course of commerce. You asked one witness awhile ago what type of situation existed with respect to leases of surface lands and so forth. Our lease is not specifically set up in this manner but it results in approximately \$10.70 per year acre surface damage, whether mining takes place or not, and if mining does commence then there is an additional royalty on top of that. Now I don't know if that is representative of the industry as a whole but that is one that my family negotiated with industry for. Another point that was referred to, we have heard considerable statistical data concerning the number of acres of leased coal, and these figures are astro-

nomical, they are beyond the conception of most of us, I think, but to remember when considering these figures a great deal of the land that may be under lease may not necessarily have recoverable coal. For example, we know oil and gas leases cover thousands and thousands of acres where actually there is relatively small amount of oil and gas there. On our particular situation the company has leased a great deal more land than is actually underlain with coal and the reason that was done is that we made them do it. They wanted to lease part and we said if you want any of it take it all. Also there has been some comment about separation of surface and mineral rights in land. I personally don't think that when these reservations were made that Government had any particular intention of protecting the surface owner. I think that more probable was the fact that the Government realized that there was value in that coal and hoped to keep that value. I wouldn't say that they anticipated the thing we are faced with today, but I still do believe that they believed that was a valuable resource, and with that my comments will conclude.

Senator METCALF. Thank you very much. On that last statement I have made a note that I am going to send you some remarks I recently made to the Western Wildlife Association in Denver. I am not going to belabor the point here, though.

What party are you running on for the legislature?

Mr. KUZARA. Republican.

Senator METCALF. Are you disavowing the Republican Administration?

Mr. KUZARA. No, sir.

Senator METCALF. Well, are you criticizing them.

Mr. KUZARA. I am criticizing bureaucracy.

Senator METCALF. Well, you are criticizing the present Republican Secretary of the Interior, the Bureau of Land Management, and so forth, so you are running against your Republican administration?

Mr. KUZARA. Well, if you are interpreting it that way, I guess that's it.

Senator METCALF. I am not interpreting it at all, I am just asking you. Well, on that platform I wish you all the luck in the world for your nomination.

Thank you very much.

Mr. KUZARA. Thank you, sir.

Senator METCALF. Mr. Gildroy, we're delighted to have you here, and you may proceed.

STATEMENT OF RALPH GILDROY, PRESIDENT, SOUTH CENTRAL MONTANA REGIONAL PLANNING AND DEVELOPMENT COUNCIL

Mr. GILDROY. Thank you, Senator Metcalf. For the record I am Ralph Gildroy, I am president of the South Central Montana Regional Planning and Development Council, chairman of the State Subcommittee on Community Development, president of the Musselshell Valley Development Corp., and chairman of the Rural Development Advisory Council.

Mr. Senator, this testimony that I am giving is a composite view based on background information, insights and resource materials gleaned from an active participation in numerous committees and councils. Adverting to my remarks pertinent to the Federal coal leasing program it may appear that with such broad based committee and council involvements there are bound to be many intrinsic cross purposes. Therefore, this statement does not necessarily reflect the opinions of any one particular committee.

The reasoning involved in arriving at the ensuing testimony is engendered from some basic assumptions. The alteration or omission of any of these assumptions may significantly amend my testimony. Some of the assumptions I am making are:

No. 1. We have a serious energy problem.

No. 2. We must live our dependence on energy imports and attain a Project Independence.

No. 3. Montana coal is needed now to alleviate a national problem.

No. 4. The work and planning of the various government and private entities and the NGPRP, EMARS, EIS, SEAM and RALI can be synthesized to produce the desired optimum results.

One concern which appears basic to the community of Roundup and Musselshell County is the possible conflict between its agriculture and a potential coal mining development. Now both are essential to a continuing and viable community. Addressing this concern I prepared a short overview entitled "The Compatibility of Agriculture and Coal Production", which presents one possible solution to a foreseeable conflict and opens the door to other alternative solutions. There are a number of communities in Montana which can benefit greatly from an orderly coal development but they need assurances about a continuity of their agriculture. Now having endured serious outmigrations with the resultant loss of tax base, manpower, leadership and related consequences, these communities are hardened by necessity to fully appreciate now the important of some sound, long-range planning which can be accomplished from a position of strength and competency based on an orderly, interim development.

As to the concerns about water, I have read much of the rough drafts of the studies and projections prepared by the Bureau of Reclamation as its contribution to the work of the NGPRP. The results are heartening to me. I think the safeguards are built in here and should encourage Montana to utilize the water while it's still available.

Adverting to reclamation, the South Central Montana Regional Planning and Development Council recently completed an eleven county "Solid Waste Study—South Central Montana". Now this study was prompted by a State law making it essential for all communities to have an approved sanitary landfill. The study considered the possibility of one regionally central collection point with one central management for all eleven counties. Due to the concentration of tonnages of solid waste in the Billings area, Billings is the logical center for collection. The study indicates that it is economically feasible to transport all of the solid waste in South Central Montana to this center. Since the tonnages would then be sufficient to justify

a pulverization and resource recovery plant, there now enters the possibility of transporting the pulverized material in returning empty coal cars to the Colstrip reclamation area for use as a soil conditioner and additive. Humus is much needed in the area.

From the Information Retrieval System in Washington, D.C., I have received extracts of all the pertinent studies concerning values of solid waste and composted wastes. Now none of these studies are sufficiently specific to assist us in our decision making so consequently, I have approached SEAM—surface environment and mining—for grant money to finalize the studies. On April 16, last Tuesday, I met with an interdisciplinary team at Montana State University, Bozeman, and explained to them our needs. They are now drafting a pre-proposal and will have it completed by May 1. This preproposal will be submitted to SEAM and any other grant source that may assist in expediting this study and helping us in our decisionmaking. Included as part of the preproposal is a demonstration building, at Colstrip, approximately 200 tons of pulverized materials from the existing pulverization plant at Great Falls, Mont. This, if approved, will give us a head start in obtaining results by establishing base data on a 1 acre demonstration plot and laying the groundwork for future monitoring. With emphasis now on waste water treatment, we also have been asked to consider the addition of municipal sludge by composting with our pulverized materials for additional soil additive values.

In my estimation, in summing up, there is probably a three-pronged purpose in taking some positive steps and attitude toward coal development:

1. Pertinent to our solid waste that I have been talking about, existing methods and the lack of methods for handling in Montana are a prime offense against nature. We are needlessly increasing the stripping of our lands to bury a ten foot layer of materials that can far better be utilized to enhance the reclamation of lands that must be stripped. The recoverable and nonrenewable resources should be recovered and, either stored for future use, or marketed.

2. I feel we are a part of the national community and do have a national commitment. I think by taking positive steps at local level to indicate interest, confidence and the willingness to assist in projects to insure our continuing livability that we can be the catalyst to weld a much needed reciprocity among the entities of governments and industries.

3. I think this accomplished, we can achieve a golden opportunity for many communities and a golden age for Montana.

Senator METCALF. Thank you very much. I was impressed by the unit trains that are moving out in Wyoming. The rapid loading and the running of the trains right through to Consolidated Edison in Chicago. I was wondering then when we are taking 100 feet of coal out, 70 feet of coal, 62 feet of coal, and so forth, why can't we utilize some of the waste material of Chicago to rebuild and restore and rehabilitate and reclaim? I want to use it in all the senses that previous witnesses used it. Your proposal would not only apply to the trains that are running back and forth from here to Colstrip and so forth,

but so when they are taking that seam of coal we could restore and recover even greater amounts of fertilizer for some of that land.

Mr. GILDROY. Yes.

Senator METCALF. I wish you all the luck in the world in getting your grant, and I will look forward to a great deal of interest in the development of your research.

Mr. GILDROY. Thank you very much.

Senator METCALF. Thank you for your very fine presentation. Our next witness is Burton Brewster.

Mr. BREWSTER. Yes, sir.

Senator METCALF. Mr. Brewster, we are delighted to have you here.

**STATEMENT OF BURTON BREWSTER, RANCHER,
BIRNEY, MONT.**

Mr. BREWSTER. I am Burton Brewster, a rancher from Birney, Mont. I would like to give first of all my qualifications for making a statement. Probably most important is the fact that I have lived in the area for 71 years on the same land, 24,000 acres of deeded land, and as a kid I followed the roundup wagons from the Spring Creek Divide, northwest of the Decker coal mine, to Otter Creek and to the head of Hanging Woman Creek. My education was in geology and for 10 years I was in charge of range conservation for Montana on private lands, under the U.S. Department of Agriculture. I might also add that I am a charter member of the Society of Range Management.

I am a firm believer in one's individual rights, especially the right to control his own land. We all know that because of the checkerboard pattern of coal ownership, Federal leases are imperative to economic coal development. I therefore believe that these Federal leases should be let on land where the surface owner wants the development and should not be let where surface owners do not want development, at least until such a time as the production becomes a necessary public use. I further believe that most ranchers can live with controlled mining and still run cows.

The figures in the Birney-Decker study area produce some economic facts that should be of interest to all taxpayers in Montana, the Federal Government, and the State of Montana.

Now I have a chart on my sheet, but I will give you some high points of those facts.

In the chart I have used 20 cents a ton as royalty on all coal and privately owned land by the State of Montana or by the Federal Government or by Burlington Northern. Some royalties are less, some are more. I have also used two cents per ton or 10 percent of the royalty as an override in Federal coal under private surface, which is readily available to ranchers. You will note in the chart—I am sorry you don't have it—\$396 million dollars available to 215 ranches or landowners in the Decker-Birney study area. It also shows \$5 billion, \$250 million available to the State of Montana, and \$2,640 million available to the Federal Government, making a total of

\$8,286 million. I want to strongly emphasize that I am not advocating or in any way in favor of this degree of coal development in the Birney-Decker area, but to me the figures are interesting and should not be ignored by any taxpayer. If there is an energy shortage, Federal leases should be let now for two reasons: First the long time it takes industry to get into energy production and second, so the rancher can make plans for his beef production. As long as the leases are held up the rancher does not know whether his land is worth \$400 per acre for coal exploration or \$40 per acre to run his cows. He doesn't know whether he is to be a coal miner, cowpuncher or both. During several thousand years more coal has burned out or washed out in the Tongue River Valley than will ever be mined. These areas under which there is no economic coal furnished fine habitat for game and birds.

Through the years the primary interest in the Birney-Decker study area has been grass, water, and cows. Hunting pleasures has increased in recent years.

I think it is important to remind you that the original Colstrip pits 30 years ago furnished the only trout fishing area in Rosebud County, and recreation area for 4-H camps including swimming. I would also like to point out that I have seen Canadian geese sitting on the banks of the Tongue River watching the Decker mine in operation. For 30 years cattle have grazed within the confines of the Colstrip fenced area.

Although this Colstrip operation began 4 years ago livestock water in Armell's Creek which drains the area furnishes more livestock water now than before the mining.

One often hears advocates suggest saving the coal for future generations.

Several thousand years ago we inherited the coal from the dinosaurs.

For whom are we saving it, the Martians?

Thank you.

Senator METCALF. Mr. Brewster, thank you very much for your appearance.

Did Jack Neckles of the State of North Dakota ever check in?

[No response.]

Senator METCALF. Now we will be hopefully hearing from the State of North Dakota because our adjoining neighboring State has many of the same problems with which we are concerned, and I hope that Mr. Neckles will submit a statement for the record.

My old friend Dave Manning is here. In 1937 I was in the legislature with him when he was in his second term. He is the only one that is still in the legislature. He called some of the problems of Treasure County to my attention 5 or 6 years ago. He has been a pioneer in trying to find out something about what we are going to do about strip and surface mining. He was on my list of witnesses but he didn't come and I hope that he will submit a statement. Mr. Willie Day was on the list to represent the Yellowstone Basin Water Users Association. The Yellowstone Basin Water Users Association

have a tremendous influence on this legislation and it is going to have a tremendous result on their farming and ranching activities, so I hope that we will hear from some representative of that organization.

One of the influential representatives of the farmers of Montana is Mr. Clyde Jarvis of the Montana Farmers Union. He was on our list and hopefully we had him down to testify. I certainly hope that somebody will have some input or position paper from that very influential organization.

Mrs. Dorothy Reno is out shearing sheep, I am told so when she gets through with that we will be glad to have a statement from her.

And also from Mr. David Palmerlee, and my old friend Pat Hooks has been in the legislature and representing the Montana Coal Council and certainly can submit something so we will hold the record open for statements from that very diverse and influential group until May 11, hopefully that they will provide us with that material. It can be sent to me, it can be sent to this Interior Committee and you just send it to Washington, D.C. in my care or in the care of the Senate Interior Committee and we will take care of it and provide it for the record.

Now we have reached the witness that we have been waiting to hear all day the last witness on my list Mr. Bruce Cady. Mr. Cady you are the mop up man and we are delighted to have you here today.

STATEMENT OF BRUCE CADY, RANCHER, BIG HORN COUNTY, MONT.

MR. CADY. A lot of this has been said before and I kind of hate to belabor you at this late time of day, but for the record my name is Bruce Cady and I reside in Big Horn County where I own and operate a small cattle ranch located on the east fork of Sarpy Creek. Under the sanction of the Department of Interior, approximately 1,000 acres of my land have been leased for stripmining, by Crows land has been leased to Westmoreland Resources, another hundred or so acres has been leased to the Annex Coal Co. and State land which I leased for grazing has been turned over to Consolidation Coal Co. Surrounding that, or I mean I am surrounded on four sides of 360 acres of fee coal land along the creek. This kind of hems a guy in. This land is beautiful foothill type country, on the western slopes of the Little Wolf Mountains. The land is very productive and animal carrying capacity is considerably higher than the Montana average or for that matter Wyoming and North Dakota average. I can run a cowcalf unit on 18 or 19 acres without benefit of irrigation year around. My main concern is stated damages to ground and surface water caused by strip mining and the highly debatable probability of reclamation, or rehabilitation. I am not sure which word to use there.

Senator METCALF. You got to have restoration in there, too.

MR. CADY. Or restoration. Damage to the water is not debatable, it is an admitted result of strip mining. The coal beds are aquifers which supply our springs and creeks and also subirrigate some of my meadows. The mining location is between the recharge area and the discharge area, thus the mining will sever all source of water.

It is an obvious fact that livestock needs water, also the subirrigated areas will decrease in productivity without subirrigation. As to the problem of reclamation, I would like to point out there is not a single area of economically productive reclaimed land in the State of Montana today. There have been small test plots and windowdress plots where huge sums have been expended to supposedly prove that reclamation is possible. This involves fertilization, fertilizer, exotic seeds, and irrigation which is not available in the area where I am. Strip mining does not involve small test plots nor do the bonds posted to to effect adequate reclamation. How do you put a price on 500,000 or even more years of unproductive land in a world already short of food to feed the masses? Witness the estimated 3-million people of India predicted to die of starvation in 1974, the millions more in Africa and so on. Montana has reportedly the strictest land reclamation law in the United States. The administration and portions of this supposedly strict law have bypassed the real intent of the law and are permitting the very disastrous effects of strip mining that the law is intended to prevent. The law states that if land can't be put back to a condition at least equal to that which it was prior to stripping then it will not be mined. It also states that exceptionally productive land will not be mined. It also states that no water damage will occur. It also states that a particularly scenic land will not be mined. In spite of all this, and the admission by the coal companies that they cannot comply with the intent of the law, permits this issue by State officials, there is no protection at present on the Federal level so the resulting degradation of land is a foregone conclusion. Why does coal mining have to be synonymous with strip mining? The development of technology can permit mining without sending men underground or disturbing the surface are well known. They might not be well developed, but they are well known. They might not be as much profit to the mining company but I feel that the energy food produces is far more important than the energy needed to power a toothbrush or a saving cream warmer.

If reclamation, and I mean by reclamation 30 bushel wheat per acre or cow-calf unit with maybe a deer thrown in on 30 acres or maybe a stand of Ponderosa pine seedlings will established, was possible on some scale that stripping is proposed then I would withdraw my objection and welcome the coal diggers, but let's make the coal companies prove without a doubt that reclamation is possible before vast areas are stripped. What is to be lost by asking for proof that reclamation can be achieved? We who live over the coal are constantly reminded that we must contribute to the economy by helping solve the so-called energy crisis. This apparently means that we must sacrifice our clean air, our healthy environment, our space, our beautiful western panorama and our way of life. We must also continue to produce more and more food. What may I ask do the speculators and landgrabbers and coal digging companies contribute? Do they reject the overriding royalty and the enormous profits so that prices are reduced? I hardly think so. All one needs to do is to see who is contributing to the problem is to see where the bulk of the

profit and the loot goes. Coal is not the answer to the energy crisis. It is finite, just as the oil and gas reserves are, and who would have believed that 10 or 15 years ago? Our real answer is in renewable sources of energy such as solar, geothermal, hydrogen, and wind. When we destroy the renewable quality of the land to produce food as strip mining does, we destroy the capacity for life itself. Suicide may have quicker forms but it is still against the law of man and God. It's been argued that much of the coal is federally owned, that it is owned by 210-million people in the United States. I would like to point out that a good portion of those 210-million people journey long distances annually to enjoy unspoiled, unpolluted areas such as we now enjoy in Montana. How many of those same people would do the same to see vast areas of spoiled land that the coal diggers have left feeling reasonably confident that they could achieve reclamation? This is their favorite expression. Coal is a very poor stopgap measure to alleviate the energy crisis in view of our present world food shortage, and I thank you, Mr. Metcalf, for letting me go on this way. I do have my letter that I sent you on April 2 which I would like to have included in the record at this point.

[The letter referred to above plus an additional letter received subsequent to the hearing follows:]

HYSHAM, MONT., April 2, 1974.

HON. LEE METCALF,
U.S. Senate, Old Senate Office Building,
Washington, D.C.

DEAR SENATOR METCALF: We are plaintiffs, with John Redding, et al., in a suit concerning coal mining in the Sarpy Creek area in Big Horn County, Montana.

We purchased our property in 1966 and have two title opinions, one in 1966 and another in 1972, copies enclosed, which show coal ownership in the United States. The defendants are relying on the Act of May 19, 1958, 72 Stat. 121, as the law which returned the coal to the Crow Tribe of Indians. That act returns to the Crows 10,000+ acres: roughly 5,000 in the Huntley Project and 5,000 undisposed of acres in the ceded strip. Federal coal leases existed on at least a part of these same lands until 1960.

Among other counts, we are contending that coal ownership is in the United States and the Westmoreland group does not have a valid lease. In this connection, the development scheme was conjured up by Norsworthy & Reger, Billings oil brokers and speculators, who figure prominently in the Cheyenne Indian coal leases which the Cheyennes are attempting to void because of many violations of law. Many of the same violations have been committed in the lease with the Crow Indians.

Dr. Robert R. Curry, professor from Missoula, hydrologist and geologist, has testified that our springs and subsurface water will be ruined by the mining. We will then be forced to bend to the will of the coal company. We have not sold because we feel what is being done is wrong; however, when the water is gone, we will be ruined and certainly at the mercy (which is nonexistent) of the coal company.

The people who homesteaded and have cared for the land and managed to hold on through the years deserve better than to have their lands ruined and to be pushed off the land while others, speculators, reap the benefits, through irregularities, and illegalities, of the giant push for coal.

This amounts to a "rip-off" not only of the rancher, but of the United States.

We need and will appreciate any help you can give us in filling in the void between 1958 and 1970-'71 when the interest in leasing started.

Sincerely,

BRUCE M. CADY.

Sarpy Route
 Hysham, Montana 59038
 May 6, 1974

Mr. D. Michael Harvey, Special Counsel
 Committee on Interior and Insular Affairs
 United States Senate
 Washington, D. C. 20510

Dear Mr. Harvey:

During the field hearing on federal coal leasing held in Billings, Montana on April 20, 1974, we submitted copy of letter dated April 2, 1974, to Senator Lee Metcalf, for inclusion in the record.

We enclose the following additional information to be included with our letter:

- (1) Title opinion dated August 16, 1966 by James H. Kilbourne
- (2) Title opinion dated April 24, 1972 by Frank A. Gallagher
- (3) Map showing property of the undersigned with area of coal leases designated
- (4) Abstracted lease from the Crow Tribe to American Metal Climax, Inc.
- (5) H.R. 8544 with Reports No. 1336 and 1508 (law relied upon to return coal to Crow Tribe.)
- (6) Exhibit A - Lands covered by Westmoreland Crow Indian Coal Mining Lease Contract No. 14-20-0252-3863.

(1) and (2) show ownership of the coal to be in the United States except 360 acres which coal is owned by the Cadys.

(3) is map of the Cady ranch, colored to indicate coal leases: blue is leased by Amax, red is leased by Westmoreland, yellow is leased by Consolidation, and white is owned by Cady and not under lease.

(4) is from Cady's abstract of title. We do not have copy of the Westmoreland lease from the Crow Tribe; however, we assume it is in a form similar to that of Amax. You will note that the Tribe has arranged for the disposition of the minerals and surface in addition to the coal. There are three estates involved here: surface, minerals and coal. Only the ownership of the coal is in question -- the surface and minerals are not in the United States or the Tribe. The surface and minerals went to the original cash entryman or homesteader.

(5) H.R. 8544 and accompanying reports - returns to the Crow Tribe 10,260.95 acres. 4,900 acres are in the Huntley reclamation project, leaving 5,360.95 acres of undisposed-of ceded lands returned to the Tribe. Undisposed-of acres still exist in the area and we do not dispute their ownership in the Tribe.

It is obvious that leasing would be facilitated if ownership were in one place; however, this is not the case. Ownership of the coal is scattered, mainly in the United States, some in the Tribe, and some private. Amax and Westmoreland do not have valid leases on the basis of the information we have been able to obtain from the Bureau of Indian Affairs, the Bureau of Land Management, the United States Geologic Survey and the Solicitor's office.

It appears that industry and the Department of the Interior have joined in this effort to ramrod coal mining in the Sarpy area; and, absolutely no consideration has been given to the constitutional rights of the individual.

We appreciate the opportunity to be heard and to bring to your attention this matter which we feel needs clarification before mining is to proceed further.

Sincerely,

Mrs. Bruce Cady
Mrs. Bruce M. Cady

Attachment (1)

CROWLEY, KILBOURNE, HAUGHEY, HANSON & GALLAGHER
ATTORNEYS AT LAW

CALE CROWLEY
JAMES H. KILBOURNE
JAMES M. HAUGHEY
NORMAN HANSON
FRANK A. GALLAGHER
BRUCE R. TOOLE
JOHN M. DIETRICH, JR.
THOMAS N. KELLEY
LOUIS R. MOORE
GAROLD F. KRIEG
ARTHUR F. LAMEY, JR.
MYLES J. THOMAS, JR.
GEORGE C. DALTHORP
STEPHEN H. FOSTER
DAVID L. JOHNSON

800 ELECTRIC BUILDING
BILLINGS, MONTANA 59101

HENRY J. COLEMAN (1885-1966)
ARTHUR F. LAMEY (1892-1983)

August 16, 1966

P. O. BOX 2529
TELEPHONE 252-3441
AREA CODE 406

Mr. and Mrs. Bruce Cady
Billings, Montana.

Re: Twp. 1 North, Range 38 East, M.P.M.

Section 7: $W\frac{1}{2}SW\frac{1}{4}$, $S\frac{1}{2}NE\frac{1}{4}SW\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$,
 $SW\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$

Section 17: Lots 3 and 4, $SW\frac{1}{4}NE\frac{1}{4}$, $S\frac{1}{2}NW\frac{1}{4}$,
 $N\frac{1}{2}SW\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$, $W\frac{1}{2}SE\frac{1}{4}$

Section 18: All

Section 19: $NE\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$

Section 20: $NW\frac{1}{4}NW\frac{1}{4}$, $S\frac{1}{2}NW\frac{1}{4}$

Twp. 1 North, Range 37 East, M.P.M.

Section 12: $S\frac{1}{2}NE\frac{1}{4}NE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$, $NE\frac{1}{4}SE\frac{1}{4}$

Dear Mr. and Mrs. Cady:

TITLE OPINION

Pursuant to your request, we have examined the following:

ABSTRACTS:

Abstract No. 4094, 3971, 4723, prepared by Big Horn Abstract Corporation and Abstract No. 153, 417 and 418 prepared by Hardin Title & Insurance Company, all abstracts under one cover covering the above captioned property from inception to July 8, 1966 at 8:00 o'clock A.M., the date last certified by Hardin Title & Insurance Company.

TITLE TO THE LAND:

From our examination we find that as of the date of last certification merchantable fee title stands in the name of

JIM HAYNIE and GOLDIE HAYNIE, as joint tenants with right of survivorship,

subject to the following:

COMMENTS AND REQUIREMENTS:

1. The patents to the captioned land contain the usual reservations of vested and accrued water rights and rights for ditches and reservoirs used in connection therewith; rights of way for ditches and canals constructed under authority of the United States.

In addition, the patents reserve to the United States all coal and to it, or persons authorized by it, the right to prospect for, mine, and remove such deposits from the same upon compliance with the conditions of and subject to the limitations of the Act of June 22, 1910, as to all of the captioned land except the following:

Twp. 1 North, Range 38 East, M.P.M.

Section 17: $SE\frac{1}{4}NW\frac{1}{4}$, $SW\frac{1}{4}NW\frac{1}{4}$

Section 7: $W\frac{1}{2}SW\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$

Section 18: $N\frac{1}{2}NE\frac{1}{4}$

Twp. 1 North, Range 37 East, M.P.M.

Section 12: $SE\frac{1}{4}NE\frac{1}{4}$, $NE\frac{1}{4}SE\frac{1}{4}$

A portion of the coal reservation is under the conditions and limitations of the Act of February 27, 1917.

2. Page 3 of abstract 4094 shows a consent for right of way dated May 22, 1917, recorded in Rights of Way, page 96, consenting to a right of way for a proposed road over and through Lot 3, $SW\frac{1}{4}NE\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$, Section 17, Township 1 North, Range 38 East, M.P.M. The right of way is particularly described by a map attached to the original agreement.

Page 6 of abstract 4723 shows a similar consent for right of way recorded in Book 1, Rights of Way, page 96 under document No. 40481, over and through the following described property:

Twp. 1 North, Range 38 East, M.P.M.

Section 18: $NE\frac{1}{4}NE\frac{1}{4}$

Section 7: $SW\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$, $S\frac{1}{2}NE\frac{1}{4}SW\frac{1}{4}$, $NW\frac{1}{4}SW\frac{1}{4}$

Twp. 1 North, Range 37 East, M.P.M.

Section 12: $S\frac{1}{2}NE\frac{1}{4}NE\frac{1}{4}$

In this one the right of way is described as 60 feet wide and again is shown on the back of the original agreement.

The abstract does not show the plat on the back of these instruments.

3. Page 7 of abstract 153 shows a right of way easement dated August 7, 1959, recorded in Rights of Way 580, under document No. 187957, granting to the Montana Power Company the right to construct, maintain, operate and remove an electric transmission system as now surveyed and located over, along and across the following described real property:

"Starting from a point approximately 200 ft. east of the Mid Section of Section 20 and running approximately N 20 W across the N $\frac{1}{2}$ Section 20 and the SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 17 and then approximately N 53 W for about 1060 ft. across the NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 17, T. 1N. R. 38E., M.P.M., Big Horn County, Montana."

4. Pages 5 and 6 of abstract 4094 contain an agreement for right of use dated in September, 1934, and filed under Document 71133, giving to the Montana Relief Commission free and unrestricted use of the S $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 17, Twp. 1 North, Range 38 East, M.P.M., containing 5 acres, for the purpose of construction, operation and use of a well and/or wells and reservoirs and/or reservoir for furnishing water for livestock. This was made to give the general public use with free and unrestricted ingress and egress to and from the wells, etc. for the purpose of watering livestock and general public domestic use, including the right to lay pipes under the land through which the water could be carried off the property.

The agreement states it was to be in full force and effect as long as the area suffers from the drought and as long as it is necessary to drill and construct wells to relieve distress resulting from the drought and then adds "and/or as long as there is water available from said well and/or wells and/or reservoir and/or reservoirs located upon the above described premises for general public domestic use and for the general use of watering livestock."

COMMENT: We cannot definitely say that the rights under this agreement have terminated and if they have not, this is a limitation upon the 5 acres described, particularly as the agreement states that the land will not be used for any purpose except the watering of livestock and furnishing of water for the general public domestic use.

5. Page 1 of abstract 417 shows a deed dated September 7, 1963, filed January 17, 1964 and recorded in Book 66 of Deeds, page 581, wherein Tom Stark and Kathryn Stark excepted and reserved "six and one-fourth ($6\frac{1}{4}$) of all minerals in or under said lands, including oil, gas and other hydrocarbons," as to the following described lands:

Twp. 1 North, Range 38 East, M.P.M.

Section 17: Lots 3 and 4, $W\frac{1}{2}SE\frac{1}{4}$, $E\frac{1}{2}SW\frac{1}{4}$,
 $NW\frac{1}{4}SW\frac{1}{4}$, $S\frac{1}{2}NW\frac{1}{4}$, $SW\frac{1}{4}NE\frac{1}{4}$

Section 19: $NE\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$

Section 20: $S\frac{1}{2}NW\frac{1}{4}$, $NW\frac{1}{4}NW\frac{1}{4}$

COMMENT: As abstracted, it is difficult to tell exactly what was reserved. It would appear that the $6\frac{1}{4}$ used in the reservation intended to have the words "per cent", but this is not shown in the abstract, and may not be in the original deed. We cannot definitely determine from the abstract as shown whether this has been a reservation of a mineral interest or was simply intended to be a reservation of a royalty interest.

6. Pages 4 and 6 of the abstract show oil and gas leases given to the Carter Oil Company in 1953 and 1954. Releases have been filed, but in each case there is some error in description of the real property on the release. However, we make no objection to this.
7. Page 19 of abstract No. 4723 shows a warranty deed dated November 13, 1948, recorded in Book 36 Deeds, page 87 wherein Joseph L. Hagerman and Gertrude Hagerman, his wife, reserved "one-half of the oil and gas rights on said land" as to the following described property:

Twp. 1 North, Range 37 East, M.P.M.

Section 12: $S\frac{1}{2}NE\frac{1}{4}NE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$, $NE\frac{1}{4}SE\frac{1}{4}$

Section 18: All

Twp. 1 North, Range 38 East, M.P.M.

Section 7: $W\frac{1}{2}SW\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$, $S\frac{1}{2}NE\frac{1}{4}SW\frac{1}{4}$, $SW\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$

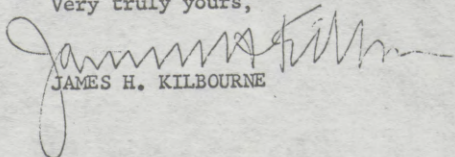
COMMENT: It is impossible to determine exactly what rights are involved from the language shown.

8. Page 8 of abstract 418 shows a notice of appropriation by Jim R. Haynie dated July 19, 1955, filed the same date under Document No. 169013 and recorded in Book 25, Miscellaneous, page 93. This notice is for an appropriation of flood waters of Franklin Coulee and claims 200 miner's inches for use on land in Section 7 and Section 12.

Page 10 of abstract 418 shows a declaration of ground water rights by Jim Haynie dated December 30, 1963, filed December 31, 1963 under Document No. 206511 relating to the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12, Twp. 1 North, Range 37 East, claiming 50 barrels per day for three months and 2 barrels for nine months.

9. The taxes are shown as paid for 1965 and prior years. Taxes for the year 1966 were a lien not yet computed nor payable at the time of last certification.

Very truly yours,


JAMES H. KILBOURNE

JHK-mlc

(attachment (2))

CROWLEY, KILBOURNE, HAUGHEY, HANSON & GALLAGHER

ATTORNEYS AT LAW

500 ELECTRIC BUILDING

BILLINGS, MONTANA 59101

April 24, 1972

CALE CROWLEY
JAMES H. KILBOURNE
JAMES H. HAUGHEY
NORMAN HANSON
FRANK A. GALLAGHER
BRUCE R. TOOLE
JOHN M. DIETRICH
THOMAS N. KELLEY
LOUIS R. MOORE
GARELD F. KRIEG
ARTHUR F. LAMEY, JR.
MYLES J. THOMAS, JR.
GEORGE C. DALTHORP
STEPHEN H. FOSTER
DAVID L. JOHNSON
JACK RAMIREZ
KEMP J. WILSON
ROBERT EDD LEE

HENRY J. COLEMAN (1885-1964)
ARTHUR F. LAMEY (1892-1963)

P. O. BOX 2529
TELEPHONE 252-3441
AREA CODE 408

Security Trust & Savings Bank
P.O. Box 2513
Billings, Montana 59103

Attention: Mr. Wayne M. Thaler,
Agricultural Business Division

Re: Township 1 North, Range 37 East, M.P.M.

Section 12: S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$

Township 1 North, Range 38 East, M.P.M.

Section 7: W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$
17: Lots 3, 4, W $\frac{1}{2}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$,
S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$
18: All
19: NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$
20: S $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$

Big Horn County, Montana
BRUCE M. CADY, et ux Loan

AMENDED PRELIMINARY TITLE OPINION

Gentlemen:

At your request, we have examined the following:

ABSTRACTS OF TITLE:

(A) Abstract #4094 as prepared and certified by Big Horn Abstract Corporation, Hardin, Montana, from inception of title to September 18, 1952 at 8:00 A.M. covering:

Township 1 North, Range 38 East, M.P.M.

Section 17: Lots 3, 4, SW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$,
N $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$.

(B) Abstract #3971 as prepared and certified by Big Horn Abstract Corporation, Hardin, Montana, from inception of title to September 18, 1952 at 8:00 A.M. covering:

Township 1 North, Range 38 East, M.P.M.

Section 19: NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$
20: S $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$.

(C) Continuation Abstract #153 (and continuations thereof), prepared and certified by Big Horn Abstract Corporation, Hardin, Montana, and continuing Abstracts (A) and (B) from their last continuation date to May 20, 1965 at 8:00 A.M.

(D) Abstract #4723 as prepared and certified by Big Horn Abstract Corporation, Hardin, Montana, from inception of title to May 28, 1965 at 5:00 P.M., covering:

Township 1 North, Range 37 East, M.P.M.

Section 12: S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$

Township 1 North, Range 38 East, M.P.M.

Section 7: W $\frac{1}{2}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$,
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$
18: All.

(E) Continuation Abstract #603, as prepared and certified by Big Horn Abstract Corporation, Hardin, Montana, continuing Abstracts (C) and (D) from their last continuation dates to November 29, 1971 at 5:00 P.M.

OTHER TITLE EVIDENCE EXAMINED:

Photocopy of Contract for Deed (unrecorded) dated June 24, 1966 whereby Jim Haynie and Goldie Haynie, his wife, of Hysham, Montana, agreed to sell to Bruce M. Cady and Dorothy V. Cady, his wife, as joint tenants, the above described real property, and to assign State Agricultural Grazing Lease #49753.

From our examination of the above, we find, as of the last certification date of Abstract (E) fee simple title to the above described lands (subject to the rights of Bruce M. Cady and Dorothy B. Cady under the above mentioned Contract for Deed) was vested as follows:

ALL OF CAPTIONED LANDS

Surface -

JIM HAYNIE and GOLDIE HAYNIE,
husband and wife

- Entire Interest.

Township 1 North, Range 38 East, M.P.M.

Section 17: Lots 3,4, SW $\frac{1}{4}$ NE $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$,
 E $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$
 19: NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$
 20: S $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$.

Coal -

UNITED STATES OF AMERICA - Entire Interest

Minerals, other than coal -

TOM STARK and KATHRYN STARK,
 husband and wife - Und. 6 $\frac{1}{2}$ % Interest
 (See Comments)

JIM HAYNIE and GOLDIE HAYNIE,
 husband and wife - Und. 93-3/4% Interest.

Township 1 North, Range 37 East, M.P.M.

Section 12: S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$

Township 1 North, Range 38 East, M.P.M.

Section 7: S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$
 18: W $\frac{1}{2}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$

Coal -

UNITED STATES OF AMERICA - Entire Interest

"Oil & Gas Rights" -

JOSEPH L. HAGERMAN and
 GERTRUDE HAGERMAN, his wife - Und. 1/2 Interest

JIM HAYNIE and GOLDIE HAYNIE,
 husband and wife - Und. 1/2 Interest

Other Minerals -

JIM HAYNIE and GOLDIE HAYNIE,
 husband and wife - Entire Interest.

Township 1 North, Range 37 East, M.P.M.Section 12: SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ Township 1 North, Range 38 East, M.P.M.Section 7: W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$
18: N $\frac{1}{2}$ NE $\frac{1}{4}$ "Oil & Gas Rights" -

JOSEPH L. HAGERMAN and
GERTRUDE HAGERMAN, his wife - Und. 1/2 Interest

JIM HAYNIE and GOLDIE HAYNIE,
husband and wife - Und. 1/2 Interest

Other Minerals, including Coal -

JIM HAYNIE and GOLDIE HAYNIE,
husband and wife - Entire Interest.

Township 1 North, Range 38 East, M.P.M.Section 17: S $\frac{1}{2}$ NW $\frac{1}{4}$ Minerals, including Coal -

TOM STARK and KATHRYN STARK,
husband and wife - Und. 6 $\frac{1}{4}$ % Interest
(See Comments)

JIM HAYNIE and GOLDIE HAYNIE,
husband and wife - Und. 93-3/4% Interest.

TITLE COMMENTS AND REQUIREMENTS:Unreleased Mortgage -

Mortgage dated December 18, 1953 and recorded December 22, 1953 at 11:10 A.M. in Book 32 of Mortgages at pages 303 and 304, records of Big Horn County, Montana. This mortgage was made and delivered by Jim Haynie and Goldie E. Haynie, his wife, mortgagors, to Big Horn County State Bank, Hardin, Montana, mortgagee, to secure the payment of \$5,000 with interest at the rate of 6% per annum, payable in installments, the last installment falling due December 1, 1958. The mortgage covers S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12-1N-37E and W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 7 and All of Section 18-1N-38E.

REQUIREMENT: There is nothing in the abstract of title to indicate that the mortgage has been renewed although it is possible that it has been renewed through an unrecorded renewal agreement. In all likelihood, the mortgage has been paid. Accordingly, before disbursement of the loan funds to the Cadys, a release of this mortgage should be obtained from the Big Horn County State Bank and recorded so that it may be shown in the abstract of title when continued to show the Security Bank's mortgage.

UNRELEASED OIL AND GAS LEASES:

1. Oil and Gas Lease dated February 19, 1953 and recorded March 10, 1953 at 2:10 P.M. in Book 19 of Misc. at pages 508 and 509, records of Big Horn County, Montana. This oil and gas lease was made and delivered by Jim Haynie and Goldie Haynie, husband and wife, lessors, to Carter Oil Company, Box 801, Tulsa, Oklahoma, lessee, and covers:

Township 1 North, Range 37 East, M.P.M.

Section 12: SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$

Township 1 North, Range 38 East, M.P.M.

Section 7: W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$,
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$

18: All.

REQUIREMENT: The primary term of the Lease was ten years and as long thereafter as oil or gas is produced from the leased lands. Unless these lands are now producing oil and gas, the oil and gas lease undoubtedly has terminated through failure to pay delay rentals and expiration of the primary term of ten years. If oil and gas is not now being produced on the leased lands, we make no requirement for loan purposes, although we recommend that your borrowers obtain and record a release of the oil and gas lease.

2. Oil and Gas Lease dated October 29, 1968 and recorded December 4, 1968 in Book 56 of Misc. at pages 321 and 322. This oil and gas lease was made and delivered by Joseph L. Hagerman and Gertrude B. Hagerman, his wife, lessors, to The Montana Power Company, and covers:

Township 1 North, Range 37 East, M.P.M.

Section 12: S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$

Township 1 North, Range 38 East, M.P.M.

Section 7: W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$,
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$

18: All.

The primary term of this lease is ten years.

REQUIREMENT: None, since this oil and gas lease covers the outstanding mineral interest of Mr. and Mrs. Hagerman which will not be subject to the lien of the Bank's mortgage.

3. Oil and Gas Lease dated November 12, 1968 and recorded December 6, 1968 at 8:00 A.M. in Book 56 of Misc. at pages 333 and 334, records of Big Horn County, Montana. This oil and gas lease was made and delivered by Bruce M. Cady and Dorothy V. Cady, his wife, and Jim R. Haynie and Goldie Haynie, lessors, to The Montana Power Company, a Montana corporation, 40 East Broadway, Butte, Montana. The lease covers:

Township 1 North, Range 37 East, M.P.M.

Section 12: $S\frac{1}{2}NE\frac{1}{4}NE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$, $NE\frac{1}{4}SE\frac{1}{4}$

Township 1 North, Range 38 East, M.P.M.

Section 7: $W\frac{1}{2}SW\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$, $S\frac{1}{2}NE\frac{1}{4}SW\frac{1}{4}$,
 $SW\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$

17: Lots 3,4, $W\frac{1}{2}SE\frac{1}{4}$, $E\frac{1}{2}SW\frac{1}{4}$,
 $NW\frac{1}{4}SW\frac{1}{4}$, $W\frac{1}{2}NW\frac{1}{4}$, $SW\frac{1}{4}NE\frac{1}{4}$

18: All

19: $NE\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$

20: $S\frac{1}{2}NW\frac{1}{4}$, $NW\frac{1}{4}NW\frac{1}{4}$.

The primary term of the lease is ten years.

REQUIREMENT: In all likelihood this lease is still in full force and effect through the payment of delay rentals. Unless you feel that your loan is otherwise adequately secured, you should obtain an assignment of the interest of the Cadys in the oil and gas lease as additional security.

4. Oil and Gas Lease dated January 22, 1969 and recorded February 4, 1969 at 8:00 A.M. in Book 57 of Misc. at pages 308 and 309, records of Big Horn County, Montana. This oil and gas lease was made and delivered by Tom Stark, a/k/a William Thomas Stark and Kathryn Stark, his wife, lessors, to The Montana Power Company, lessee. The lease covers:

Township 1 North, Range 38 East, M.P.M.

Section 17: Lots 3,4, $W\frac{1}{2}SE\frac{1}{4}$, $S\frac{1}{2}NW\frac{1}{4}$,
 $SW\frac{1}{4}NE\frac{1}{4}$, $N\frac{1}{2}SW\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$

19: $NE\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$

20: $NW\frac{1}{4}NW\frac{1}{4}$, $S\frac{1}{2}NW\frac{1}{4}$.

The primary term of this lease is ten years.

REQUIREMENT: None, since the oil and gas lease covers the above described mineral interest of the Starks in the leased lands and this mineral interest will not be subject to the lien of the Bank's mortgage.

RIGHTS-OF-WAY AND EASEMENTS:

1. Right-of-way dated May 22, 1917 giving to Big Horn County, Montana, a right-of-way for a proposed road over and through Lot 3; SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 17-1N-38E.

1(a). Agreement dated September __, 1934 granting to Montana Relief Commission the unrestricted use of 5 acres in S $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 17-1N-38E for the construction, operation and use of a well or wells and reservoir or reservoirs for furnishing water for livestock.

2. Right-of-way easement dated August 7, 1959 and recorded October 2, 1959 in R.O.W. 580, granting to The Montana Power Company a right-of-way for an electric transmission system over and across the following described land:

Starting from a point approximately 200 ft. East of the Mid Section of Section 20 and running approximately N 20 W across the N $\frac{1}{4}$ Section 20 and the SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 17 and then approximately N 53 W for about 1060 ft., across the NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 17, T. 1N. R. 38E., M.P.M., Big Horn County, Montana.

3. Right-of-way dated June 2, 1917 and recorded in Book 1 of R.O.W. page 96, records of Big Horn County, Montana, granting a right-of-way for a County road over and through NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 18; SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 7, Township 1 North, Range 38 East, and S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 12, Township 1 North, Range 37 East.

4. Right-of-way easement dated April 30, 1968 and recorded May 9, 1968 in Book 53 of Misc., page 549, records of Big Horn County, Montana, whereby Bruce M. Cady and Dorothy J. Cady, his wife, granted to The Montana Power Company, a right-of-way for an electric power line and communication system over and across the following described real property:

Township 1 North, Range 38 East, M.P.M.

Section 19: S $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ S $\frac{1}{2}$ NE $\frac{1}{4}$

20: S $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{4}$.

REQUIREMENT: None, informative.

MISCELLANEOUS:

1. Notice of Appropriation dated July 19, 1955 and recorded in Book 25 of Miscellaneous at pages 93 and 94, records of Big Horn County, Montana, whereby Jim R. Haynie appropriated 200 miner's inches of the flood waters of a coulee or ravine commonly known as the Franklin Coulee for domestic use and irrigation purposes on the SE $\frac{1}{4}$ of Section 7; NE $\frac{1}{4}$ SE $\frac{1}{4}$ and SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 12-1N-38E.

REQUIREMENT: None, informatory. It is observed that the notice of appropriation, as abstracted, shows Section 12 to be located in Township 1 North, Range 38, rather than Range 37. We believe this to be an abstracter's error.

2. Declaration of Ground water Rights dated December 30, 1963 and filed December 31, 1963 under Document #206511, whereby Jim Haynie filed notice of appropriation of ground water from a well located upon the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 12-1N-37E.

REQUIREMENT: None, informatory.

3. At page 10 of the continuation abstract (continuation certificate No. 1469) appears a coal lease dated June 23, 1970 and recorded June 30, 1970 in Book 59 of Miscellaneous at pages 333 and 334, records of Big Horn County, Montana, from J. L. Hagerman, a/k/a Joseph L. Hagerman and Gertrude B. Hagerman, his wife, lessors, to Norsworthy & Reger, Inc. covering purported coal rights of the Hagermans in the following described real property:

Township 1 North, Range 37 East, M.P.M.

Section 12: SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$

Township 1 North, Range 38 East, M.P.M.

Section 7: W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$

18: W $\frac{1}{2}$ NE $\frac{1}{4}$.

The primary term of the lease is twenty-two years. The lease provides for the payment of delay rentals and also royalties in the event of production. It is to be noted that the lease also provides for a payment of \$200.00 per acre to the owner or owners of the surface for surface damages caused by the lessee's operations. By assignment dated March 31, 1971 and recorded in Book 60 of Misc. at pages 353 to 391, Norsworthy & Reger, Inc., assignor, assigned the coal lease and other coal leases to The Kemmerer Coal Company, Kewanee Oil Company, Morrison-Knudsen Company, Inc., Penn Virginia Corporation and Westmoreland Coal Company, operating as Westmoreland Resources, a general partnership, assignee.

REQUIREMENT: None for security purposes. However, The abstracts of title indicate that the Hagermans have no interest whatsoever in the coal in and under the above described lands. For this reason, the coal lease clouds the title of the Cadys. The Cadys should demand that Norsworthy & Reger, Inc. obtain a proper release of the coal lease from the assignees named above.

The above mentioned assignment from Norsworthy & Reger, Inc., as assignor, to the Kemmerer Coal Company, et al, as assignees, also

assigns a permit No. P-21 dated June 23, 1970 wherein the permittor-owner is described as J. L. Hagerman, et ux and the land covered by the permit is described as follows:

Township 1 North, Range 37 East, M.P.M.

Section 12: $S\frac{1}{2}SE\frac{1}{4}$, $NW\frac{1}{4}NE\frac{1}{4}$, $NE\frac{1}{4}SE\frac{1}{4}$

Township 1 North, Range 38 East, M.P.M.

Section 7: $W\frac{1}{2}SW\frac{1}{4}$, $SE\frac{1}{4}SW\frac{1}{4}$, $S\frac{1}{2}NE\frac{1}{4}SW\frac{1}{4}$,
 $SW\frac{1}{4}SW\frac{1}{4}SE\frac{1}{4}$

18: All.

The abstracts do not cover $S\frac{1}{2}SE\frac{1}{4}$ of Section 12-1N-37E. However, they do cover the $NW\frac{1}{4}NE\frac{1}{4}$ and the $NE\frac{1}{4}SE\frac{1}{4}$ of Section 12. The abstracts disclose that in the patent the United States reserved the coal in and under the $NW\frac{1}{4}NE\frac{1}{4}$ of Section 12 but the abstract of the patent shows that the United States did not reserve the coal in and under the $NE\frac{1}{4}SE\frac{1}{4}$ of Section 12.

The patent as abstracted shows that the United States reserved the coal in and under the $S\frac{1}{2}NE\frac{1}{4}SW\frac{1}{4}$ of Section 7-1N-38E, but it also shows that the United States did not reserve the coal in and under the $W\frac{1}{2}SW\frac{1}{4}$ and the $SE\frac{1}{4}SW\frac{1}{4}$ of Section 7. The patent as abstracted shows that the United States reserved all coal in and under all of Section 18 except the $N\frac{1}{2}NE\frac{1}{4}$ thereof.

Therefore, if the patent is correctly abstracted, the United States was not authorized to issue a coal permit on $NE\frac{1}{4}SE\frac{1}{4}$ of Section 12-1N-37E nor on the $W\frac{1}{2}SW\frac{1}{4}$ and the $SE\frac{1}{4}SW\frac{1}{4}$ of Section 7-1N-38E nor on the $N\frac{1}{2}NE\frac{1}{4}$ of Section 18-1N-38E, because the United States did not reserve the coal in and under these lands.

The patent in question is shown at page 11 of abstract No. 4723. The patent is dated February 15, 1922 and was issued to Benson B. Hagerman. The patent No. is 849175. We recommend that the Cadys obtain a certified copy of the patent from the United States Patent Office in Billings to determine exactly what the United States reserved under the patent. If the patent as abstracted should prove to be correct, the Cadys should take appropriate steps to have those lands indicated above under which the United States does not own the coal deleted from the permit to Hagerman.

4. There are no delinquent taxes, the first installment of taxes for the year 1971 has been paid and the second installment thereof will not become delinquent if paid on or before May 31, 1972.

REQUIREMENT: None, informatory.

5. The abstract is not certified as to irrigation, drainage or grazing districts or special improvement district assessments.

REQUIREMENT: None, informatory.

6. The contract for deed from the Haynies to the Cadys has not been placed of record. Accordingly, the interest of the Cadys in the captioned land does not appear in the abstract of title and, accordingly, the abstracter made no judgment or lien search as to the Cadys.

REQUIREMENT: When the abstract of title is continued to show the warranty deed from the Haynies to the Cadys and your mortgage, the abstracter should be instructed to make a judgment search in the office of the Clerk of the District Court in Big Horn County for a period of eight years and sixty days last past and show the same in the certification of the continued abstract of title.

7. At page 19 of abstract #4723 appears a warranty deed dated November 13, 1948 and recorded in Book 36 of Deeds at pages 87 and 88, records of Big Horn County, Montana, from Joseph L. Hagerman and Gertrude Hagerman, a/k/a Gertrude B. Hagerman, his wife, grantors, to Ray W. Oxford, grantee, and predecessor in interest of your borrowers. This deed conveys, among other lands Section 18. However, the deed as abstracted describes Section 18 as lying in Township 1 North, Range 37 East, M.P.M. rather than Range 38 East, M.P.M., the proper description. Because the abstracter has not underlined the erroneous figure "37" we believe this to be an abstracter's error.

REQUIREMENT: The abstracter should be instructed to check the description of Section 18 as shown in the record of the warranty deed in the office of the County Clerk and Recorder of Big Horn County, Montana and if that record discloses Section 18 as located in Township 1 North, Range 38 East, the abstract of the warranty deed should be corrected accordingly. If the incorrect description is also shown in the record of the deed in the County Clerk and Recorder's office, please notify us and ask for further instructions before disbursing the loan proceeds.

8. You have informed us that warranty deed from the Haynies to the Cadys conveying title to the captioned lands was delivered to Mr. Cady on December 1, 1971.

REQUIREMENT: Determine from Mr. Cady whether or not this deed has been placed of record in Big Horn County, Montana. If not, it should be recorded so that it may be shown in the abstract of title when the same is continued to show your mortgage.

9. At page 1 of abstract 417 appears a deed dated September 7, 1963 and recorded January 17, 1964 in Book 66 at page 581, wherein

Tom Stark and Kathryn Stark excepted and reserved "six and one-fourth (6 $\frac{1}{4}$) of all minerals in or under said lands, including oil, gas and other hydrocarbons" as to the following described lands:

Township 1 North, Range 38 East, M.P.M.

Section 17: Lots 3,4, W $\frac{1}{2}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$,
NW $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$
19: NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$
20: S $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$.

It undoubtedly was the intention of the grantors in the deed to reserve 6 $\frac{1}{4}$ % of the minerals in and under the lands above described. It is entirely possible that the abstracter omitted the words "percent" when the abstract was prepared.

REQUIREMENT: None for security purposes. However, we recommend that the Cadys check the record of the deed as it appears in the County Clerk and Recorder's office of Big Horn County, Montana, to ascertain whether or not the word or sign percent (%) was omitted by the abstracter.

10. At page 19 of abstract No. 4723 appears a deed dated November 13, 1948 and recorded in Book 36 at page 87 wherein Joseph L. Hagerman and Gertrude Hagerman, his wife, grantors, reserved "one-half of the oil and gas rights on said land" as to the following described property:

Township 1 North, Range 37 East, M.P.M.

Section 12: S $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$
18: All

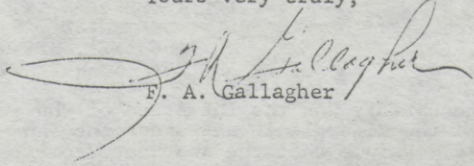
Township 1 North, Range 38 East, M.P.M.

Section 7: W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$,
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$.

REQUIREMENT: None for security purposes. It is impossible to determine from the language used in the reservation the exact mineral interest which the grantors intended to reserve. Obviously, the reservation does not include coal or other minerals than gas and oil. Whether it was the intention of the grantors to reserve a mineral interest or a royalty interest in the oil and gas is impossible to determine and if the need for resolution of this question should ever arise, it will be necessary that the matter be determined by a court of competent jurisdiction.

The loan funds should not be disbursed until the continued abstract of title showing the recorded deed from the Haynies to the Cadys and your recorded mortgage has been examined and approved by us.

Yours very truly,



F. A. Gallagher

FAG/hc

Attachment (4)

AMERICAN METAL CLIMAX, INC.
 (Amax Coal Company Division)
 By: Don E. Hollingshead
 Attorney-in-Fact
 Lessee

Acknowledged on February 15, 1973 by David J. Stewart, before Alvin H. Stewart, Notary Public for the State of Montana, residing at Crow Agency. Commission expires May 5, 1973. SEAL.

Acknowledged on September 12, 1972 by Don E. Hollingshead, before Oliver W. Moots, Notary Public for the State of Indiana, residing in Indianapolis. Commission expires August 11, 1974. (No Notary Seal shown).

The within lease is hereby approved under authority delegated by Secretarial Order No. 2950, 10 BIA M 3, and 10 BIA M 7.

Dated: February 15, 1973

A.A. BAKER, Superintendent

EXHIBIT "A"

TRIBAL COAL

T. 1 N., R. 37 E., Principal Meridian, Montana (Big Horn County)
 NE/4 NE/4, Section 12, 40.00 acres. $5\frac{1}{2}$ NE NE SE (20)

T. 1 N., R. 38 E., Principal Meridian, Montana (Big Horn County)
 N/2, NE/4 SW/4, SE/4, Section 7, 520.00 acres $5\frac{1}{2}$ NE SW, SW SW SE (30)

Lots 1, 2, 3, W/2 NE/4, N/2 NW/4, NW/4 SE/4, Section 17, 255.08 acres.
 Lot 3, SW NE, NW SE (97.88)

* * * and other lands in Big Horn County and Treasure County not
 pertinent to this abstract * * *. (147.88)

HARDIN TITLE and INSURANCE COMPANY
 Hardin, Montana

FLB 152
 (See page 3)

THE CROW TRIBE OF INDIANS
OF THE CROW RESERVATION, of
Crow Agency, State of Montana

to

AMERICAN METAL CLIMAX, INC.
(Amex Coal Company Division)
of 105 South Meridian, Indiana-
polis, State of Indiana

COAL MINING LEASE INDIAN LANDS
Dated September 12, 1972
Filed June 11, 1973 at 9:05 A.M.
Recorded in Book 2 of M/F, P.298-310
Document #240276
Consideration: \$1.00

* * * grants and leases unto lessee for the sole purpose of mining coal
on the land described as follows:

See Exhibit "A" - Attached hereto

The lessee may occupy as much of the surface of the land as is necessary
to carry on the work of exploring for, developing, mining, producing,
processing, marketing, and removing said coal, including milling and
storing subject to payments to be made as hereinafter set forth. * * *

TERM: This lease is for a term of 10 years from the date of its app-
roval and as long thereafter as coal is produced in paying quantities.

IN CONSIDERATION OF THE FOREGOING, THE LESSEE AGREES:

ROYALTY. To pay, or cause to be paid, to the Superintendent for the
use and benefit of the Lessor, a royalty at the rate of 17½¢ per ton
of coal of 2,000 pounds during the first ten years of the lease term
as determined by actual railroad or truck scale weights or weightometer
as delivered at its mine loading facilities. All royalties accruing
for any month shall be due and payable before the 25th day of the foll-
owing month. * * *

MINIMUM ROYALTY. To pay, or cause to be paid to the Superintendent,
Crow Indian Agency, Crow Agency, Montana, for the use and benefit of
the lessor, beginning with the third lease year and continuing through
the fourth lease year, a minimum royalty of \$2 per acre per year, pay-
able annually in advance, and beginning with the fifth lease year and
continuing for each lease year thereafter so long as this lease remains
in effect, a minimum royalty of \$5 per acre per year, payable annually
in advance. The advance minimum royalty paid will apply as credit ag-
ainst the production royalties only within the same year for which ad-
vance minimum royalty is advanced.

ANNUAL RENTAL. To pay, or cause to be paid to the Superintendent for
the use and benefit of the lessor, an advance annual rental of \$1 per
acre beginning on the approval date of the lease and continuing for so
long as the lease is in force and effect. * * *

HARDIN TITLE and INSURANCE COMPANY
Hardin, Montana

FLB 1500

DEVELOPMENT. The land described herein shall not be held by the lessee for speculative purposes, but for mining coal. * * *

REGULATIONS. To abide by and conform to any and all regulations of the Secretary of the Interior now or hereafter in force relative to such leases including 25 CFR 171, 177, and 30 CFR 211. Rate of royalty, the annual rental, or the term of the lease may not be changed by a future regulation without the written consent of the parties to this lease.

ASSIGNMENT OF LEASE. Not to assign this lease or any interest therein by an operating agreement including agreements providing for payment of overriding royalty or otherwise, nor to sublet any portion of the leased premises before restrictions are removed, except with the approval of the Secretary of the Interior. * * *

DISPOSITION OF MINERALS AND SURFACE. The lessor expressly reserves the right to lease, sell, or otherwise dispose of the oil, gas, sand, gravel, building stone, and the surface of the lands in this lease under existing law or laws hereafter enacted, such disposition to be subject to the right of the lessee to use as much of the surface as is necessary in the extraction and removal of the minerals from the leased land.

SURRENDER AND TERMINATION. The lessee may at any time terminate this lease or any part thereof upon the payment of all rentals, royalties, and other obligations due to the lessor, and a surrender fee of \$5. * *

LIABILITY FOR DAMAGE. The lessee is liable for any and all damages resulting from its operations under this lease; including injury to the lessor, the tenants, licensees, and surface owners, and for any and all damage to, or destruction of, all property, caused by the lessee's operations hereunder. * * *

ROADS. The lessee may use existing roads, if any, on the land and may construct, and maintain, at its own expense, any additional roads across lessor's lands that are necessary in carrying on the actual mining, prospecting, and exploration work after the location of these roads has been approved in writing by the Superintendent of the Crow Indian Agency. The public obtains no rights to these roads, and upon termination of this lease or if at any time it becomes unnecessary for lessee to use the road for conducting the operations authorized under this lease, the right to use the road shall thereupon cease and all the rights shall revert in lessor in accordance with law. * * *

INDIAN LABOR. The lessee shall give a priority right of employment to members of the Crow Tribe for all positions for which they are qualified and available and shall pay the prevailing wage rates for similar services in the area. * * *

* * * other covenants and conditions as set out * * *

THE CROW TRIBE OF THE CROW INDIAN
RESERVATION

By: David Stewart, Chairman
Crow Tribal Council, Lessor

HARDIN TITLE and INSURANCE COMPANY
BY: _____

3.

attachment (5)

Calendar No. 1532

85TH CONGRESS
2D SESSION

H. R. 8544

[Report No. 1503]

IN THE SENATE OF THE UNITED STATES

MARCH 4, 1958

Read twice and referred to the Committee on Interior and Insular Affairs

APRIL 29, 1958

Reported by Mr. MURRAY, with an amendment

[Omit the part struck through and insert the part printed in italics]

AN ACT

To provide for the restoration to tribal ownership of all vacant and undisposed-of ceded lands on certain Indian reservations, and for other purposes.

- 1 *Be it enacted by the Senate and House of Representa-*
 2 *tives of the United States of America in Congress assembled,*
 3 That all lands now or hereafter classified as vacant and
 4 undisposed-of ceded lands (including townsite lots) on the
 5 following named Indian reservations are hereby restored to
 6 tribal ownership, subject to valid existing rights:

Reservation and State	Approximate Acreage
Klamath River, California.....	159.57
Coeur d'Alene, Idaho.....	12,877.65
Crow, Montana.....	5,480.85
Crow, Montana.....	10,260.95
Fort Peck, Montana.....	41,450.13
Spokane, Washington.....	5,451.00

1 *Provided*, That such restoration shall not apply to any
2 lands while they are within reclamation projects heretofore
3 authorized.

4 SEC. 2. Title to the lands restored to tribal ownership
5 by this Act shall be held by the United States in trust for
6 the respective tribe or tribes, and such lands are hereby added
7 to and made a part of the existing reservation for such tribe
8 or tribes.

9 SEC. 3. The lands restored to tribal ownership by this
10 Act may be sold or exchanged by the tribe, with the approval
11 of the Secretary of the Interior.

Passed the House of Representatives March 3, 1958.

Attest:

RALPH R. ROBERTS,

Clerk,

85TH CONGRESS }
2d Session }

HOUSE OF REPRESENTATIVES }

REPORT
No. 1336

PROVIDING FOR THE RESTORATION TO TRIBAL OWNERSHIP OF ALL VACANT AND UNDISPOSED-OF CEDED LANDS ON CERTAIN INDIAN RESERVATIONS

FEBRUARY 10, 1958.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. ENGLE, from the Committee on Interior and Insular Affairs, submitted the following

REPORT

[To accompany H. R. 8544]

The Committee on Interior and Insular Affairs, to whom was referred the bill (H. R. 8544) to provide for the restoration to tribal ownership of all vacant and undisposed-of ceded lands on certain Indian reservations, and for other purposes, having considered the same, report favorably thereon without amendment and recommend that the bill do pass.

The purpose of H. R. 8544, introduced by Representative Metcalf, is to provide for equality of treatment in the restoration to tribal ownership of approximately 65,420 acres of surplus lands on the Klamath River, Calif.; Coeur d'Alene, Idaho; Crow, Mont.; Fort Peck, Mont.; and Spokane, Wash., reservations. No appropriation of Federal funds is requested.

The bill will restore to the five named tribes ownership of the undisposed-of acreages that were ceded to the United States by the listed tribes pursuant to various statutes and agreements. In general, these statutes provided that the Government would dispose of the ceded lands through homesteading or otherwise and deposit the net proceeds in the Federal Treasury to the credit of the tribes concerned. These sales' proceeds were to be the only compensation to the Indians for the ceded lands.

Through departmental orders issued in 1934 and 1935, all ceded lands not theretofore disposed of were temporarily withdrawn from further disposition until the matter of their restoration to tribal ownership could be given further consideration. Undisposed-of ceded lands were restored to the tribes which accepted the Indian Reorganization Act of 1934. Undisposed-of ceded lands of tribes which did

not accept the Indian Reorganization Act have remained temporarily withdrawn since 1934. Approximately 3 million acres have been restored to the various tribes on 26 reservations while the acreage not restored amounts to approximately 65,419.30 widely scattered on the Klamath River, Coeur d'Alene, Crow, Fort Peck, and Spokane Reservations, the only ones known to have undisposed-of ceded lands.

This legislation, if enacted, will restore the lands to tribal ownership, thus terminating the right of the Federal Government to dispose of them under the cession statutes, and will assure the Indians the continued use rights.

In a series of cases (*United States v. Brindle*, 110 U. S. 688, 690, 693; *Minnesota v. Hitchcock*, 185 U. S. 373, 394-395; *United States v. Miller*; *Lac Chippewas*, 229 U. S. 498, 509; *Ash Sheep Co. v. United States*, 252 U. S. 159, 164-166) the Supreme Court of the United States has held that this land continued in the beneficial ownership of the Indians even though they had ceded "all their right, title, and interest." So the net effect of H. R. 8544 is to clarify the Indian title to these lands in order that they may be managed and administered by the tribes.

H. R. 8544 provides that restoration shall not apply to any lands while they are within reclamation projects heretofore authorized. It also provides that the lands to be restored shall be held by the United States and the existing reservations for the tribes. Finally, the bill provides that the tribes are authorized to sell or exchange the restored lands, with the approval of the Secretary of the Interior.

H. R. 8544 supersedes H. R. 3490 and H. R. 6160, also introduced by Representative Metcalf, on the subject of undisposed-of ceded lands. In reporting on H. R. 3490 on June 25, 1957, the Secretary of Interior recommended certain changes which were incorporated into H. R. 8544. The report of the Secretary of the Interior is as follows:

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., June 25, 1957.

Hon. CLAIR ENGLE,
Chairman, Committee on Interior and Insular Affairs,
House of Representatives, Washington, D. C.

DEAR MR. ENGLE: Your committee has requested a report on H. R. 3490, a bill to provide for equality of treatment in the restoration to tribal ownership of surplus lands, and for other purposes.

We recommend that the bill be enacted if it is amended as suggested below.

The bill restores to tribal ownership the undisposed-of lands that were ceded to the United States by the tribes listed in the bill pursuant to various statutes and agreements. In general, these statutes provided that the Government would dispose of the ceded lands and deposit the net proceeds of sales in the United States Treasury to the credit of the tribes concerned. These sales' proceeds were to be the only compensation to the Indians for the ceded lands.

By departmental orders of September 10, 1934, and November 5, 1935, all undisposed-of ceded lands of these and other tribes were temporarily withdrawn from further disposition until the matter of their restoration to tribal ownership could be given appropriate consideration. A departmental order of November 2, 1934, took similar action with respect to unsold lots in various townsites within the

reservations. The undisposed-of ceded lands of tribes that elected to come under the Indian Reorganization Act were restored to them pursuant to section 3 of that act (act of June 18, 1934, 48 Stat. 984, 25 U. S. C. 463), and the undisposed-of ceded lands of tribes that did not come under the Indian Reorganization Act have remained temporarily withdrawn for the past 22 years. The lands on the Colville Reservation were restored in 1956 by special legislation (act of July 24, 1956, 70 Stat. 626). The acreage that has been restored to the various tribes amounts to approximately 3 million acres on 26 reservations; the acreage that has not been restored amounts to approximately 65,419 acres on 5 reservations.

The tribes listed in the bill include all of the tribes that are known to have undisposed-of ceded lands.

The Indians have never been paid for these ceded lands and they have from time to time passed resolutions requesting the enactment of legislation to restore the lands to them.

The lands are for the most part scattered over wide areas, some inside and some outside the present boundaries of the reservations. A restoration of the lands to tribal ownership will terminate the right of the Federal Government to dispose of them under the cession statutes, and will assure the Indians of the continued use of the lands. This will permit the Indians to improve the lands so that they may be operated or leased to their highest and best use, and will facilitate administration of the areas.

Any valid existing rights of bona fide entrymen will not be affected by the enactment of the bill, and lands that are now within reclamation projects heretofore authorized will not be restored.

We recommend that the bill be amended to conform to the draft, bill enclosed with this report. With one exception (par. 5 below) the changes relate to matters of form and do not affect the substance of the bill. They are as follows:

1. The lands are identified as vacant and undisposed-of ceded lands (including townsite lots), rather than as surplus ceded lands of the class referred to in section 3 of the Indian Reorganization Act. The more specific reference avoids the necessity for a cross-reference.

2. The acreage of the Klamath River Reservation is 159.57 acres rather than 128.84 acres.

3. The exception with respect to reclamation projects is limited to the time the lands remain within the boundaries of the projects.

4. The lands are made a part of the existing reservations for the tribes.

5. The tribes are authorized to sell or exchange the restored lands, with the approval of the Secretary of the Interior. In the case of the Crow Tribe, the restored lands are outside the boundaries of the diminished reservation and the tribe has indicated that it will probably want to negotiate sales or exchanges in order to make the best use of the lands. The other tribes may encounter the same need.

The Bureau of the Budget has advised us that there is no objection to the submission of this report to the Congress.

Sincerely yours,

HATFIELD CHILSON,
Under Secretary of the Interior.

A BILL To provide for the restoration to tribal ownership of all vacant and undisposed-of ceded lands on certain Indian reservations, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all lands now or hereafter classified as vacant and undisposed-of ceded lands (including townsite lots) on the following named Indian reservations are hereby restored to tribal ownership, subject to valid existing rights:

Reservation and State	Approximate acreage
Klamath River, California.....	159.57
Coeur d'Alene, Idaho.....	12,877.65
Crow, Montana.....	5,480.95
Fort Peck, Montana.....	41,450.13
Spokane, Washington.....	5,451.00

Provided, That such restoration shall not apply to any lands while they are within reclamation projects heretofore authorized.

SEC. 2. Title to the lands restored to tribal ownership by this Act shall be held by the United States in trust for the respective tribe or tribes, and such lands are hereby added to and made a part of the existing reservations for such tribe or tribes.

SEC. 3. The lands restored to tribal ownership by this Act may be sold or exchanged by the tribe, with the approval of the Secretary of the Interior.

The Committee on Interior and Insular Affairs recommends the enactment of H. R. 8544.

Calendar No. 1532

85TH CONGRESS }
2d Session }

SENATE

{ REPORT
No. 1508PROVIDING FOR THE RESTORATION TO TRIBAL OWNER-
SHIP OF ALL VACANT AND UNDISPOSED-OF CEDED
LANDS ON CERTAIN INDIAN RESERVATIONS

APRIL 29, 1958.—Ordered to be printed

Mr. MURRAY, from the Committee on Interior and Insular Affairs,
submitted the following

REPORT

[To accompany H. R. 8544]

The Committee on Interior and Insular Affairs, to whom was referred the bill (H. R. 8544) to provide for the restoration to tribal ownership of all vacant and undisposed-of ceded lands on certain Indian reservations, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill, as amended, do pass.

The amendment is as follows:

On page 1, strike the words "Crow, Montana" and the figure "5,480.95" and insert in lieu thereof the words "Crow, Montana" and the figure "10,260.95".

EXPLANATION OF THE BILL

The purpose of H. R. 8544, is to provide for equality of treatment in the restoration to tribal ownership of approximately 70,320 acres of surplus lands on the Klamath River, Calif.; Coeur d'Alene, Idaho; Crow, Mont.; Fort Peck, Mont.; and Spokane, Wash., reservations. No appropriation of Federal funds is requested.

The bill will restore to the five named tribes ownership of the undisposed-of acreages that were ceded to the United States by the listed tribes pursuant to various statutes and agreements. In general, these statutes provided that the Government would dispose of the ceded lands through homesteading or otherwise and deposit the net proceeds in the Federal Treasury to the credit of the tribes concerned. These sales' proceeds were to be the only compensation to the Indians for the ceded lands.

Through departmental orders issued in 1934 and 1935, all ceded lands not theretofore disposed of were temporarily withdrawn from

further disposition until the matter of their restoration to tribal ownership could be given further consideration. Undisposed-of ceded lands were restored to the tribes which accepted the Indian Reorganization Act of 1934. Undisposed-of ceded lands of tribes which did not accept the Indian Reorganization Act have remained temporarily withdrawn since 1934. Approximately 3 million acres have been restored to the various tribes on 26 reservations while the acreage not restored amounts to approximately 70,320 widely scattered on the Klamath River, Coeur d'Alene, Crow, Fort Peck, and Spokane Reservations, the only ones known to have undisposed-of ceded lands.

This legislation, if enacted, will restore the lands to tribal ownership, thus terminating the right of the Federal Government to dispose of them under the cession statutes, and will assure the Indians the continued use rights.

In a series of cases (*United States v. Brindle*, 110 U. S. 688, 690, 693; *Minnesota v. Hitchcock*, 185 U. S. 373, 394-395; *United States v. Mille Lac Chippewas*, 229 U. S. 498, 509; *Ash Sheep Co. v. United States*, 252 U. S. 159, 164-166) the Supreme Court of the United States has held that this land continued in the beneficial ownership of the Indians even though they had ceded "all their right, title, and interest." So the net effect of H. R. 8544 is to clarify the Indian title to these lands in order that they may be managed and administered by the tribes.

H. R. 8544 provides that restoration shall not apply to any lands while they are within reclamation projects heretofore authorized. It also provides that the lands to be restored shall be held by the United States and the existing reservations for the tribes. Finally, the bill provides that the tribes are authorized to sell or exchange the restored lands, with the approval of the Secretary of the Interior.

The report of the Secretary of the Interior dated June 25, 1957, on S. 1757, a companion bill to H. R. 8544, is set forth below:

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., June 25, 1957.

Hon. JAMES E. MURRAY,
Chairman, Committee on Interior and Insular Affairs,
United States Senate, Washington, D. C.

DEAR SENATOR MURRAY: Your committee has requested a report on S. 1757, a bill to provide for equality of treatment in the restoration to tribal ownership of surplus lands, and for other purposes.

We recommend that the bill be enacted if it is amended as suggested below.

The bill restores to tribal ownership the undisposed-of lands that were ceded to the United States by the tribes listed in the bill pursuant to various statutes and agreements. In general, these statutes provided that the Government would dispose of the ceded lands and deposit the net proceeds of sales in the United States Treasury to the credit of the tribes concerned. These sales' proceeds were to be the only compensation to the Indians for the ceded lands.

By departmental orders of September 19, 1934, and November 5, 1935, all undisposed-of ceded lands of these and other tribes were temporarily withdrawn from further disposition until the matter of their restoration to tribal ownership could be given appropriate consideration. A departmental order of November 2, 1934, took similar

action with respect to unsold lots in various townsites within the reservations. The undisposed-of ceded lands of tribes that elected to come under the Indian Reorganization Act were restored to them pursuant to section 3 of that act (act of June 18, 1934, 48 Stat. 984, 25 U. S. C. 463), and the undisposed-of ceded lands of tribes that did not come under the Indian Reorganization Act have remained temporarily withdrawn for the past 22 years. The lands on the Colville Reservation were restored in 1956 by special legislation (act of July 24, 1956, 70 Stat. 626). The acreage that has been restored to the various tribes amounts to approximately 3 million acres on 26 reservations; the acreage that has not been restored amounts to approximately 65,419 acres on 5 reservations.

The tribes listed in the bill include all of the tribes that are known to have undisposed-of ceded lands.

The Indians have never been paid for these ceded lands and they have from time to time passed resolutions requesting the enactment of legislation to restore the lands to them.

The lands are for the most part scattered over wide areas, some inside and some outside the present boundaries of the reservations. A restoration of the lands to tribal ownership will terminate the right of the Federal Government to dispose of them under the cession statutes, and will assure the Indians of the continued use of the lands. This will permit the Indians to improve the lands so that they may be operated or leased to their highest and best use, and will facilitate administration of the areas.

Any valid existing rights of bona fide entrymen will not be affected by the enactment of the bill, and lands that are now within reclamation projects heretofore authorized will not be restored.

We recommend that the bill be amended to conform to the draft bill enclosed with this report. With one exception (par. 5 below), the changes relate to matters of form and do not affect the substance of the bill. They are as follows:

1. The lands are identified as vacant and undisposed-of ceded lands (including townsite lots), rather than as surplus ceded lands of the class referred to in section 3 of the Indian Reorganization Act. The more specific reference avoids the necessity for across reference.

2. The acreage of the Klamath River Reservation is 159.57 acres rather than 128.84 acres.

3. The exception with respect to reclamation projects is limited to the time the lands remain within the boundaries of the projects.

4. The lands are made a part of the existing reservations for the tribes.

5. The tribes are authorized to sell or exchange the restored lands, with the approval of the Secretary of the Interior. In the case of the Crow Tribe, the restored lands are outside the boundaries of the diminished reservation and the tribe has indicated that it will probably want to negotiate sales or exchanges in order to make the best use of the lands. The other tribes may encounter the same need.

The Bureau of the Budget has advised us that there is no objection to the submission of this report to the Congress.

Sincerely yours,

ROGER ERNST,
Assistant Secretary of the Interior.

A BILL To provide for the restoration to tribal ownership of all vacant and undisposed-of ceded lands on certain Indian reservations, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all lands now or hereafter classified as vacant and undisposed-of ceded lands (including townsite lots) on the following named Indian reservations are hereby restored to tribal ownership, subject to valid existing rights:

Reservation and State:	Approximate acreage
Klamath River, California.....	159. 57
Coeur d'Alene, Idaho.....	12, 877. 65
Crow, Montana.....	5, 480. 95
Fort Peck, Montana.....	41, 450. 13
Spokane, Washington.....	5, 451. 00

Provided, That such restoration shall not apply to any lands while they are within reclamation projects heretofore authorized.

SEC. 2. Title to the lands restored to tribal ownership by this Act shall be held by the United States in trust for the respective tribe or tribes, and such lands are hereby added to and made a part of the existing reservations for such tribe or tribes.

SEC. 3. The lands restored to tribal ownership by this Act may be sold or exchanged by the tribe, with the approval of the Secretary of the Interior.

Subsequent to the passage of H. R. 8544 in the House, officials of the Department of the Interior informed the committee that the acreage of ceded lands to be restored to the Crow Indians of Montana was not accurate. A supplemental statement furnished the committee by the Solicitor's Office, Department of the Interior, explaining the need for the amendment which the committee has adopted, is as follows:

H. R. 8544

Amend the approximate acreage schedule on page 1 by changing "5,480.95" to "10,260.95".

EXPLANATION

The bill restores all vacant and undisposed-of ceded lands on the Crow Reservation, but the restoration of any ceded lands within a reclamation project will not become effective until the reclamation withdrawal is canceled.

The 5,480.95 acres listed for the Crow Reservation include only 120 of the approximate 4,900 acres of ceded lands in the Huntley reclamation project. Those 120 acres were included by inadvertance at a time when the bill did not purport to apply to any ceded lands in a reclamation project. When the language of the bill was changed to apply to all ceded lands, but to defer the effective date of the restoration of ceded lands in a reclamation project until the reclamation withdrawal is canceled, the acreage figure was not changed to reflect that fact.

The amendment proposed will make the acreage figure in the schedule factually accurate by including the entire 4,900 acres of ceded land in the Huntley project.

This change will not in any way conflict with a separate bill relating to the Huntley ceded lands that is still pending before the Indian Affairs Subcommittee (H. R. 9617). That bill provides for Federal purchase of the tribe's rights in the ceded lands within the Huntley project, and for the disposal of the lands under the reclamation laws. This will convert the present executive withdrawal into a statutory withdrawal, and the lands could never be restored under H. R. 9617. Of course if H. R. 9617 should not be enacted, the lands would be subject to H. R. 8544.

The committee recommends the enactment of H. R. 8544, as amended.

(attachment 6)

Township 1 South, Range 37 East, M.P.M., Big Horn County, Montana

- Section 1: Lots 1, 2, 3, 4, 5, 6, 7, 8, S $\frac{1}{2}$ N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$
 Section 2: Lots 1, E $\frac{1}{2}$ of 2, 7, 8, E $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$,
 NE $\frac{1}{4}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$

Township 1 North, Range 37 East, M.P.M., Big Horn County, Montana

- Section 1: SW $\frac{1}{4}$ SW $\frac{1}{4}$
 Section 2: SW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$
 Section 3: S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$
 Section 11: All
 Section 12: SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, W $\frac{1}{2}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$
 Section 13: All R
 Section 14: All
 Section 15: SE $\frac{1}{4}$ SE $\frac{1}{4}$
 Section 22: N $\frac{1}{2}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$
 Section 23: All
 Section 24: All R
 Section 25: All R
 Section 26: All
 Section 27: NE $\frac{1}{4}$, E $\frac{1}{2}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$,
 E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$
 Section 34: N $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$,
 SE $\frac{1}{4}$ SE $\frac{1}{4}$
 Section 35: N $\frac{1}{2}$, N $\frac{1}{2}$ N $\frac{1}{2}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$

Township 1 South, Range 38 East, M.P.M., Big Horn County, Montana

- Section 2: Lots 1, 2, 3
 Section 3: Lots 1, 2, 3, 4, S $\frac{1}{2}$
 Section 4: Lots 1, 2, 3, 4, S $\frac{1}{2}$
 Section 5: Lots 1, 2, 3, 4, S $\frac{1}{2}$
 Section 8: Lots 1, 2, 3, 4, N $\frac{1}{2}$ NW $\frac{1}{4}$
 Section 9: Lots 1, 2, 3, 4, N $\frac{1}{2}$ NW $\frac{1}{4}$
 Section 10: Lots 1, 2, 3, 4, N $\frac{1}{2}$ NW $\frac{1}{4}$
 Section 11: Lots 1, 13

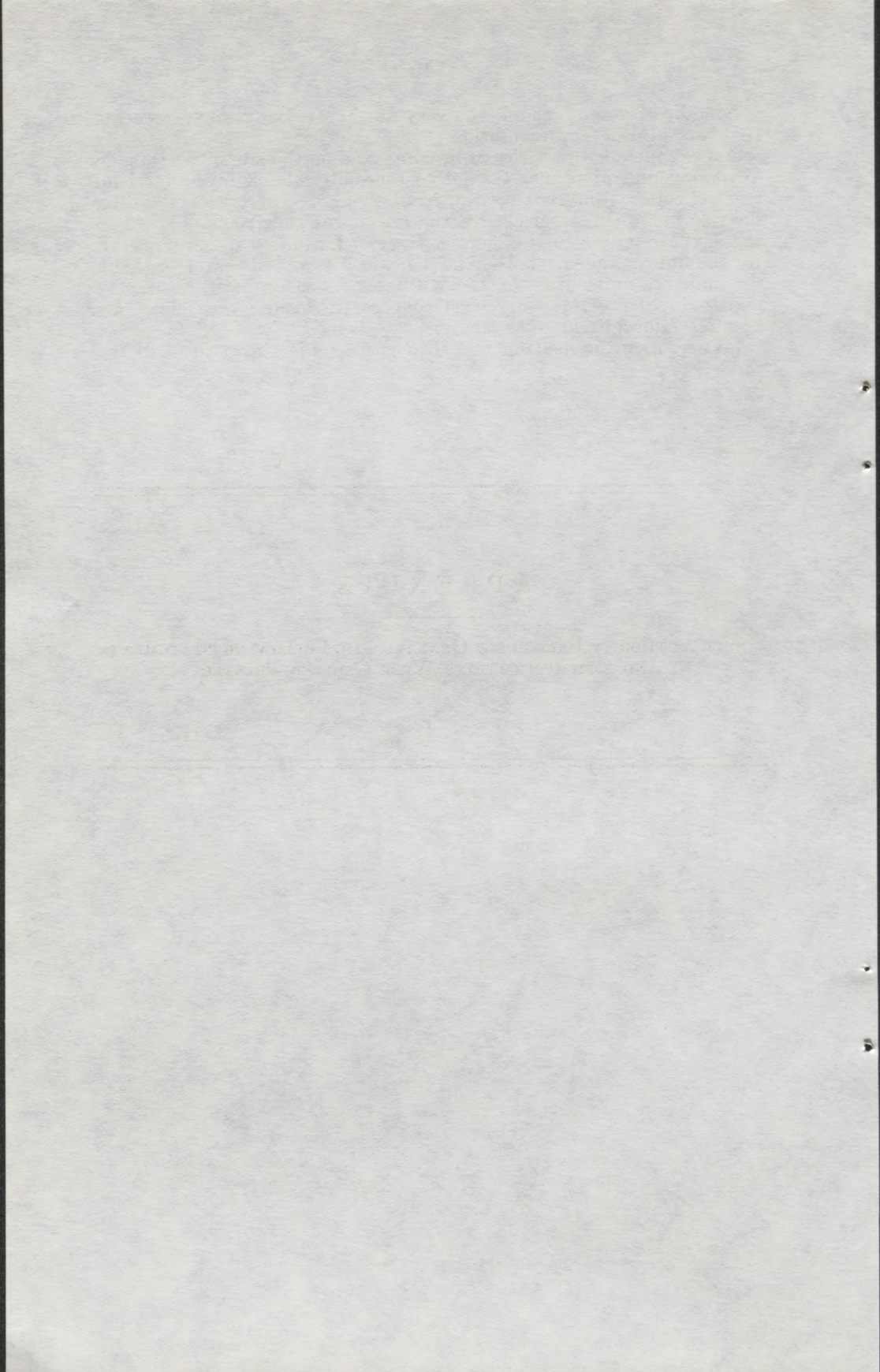
Township 1 North, Range 38 East, M.P.M., Big Horn County, Montana

- Section 17: Lot 4, SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$, Lot 4, E $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$
 Section 18: S $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$, S $\frac{1}{2}$ - acc. and adj.
 Section 19: All NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$
 Section 20: Lots 1, 2, 3, 4, W $\frac{1}{2}$ E $\frac{1}{2}$, W $\frac{1}{2}$, W $\frac{1}{2}$ N $\frac{1}{2}$, SE $\frac{1}{4}$ N $\frac{1}{2}$ - C.C.
 Section 29: Lots 1, 2, 3, 4, W $\frac{1}{2}$ E $\frac{1}{2}$, W $\frac{1}{2}$
 Section 30: All
 Section 31: All
 Section 32: Lots 1, 2, 3, 4, W $\frac{1}{2}$ E $\frac{1}{2}$, W $\frac{1}{2}$
 acc. to survey 14, 4 1/2 7 1/2 7 1/2

Senator METCALF. Thank you very much, Mr. Cady, for presenting that very-high-level presentation.

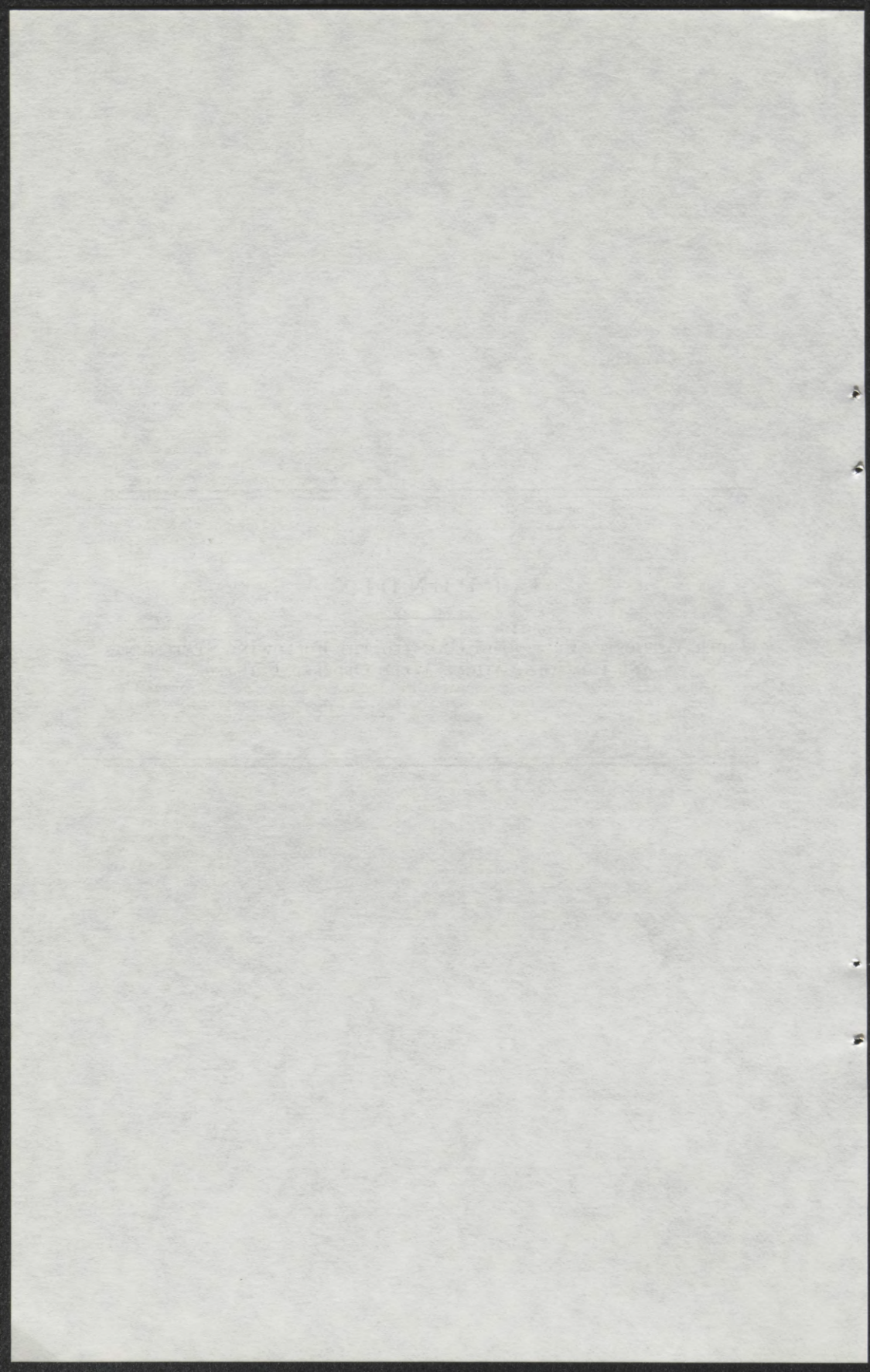
As we conclude this series of hearings and on-the-site inspections in Wyoming and Montana, I want to especially thank my old friend and colleague, Jim Battin, who has become one of the outstanding district judges in America, for the use of his courtroom. I want to thank the reporter for his heroic services. I want to thank our staff for the fine arrangements they have made. I especially want to thank the audience and witnesses, the witnesses for their patience all day and the audience for being most cooperative. And I now close this hearing, subject to call of the chair.

[Whereupon the hearing was adjourned, subject to the call of the Chair.]



APPENDIX

UNDER AUTHORITY PREVIOUSLY GRANTED, THE FOLLOWING STATEMENTS
AND COMMUNICATIONS WERE ORDERED PRINTED





The Big Sky Country

MONTANA STATE HOUSE OF REPRESENTATIVES

DOROTHY BRADLEY
DISTRICT NO. 11, GALLATIN AND
PARK COUNTIES
BOZEMAN, MONTANA 59715
COMMITTEES:
NATURAL RESOURCES, VICE-CHAIRMAN
EDUCATION
LOCAL GOVERNMENT

P.O. Box 931
Bozeman, Montana 59715

April 23, 1974

The Honorable Lee Metcalf
Senate Office Building
Washington, D.C.

Dear Senator Metcalf:

Unfortunately I was unable to attend the April 20th hearing in Billings regarding strip mining. I would like to submit this letter to the hearing record.

By way of background, two years ago I ran for my second term in the Montana House of Representatives. The most substantial portion of my platform was support for a two year moratorium on expanding coal development and energy conversion in Montana -- legislation which I subsequently sponsored; which tied during its first debates; and which was eventually killed at the end of the session because the legislature felt it had adequately addressed itself to the coal issue by passing a reclamation, siting, and water use act. However, this past year we discovered that the problem was not as easily solvable as we had hoped, and one major piece of legislation was passed with the help of Governor Judge to set a moratorium on industrial water permits in the Yellowstone Basin. It is my conviction that other questions which the original coal moratorium bill raised are still unanswered -- the feasibility of reclamation, the problems caused by removal of the aquifer, the problem of large influxes of people in an agricultural area, etc. I believe many people of Montana would heartily support a moratorium similar to the one introduced in 1973, to allow time for studies (while not stopping present mining activities) without the pressure we are experiencing today, as more mining and exploration requests continually swamp the state.

In addition to carefully executed studies, I see other specific needs:

I heartily support the Mansfield amendment as a logical approach if strip mining is to continue. Homesteaded surface lands were originally set aside for agriculture. They should continue to be used for agriculture. In my opinion, this amendment would not worsen the energy situation as it would be an incentive for more deep mining. And I am convinced that as long as the jumbo jets are flying again, and we continue to rely on automobiles as our means of transportation, we cannot claim we are facing an energy crisis so severe as to justify stripping arid plains whose reclamability has

been questioned by such prestigious groups as the National Academy of Sciences. Furthermore, we all recognize that Montana is making an important contribution to the national and world food supply -- a crisis whose proportions were making almost as many headlines this past winter as the energy situation.

A provision should be established that stripping the northern arid plains will not take place unless public necessity is determined. Under Montana law the state has the power of selective denial. However, it does not have authority to judge if the stripping is justifiable simply on the basis of need. The burden of proof should fall on industry to prove public necessity -- a concept which has already been established in Montana's utility siting act regarding energy conversion, and should be expended to include the actual strip mining.

We need a strong corporate disclosure act on state and national levels. A problem we are all experiencing is that the complexity and interlocking of the whole energy monopoly is so confusing and unknown that effective regulation is virtually impossible. A necessary first step in correcting a situation which is out of hand is to force disclosure of directors, corporate interlocks, litigation in other states, lobbying expenses, transfer of employees in and out of government offices, shareholder distribution; etc. Such information is absolutely crucial, and justifiable when the energy monopoly has failed to meet national needs and adequately distribute energy to all segments of society.

Finally, we need a far better thrust in the nation on energy conservation. Perhaps an independent "Energy Conservation Commission" could be established which would make the whole arena of conservation a deserving partner of "Project Independence."

Thank you for this opportunity to comment.

Sincerely,

Dorothy

Dorothy Bradley

cc: Senator Mansfield
Lt. Gov. Bill Christiansen



The Big Sky Country

MONTANA STATE SENATE

May 9, 1974

SENATOR DAVE MANNING
DISTRICT NO. 6, GARFIELD, McCONE
PRAIRIE, ROSEBUD, TREASURE COUNTIES
HYSHAM, MONTANA 59038

COMMITTEES:
HIGHWAYS AND TRANSPORTATION, CHAIRMAN
SPECIAL REAPPORTIONMENT, CHAIRMAN
TAXATION

Honorable Lee Metcalf,
Chairman
U. S. Subcommittee
on Minerals, Materials
and Fuels
Washington, D. C.

Re: Testimony of Dave Manning
Hysham, Montana
For the record of the
April 20th, 1974 hearing
in Billings, Montana

My name is Dave Manning. I am a member of the Montana State Senate (District No. 6) comprising Garfield, McCone, Prairie, Rosebud and Treasure Counties. I am chairman of the Senate Highway and Transportation Committee and a member of the Senate Taxation Committee. My residence is in the rural town of Hysham, Montana, located central to the largest on-going strip mining activity in Fort Union Coal Deposit.

I was late in arriving at your April 20th Subcommittee hearing at Billings and listened only to a small part of the afternoon proceedings, so was reluctant to present oral testimony at that time so I am submitting the following written comments by mail.

Previous to your April 20th meeting I had attended the April 10th and April 15th meetings at Ashland and Billings Montana and heard the full report, explanation and testimony given regarding the Decker-Birney Resource Study conducted by the Federal Bureaus of Land Management and Forest Service. I have also read the Introductory statement of Jack O. Horton, Assistant Secretary--Land and Water Resources, Department of the Interior, given before your Subcommittee, March 13th.

At the first Decker-Birney Resource Study Meeting with the presentation of the 90 page Land Use Recommendations for the area, as developed in the Interagency Study conducted during 1972-74, I could not help but notice the absence of a slot relating to Local Government Impact. This, particularly, where the study was directed toward contemplated mining develop-

ment in an area where 93% of the mineral estate is owned by the National Government and 69% of the surface estate is owned by local people, served by Local Government.

I admit when I turned back to the transmittal letter accompanying the report I found the study was a Land Use Planning effort. Still I wondered, while the principal information gathering and analytical portions of the Program was being carried out by seven governmental work groups in the field for a period of two years, why they could not have testified to the inadequacy of our Local Government roads with something more than profane silence.

I call to the attention of the Committee that here on the ground, in our efforts to maintain governmental services, we have no freedom from the intervention of increased road travel and school population. Each hour new problems and new costs are stirred into our economy, no interval of time for values and taxes to jell and amid all the well meaning studies surrounding us we are living an "after the fact" form of life.

Our outer road extensions from surrounding population centers leading into the present coal mining activity areas and the heart of the Fort Union Coal Deposits were built years ago to minimal standards. There is no way these existing roads can be considered adequate to handle the traffic volumes of today, let alone the expanding development of Federal coal holding which will bring on great additional traffic and trucking of excessive weights.

Montana 315 between Forsyth and Colstrip is a prime example of increased traffic volumes. On this road, average daily traffic increased from 230 vehicles in 1970 to 1357 in 1973. Its existing asphalt surfacing is deteriorating and breaking up faster than maintenance forces can repair it.

The Department of Montana Highway and county official of Big Horn, Treasure and Rosebud counties have initiated programs for reconnaissance surveys to accurately determine the needs and standards for Secondary Routes 447, 315, 384 and 415, serving from the North, the choicest area of Fort Union Coal deposits and three on-going coal mining operations geared at this early stage to a 14 million ton annual production.

When the Anti-Ballistic Missile program was conceived in the late 1960's in the interests of the Nation's general welfare, the impact on local resources were recognized by the Congress as being inadequate to meet the demands of the program and authorizations were given by the Congress under Public Law 91-511 to provide 100 percent Federal funds to improve local resources.

I see the National energy crises and the hasty focus of reliance on the Fort Union strip mineable coal deposits as a parallel example and think it should be treated accordingly. Congress should insure that local government is not required to suffer major economic costs to provide critical services for the Nation.

In our immediate area the actual amount of dollars needed to construct all the involved roads to adequate standards is undeterminable at this time, but preliminary estimates on the four secondary routes under study indicates at least 25 million dollars, and to this we must add an estimated 4 million dollars for Local Governments' Public Schools in our area now suffering the demands of constantly increasing class attendance where one Elementary School alone is showing a student increase from 99 to 627 in a three year period.

I make this special appeal to your Subcommittee because of your assignments, and inherent knowledge of Interior affairs, and ask that your recommendations to the full committee and the Senate embody an appropriate Federal fiscal plan for Montana and Western States where their Local Governments are suddenly adversely affected with crash programs in the strip mining demands of the Nation.

Respectfully, submitted,

Dave Manning
Dave Manning

STATE OF MONTANA
PRELIMINARY POSITION STATEMENT

Coal Development, With Particular Regard To The Leasing of Federal
Coal From the Decker-Birney Planning Area Under the EMARS Program

I. INTRODUCTION

Many of Montana's most controversial issues relate to the potential development of the Fort Union Coal resource. Whether Montana retains its primarily agricultural character or becomes a center of industrialization and urbanization is largely dependent on the types and levels of development. Impending decisions on coal leasing by the federal government could have a tremendous impact on our state.

II. PERSPECTIVE

In May of 1972, the Bureau of Land Management (BLM) and the Custer National Forest, U. S. Forest Service (USFS), in cooperation with the State of Montana, began compiling data on the major resources and the social and economic features of the 900,000 acre Decker-Birney area located in Southeastern Montana. Over thirty-one percent (285,000 acres) of the study area is underlain by strippable coal, and conservative estimates of these reserves total 15,900,000,000 tons.

The study, now nearing completion, is intended to provide BLM and USFS with a foundation of knowledge on which sound resource decisions can be made, in considering the many conflicting values and capabilities of the area. Both BLM and USFS are preparing multiple-use plans for the lands under their respective jurisdictions.

On March 6, 1974, BLM and USFS officials met with the Montana Energy Advisory Council (MEAC) to report on the status of this study. Details of coal and other resource inventories were discussed in light of pending federal coal-leasing programs.

The Department of Interior's Energy Minerals Allocation Recommendation System (EMARS) will probably be finalized within the next few months. At that time, state and local BLM offices will be informed of EMARS lease allotments, the magnitude of which are presently unknown. The Montana BLM Office is likely to be instructed to commence leasing of federal coal by or before January of 1975, in accordance with the EMARS program allotment.

At the same meeting, the following requests were made of MEAC:

- A. An articulation of Montana's land use, socio-economic, and environmental protection goals and objectives.
- B. Baseline socio-economic data of the Decker-Birney area.
- C. An analysis of likely environmental and/or socio-economic impacts of the proposed Decker-Birney development alternatives.
- D. Possible legal and administrative tools available to foster plan implementation and needed enforcement requirements.
- E. Possible recommendations to improve the decision-making process, goals and objectives formulation, and plan implementation and enforcement.

E. Possible recommendations to improve the decision-making process, goals and objectives formulation, and plan implementation and enforcement.

This Preliminary Policy Statement is directed to the first of those requests. It relates Montana's goals to the leasing policy decisions soon to be made in the Decker-Birney area.

The statement will be distributed prior to the public hearing to be held by Senator Metcalf in Billings on April 20 concerning the future of federal coal leasing in the Northern Great Plains, as well as before public hearings on the status of the Decker-Birney Study. All public comment presented at the hearings will be carefully considered before the position of the State of Montana is finalized.

III. PROGRESS TOWARD A COMPLETE ARTICULATION OF GOALS AND OBJECTIVES

Although Montana's goal formulation process is not yet complete, the citizens of this state, acting through their government, have in the last several years taken definite steps toward articulating land use, socio-economic and environmental objectives relevant to the questions of coal development.

1971 - The Montana Environmental Policy Act requires that all possible environmental consequences of any government action be evaluated. Inherent in MEPA are the intents that adverse environmental impacts be minimized and that all alternatives to a given development be given thorough consideration before a decision is made.

1972 - The Montana Constitution provides valuable guidelines. Article II, Section 3, states in part: "All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment . . ." Under Article IX, Section 1(1) provides that: "The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations." Section 1(3) further states that: "The legislature shall provide adequate remedies for the protection of the environmental life support system from degradation and provide adequate remedies to prevent unreasonable depletion and degradation of natural resources."

1973 - Governor Judge requested, and the 1973 Legislature enacted, the Montana Strip Mining and Reclamation Act, the Coal Conservation Act, the Montana Utility Siting Act, and the Montana Water Use Act, which are among the most comprehensive in the nation. The stated objectives of these laws basically reiterate those of the new Constitution, although such policy articulations as ". . . to restore, enhance, and preserve its scenic, historic, archeologic, scientific, cultural, and recreational sites . . ." (Section 2, Montana Strip Mining and Reclamation Act) have been added. The consensus of Montanans, as reflected by those Acts, is clearly: "If coal development is to proceed, it will proceed only under strict and rigidly enforced controls."

Definitive land use policy and energy policy studies by the Montana Environmental Quality Council were also authorized by the 1973 Legislative Assembly, with findings and recommendations to be reported to the 1975 Legislature.

On April 24, 1973, Governor Judge created MEAC, the successor to an interagency Montana Coal Task Force. In so doing, he said:

"Our State, from all indications, is on the threshold of massive energy development to ease the much publicized and controversial 'energy crisis,' but inherent in a simplistic solution to one crisis are seeds for another; that of the degradation and destruction of human and natural environmental values and the massive consumption and depletion of local resources.

I believe it unreasonable, inequitable, and contrary to national policy and interest, to temporarily feed a nationwide energy appetite by creating social, environmental, and natural resource problems in one region."

1974 - The most recent, and perhaps most significant, evidence of the views of the Montana public is the overwhelmingly positive response of citizens and legislators to Governor Judge's call for a three-year Water Moratorium, i.e., the suspension of action on the processing of large volume (presumably industrial) water use applications in the Yellowstone Basin. Enactment of this law indicates that the people of Montana and our governmental agencies are aware of the potential consequences of immense, energy-related water diversions and are unwilling to accept them without substantial further evaluation. An important feature of the act is that future municipal water needs, flow requirements to maintain the productivity of aquatic life, and projected irrigation needs will all be measured, reserved and accorded preference over the industrial demands which may be submitted in the interim. Regarding water considerations, state goals and priorities are rather explicitly stated.

The 1974 Montana Strip Mine Siting Act gave state government the authority to examine and to approve or disapprove the area of a proposed new strip mine prior to any development and large-scale investments.

IV. PRELIMINARY STATEMENTS OF POSITION

Certain of Montana's goals have previously been articulated, as herein summarized. We have related our goals and objectives to the immediate coal leasing options federal agencies have before them, and our preliminary statements of position follow.

A. For at least the initial five years of the EMARS coal leasing program, Montana people and their government would assent to leasing of coal only if its combustion or conversion will take place near the nation's high energy demand areas. Consequently, both the lease terms and the characteristics of the coal deposits chosen for lease should dictate that the coal will be burned or converted at load centers.

This position can be modified only if it can be clearly shown that mine mouth industrialization is necessary to meet state needs.

B. If expanded federal coal leasing is to proceed in Montana, determinations and allocations of acreages and tonnages to be leased should be minimized in recognition of the 1.7 billion tons of federal coal currently under lease in Montana, extensive Indian coal leases, the 32,775 acres of state coal under lease, and the vast reserves of privately owned coal committed to development.

C. If expanded federal coal leasing is to proceed in Montana, all new federal coal leases should reference and require compliance with the Montana Strip Mine Siting Act, Strip Mining and Reclamation Act, Utility Siting Act, Coal Conservation Act, and Water Use Act.

Using the Coal Conservation Act as an example, we note that lease terms can do much to avoid conflict with state law. The terms should address such problems as coal wastage and unnecessary degradation by precluding the restripping of an area. Requiring higher royalties if only the uppermost seams are mined would be an incentive to remove all seams.

D. If expanded federal coal leasing is to proceed in Montana, it should proceed exclusively in those areas where all resource values and land uses have been thoroughly inventoried. Only upon the conclusion of such studies can areas of highest conflict be avoided.

This "selective denial" concept is critical to sound resource management and presently can be implemented on a large-scale basis only in the Decker-Birney study area. Leasing of federal coal should not proceed in other regions of Montana until and unless studies of at least equal magnitude have been completed. The historic method of simply responding by leasing in the areas of greatest corporate interest should not be resumed.

E. Bureau of Reclamation or other federal water allocations should not be granted or transferred to corporations within the terms of new coal leases. Such package deals as now being considered by EMARS are unacceptable.

V. DISCUSSION

A. Combining the state mineral and surface estates with those administered by the Forest Service and the Bureau of Land Management, we note the following ownership patterns expressed as a percentage of total acreage.

	<u>Surface Estate</u>	<u>Mineral Estate</u>
Government	31%	93%
Private	69%	7%

These ownership patterns are typical throughout the Fort Union coal region; certainly such patterns are characteristic of most significant Montana coal fields. Accordingly, numerous potential conflicts exist between full or partial utilization of the coal deposits and other public and private uses of the land, water and air resources of the area.

Pursuant to Montana's reclamation and utility siting laws, state agencies are evaluating impacts of strip mining and mine mouth industrialization on a site-by-site basis. Only within the Decker-Birney study area, however, have state and federal officials made appreciable progress in quantifying existing social, economic and environmental values and identifying areas of highest conflicts with strip mining on a comprehensive, large-area basis.

These challenges can be mitigated or possibly resolved only through systematic resource analysis and broad-based multiple use planning with full public involvement. If this process is to succeed anywhere in Montana, it must function within the Decker-Birney planning unit, where the process is most advanced.

B. Although Decker-Birney study officials have done a commendable job in evaluating conflicts between strip mining and all other public and private resource uses, time and manpower limitations have not permitted an evaluation of the even greater potential conflicts involved with mine mouth utilization of the coal. Therefore, if federal coal is to be leased, the characteristics of the coal chosen and the lease terms should restrict development to levels and types whose impacts are understood.

Leasing coal for out-of-state use will allow subsequent evaluation of the consequences of mine mouth industrialization in Montana. A detailed Department

of Natural Resources and Conservation analysis of the effects of proposed Colstrip III and IV will be available within nine months, and the findings will be the most definitive site-specific information in the region. It is unfortunate that federal lease selections will probably occur before that department's studies are completed.

C. Although site-specific data regarding the social and environmental consequences of one power generation complex will soon be available, there has been little definitive work on the cumulative impacts of extensive mine mouth industrialization, and no field data presently exist concerning gasification facilities.

D. The State of Montana acknowledges the conclusions reached by the National Academy of Science's Study Committee on the "Potential for Rehabilitating Lands Mined for Coal in the Western United States."

"The shortage of water is a major factor in planning for future development of coal reserves in the American West. Although we conclude that enough water is available for mining and rehabilitation at most sites, not enough water exists for large-scale conversion of coal to other energy forms The potential environmental and social impacts of the use of this water for large-scale energy conversion projects would exceed by far the anticipated impact of mining alone. We recommend that alternative locations be considered for energy conversion facilities. (Emphasis added.) 1/

E. The strippable coal deposits in the Decker-Birney area vary in such characteristics as seam thickness, BTU per pound, sulfur content, ash content and fusion temperature. Although the market place and economic considerations should not be the primary factor in selecting lands for lease, leasing of the highest BTU and lowest sulfur coal can do much to assure that the coal will best address short-term national needs.

F. New mine mouth power generation for which no commitments have been made would not be on line until about 1980, and gasification plants are not likely to be commercially operative until later in the 1980's. Consequently, the Federal Energy Office has placed a high priority on the conversion of existing oil and natural gas fired power plants to coal. Many of those conversions require only six months to a year, much less time than it takes to open a new strip mine.

If the relatively low-sulfur coal of Montana is mined, shipped and then utilized following the conversion of these existing plants, perhaps the SO₂ emission standards in the centers of industrialization can be maintained.

G. Economics should not be the sole factor in determining whether coal is converted in Montana or shipped out. It was concluded however, in the Southwest Energy Study that:

1/ The National Academy of Sciences/National Academy of Engineering, Rehabilitation Potential of Western Coal Lands, Report to the Energy Policy Project of the Ford Foundation, 1973, pp. 10-11.

"Neglecting possible environmental effects, comparisons between coal-fired generation near the mine and near the load center appear to show little difference in economics." 2/

H. Should the federal government make industrial water available to corporate lessees at the time coal is leased, Montana government and the people it represents will have diminished influence upon the future of our state and our way of life. Such actions would make a travesty of local planning efforts presently underway.

VI. COMMENT

The State of Montana wishes to reiterate its desire to help meet the essential energy needs of our nation. However, we believe a careful distinction must be drawn between "energy needs" and "energy demands," and we do not believe that one region should be asked to bear a disproportionate share of the social and environmental costs of meeting nationwide needs.

2/ U.S. Department of the Interior, Southwest Energy Study, An Evaluation of Coal-Fired Electric Power Generation in the Southwest, April 1972, p. S-5.

SUMMARY
DECKER --
BIRNEY



RESOURCE STUDY

APRIL 1974 REPORT

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(Management Framework Plan)*

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*This is a planning document used to reconcile conflicts between objectives and limitations for each considered resource.

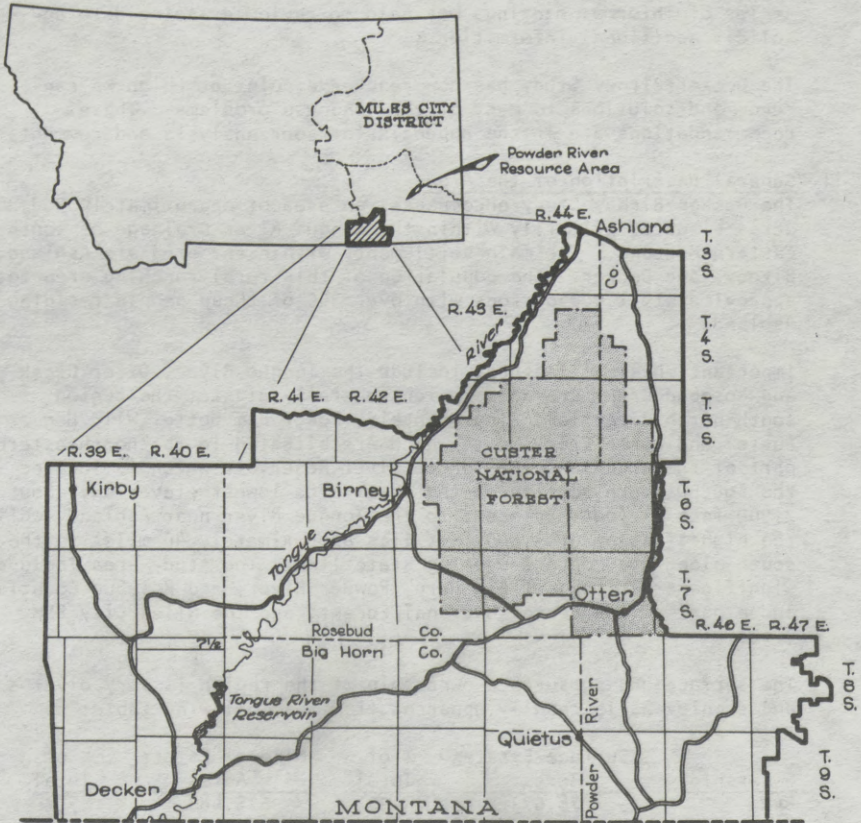
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DECKER - BIRNEY LOCATION MAP



I. Introduction

In May of 1972, the Bureau of Land Management and Forest Service in cooperation with the State of Montana began compiling a comprehensive analysis of the Decker-Birney area located in southeastern Montana. Since then, information about the major natural resources of the area has been assembled from many sources. Over 700 individuals, special interest groups, and local agencies were contacted. In addition, a series of informal meetings was held to review existing data and solicit additional information.

The Decker-Birney Study has now reached a point at which we can recommend solutions to many of the land use problems. These recommendations are in the appendix for your analysis and comments.

II. General Description of the Area

The Decker-Birney Study encompasses an area of approximately 900,000 acres situated primarily within the Tongue River Drainage of southeastern Montana. The main settlements within the area are Ashland, Birney, and Decker. The population of this rural ranching area totals approximately 1,000 persons with over 350 of these people residing in Ashland.

Important physical features include the Tongue River, Otter Creek, and Rosebud Creek Drainages which generally dissect the region south-north direction; King Mountain, Poker Jim Butte, Wild Hog Butte, and Horse Creek Butte which are situated in the northeastern part of the area; and the Tongue River Reservoir which is located in the southwestern portion of the unit. The lowest elevation, about 2,900 feet is found adjacent to the Tongue River near Ashland, while the highest point of 4,300 feet lies approximately 40 miles to the south along the Montana-Wyoming state line. The study area includes significant portions of Big Horn, Powder River, and Rosebud Counties, and a part of the Custer National Forest, and the Miles City BLM District.

The surface and subsurface ownership of the region is very diverse and complex as is readily apparent from the following table:

Ownership	Surface Estate	% of Total	Mineral Estate	% of Total
	Acres		Acres	
BLM	78,673	9%	626,480	70%
FS	153,496	17%	162,477	18%
State	48,000	5%	48,000	5%
Private	618,540	69%	61,752	7%

Coupled with these ownership statistics is the fact that approximately 39% (359,333 acres) of the planning area is underlain by strippable coal. Approximately 285,000 acres of this is composed of superior and economic reserves containing 15 billion tons suitable

for extraction under current strip mining practices. Of the Federal mineral estate which constitutes 88% of the study area, approximately 2% has been leased leaving nearly all planning options open for this important resource.

III. The Need for a Study

The renewed interest for coal, specifically large volumes of low sulphur strippable coal, in conjunction with the mining technology that is current available, prompted six lease applications for federal coal totalling 28,000 acres by the spring of 1972. Coupled with these applications, there were also numerous prospecting permit applications, which could also lead to the issuance of coal leases and ultimate production in the area. Thus, impending demands on the coal resource presented several problems to Federal and State decision-makers as well as to the local land owners. First of all, there was the lack of baseline data concerning the resources, including coal deposits. Another problem was the complex ownership pattern. We soon recognized that significant actions by any one owner could greatly affect the well-being or options available to others.

Finally, there was the danger of handling each mineral lease application on a case by case basis rather than within the framework of a logical plan.

IV. Procedures Followed

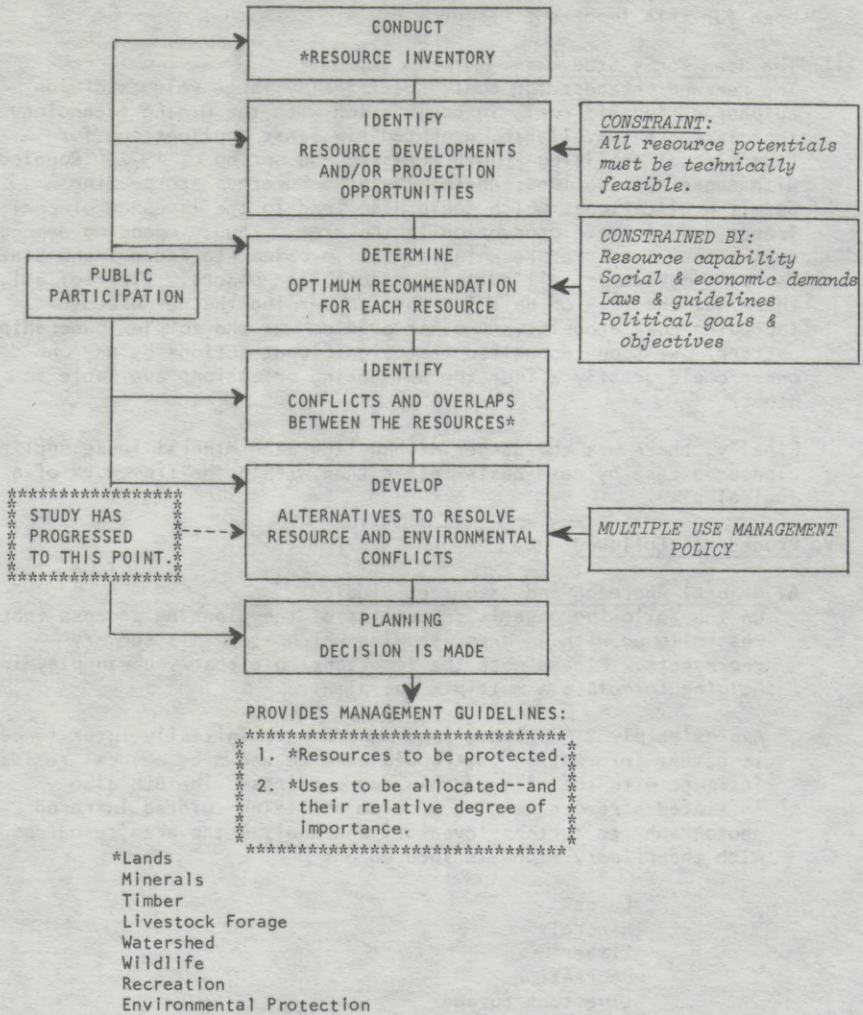
A. General Approach and Resources Studied

On the following page is an outline of the planning process that was followed with an arrow showing which step this summary represents. Please note the important role that you can play in helping formulate a multiple use plan.

Approximately 215 private land owners were initially interviewed to gather information that would only be known by a local resident intimate with the area and his surroundings. The BLM also initiated a remote sensing program utilizing colored Infrared photography to further inventory and analyze the area resources with the primary emphasis focused on:

- Lands
- Minerals
- Timber
- Recreation
- Livestock Forage
- Wildlife Habitat
- Watershed Conditions, and
- Other environmental components of the region

DECKER-BIRNEY STUDY
Land Use Planning System Steps



To supplement the interviews and photo interpretation work, resource specialists from the BLM and Forest Service also made on-the-ground investigations and gathered other available data. When possible, outside experts were enlisted to fill in the critical data gaps such as was done in the archeology study. In addition, the Bureau of Land Management recently received authorization to initiate soil surveys and water resource studies. In conjunction with these studies, air quality data is being gathered by the State Air Quality Bureau while a socio-economic analysis is being developed through the efforts of the Montana Energy Advisory Council.

V. Summary of Resource Data Gathered to Date

Strippable Coal

Strippable deposits: Acreage: 359,333 Acres; Percent of Area: 39%
(Includes superior, economic, marginal and uneconomic reserves)

Volume: 16 billion tons

BTU value range: 7,800 - 9,700

Thickness of seams: 11' - 72'

Superior and economic reserves total 285,000 acres (30% of area) and account for 15 billion tons of volume.

Oil and Gas

80 wells have been drilled.

6 had non-commercial shows of gas.

2 had non-commercial shows of oil.

Low key oil and gas activity may not depict actual potential.

<u>Timber</u>	<u>Acres</u>	<u>Volume</u>
Sawtimber	40,148	100,370 thousand board feet
Poles, posts, etc.	8,495	14,893 thousand board feet

Volume sold in past 4 years:

Sawtimber: None

Posts and poles: Less than 10 thousand board feet/yr.

<u>Livestock Forage</u>	<u>Acres</u>	<u>Animal Unit Months</u>
Private	525,900	
FS	153,496	
BLM	78,673	
State	42,500	
Total	800,569	241,000

There are 219 families engaged in 106 livestock operations, with a total of 27,000 cattle and 2,700 sheep on the unit.

Annual gross from livestock operations: \$3,000,000

Watershed

<u>Erosion Condition</u>	<u>Acres</u>	<u>Percent</u>
Stable	31,360	3.5%
Moderate	758,892	84.8%
Severe	104,960	11.7%

This watershed situation is typical of semi-arid regions throughout the West. Grazing, vehicle travel, and other man-caused disturbances have considerably accelerated the natural erosional processes.

Most water control structures on the area have been built to facilitate livestock management. Little has been done specifically for watershed improvement.

Wildlife Habitat

The unit supports good populations of antelope, mule deer, white-tailed deer, and a wide variety of upland birds, waterfowl, fish, and furbearers. Antelope is the only species for which areas of crucial habitat have been identified.

Recreation

Recreational opportunities include enjoyment of scenic geological features, historical and archeological sites, hunting, fishing, and water sports. Records indicate that hunters come from as far away as Minnesota and Texas.

VI. Multiple Use Recommendations and Supporting Analysis

After comparing the potentials for development of all of the resources and identifying mitigating elements or measures for as many of the conflicts as possible, the Bureau of Land Management and Forest Service have developed tentative multiple use recommendations covering the following resources:

- Lands
- Minerals
- Timber
- Recreation
- Livestock Forage
- Wildlife Habitat
- Watershed Conditions, and
- Other environmental components of the region

The multiple use recommendations, after review and refinement in public meetings, will form a framework plan which will provide management guidelines for the Decker-Birney Study area.

The proposed recommendations are enclosed in the appendix of this report for your consideration. Because of the significance of the coal resource, the recommendations pertaining to its development are expanded upon in Section VII. We would appreciate your review and response to our proposals. However, please note several basic assumptions were made at the outset of the study:

1. Although much of the surface in the area is privately owned, it is intermingled with Federal and State land and largely underlain by Federal minerals. Management of the Federal resources therefore requires consideration of all ownerships, even though the BLM and Forest Service have no authority over private lands. Only by identifying the total potential for all lands can we assess the impact of alternative ways of managing the Federal resources. While the study is intended primarily to produce guidelines for management of public lands and resources, we think the guidelines might be useful to all land owners as well as local governmental units.
2. Any guidelines that may be developed as a result of this study will generally not only apply to future management activities, but may also impact current use authorizations such as grazing leases and rights-of-way.
3. Any guidelines that may be developed in this study are subject to revision as the management climate changes. As data improves, technology changes, legislation is developed or social demands change, any guidelines developed now may be revised later to reflect those changes. Major revisions in program direction, however, will be subject to public review.

VII. Coal Recommendations

Based on public interest and the significance of the coal deposits in the Decker-Birney area, we will briefly discuss our major management recommendations for this important mineral resource. However, please bear in mind that we have developed multiple use recommendations for a number of resources in the region and we would like your comments and suggestions on these other important land uses in the process of your review of the total multiple land use plan.

A. Coal Recommendation #1

Approximately 166,000 acres* (8.5 billion tons) of primarily Federal coal should not be considered for leasing because of the other values which would be lost or severely impacted.

*Please note mineral resource map in appendix.

The following are some of the values associated with these lands:

Wells	55
Springs	163
Reservoirs	233
Fences (Miles)	319
Cultivated Land (Acres)	6,919
Rangeland (Acres)	150,944
Animal Unit Months	46,874
Ranch Operations	60
Antelope Habitat (Acres)	102,300
Sage Grouse Habitat (Acres)	24,520
Turkey Habitat (Acres)	22,120
Deer & Sharptail Grouse Habitat (Acres)	165,562
County Road (Miles)	47
Historic Battlefields	3
Fossil Areas (Acres)	6,820
Campground Visitor Days	1,000

B. Coal Recommendation #2

Any future coal leasing (Federal) should be confined to seven distinct areas involving approximately 119,000 acres* 6.7 billion tons). The following are some of the values which would be affected in varying degrees or at least on a temporary basis if these areas were to be totally mined:

Wells	45
Springs	92
Reservoirs	144
Fence (Miles)	159
Cultivated Land (Acres)	6,085
Rangeland (Acres)	113,395
Animal Unit Months	35,215
Ranch Operations	51
Antelope Habitat (Acres)	80,100
Sage Grouse Habitat (Acres)	40,900
Turkey Habitat (Acres)	10,900
Deer & Sharptail Grouse Habitat (Acres)	119,520
Timber (Thousand Board Feet)	14,200

VIII. What Actions Will Follow the Proposed Multiple Use Plan

Prior to mineral leasing, in accordance with the proposed multiple use plan, the BLM and Forest Service will prepare an environmental impact statement which will address the various levels and types of coal development as well as the impacts of withholding the approximately 166,000 acres of superior and economic reserves from mineral leasing application. This statement will be based on two environmental analyses which have been prepared; one covering the proposed

management framework plan and the other covering the type and extent of possible coal development that could occur in the Decker-Birney unit. Subsequent to this, the Forest Service will prepare an environmental impact statement for all management activities for all the National Forest lands in the Ashland area. The coal development alternatives that were analyzed for this study are as follows:

1. Mine-mouth gasification.
2. Mine-mouth power generation.
3. Export operations.
4. A combination of the above as outlined by the Northern Great Plains Resource Program Study and amended by the Decker-Birney Study participants. The four levels of development considered are listed below:

<u>Development Level</u>	<u>Extent of Activity</u>
(a) Export only	Up to 6 mines
(b) Low development	3 mine-mouth power generation plants 1 export mine
(c) Medium development	3 mine-mouth power generation plants 2 gasification plants 4 export mines
(d) High development	3 power generation plants 9 gas plants 12 export mines

The above coal development alternatives were prepared and analyzed utilizing the following baseline models to help evaluate the local and regional impact.

There are other alternatives and/or combinations of alternatives which are possible in the study area. You may wish to give us your ideas.

1. Gasification Plant Model (All figures are for one plant):
Size: 250 million cubic feet per day production

Plant Requirements	
Employment	600 men
Water	17,000 acre-feet
Acreage	1,030 acres
Coal Requirements	
Tons/yr.	8,000,000 tons
Reserve requirements	300,000,000 tons
Employment	170 men

- | | |
|-----------------------------------|-------------------|
| Plant Emissions (limited listing) | |
| Sulphur | 1,704 lbs/hr. |
| Nitrous oxides | 713 lbs/hr. |
| Water vapor | 1,681,111 lbs/hr. |
| Particulate | 50 lbs/hr. |
| Population Impact | |
| Project employment | 770 men |
| Secondary jobs created | 1,310 jobs |
| Total new employment | 2,080 people |
| Total population increase | 6,131 people |
2. Power Generation Model (All figures are for one plant):
 Size: 1,000 MW power plant
- | | |
|-----------------------------------|-------------------|
| Plant Requirements | |
| Employment | 85 men |
| Water | 18,000 acre-feet |
| Acreage | 500 acres |
| Coal Requirements | |
| Tons/yr. | 3,800,000 tons |
| Reserve requirements | 166,000,000 tons |
| Employment | 100 men |
| Acreage (current) | 519 acres |
| Acreage (total) | 2,728 acres |
| Plant Emissions (limited listing) | |
| Sulphur | 10,260 lbs/hr. |
| Nitrous oxides | 7,180 lbs/hr. |
| Water vapor | 6,333,000 lbs/hr. |
| Particulate | 400 lbs/hr. |
| Population Impact | |
| Project employment | 265 men |
| Secondary jobs | 450 jobs |
| Total new employment | 715 people |
| Total population increase | 2,100 people |
3. Export Strip Mine Model (All figures are for one operation):
 Size: 10,000,000 tons per year export mine
- | | |
|---------------------------|------------------|
| Coal Requirements | |
| Tons/yr. | 10,000,000 tons |
| Reserve requirements | 375,000,000 tons |
| Employment | 200 men |
| Population Impact | |
| Project employment | 200 men |
| Secondary jobs created | 340 jobs |
| Total new employment | 540 people |
| Total population increase | 1,590 people |

If other proposals are made for resource development involving significant controversy or environmental impacts, additional impact statements will be prepared.

Summary:

It is apparent that coordinated decisions are needed which recognize the public needs not only locally but on a broader regional scale. We have prepared a set of proposed multiple use recommendations covering a wide range of resources for the Decker-Birney area. The original study was initiated due to the pressing coal leasing demands being made on this part of the state and to determine the long-term management goals that would be best suited for the land and general public needs. You may prefer different recommendations from those presented in the brochure or a different mix of uses. Whatever your choice, please let us know at the scheduled public meetings we will hold, or by mail, or by any other means available to you.

A P P E N D I X
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ELEMENTS OF THE
MANAGEMENT FRAMEWORK PLAN

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MANAGEMENT FRAMEWORK PLAN

STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Lands	
Multiple Use Recommendation(s)	
Urban & Suburban Expansion	
1. Encourage, where possible, residential and commercial expansion within the unit's already established townsites. 2. Encourage and work with local planning and zoning authorities to control and guide urban and suburban growth and expansion.	
Analysis	
1. Sound land use patterns would preserve public values, minimize resource damage from land use development activities, and promote cluster developments rather than urban sprawl and reflect critical concern for the protection and enhancement of the total environment. Concentrating growth in the major established communities could also promote or enable settlements to more readily attain sufficient population for more efficient operation and the development of base and service industries. 2. Local planning and zoning could lead to the orderly development and/or use of all land ownerships and preclude the possibility of undesirable fragmented growth or other similar untenable situations.	

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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name Decker-Birney

Activity Lands

Multiple Use Recommendation(s)

Analysis

Intensive Development Outside Urban and Suburban Expansion Areas

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Plan for any residential and commercial expansion needed in association with the unit's industrial (mining) or other resource development - if any.
 2. Complement minerals or other resource recommendations so as to facilitate industrial growth and development.
 3. Encourage local planning and zoning to guide and control development and use of outlying areas.
 4. Restrict transfer of National Resource Lands to private ownership for residential, commercial, and industrial development until adequate planning and zoning ordinances have been enacted.
 5. Promote further development of private agricultural lands. | <ol style="list-style-type: none"> 1. Comprehensive planning is needed to insure local and regional considerations of needs and objectives for intensive land uses such as community development and urban expansion. Participation from the Bureau, other Federal agencies, state and local units of government would be desirable to facilitate cooperative and complementary land use programs.
 2. Plan for the orderly and timely development of any industry on resource lands in response to any demonstrated public and/or private needs.
 3. Use of private lands influences management direction on public and/or other private lands. Subdivision of outlying areas not related to normal urban expansion can render intermingled private or public lands unmanageable for many types of uses.
 4. BLM Manual 1603.12A4b(2) requires that all land classifications and disposals must be consistent with policies relating to upgrading the quality of the rural environment. As the public lands (without zoning) would not be subjected to any land use control after transfer from Federal ownership, there would be no guarantee that quality development would ensue. Disposal could lead to degradation of the rural environment.
 5. Croplands, especially hay and grain, are the single most important factor, excluding grass, for sustaining yearlong livestock operations in the unit. The livestock industry is the major livelihood for the peoples of the unit and serves as the backbone of the local economy. |
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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name Decker-Birney	
Activity Lands	
Multiple Use Recommendation(s)	Analysis
<u>Intensive Development Outside Urban & Suburban Expansion Areas (continued)</u>	
6. Provide, where appropriate, public lands to satisfy bonafide Federal, state, and local public purpose needs.	6. Federal regulations provide where appropriate, land needs of state and local governments for public purposes. Some examples in the unit include sanitary landfill sites and some recreation sites adjacent to the Tongue River Reservoir.
7. Whenever possible, work toward land tenure adjustments through state and private exchanges.	7. The existing fragmented land pattern is a detriment to efficient land use management. State and private exchanges would consolidate public lands for improved management and access.
8. Plan for adequate signing to identify public lands.	8. This measure would increase and guarantee public awareness and use of the public lands along with curtailing unauthorized use of adjoining private lands.
9. Provide for a continuing access acquisition program for the National Resource Lands.	9. This measure would increase recreational opportunities for the general public and satisfy other needs and permitted uses in regard to management objectives.
10. If appropriate, provide for the disposal of certain lands to the State of Montana.	10. The State of Montana is still in the process of selecting parcels of National Resource Land to satisfy the acreage to which it is entitled under the Statehood Act.
11. Proposed development on the areas within the unit underlain by strippable coal deposits should be carefully evaluated by the appropriate management and/or administrative agencies of the area. (See Minerals Map)	11. The potential loss in social and resource values by any indiscriminate and wasteful surface development could be insurmountable.
12. Any expansion of minerals or other resource activities will undoubtedly result in an increased demand for public utilities rights-of-way and special use areas. This demand should be satisfied with a minimum of conflicts to other resources.	12. The relative impacts of various types of rights-of-way upon the major ecosystems within the planning unit has been shown on the attached chart. The number 1 reflects a low impact and 5 indicates a high impact to the ecosystem.

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Planning Unit Name Decker-Birney

Activity Lands

Multiple Use Recommendation(s)

Intensive Development Outside Urban & Suburban Expansion Areas (continued)

Analysis

Aquatic Ecosystem

The direct impact from an overhead right-of-way is usually moderate since the lines span this type and support structures are rarely constructed within the ecosystem. Negative impacts include an adverse effect on waterfowl flight patterns and a decrease in the overall aesthetic quality of a relatively scarce resource.

Buried telephone lines, power cables and small diameter pipelines have a moderately low impact on this ecosystem. Surface disturbance is slight and rehabilitation takes place in a relatively short time period.

The burying of large diameter water aqueducts would result in a considerable disturbance to the ecosystem -- particularly during the construction phase. However, again the disturbance would be of comparatively short duration and reclamation would be relatively easy to obtain.

Rechanneling of stream beds to accommodate highway and railroad rights-of-way has a disastrous effect on the aquatic type. The discharge of industrial wastes into a stream or complete obliteration of this ecosystem by construction work are two examples of very high adverse impacts from industrial developments.

Grasslands

The impact of overhead and buried rights-of-way upon the grassland ecosystem is judged to be moderately low. The abundance of land area in this vegetative type, small amount of range forage taken out of production and ease of rehabilitation are major factors that indicate a moderately low impact.

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Planning Unit Name	Decker-Birney
Activity	Lands
Multiple Use Recommendation(s)	Analysis
Intensive Development Outside Urban & Suburban Expansion Areas (continued)	Aesthetically, the adverse visual effects of these activities can be moderated by screening with the rolling and hilly topography or by locating lines away from areas that receive heavy recreational use. Highways, railroads, communication sites and industrial developments would have a moderate impact upon grasslands in comparison with the impact these activities would have on most of the other ecosystems under consideration. While these activities would radically change a specific parcel of grassland, the overall impact upon this broad ecosystem would not be as severe -- again an abundance of land area in this type and ease of rehabilitation would be important considerations in the moderate rating. <u>Pine-Woodland</u> The impact of overhead and buried rights-of-way to this ecosystem would be relatively moderate. Support structures for overhead lines and surface clearing for large diameter buried lines may involve removing tree cover intermittently along the length of the line. Although rehabilitation to wooded cover may be difficult, grass cover should be relatively easy to obtain. Access roads to service these lines would traverse rough terrain in some instances and these trails could either create or contribute to erosion problems. Highways, railroads and industrial developments have a more drastic effect on this ecosystem because of the large scale surface disturbances necessary for construction upon adverse topography. The soils and slopes of this type are not particularly well suited for these uses. The generally high impact of these activities is somewhat moderated because of the abundance of pine-woodland type within the planning unit as compared to other ecosystems.

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Planning Unit Name	Decker-Birney
Activity	Lands
Multiple Use Recommendation(s)	Analysis
Intensive Development Outside Urban & Suburban Expansion Areas (continued)	<u>Ponderosa Pine</u> Overhead lines, highways and railroad rights-of way usually require either partial or complete clearing of the right-of-way through the ponderosa pine ecosystem. These linear clearings viewed from a distance are somewhat of a blight on the landscape unless great care is exercised to screen the right-of-way from view -- which is not always possible. Because of the terrain involved, maintenance access roads are generally steep and may contribute to erosion. The clearing of the right-of-way and supporting access roads can result in the loss of considerable land for timber production. Rehabilitation to a ponderosa pine cover could be difficult and the pine type is not always compatible with the proposed right-of-way uses. Buried lines do not present as severe an impact to this type since the degree of clearing is less than with other linear rights-of-way. However, these soils, rock outcrops and steep terrain are inherent characteristics of this ecosystem that discourage the burying of lines in this type. Industrial development within the ponderosa pine ecosystem would be very damaging because of the large areas that would have to be cleared. A considerable loss of timber production, excessive road construction over steep terrain, rehabilitation difficulties and aesthetic deterioration could be expected as a result of development within this type.

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Planning Unit Name	Decker-Birney
Activity	Lands
Multiple Use Recommendation(s)	Analysis
Intensive Development Outside Urban & Suburban Expansion Areas (continued)	<u>Sage-Shrub</u> Overhead and buried rights-of-way have a relatively low impact on this ecosystem because of ease of rehabilitation, small amount of range and wildlife forage taken out of production and abundance of land area in the type. Aesthetically, the topography of this type lends itself to screening the visual impact of overhead and buried lines. The fencing of highway and railroad rights-of-way may adversely affect wildlife migration routes through an ecosystem that is somewhat critical to the wildlife resource. Relative to the other ecosystems, the impact of industrial development is judged to be moderate. <u>Broadleaf</u> In general, overhead and buried rights-of-way have a high impact upon this ecosystem because of the relative scarcity of the type, difficulty in rehabilitation to the original ecosystem and deterioration of aesthetic quality. Depending upon the size of the project, highway, railroad, and industrial developments through this ecosystem can completely obliterate this type. This vegetative type is easily lost in those situations where a highway or railroad is located adjacent to a water course. <u>Agriculture</u> Aesthetically, overhead lines and supporting structures are difficult to screen and the visual impact is high. Lines through this ecosystem tend to dominate the landscape and detract from overall aesthetic quality.

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Planning Unit Name Decker-Birney

Activity Lands

Multiple Use Recommendation(s)

Analysis

Intensive Development Outside Urban & Suburban Expansion Areas (continued)

Buried right-of-way lines have only a moderate impact because rehabilitation is easily obtainable with little or no loss to crop production.

The impact of highways, railroads, and industrial projects upon this ecosystem is high since these developments reduce an already scarce crop-producing land base.

In general, this ecosystem has a high susceptibility to flooding which can have a detrimental effect upon improvements.

	Overhead Lines	Buried Lines	Water Aqueducts	Highways & Railroads	Communication Sites	Industrial Developments
Aquatic	3	2	3	5	--	5
Grasslands	2	1	2	3	3	3
Pine Woodland	3	3	3	4	3	4
Ponderosa Pine	4	3	4	4	3	5
Sage - Shrub	2	1	2	4	3	3
Broadleaf	4	3	4	5	--	5
Agricultural	4	2	3	4	--	5

Right-of-way potential based on impact to the ecosystem

1 = Low Impact
5 = High Impact

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Planning Unit Name

Decker-Birney

Activity

Lands

Multiple Use Recommendation(s)

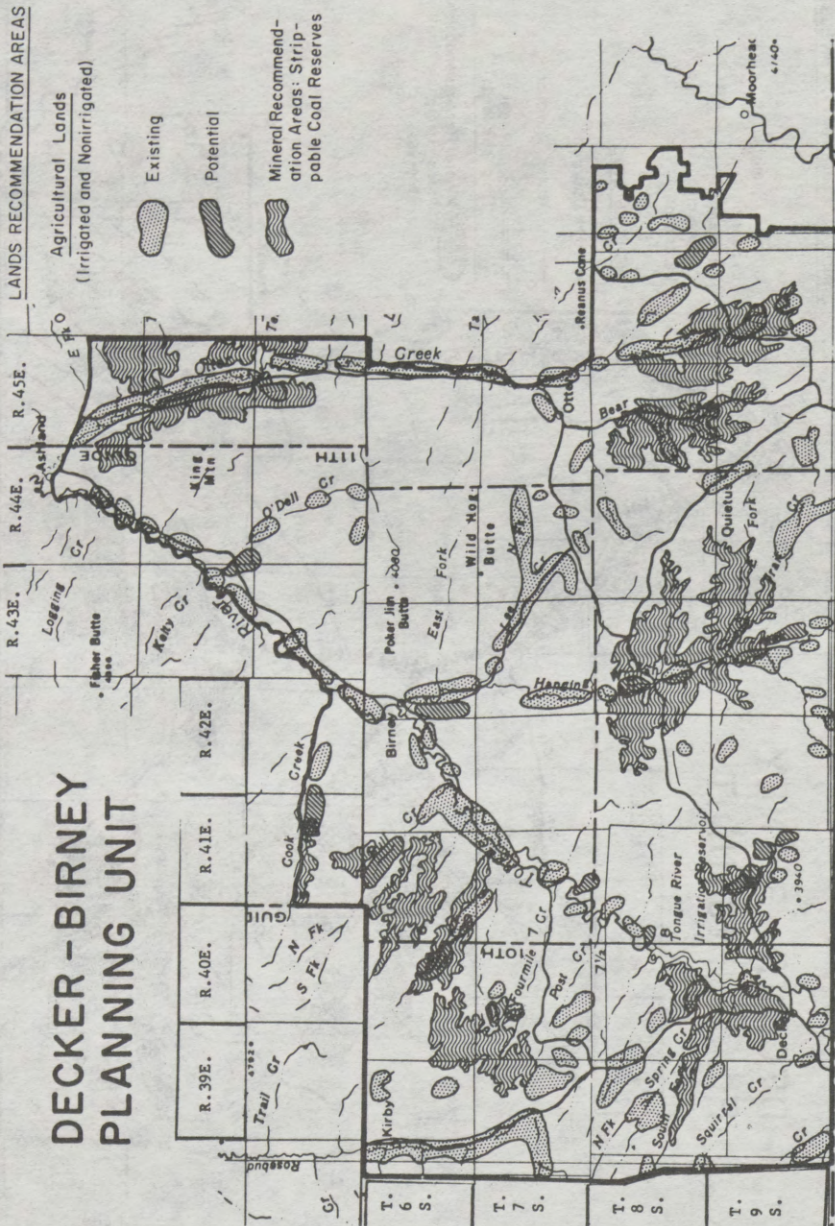
Analysis

Intensive Development Outside Urban & Suburban Expansion Areas (continued)

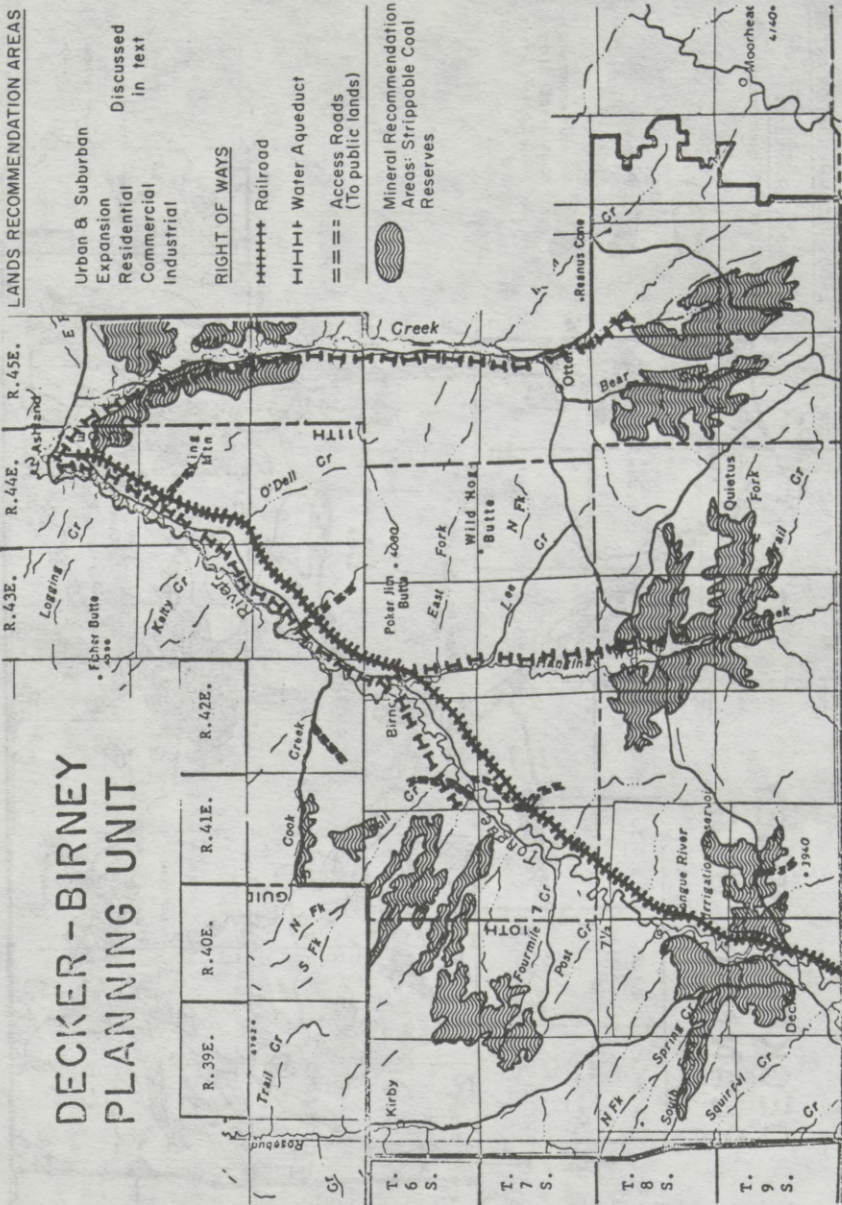
13. Develop additional guidelines for the selection of right-of-way corridors.

13. Concentrating rights-of-way in corridors lessens administrative problems, allows a faster response to applications for this use and confines structures to one area of visual impact. These guidelines are not intended to confine all possible rights-of-way to corridors, but are intended to apply generally to those local rights-of-way that can be accommodated in corridors.

DECKER - BIRNEY PLANNING UNIT



LANDS RECOMMENDATION AREAS



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MANAGEMENT FRAMEWORK PLAN

STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Minerals - Coal	
Multiple Use Recommendation(s)	Analysis
1. Consider issuing leases on all federal strippable reserves within the outlined strippable coal resource areas. Refer to Recreation Recommendation Water Bodies (Tongue River Reservoir #1).	1. The seven outlined areas in Otter Creek, Ashland, Moorhead, Hanging Woman, Decker, Birney, and Kirby fields have the least conflict with other resources. An environmental analysis has been prepared for these areas.
2. Continuing of contract drilling programs with appropriate state and federal agencies on federal coal within the outlined coal resource areas. Obtain coal quality and quantity data (tonnage, thickness, Btu, ash, sulfur moisture) also subsurface soil and water data.	2. This information is needed to identify potential economic lease blocks where reclamation is feasible and environmental damage can be held at a minimum.
3. Identify specific lease sites for strip mining.	3. Size of potential lease blocks should be based on a projected national need for coal development from this region.
4. No leasing of federal coal in flood plains.	4. Danger from periodic flooding recludes a safe or sound strip mining operation. No leasing avoids potential downstream pollution.
5. Offer coal for domestic use to individuals living in the area as demand develops. Establish a community pit if sufficient interest arises.	5. Coal may again become a fuel for domestic use. Domestic consumption of coal is not likely to result in any major adverse impacts.

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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

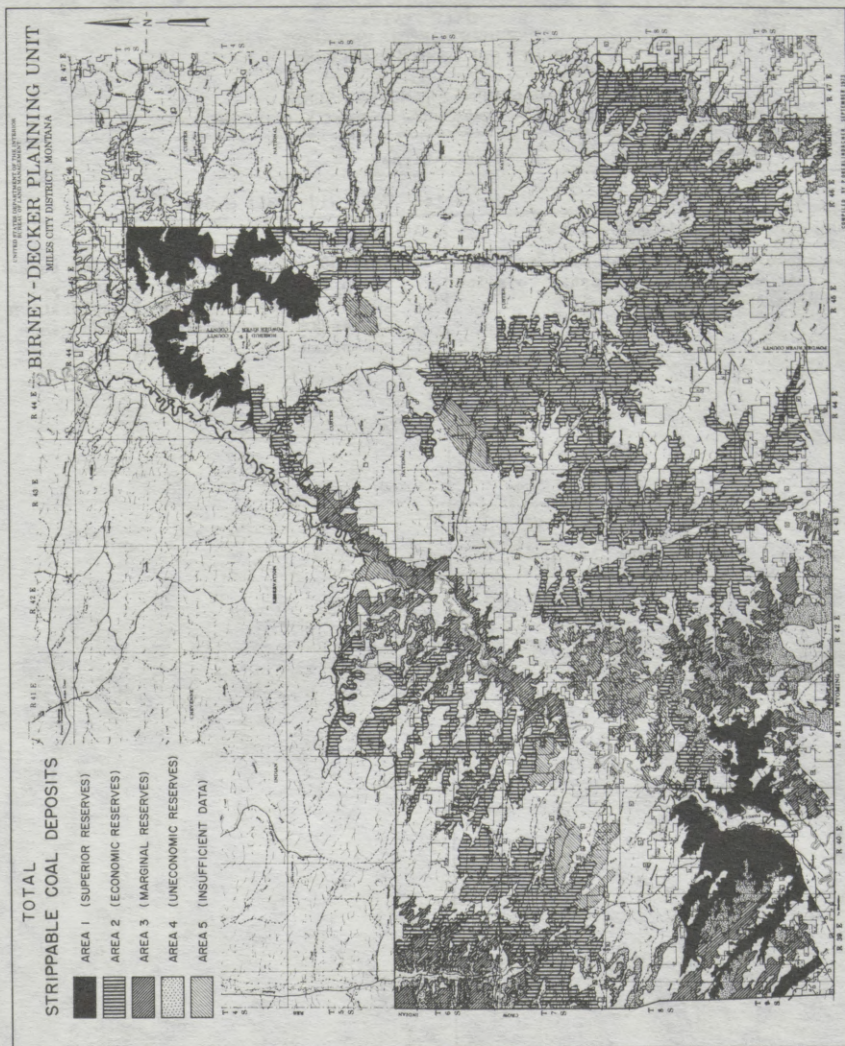
Planning Unit Name	Decker-Birney
Activity	Minerals - Unit Wide, Sand, Gravel, Clinker
Multiple Use Recommendation(s)	Analysis
1. Designate material sites which can feasibly be developed and establish community pits where sufficient demand exists.	1. Limited known availability of these materials may be restricting improvement of roads or other facilities in the area.

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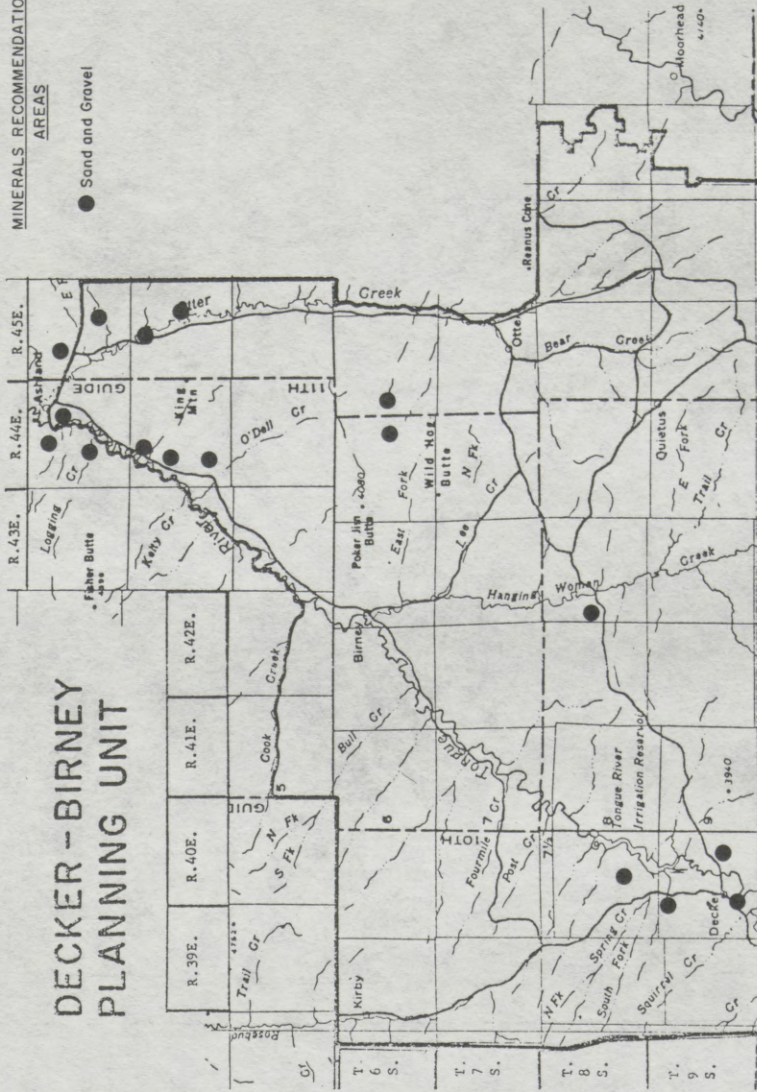
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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	Decker-Birney	
Activity	Minerals - Unit Wide, Oil & Gas	
Multiple Use Recommendation(s)	Analysis	
1. Encourage oil and gas exploration unit wide and issue leases to allow development.	1. Only 80 wells have been drilled to date, which is approximately one hole per 10,000 acres. Additional exploration is needed to determine oil and gas potential.	



MINERALS RECOMMENDATION AREAS

● Sand and Gravel



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Planning Unit Name	Decker-Birney
Activity	Timber
Multiple Use Recommendation(s) <u>Intensive Management Areas</u> Manage for sustained production of timber and related resources and improvement of the vigor and age distribution of the stands through carefully planned harvests by: A. Removal of mature overstory B. Thinning of younger understory C. Thinning pole stands <u>Protection Areas</u> A. No cutting on the protection areas of the National Forests within the study area.	Analysis <u>Intensive Management Areas</u> Both locally and on a nationwide scale, the demand for timber products exceeds the present growth of timber in merchantable sizes. Lands in this unit should be managed accordingly. Within the study unit on National Forest lands, there are 12,025 acres of mature ponderosa pine overstory with a manageable understory. In addition, there are 900 acres of immature ponderosa pine pole timber. Intensive management can be achieved through a timber sales program to remove the mature pine overstory, followed by thinning of immature pole and sapling stands. The overmature timber which dominates the stands now has little resistance to insect attack and disease. Planned removal of these old trees is needed to prevent a sudden catastrophic loss. Openings created through timber harvest will improve wildlife habitat, and this type of logging will have no long-range adverse impact on other uses. <u>Protection Areas</u> On the National Forest portion of the study areas, there are 30,928 acres of mature ponderosa pine sawlog timber, 7,500 acres of ponderosa pine timber, and 95 acres of ponderosa sapling timber, which does not meet the criteria for productive commercial forest land basis because of fragile soils, economics and low site quality. No cutting which could cause surface disturbance is planned on the designated protection areas of the National Forest.

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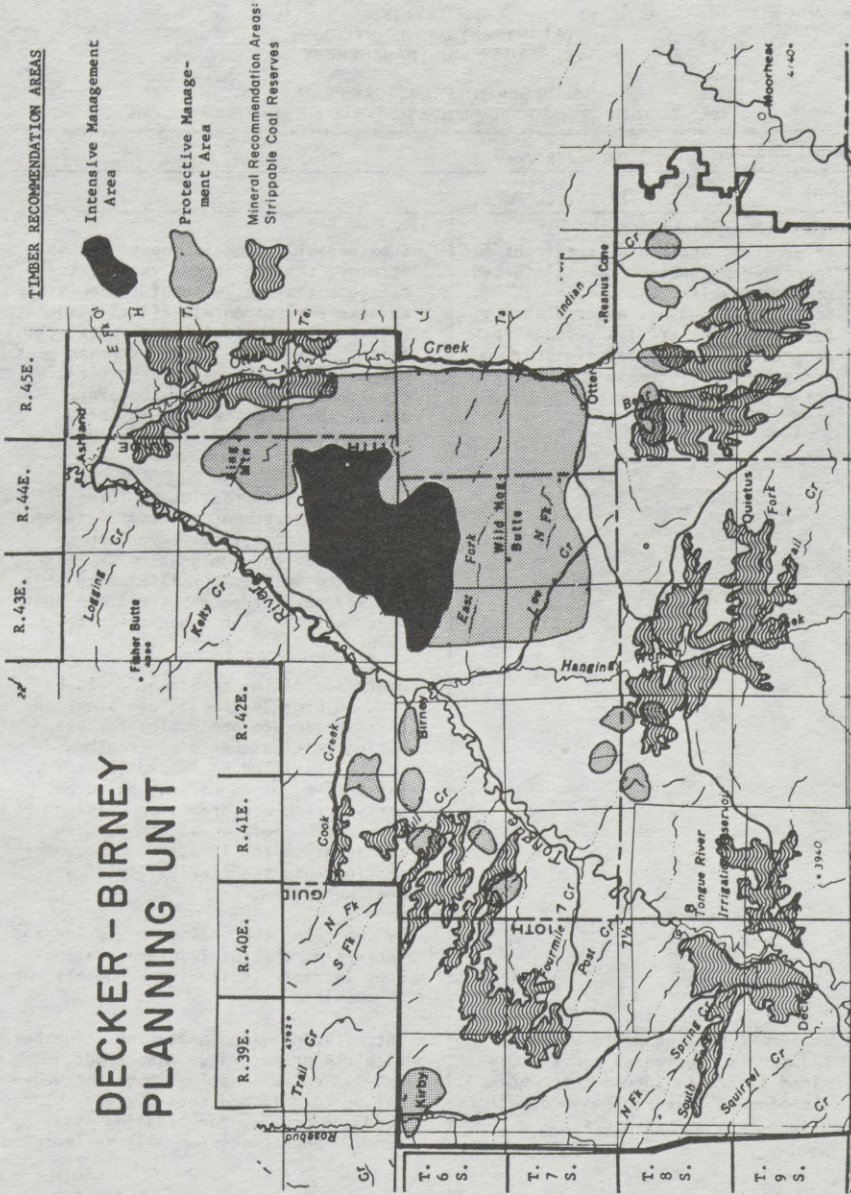
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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name		Decker-Birney
Activity	Timber	
Multiple Use Recommendation(s)		Analysis
B. The timber on these areas should generally be left undisturbed. Incidental sales of small quantities of timber may be made upon demand provided that it will not cause permanent damage to the stands. Such sales should be located with an eye toward improving stand condition where possible.		B. There are approximately 730 acres of mature ponderosa pine type timber on the National Resource Lands within the study area. These areas could be logged for sawtimber, post and poles or fuel wood if a market and/or a demand develops. They do not have the potential for intensive management. When a resource can be utilized without permanent damage to that resource or other related resources, it should be made available to those who need it.

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Planning Unit Name Decker-Birney

Activity Livestock Forage

Multiple Use Recommendation(s)

1. In general, artificial treatment for increased production on undisturbed range lands (for example, brush control, reseeding, waterspreading, fertilization, etc.) should not be undertaken until intensive grazing management to increase the natural potential has been tried.

Analysis

1. Substantial forage increases can be obtained through intensive livestock management alone, without the possible adverse environmental effects associated with most mechanical and chemical treatments. Intensive livestock management may eliminate the need for artificial treatment on many sites, however, artificial practices should not be disregarded if natural manipulations fail to work.

It will be the practice to forestall artificial treatment on Federal lands until grazing systems have been implemented and one grazing cycle completed unless a critical need arises. Even then any treatment must be compatible with other resource values.

Where artificial treatment could be used to provide special use areas or increase forage production for use during critical periods, treatment may be justified on deeded lands. Examples might be calving pastures, early spring use areas, or weaning pastures. These areas can be used to advantage for livestock management and increase the flexibility of a grazing system.

By improving the quality of forage and increasing the total volume available some increase in livestock numbers may be possible.

2. Implement grazing systems on all allotments, including those areas mined for coal, in order to obtain the highest livestock use compatible with all resource values.

2. Intensive grazing management, together with the proper range management facilities, will allow important vegetation to gain and retain vigor, produce seed and provide for seedling establishment. Range condition will be improved

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Planning Unit Name	Decker-Birney
Activity	Livestock Forage
Multiple Use Recommendation(s) (Refer to Wildlife, Unit Wide Recommendations #2, 4, 5, 6 and Wildlife, Area A, Recommendations #1, 2, 3, 4, Area B, Recommendations #1, 2.)	Analysis and forage production increased an estimated 10-40%. Other benefits will also accrue such as improved wildlife habitat, watershed condition, and aesthetic values. All resource values must be considered in development and implementation of grazing systems in order to realize optimum potential and benefits. The mining industry will be required to rehabilitate all mined areas. Intensive livestock grazing management on rehabilitated range land will facilitate revegetation and restore livestock use to the area. The integrated surface ownership pattern over most of the unit will require the concerted effort of the applicable agencies and/or land owners to develop and implement intensive grazing management in timely manner. 3. Agricultural use of suitable deeded land should be continued, acreage increased where possible, and agricultural practices intensified in order to obtain maximum production.
3. As the potential range forage production becomes available for use, hay and feed crop production should also be increased to balance each livestock operation.	

Potential Losses From Mining - Proposed Fields

	Wells	Spr.	Res.	Mi. Fence	Cult. Acres	Range Acres	* Range AUMs	Operations Affected	Land Trmt.
Ashland	0	2	5	8		4,880	1,516	5	
Otter Creek	0	4	11	14	270	13,650	4,239	7	
Poker Jim O'Dell									
Poker Jim L.O.									
Moorhead	10	16	50	42	2,350	25,210	7,829	15	2,000 A Wtr. spr.
Hanging Woman	8	14	17	23	1,170	26,150	8,121	3	
Decker East	4	2	10	11	1,160				
West	11	1	11	19	780	17,540	5,447	10	
Kirby	7	29	13	24	275	11,085	3,442	6	
Birney	5	24	27	18	80	14,880	4,621	5	
TOTALS	45	92	144	159	6,085	113,395	35,215	51	2,000

*Total animal unit months that may be affected if the total area is disturbed and not returned to productive range use.

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MANAGEMENT FRAMEWORK PLAN

STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name Decker-Birney	
Activity Watershed	
Multiple Use Recommendation(s) Unit Wide - Water Development of Control	Analysis Structures
1. Encourage investigation of the possibility of expanding or modifying existing water developments to achieve applicable watershed and other resource goals. 2. Proposals for new water control structures will be discussed in Activity Recommendation Areas "K-4 and K-5".	1. Many of these developments besides providing stockwater also serve or could serve some of the following hydrologic or watershed functions: a. Detention dams slow the flow of water and sediment and help to control flooding. b. Retention dams store water and sediment. c. Diversion dams divert water from a frail or eroding channel to off-site areas such as waterspreaders and dikes. d. Dikes divert the flow of water to and in waterspreading systems for beneficial use of flood water. 2. There are no widespread areas where water control structures are the best way to reduce sediment loads, enhance water quality or yield, facilitate the control of erosion or contribute to flood damage prevention. Rather water control structures are complementary to the management designated for "Restricted Use Areas" and "Management Areas" and are discussed in those recommendation sections.

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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Watershed	
Multiple Use Recommendation(s)	
<u>Restricted Use Area, K-4</u>	
1. Modify or eliminate surface uses, as necessary to maintain or improve watershed conditions and promote erosion control.	1. Due to the frail nature of a majority of these lands (highly erosive steep slopes, lack of vegetative cover, etc.) site limitations will not permit extensive land or structural treatments. The modification or elimination of some uses, for example, roads, trails, ORV's, grazing, and mining, is the primary opportunity for reducing erosion and/or related water quality problems.
2. Encourage investigation of feasibility of limited control structures on the lower reaches of some drainages.	2. Current observations and data indicate that the major drainages are reasonably stable at this time. Restricted use of the watershed coupled with some structural control will help to maintain water quality and keep erosion activity and sediment loads within reasonable limits. Prior to installing any structures, however, the outputs to be derived from the proposed development should be subjected to a benefit/cost analysis.
3. Investigate restricted use areas of the unit to further determine type of remedial action necessary.	3. Additional information will help in making decisions on how to improve and protect the water quality as well as maintain and improve the applicable ecosystems.

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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Watershed	
Multiple Use Recommendation(s)	Analysis
<u>Management Area K-5 (Zone A-3)</u>	
1. Maintain or improve the generally stable and intensively utilized alluvial bottoms and flood plains. Proper management is the only treatment indicated except for the following sub-recommendations:	1. Most of the agricultural lands and communities are found on these lands which are generally level to gently sloping and stable in character. Hence, no great needs or problems have been identified. Limited opportunities may exist for the following practices discussed under A and B below:
A. Limited installation of water control structures taking into account other resource values.	A. Any actively eroding areas within or near stream channels may require water control structures to reduce soil movement and/or improve water quality by reducing sediment load, turbidity levels and solid debris.
B. Limited initiation, in selected areas, of a vegetation manipulation program.	B. Some erosion within the flood plain may require vegetative manipulation to reduce soil movement and improve water quality as discussed in A above. An example of this is to change from annual grasses to perennial grasses, shrubs, brush, and trees.

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Planning Unit Name	Decker-Birney
Activity	Watershed
Multiple Use Recommendation(s)	Analysis
<u>Management Area K-5 (Zone A-4)</u> 1. Proper management is the only treatment indicated to maintain a suitable vegetative cover and soil stability.	1. Watershed condition varies considerably in this area, but the majority of the acreage falls in the slight erosion condition category. In general, additional land treatment and/or structures are not considered necessary to improve watershed condition in this area.

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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Watershed	
Multiple Use Recommendation(s) Coal Resource Areas	Analysis
1. Apply watershed tillage practices on all stripmined areas.	1. Areas disturbed by mining operations will require various tillage practices to establish a vegetative cover. These practices will greatly assist in water retention and infiltrating to promote vegetative growth and soil stability. Water quality of the Tongue River and Tongue River Reservoir will be protected and enhanced.
2. All water development should be in sequence with mining operations.	2. Water development to be most effective in reaching watershed goals should be timed to fit in with the mining and reclamation plans. Water control structures such as detention dams below mined areas will serve a beneficial purpose of silt storage. Good water quality can thus be maintained downstream during the interim until the mined area watershed is stabilized by revegetation. Other resource goals and plans, such as those for grazing, should also be considered in planning and development.
3. Coal mining within the critical - severe erosion areas may be permitted if carefully planned and implemented.	3. Those areas that can be completely mined may present an opportunity to actually improve the watershed. Topography or relief will be reduced or made lower. Stream gradients would be less than the original bed profile. Other areas with the mine high-wall adjacent to critical-severe erosion areas present a difficult watershed problem. Stream and slope gradients will be increased. Erosion and sedimentation will be greatly accelerated over the present high rate unless the area is stabilized.

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Planning Unit Name	Decker-Birney
Activity	Watershed
Multiple Use Recommendation(s) 4. Investigate coal resource areas to determine the best type of remedial action necessary to restore the watershed to its former stability or better. 5. Coal mining within the following ecosystems may be permitted if carefully planned and implemented; grassland, pine-woodland, broadleaf, ponderosa pine, sage shrub, and agriculture. No mining should be permitted when the above ecosystems occur in major stream channels (second and third order) or alluvial bottoms.	Analysis 4. Additional information will help those making decisions on how to improve and protect the water quality as well as reestablish and maintain the applicable ecosystems. 5. Coal resource areas in the grassland and sage-shrub ecosystems, which comprises 83 percent of the area, have a high potential for reclamation. Low to moderate reclamation potential for the ponderosa pine and pine-woodland ecosystems will require more careful planning and implementation. See Step II Watershed analysis in the Appendix for more detailed information. Analysis should be made of the immediate interactions between mining and the drainage above the coal field. Factors such as soils, watershed condition, size to length, water yield, channel characteristics, etc.

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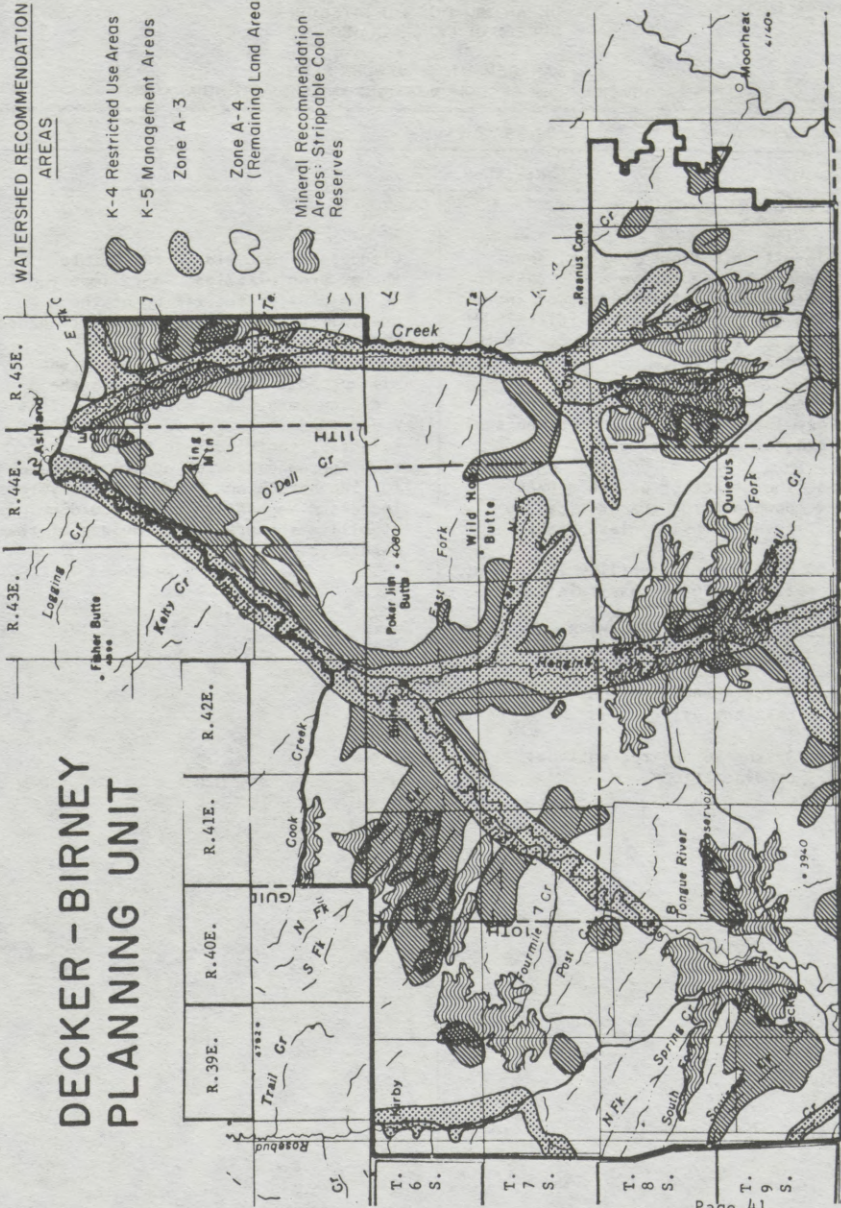
STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name		Decker-Birney
Activity		Watershed
Multiple Use Recommendation(s)		Analysis
<u>Unit Wide</u>		
1. Investigate cloud seeding, snow fences or vegetative windbreaks to determine the feasibility of increasing the amount, seasonal distribution or quality of water produced in the planning unit. Items requiring an analysis prior to any initiation of such a broad scale program would include: - The effect of possible heavy downpours on the critical to severe erosion class lands. - Problems of liability in case of flooding or excess rainfall. - Total effects on the area ecosystems. - A cost-benefit or cost-effectiveness analysis. - Aesthetic and recreational considerations.		1. Cloud seeding could increase total annual precipitation. More importantly, it could alter the timing of the precipitation to when it is most needed. Snow fences or vegetative windbreaks will promote snow retention in the drainages and upper elevations. This would tend to extend spring runoff slightly, contribute to ground water recharge, and provide additional water for the shrubs and broadleaf ecosystems. Increased vegetative cover would help stabilize the draws and coulees of the watershed.

DECKER - BIRNEY PLANNING UNIT

WATERSHED RECOMMENDATION
AREAS

-  K-4 Restricted Use Areas
-  K-5 Management Areas
-  Zone A-3
-  Zone A-4
(Remaining Land Area)
-  Mineral Recommendation
Areas: Strippable Coal
Reserves



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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Wildlife	
Multiple Use Recommendation(s)	Analysis
<u>Unit-Wide</u> (All unit-wide recommendations are excluded from strippable coal resources areas, if leased)	
1. Manage and control all surface uses to maintain a variety of native vegetation (grasses, forbs, shrubs, and trees) in all ecosystems, except cultivated lands. 2. Maintain present densities and increase plant vigor of key browse plant species and riparian vegetation on deer (mule and white-tailed) yearlong range through manipulation of livestock grazing and regulated deer harvest, as directed by the Montana Department of Fish & Game.	1. The one characteristic most common to all wildlife habitat, game and non-game, is that there be a variety of plants endemic to the area to meet their habitat requirements. Federal regulation require that <u>public lands</u> be managed for the benefit of all resource values including wildlife. 2. Deer hunting provides over 8,000 hunter days yearly. Non-resident hunting permits are always sold out. We can thus assume an unsatisfied demand for hunting opportunity. Key browse plants are skunkbush, chokecherry, big sage, silver sage, serviceberry, rabbitbrush, dogwood, wild currant, and snowberry. These browse plants provide forage yearlong and to maintain these animals in a healthy reproductive condition. Overstory trees and other varieties of riparian vegetation provide the essential cover and forage necessary in meeting habitat requirements of primarily white-tailed and other associated wildlife species in these areas. White-tailed deer provide an estimated 5 percent of deer hunting in the planning unit. Over-utilization of deciduous plants along drainage bottoms and draws through yearlong livestock grazing has decreased plant vigor and plant densities of important browse species. Heavy deer browsing also removed the stored food reserves and reduces plant vigor of these key browse species.

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Planning Unit Name

Decker-Birney

Activity

Wildlife (continued)

Multiple Use Recommendation(s)

Analysis

3. Manage for vigorous stands of shrubs, particularly snowberry, buffaloberry, and wild rose for sharptails in coulees and heads of drainages, and native perennial grasses and forbs on adjacent uplands.
4. Manage for an adequate perennial grass cover for sharptails during the nesting season; usually within a 2 mile radius of the courtship site. Curtail land disturbance activities near these courtship areas during May and June.
5. Manage and/or develop for waterfowl, aquatic and shoreline vegetation in suitable reservoirs with fairly stable water levels. Waterfowl habitat could be enhanced through reclamation plans in developing reservoirs.

3. Sharptail grouse require brushy coulees for winter food and cover and associated grassland for escape cover and brood rearing. Enhancement of sharptailed grouse habitat can be achieved through manipulation of livestock grazing.
4. Sharptails prefer extensive, heavy stands of residual herbage close to courtship grounds for nesting cover. The courtship grounds are crucial areas in reference to the life cycle of sharptails. Destruction of these areas would greatly affect the reproductive potential and influence the fluctuating population densities. Livestock grazing practices are significant factors that influence sharptail habitat along with climatic conditions.
5. The demand for waterfowl hunting exceeds availability in the Central Flyway. Stockponds and reservoirs in eastern Montana contribute significant production providing the essential nesting cover, brood cover, and food is available. In addition, vegetation in and around reservoirs provides food and cover for other game and non-game species.

Intensive livestock grazing usually centers around reservoirs thus reducing vegetal cover. Enhancement for waterfowl habitat could be attained through manipulation of livestock grazing and habitat management plans.

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Planning Unit Name

Decker-Birney

Activity

Wildlife

Multiple Use Recommendation(s)

Analysis

Unit-Wide (Prairie Dog Towns)

1. Maintain present black-tailed prairie dog towns until a population survey has been completed to determine the presence of black-footed ferrets.

Control measures may be taken if excessive damage is detrimental to other resources such as livestock forage production and watershed.

1. The black-footed ferret is threatened with extinction. Prairie dog towns are ferret habitat and the amount needed to support ferret population is not known.

The current district's policy on prairie dog control is that limited control measures may be taken to reduce dog towns found on the National Resource Lands.

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Planning Unit Name	<u>Decker-Birney</u>
Activity	<u>Wildlife</u>
Multiple Use Recommendation(s)	Analysis
<u>Unit-Wide (Birds of Prey & Predators)</u> 1. Protect raptor nesting areas from destruction and avoid disturbance during the nesting season, especially from April through July. Protect potential nest sites. These are generally, large dead trees and sandstone cliffs for eagles and hawks. Require design of power transmission facilities to prevent electrocution of large raptorial birds, particularly eagles. 2. Those resident wildlife species commonly known as predators be managed for the public benefit to include: sport hunting, sight-seeing, fur trapping, photography, etc., and that organized control of predators will be done only when there is a demonstrated and justifiable need. All control action to be approved by Montana Fish & Game Department and Bureau of Sport Fisheries and Wildlife.	1. These birds, especially the eagle, are suffering from the impact of man. These recommendations will help manage these species to keep them off of the rare and endangered list. The peregrine and prairie falcons are currently considered to be endangered. Spacing of wires on transmission lines can reduce fatalities of large raptors. Three-phase, four-wire lines with spacing less than six feet between phase conductors seems to be the most lethal as reported by BSF&W. R.E.A. Bulletin 61-10 describes the various transmission designs and problems with each. Eagles are protected by Federal law and all hawks and owls are protected under Federal and State laws. 2. Animal damage control programs on Federal lands are managed in accordance with the President's Executive Order 11643, published in the Federal Register, February 9, 1972, and recognizes the fact that some predatory animals and birds do cause livestock and game animal losses. However, the order states "all such mammal or bird damage control programs shall be conducted in a manner which contributes to the maintenance of environmental quality, and to the conservation and protection, to the greatest degree possible, of the nation's wildlife resources, including predatory animals."

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Planning Unit Name

Decker-Birney

Activity

Wildlife

Multiple Use Recommendation(s)

Analysis

Area A - (Sagebrush Vegetative Type)

1. Coordinate intensive livestock grazing systems to maintain present sagebrush densities and plant vigor (primarily big and silver sagebrush) along the drainage bottoms and heads of drainages for quality antelope habitat.
2. Maintain for sage grouse as a minimum, a 20 percent canopy cover of sagebrush in those areas where this minimum exists. Especially on ridges and swells and slopes where sage is from 10-14" in height.
3. Restrict all vegetal control programs and surface disturbances within a two-mile radius of the sage grouse breeding complex (strutting grounds and nesting areas).
4. Construct and maintain fences to allow passage of antelope.

1. Sagebrush is an important constituent of the antelope winter diet. Some food habitat studies have shown that approximately half of the browse consumed by antelope is sagebrush. All antelope hunting permits in the area were sold in 1973, we assume there is an unsatisfied demand, particularly non-resident.

Competition with livestock is generally severe along sagebrush bottoms and drainages, especially during the winter when livestock are confined to these areas. Enhancement of antelope habitat can be attained through manipulation of livestock grazing.

2. Sagebrush is the most important plant for sage grouse. It is used for food, nesting, and protective cover. In order to maintain the current sage grouse population, it is mandatory to maintain the sagebrush cover. In 1971, 1,120 sage grouse were taken in Rosebud County, and 452 in Powder River County, demand unknown.
3. Sage grouse are highly dependent upon sagebrush for nesting cover, particularly plants of heights from 7-25 inches or in some instances, the tallest sagebrush plants available.

Disturbance during this critical period in the life cycle of sage grouse would reduce the reproductive potential and future population densities.

4. All types of livestock fences tend to hinder antelope movements. Antelope are known to range over large areas while foraging for food, and quite

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Planning Unit Name	Decker-Birney
Activity	Wildlife (continued)
Multiple Use Recommendation(s)	Analysis intensely during severe winter conditions. There are several cited instances of severe population losses when movements were restricted by fences.

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Planning Unit Name

Decker-Birney

Activity

Wildlife

Multiple Use Recommendation(s)

Analysis

Area B - (Turkey Habitat)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Maintain farming adjacent to ponderosa pine types and deciduous drainages for "optimum" turkey habitat.
 2. Manage for turkeys a deciduous brushy understory and adequate grass cover along drainages. | <ol style="list-style-type: none"> 1. Grain fields bordering ponderosa pine forested areas improve the quality of turkey habitat by providing available food adjacent to immediate escape cover. Unharvested domestic grain is usually found in the turkey's diet as a supplemental food source during the late fall and winter.
 2. Drainages are used for protection during the winter from the winter weather elements and provide nesting cover during the spring. Turkeys are considered an important game bird and are avidly sought after during the spring gobbler and fall turkey hunting seasons. In 1970, 205 hunters hunted during the fall in Powder River and 50 in Rosebud Counties. |
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Planning Unit Name

Decker-Birney

Activity

Wildlife

Multiple Use Recommendation(s)

Analysis

Area C - (Cultivated-Broadleaf Types)

1. Continue present farming practices to maintain pheasant and Hungarian partridge habitat. Protect native vegetation interspersed with agriculture lands, field borders, and fence rows.

1. Pheasants and Hungarian partridge depend on the interspersion of cropland and wild land for both food and cover. In 1971, 3,093 pheasants and 195 Huns were harvested in Rosebud County, and 1,377 pheasants and 51 Huns in Powder River County.

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Planning Unit Name	Decker-Birney
Activity	Wildlife
Multiple Use Recommendation(s)	Analysis
<u>Area D - (Squatic Habitat)</u> 1. Identify reservoirs suitable for stocking with fish and coordinate with the Montana Fish & Game Dept. and the Bureau of Sport Fisheries and Wildlife. 2. Identify potential fishing access sites and obtain easement or right-of-way to these sites. 3. All waters should be maintained within the following limits as recommended by the Environmental Protection Agency or Montana Water Quality Standards to satisfactorily support good water quality and aquatic ecosystems. <u>Dissolved Materials</u> - In no instance should the concentration of dissolved innocuous (not toxic) materials exceed 50 milliosmoles (the equivalent of 1,500 mg/lNaCl). <u>Ph</u> - Maintain at level no lower than 6.0 or higher than 9.0. (Most natural productive waters fall between 6.5 and 8.5.) <u>Dissolved Oxygen</u> - Maintain not less than 5 mg/l in all waters. <u>Carbon Dioxide</u> - Free carbon dioxide should not exceed 25 mg/l.	1. There appears to be a demand for more fishing sites in the planning unit and there will be as the population of southeastern Montana increases. Suitable reservoirs should be stocked to meet this demand. 2. Fishing sites along the Tongue River and Tongue River Reservoir are presently blocked off from public access. To fully utilize the fishery resources, public access sites are needed to meet future demands. Water in the unit now supports over 1,000 visitor days of fishing. (Montana Fish & Game estimates that fishing pressure increases 4 percent yearly.) 3. Good water quality and aquatic animal and plant communities are essential components in the life cycle of fish species. Water quality is important in supporting aquatic life. Aquatic animal and plant communities are important food and cover for fish. Algae can be a problem and control measures may be needed. The turbidity standard of 50 JTU's is probably exceeded in most waters at the present time and especially during the spring runoffs and summer rains.

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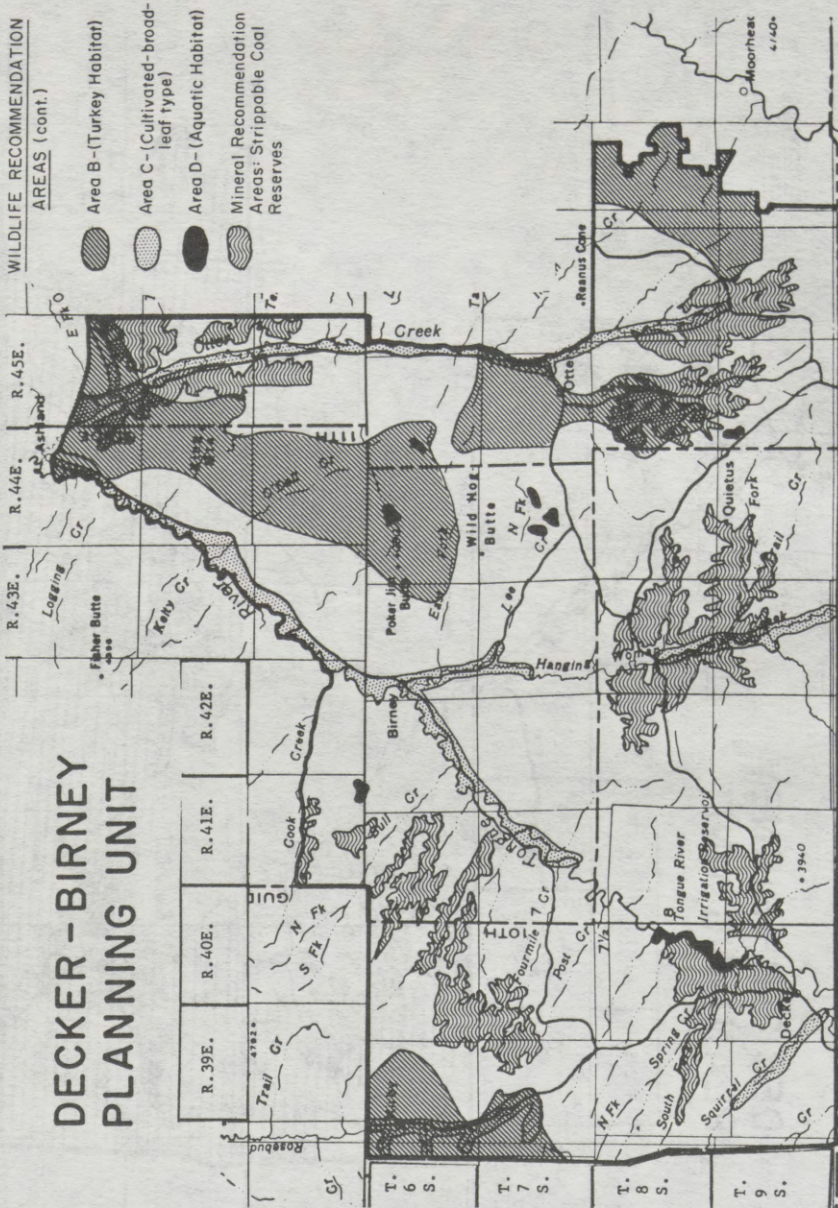
STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	Decker-Birney
Activity	Wildlife (continued)
Multiple Use Recommendation(s)	Analysis
<u>Area D</u> - (Aquatic Habitat) <u>Turbidity</u> - Should not exceed 50 Jackson units in all streams and the Tongue River. <u>Temperature</u> - The following maximum temperature recommended as compatible with the well-being of various species of fish and their associated biota: <u>48°F.</u> - Tongue River Reservoir in spring for spawning and egg development of walleye and northern pike. <u>68°F.</u> - Tongue River in spring for spawning of smallmouth and rock bass. <u>84°F.</u> - Maximum in reservoir for growth of walleye and northern pike; and in river from dam to point 10 miles below Birney for growth of smallmouth bass. <u>90°F.</u> - Maximum in all other waters for growth of largemouth bass and crappie. <u>Flows</u> - To be determined based on water needs of salmonid and non-salmonid fisheries.	

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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	Decker-Birney
Activity	Recreation - Unit-Wide Scenic Values
Multiple Use Recommendation(s) The following unit wide recommendations concerning scenic values, wildlife recreational values, and overlooks do not apply to those areas delineated in the minerals portion as being strippable coal resource areas. For further information concerning conflicts, trade-offs, etc. as they pertain to Recreation, consult the Step II MFP Appendix. 1. No surface disturbances should be allowed within the designated people influence zones unless such developments are capable of blending in harmoniously with the surrounding landscape. 2. Management within the various scenic categories is recommended as follows: Category A (Exceptional) - Management should provide protection of these areas and include appropriate buffer zones if further study indicates a need for additional lands. Category B (Excellent) - Any development allowed within this area should be capable of blending in harmoniously with the surrounding landscape, to maintain visual integrity and associated aesthetic values. If this is not possible, development should not be allowed.	Analysis 1. These zones parallel the major thoroughfares through this unit. Any visual impact within these zones could be detrimental to aesthetics and open space values of the area. 2. Mineral areas are not included. Outstanding scenic areas (Category A) become important recreation destinations within the unit. The present scenic qualities and aesthetics of these areas must be retained for use by future generations. Although the category A areas have spectacular scenic and aesthetic qualities, they are relatively small in size. Category B lands provide much of the scenic beauty in the area. There are several existing peripheral roads and internal roads from which the scenery can be observed. Although recreational use is minimal at the present time, scenic areas of this quality should be preserved for use by future generations of recreationists.

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Planning Unit Name	Decker-Birney
Activity	Recreation - Unit-wide Scenic Values
Multiple Use Recommendation(s)	Analysis
Category C (Moderate) and Category D (Slight) - Any action affecting scenic qualities in these two areas should be allowed only where a conscientious effort is made to minimize visual impacts. Major impacts should be located in inconspicuous areas away from people influence zones.	The moderate and slight scenic category lands are vital to visual aesthetics of the area. These lands constitute a majority of the visual surface resources in this particular planning unit. Since several different people influence zones pass through these two areas, large scale surface disturbances will be highly visible.
3. Land use practices on National Resource Lands must be geared to preserve open space values of the natural landscape.	3. It is estimated that an additional 40 million acres of land will be needed for recreational pursuits by the year 2000. Available lands should be protected to fulfill this need. New developments should be carefully screened so that present aesthetics and open space values will not be degraded.
4. Evaluate public utility corridors through scenic categories B, C & D.	4. Concentrating essential rights-of-way in applicable routes will minimize visual impacts to the area and preserve associated aesthetic and open space values.
5. Management decisions should insure that existing airsheds found over the planning unit will meet applicable air quality standards as set forth either by the State or Federal government.	5. Increased air pollutants will reduce visibility which has a direct effect on aesthetics and scenic qualities of the area.

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Planning Unit Name	Decker-Birney
Activity	Recreation - Unit-wide Wildlife Recreation Values
Multiple Use Recommendation(s)	Analysis
1. Management decisions should stress the preservation and enhancement of raptorial bird habitat.	1. Birds of prey not only serve a vital ecological function but are important from a wildlife observation standpoint. Many people thoroughly enjoy watching a soaring hawk or eagle.
2. Predators should be controlled only where threatening the existence of other resource values. An example might be where coyote numbers increase to the point where they substantially reduce numbers of deer or small game.	2. Observing predators is becoming an increasingly popular pasttime; just listening to coyotes is important to many.
3. Implement livestock management programs where applicable to maintain and/or improve the vegetative cover which in turn, will encourage a healthy population of native plant and animal species.	3. A healthy population of native plants and animals is an important ingredient in maintaining the land in its present scenic condition. A balanced population of animals versus vegetative cover will help to minimize watershed damage and will result in a self-sustaining ecosystem. Providing adequate habitat for game animals is very important from a recreation standpoint (i.e. hunting).
4. Studies are needed to determine if additional roads are required or, conversely, if some existing roads need closing.	4. The quality of hunting can be either enhanced or reduced by roads. Management should try to provide the best quality hunting possible since hunting is the primary recreational use that takes place on lands within this planning unit.
5. Prairie dogs should be treated as a recreational resource. If, for some reason control is necessary, sport shooting is recommended.	5. Many people simply enjoy watching prairie dogs. In addition, sport shooting is becoming increasingly popular. Shooting will provide recreation and at the same time give partial control of the specific prairie dog town.

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Planning Unit Name	Decker-Birney
Activity	Recreation - Unit wide - Overlooks
Multiple Use Recommendation(s)	Analysis
1. Evaluate present and identify potential sites to establish a system of overlooks in the unit.	1. There are many outstanding scenic, historic and geologic features within the unit that can best be viewed or interpreted from overlooks. These overlooks could play a very important role in the total recreation program.

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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	Decker-Birney
Activity	Recreation - Unit wide - Archeology
Multiple Use Recommendation(s)	Analysis
1. An archeologic survey of the entire planning unit should be made, concentrating on the outlined stripplable coal resource areas prior to leasing. 2. Important archeologic sites have been located through inventories conducted in 1972-73. If these sites fall within leaseable areas, salvage operations conducted by a professional archeologist will be initiated prior to mining. Coal companies to whom the lease is issued will be responsible for this implementation process. 3. Determine how best to protect valuable archeological sites on private land, especially where threatened by land disturbance (i.e. the pre-historic buffalo jump on the Rosebud Battlefield site). 4. Development/interpretation of sites should be done only when exposure to the public will not endanger the values being preserved.	1. Previous surveys conducted in the southwest corner of the unit indicated there may be vast numbers of sites scattered throughout the planning unit. Authorizing surface disturbances without having a completed archeologic inventory of the area could result in a loss of valuable sites. 2. This is an established practice on coal leases where valuable archeologic items or sites are concerned. 3. There are sites on private land that require either excavation for scientific values or preservation for recreational values (i.e. petroglyphs, etc.). It would be most desirable to have important archeological discoveries placed in an appropriate institution if faced with destruction. 4. A destroyed site is of no value to no one. Unprotected sites invite and encourage uncontrolled use and vandalism.

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Planning Unit Name	Decker-Birney
Activity	Recreation - Unit wide - Paleontology (Fossils)
Multiple Use Recommendation(s)	Analysis 1. A professional paleontologist should be consulted to determine whether a unit wide survey is warranted. If a survey is needed on lands leased for mineral development, the involved coal company will be responsible for the implementation of this survey. 1. Present knowledge indicates there are some fossil deposits in the planning unit. If valuable sites exist, an inventory will assist in making policy decisions concerning surface disturbances, proper protection measures, etc.

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Planning Unit Name	
Decker-Birney	
Activity	
Recreation - Unit wide - Access	
Multiple Use Recommendation(s)	Analysis
1. ORV use should be restricted or closed on BLM-Forest Service lands where known damage is occurring or where key resource values are in danger.	1. ORV use must be controlled to prevent resource damage. Since the Department of the Interior has not published regulations, actions taken on BLM-Forest Service lands should be considered an Interim measure at this time.
2. Access is needed to those areas of National Resource Lands shown on the MFP Step 2 overlay for Lands & Recreation.	2. These lands currently lack either physical access, legal access, or both. Access will accommodate recreational pursuits as well as satisfying other needs or uses with regard to management objectives.
3. Any access acquisition or construction should be done only after there is assurance that important resource values (including recreation) will not be destroyed or excessively marred.	3. Although access may be needed to serve recreation (or other activities), construction should not take place at the expense of other values.

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Planning Unit Name	Decker-Birney
Activity	Recreation - Unit wide - Visitor Use Analysis
Multiple Use Recommendation(s)	Analysis
1. Visitor use information on all forms of recreational activity should be obtained as soon as possible.	1. Present recreational use figures, trends, potential uses, etc., are not available at the present time. As some industrial development in this area seems inevitable, greater demands will be placed on existing recreational areas due to people influx. Visitor use information will help to identify potential recreational needs.

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Planning Unit Name

Decker-Birney

Activity

Recreation - R-1 Historical Values

Multiple Use Recommendation(s)

Analysis

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. No actions should be taken which will jeopardize the integrity of the Battle Butte and Rosebud Battlefields; lands adjacent to these sites should be protected until a survey determines whether or not they will be needed to help preserve the actual site. Battle Butte should be submitted to the National Park Service for consideration as a National Historic Site. 2. Urge the National Park Service to buy the Rosebud Battle Site and any adjacent lands deemed important to the site. 3. Stag Rock and Needle Rock should be evaluated to determine whether they warrant submission to the NPS as National Historic Sites. Additional studies should also be made on the Hanging Woman Creek Site. 4. An inventory and evaluation of the old metal water wheel on the Tongue River plus assorted old homestead buildings scattered throughout the unit should be conducted to determine if they warrant some type of Federal (or other) protection (See Step 3, Overlay no. 4). | <ol style="list-style-type: none"> 1. These two sites have significant national historic values. Adjoining lands may help in the interpretation of the actual battle site or they may contain important artifacts of their own. Adjoining lands may also be needed for access purposes or for use as a buffer zone around the actual site. 2. These lands are presently in private ownership although the site is on the registry of National Historic Sites. This site is important since General Crook was defeated by combined forces of Sioux and Cheyenne warriors just prior to Custer's defeat. Had Crook not been defeated, the outcome of the Custer fight may have been different. Regardless of speculation, this site is an integral part of our western heritage and should be preserved in its entirety. The site also contains a prehistoric buffalo jump estimated to be 5,000 years old. 3. These two sites need further evaluation to determine whether or not they are important enough to warrant inclusion to this registry of historic sites. The historic background and locale of the Hanging Woman Site has not been ascertained as yet. 4. Old buildings associated with early day homesteading or ranching activities may be of some historical significance; this same theory applies to the metal water wheel. The more important sites should be preserved and interpretations made rather than having them lost through weathering or neglect. |
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Planning Unit Name	Decker-Birney
Activity	Recreation - R-1 Historical Values
Multiple Use Recommendation(s)	Analysis
5. A commemorative plaque or memorial should be placed along the county road (near where the Tongue River and Hanging Woman Creek roads join), marking the routes taken during the Miles Expedition of 1877 and the Reynolds Expedition of 1876.	5. In March of 1876, Colonel Reynolds crossed from the Tongue River eastward to the Powder River where he and his cavalry detachment mounted an attack on a Cheyenne Indian encampment. This attack inflamed various Indian tribes to further resistance and led to the court martial of Colonel Reynolds. In January of 1877, General Miles came up the Tongue River from Ft. Keogh and launched a winter offensive against Sioux and Cheyenne forces encamped along the Tongue. This offensive led to the Battle of the Butte where Two Moons was defeated.

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Planning Unit Name	Decker-Birney
Activity	Recreation - R-1 Geologic Features
Multiple Use Recommendation(s)	Analysis
1. Until an evaluation is made concerning the quality and/or importance of erosional features, sandstone caves and buttes, petrified wood areas, etc., identified on Step 3 overlay no. 5, management should assure proper protection of these sites. 2. Geologic features should be evaluated by Forest Service personnel (these features are located primarily within the confines of Custer National Forest). Unique geologic features should either be submitted to the NPS for consideration under the natural landmark program or designated as being a natural area.	1. Petrified wood areas (thought to contain remnants of the sequoia - redwood species) are located within this planning unit; there are rumors of archeologic values being associated with certain sandstone caves and buttes. 2. Not all geologic features have the physical characteristics necessary for inclusion into a National Natural Landmark designation; designation as a natural area may be appropriate in these cases (or no designation at all, depending upon the sites physical characteristics).

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Planning Unit Name	Decker-Birney
Activity	Recreation - R-1 (Snow and Ice Features)
Multiple Use Recommendation(s)	Analysis
1. The Forest Service should identify a trail system on the Ashland Division of the Custer National Forest for snowmobilers.	1. Present levels of recreational use concerning winter sports activities on the Ashland Division of the Custer National Forest are unknown or sketchy at the present time. However, future mineral development in adjacent areas may result in large numbers of people using public lands as a base for their recreational pursuits. An inventory will allow for proper planning to meet these increased demands.

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Planning Unit Name	Decker-Birney
Activity	Recreation - Water Bodies (General)

Multiple Use Recommendation(s)	Analysis
1. Further investigation is required to ascertain whether appropriated waters previously acquired for industrial or agricultural uses can be used for recreation-wildlife after rehabilitation of mined areas is complete.	1. Even though recreation-wildlife is a legal use of water, the Tongue River has already been appropriated. Industry plans to utilize additional water sources via aqueducts, deep wells, etc. These water sources will very likely be used in reclamation efforts. Once rehabilitation measures are completed, however, recreation-wildlife values could be considerably enhanced if they were able to use some of these developed water supplies.

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Planning Unit Name	
Decker-Birney	
Activity	
Recreation - R-1 Water Bodies (Tongue River Reservoir)	
Multiple Use Recommendation(s)	Analysis
1. State agencies should assist the BLM in developing an activity plan for the Tongue River Reservoir. If coal leases are issued around the proximity of this reservoir, subsequent mining plans should include appropriate measures which will mitigate impacts to existing recreational values.	1. Two existing facilities (sanitary installations, picnic tables, etc.) lie within geographical areas identified in the minerals section as being strippable coal resource areas. As this reservoir will undoubtedly receive increased usage if large scale mining operations are initiated, an activity plan identifying recreational needs and potentials should be completed; BLM should be included in this planning phase due to the minerals ownership pattern around this reservoir.

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Planning Unit Name	Decker-Birney
Activity	Recreation - R-1 Water Bodies (Tongue River)
Multiple Use Recommendation(s)	Analysis
1. Additional public access to National Resource Lands along the Tongue River should be obtained. These tracts of land will provide boat launching and fishing sites as well as enhancing other recreational opportunities. Specific lands are shown on the Step II MFP overlay for Recreation. 2. Develop a comprehensive study of the Tongue River to ascertain what recreational pursuits are of primary importance. These studies should be coordinated with the appropriate State agencies. 3. The stretch of river between the Tongue River Dam and the bridge at Prairie Dog Creek should remain free-flowing and considered as a possible scenic corridor.	1. There is little doubt that recreational pressures will increase on this stretch of river, especially if large scale mining operations are conducted. National Resource Lands (properly located) will help to accommodate these increased demands. 2. This river could provide tremendous recreational opportunities. It is quite scenic, has most of its open space qualities intact, and provides good wildlife and aquatic habitat for numerous species. A study will help identify potential needs as well as problem areas that may be encountered. 3. This portion of the river is aesthetically pleasing and is used extensively by fishermen and canoe enthusiasts. Hay meadows and intermingled stands of cottonwoods - green ash - boxelders and willows all follow the course of the river. This streambank vegetation provides a fitting foreground for the scoria-capped buttes and pine covered hills found along the hillsides overlooking the Tongue. These scenic attributes could be irretrievably lost if a large water impoundment were constructed in this vicinity.

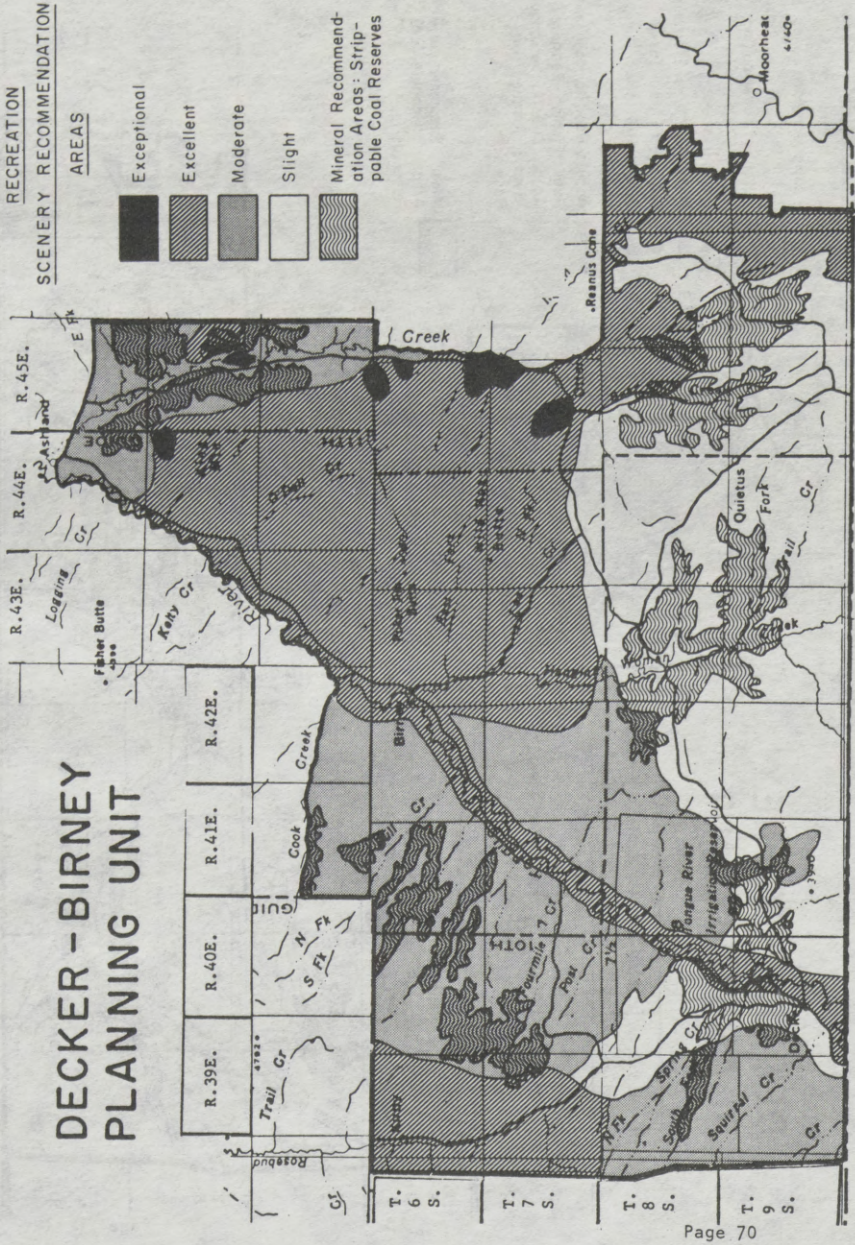
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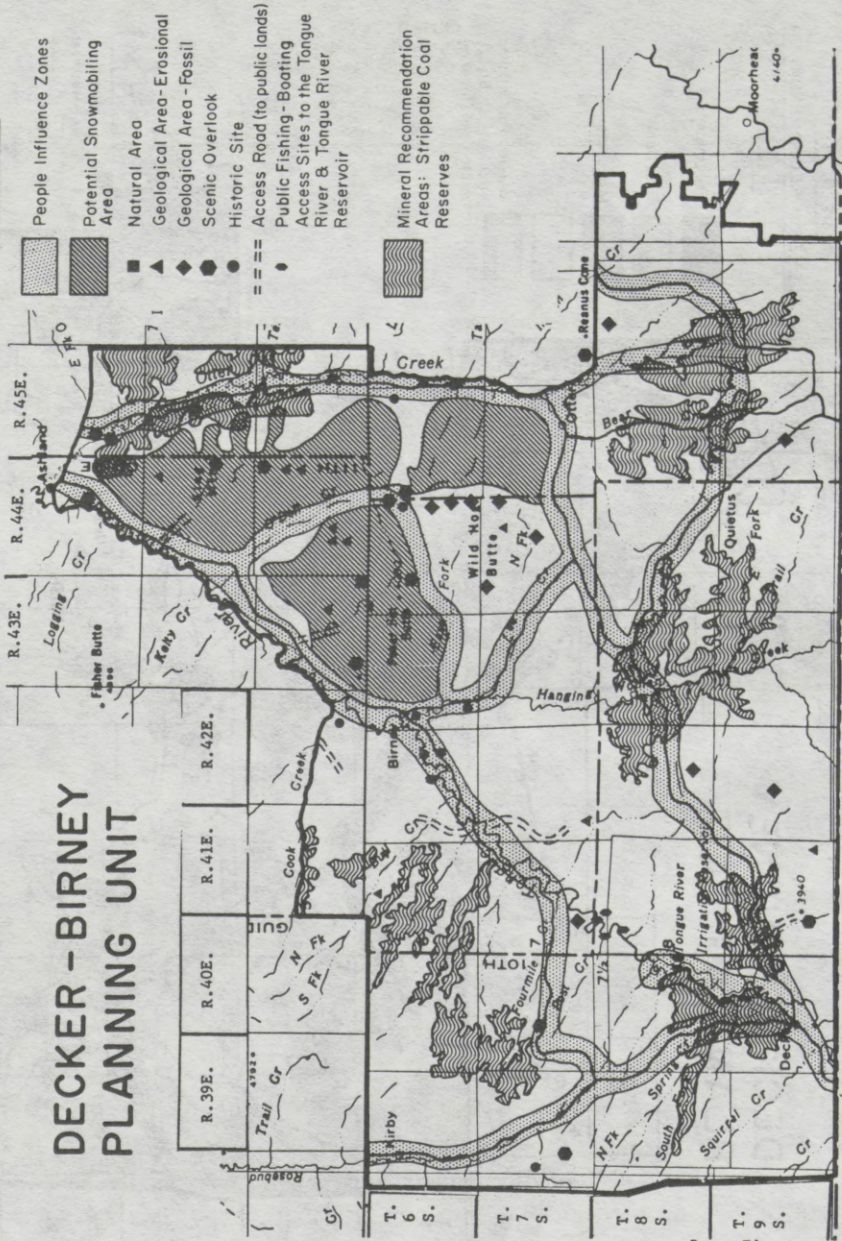
Planning Unit Name	Decker-Birney	
Activity	Recreation - R-2 Fire Protection	
Multiple Use Recommendation(s)	Analysis	
1. All historic sites and natural areas, identified on the MFP Step 1 overlay should be protected from wildfires.	1. These sites are part of our western heritage and must be protected for the benefit of future generations.	
2. The use of heavy equipment to control fires in geologic areas (erosional and fossil features identified on overlay no. 7 - MFP), should not be allowed. If necessary, handlines or other fire-fighting techniques will have to be utilized to control the fire.	2. These geologic features have been formed by erosion and other natural occurrences. Heavy equipment could permanently mar or destroy the naturalness of these areas.	

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RECREATION

DECKER-BIRNEY
PLANNING UNIT



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Planning Unit Name		Decker-Birney
Activity		Environmental Enhancement and Protection
Multiple Use Recommendation(s)		Analysis
<u>Non-Living Components - Land</u>		
1. <u>Soil Pollution Recommendations:</u> Restrict and/or control the following uses or practices: a. Sagebrush, weed, or brush control involving chemical herbicides not meeting Federal, State or Public Health Standards. b. Chemical treatment and practices used on lands to foster their use for agricultural purposes not meeting Federal, State or Public Health Standards. c. Private and public sewage systems not meeting State or Public Health Standards. d. Concentrated industrial operations adjacent to water courses or that would significantly affect ground-water aquifers where soil and water contamination can occur. e. The continued operation of any untended refuse disposal sites where proper methods of handling dangerous or pollutable substances are non-existent or limited in nature. The operation of the area's refuse disposal sites on a sanitary land fill basin would greatly 72 alleviate any problems associated with potential soil and water pollution hazards.		1. It is intended that the activity recommendations will control or eliminate practices which cause unnecessary and persistent chemical or general pollution of the oil mantle, water courses or vegetative cover.

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Activity

Environmental Enhancement and Protection

Multiple Use Recommendation(s)

Analysis

Non-Living Components - Land (continued)

The possibility of utilizing impacted by surface mining for sanitary land fill sites should be considered and investigated as a possible alternative.

2. Computability of Land Use:

- a. All industrial and extractive operations bordering water courses in the unit should be monitored so their operations will not adversely affect the aquatic life or quality of the water for recreation or other life sustaining purposes. Noise and air quality control should also be monitored and controlled when necessary.
- b. Sale of timber to processors shall not exceed allowable cut limits. (An exception would be disease treatment or sanitation cuts, if undertaken.)
- c. Poorly placed and designed fences should be appropriately modified and any new fences carefully planned and designed prior to their physical installation on the ground.
- d. It is recommended that legal access be acquired for the general public to all parcels of Federal and State lands possessing significant public values. These values include the activities of hunting, outdoor recreation, geologic and environmental studies, archeological, paleontological, and historical values, etc.

- a. Waters in the unit now support over 1,000 visitor days of fishing use along with untold amounts of general recreation use. The waters are also important for domestic use, agricultural use and for possible industrial utilization.
- b. Exceeding the allowable cut could adversely affect the ecological balance of the timber habitat and affect the future stability of the timber industry.
- c. Poorly placed fences may adversely affect wildlife grazing and migration patterns or restrict access and use by the general or user public.
- d. The scattered land pattern makes legal access to many parcels of the public land impossible, thereby negating their use and value to the general public. Several parcels of public land not possessing legal access have been identified for further analysis and action in the land portion of the study.

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Multiple Use Recommendation(s)

Analysis

Non-Living Components - Land (continued)

3. The Decker Coal Company's operations may adversely affect the aesthetic and recreational use of the Tongue River Reservoir. Vegetative or topographic screenings should be considered and evaluated.

3. Waters in the unit now support over 1,000 visitor days of fishing. This use, along with other forms of water-based recreation are an important asset to the people of the region.

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Multiple Use Recommendation(s)

Analysis

1. Non-Living Components - Water

In order to properly ascertain the present situation and to exploit any meaningful recommendations and capabilities and opportunities for development, both the surface and ground water sources of the unit will have to be analyzed as they pertain to State, Federal, and Public Health Standards. From this base information, future plans and developments may be more fully considered and evaluated as they pertain to the present situation.

Areas meriting special consideration or studies are those tracts of land designated for the strip mining of coal in the Minerals Portion of this report. An in-depth analysis of the groundwater resource and the local and regional impact of mining on this resource is needed prior to the implementation of any large scale development alternatives.

Activity Recommendations:

1. Surface and ground water supplies shall be managed and maintained within the limits set by the State of Montana for the following uses or purposes:

- A. Drinking, culinary and food processing purposes. Public Health Service Standards must also be adhered to in this particular category.

Due to the length and complexity of the standards, they⁷⁵ are not included here but noted in the body of the full report.

The Tongue River has been extensively monitored at the Montana-Wyoming state line and at a point near Miles City; however, until recent times, the other streams within the unit (i.e., Rosebud Creek, Otter Creek, Hanging Woman Creek, etc.) have largely been overlooked. Base line data relating to State of Montana and Public Health Service Standards is needed to determine the present situation of this component of the environment and to determine any potential, corrective or enhancement treatments that may be applied. Detailed data and data gaps also exist concerning the ground water supplies. The water quality data as compiled to date is described in the main body of the report. The Water Quality Bureau of the Montana State Department of Health and Environmental Sciences along with other governmental agencies are now or in the process of conducting studies in selected portions of the area.

- A. Approximately 1,000 persons now reside in the planning unit with a potential for a considerable increase of population due to the abundance of natural resources (coal). The people currently residing in the area and any future inhabitants must be assured a safe and dependable water supply.

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Multiple Use Recommendation(s)

Analysis

1. Non-Living Components - Water (cont.)

B. Bathing, swimming, and recreation.

C. Growth and marginal propagation of salmonoid and non-salmonoid fishes and associated aquatic life, waterfowl and furbearers.

D. Agricultural water supply including irrigation, stock watering, and truck farming.

E. Industrial water supply.

B. Approximately 1,000 people live in the region and these activities, in varying degrees, represent an important component of their life styles.

C. Waters in the unit now support over 1,000 visitor days of fishing. The Montana Fish and Game Department estimates that fishing pressure increases 4 percent yearly.

D. Within the planning unit, approximately 12,010 acres of land are under irrigation and are a primary factor for sustaining yearlong cattle operations. Livestock production is the major industry in the unit and forms the basis of the local economy. Livestock grazing accounts for an estimated \$3,000,000 annual gross income based on 241,000 animal unit months of grazing in the region.

E. Currently, there is only minor industrial development in the planning unit. However, if development occurs associated with fossil fuel deposits or whatever, a large volume of suitable industrial water may be needed.

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Multiple Use Recommendation(s)

Analysis

1. Non-Living Components - Air

In order to properly ascertain the present situation and exploit any meaningful recommendations and capabilities and opportunities for development, a continuing sampling of Montana air quality should be established, as it pertains to the State standards and climatological studies in general. From this base information, future recommendations may be fully considered and evaluated as they pertain to the present situation.

Activity Recommendations:

1. Manage and control all land and water uses to maintain the quality of the air as established by applicable State and Federal Air Quality Standards.

Areas meriting special attention are those tracts of land designated as being suitable for the strip mining of coal in the minerals portion of this analysis.

2. Particulate matter recommendations

- A. Paving or oiling of all major public roads.
- B. Elimination and vegetative reclamation of unneeded roads which are subject to wind and water erosion.

Limited air quality information is available at the present time. The closest weather stations are Miles City, Montana and Sheridan, Wyoming. The Air Quality Bureau of the State Department of Health and Environmental Sciences in 1972 initiated four sampling areas. The first generation of yearlong data was available on March 1, 1973. More of this type of information is needed, especially data pertaining to wind currents, inversion areas and general base line data relevant to State or Federal standards.

1. The ambient air quality standards are designed to protect people from the adverse effects of air pollution, and they are intended further to promote maximum comfort and enjoyment in the use of property consistent with economic and social well-being, of the community. Also, as stated in the State Air Quality Standards, quality standards are used as a tool in achieving cleaner air, not as a license to permit unnecessary degradation of air quality which would thwart attainment of the long-range goal to maintain a reasonable degree of air purity.
2. A. Treatment of road surfaces to reduce dusting will benefit air and water quality and increase the safety of the road users.
- B. Closure of unneeded roads and trails will reduce road maintenance costs and reduce the risk of soil erosion, the effect of dusting, and soil erosion.

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Multiple Use Recommendation(s)

Analysis

Non-Living Components - Air (cont.)

- C. Encourage and conversion of all open burning or untended dumpsites to sanitary landfills. The lead or coordination role, of this activity if undertaken, would be with local units of government.
- D. Encourage through State and Federal channels monitoring and emission control measures, where necessary, on those land use activities which may degrade the area's air quality.
- E. Increase fire protection measures such as manpower and equipment serving the region.

- C. This action would not only control or curtail a considerable amount of air and aesthetic pollution, but it would also reduce the possibility of soil and water pollution and would help maintain surrounding property values as well as removing hazards to human health and safety.
- D. This action would protect the people and their environment from the adverse effects of air pollution while allowing this use of property consistent with the economic and social well-being of the community.
- E. This action will reduce the size of the areas burned and the resultant smoke and particulate matter counts.

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Multiple Use Recommendation(s)

Analysis

II. Living Components - Humans

1. More detailed studies are needed to ascertain the present situation of the populace living and/or working in the region. Prior to implementing detailed activity plans which would significantly alter the environment.

Some of the data needed are listed:

Population

Amount, age, mix, growth

Employment

Unemployment

Housing

Abundance, quality, price

Affluence and poverty

Distribution of wealth

Significant institutions

Education, safety, security

Professional services

Medical, legal, scientific

Public health

Quantity, quality

Energy services

Adequacy, rate, future needs,
pollution

Transportation services

Sewage treatment and disposal

Public recreation

Public administration

Goals, representation, finances,
services, planning

Local amenities

Well being of local inhabitants

Goals, attitudes, wants

Sector economics

1. This information is important for determining present and future land use objectives and goals. Land Use planning and decision making entails numerous development options or alternatives. Therefore, it is important to know, in any decision, who benefits, who pays and to what extent.

The implementation and subsequent analysis of any meaningful socio-economic studies should involve the cooperation and coordination of local, State and Federal units of government.

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Environmental Enhancement and Protection

Multiple Use Recommendation(s)

Analysis

Ecological Interrelationships - Ecological Processes (continued)

Broadleaf Habitat (streamside):

1. Maintain and enhance this vegetative component of the environment.

Prior to implementation of any alternative levels or types of development, an analysis should be required to determine impacts, trade-offs and mitigating measures that determine the mix of uses that would most enhance National, Regional, State and local goals and objectives.

The broadleaf habitat is associated with all the other habitats that occur below the alpine level. It is used by and often vital to animals living in adjacent vegetative types.

1. It constitutes a critical and limiting vegetative type in the unit (representing only 1.1 percent of the unit cover). The abundance and variety of plant life in this vegetative complex supports an abundance and variety of animal life. It furnishes cover for most furbearing animals, cover and forage for big game species, and amply supports a variety of bird life.

Species identified to date include:

Mule deer
White-tailed deer (prefers the brush cover)
Sharptail grouse
Ringneck pheasants
Hungarian partridge
Wild turkey (depend on ash, box elder, hawthorne and plum forage in fall and winter)
Blue heron rookery (one)
Turkey vulture (one site)

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Activity **Environmental Enhancement and Protection**

Multiple Use Recommendation(s)

Analysis

III. Ecological Interrelationships - Ecological Processes

1. Detailed soil surveys are needed in the Rosebud County portion of the planning unit. Such surveys have already been completed in Big Horn and Powder River Counties outlining the chemical, physical and engineering properties of each major soil type.

2. Additional wildlife data is needed concerning both the terrestrial and aquatic ecosystems.

3. Manage and control all land uses so as to maintain the vegetative and aquatic habitats and their associated ecosystems in a vigorous and healthy condition and compositional structure. The following ecosystems are found in the Decker-Birney area:

<u>Ecosystem</u>	<u>Acreage</u>	<u>% of Area</u>
Aquatic	3,803	.42
Grassland	214,622	23.89
Pine-woodland	217,116	24.15
Ponderosa pine	159,668	17.76
Big sagebrush-Shrub	262,336	29.20
Broadleaf	10,164	1.13
Agricultural	31,000	3.45

1. The Rosebud County soil survey is currently underway which will provide the detailed data needed to plan or evaluate various local use options or potentials.

2. Montana Fish & Game Department personnel have stated that general population and harvest data are available on the area's major game species but that detailed on-site interrelationships are needed especially concerning habitat conditions and areas of use.

3. Federal regulations and supplemental guidance requires that the National Forest and National Resource Lands be managed for the benefit of all uses.

The ecosystems in the study area have been delineated and described principally on the basis of soils and their associated biotic communities. The table that follows lists the ecosystems that were defined in the study area summarizing in general terms:

- (1) Their capability to provide or produce a given resource, either actual or potential,
- (2) The relative importance of all the resources within a given ecosystem.
- (3) Possible management opportunities.

Each ecosystem has been rated to indicate the condition of each of its principle components. The numerical ratings described below are made on a scale of 0-5 - indicating resource potential (ecological potential) and/or the actual existing condition of the component.

RESOURCE VALUE RATING OF VEGETATIVE ECOSYSTEMS

Ratings

Quality or Quantity

5 Very High
4 High
3 Moderate
2 Low
1 Very Low
0 Not Applicable

ECOSYSTEM	RECREATION										OVERALL RATING										WILD-LIFE		RECLAMATION POTENTIAL			
	VISUAL			ARCHEOL-OGY		VISITOR USE			RANGE			MINERALS			WATER RECHARGE		SOIL STABILITY		WATER YIELD						TIMBER	
	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A
Aquatic	5	5	3	1	5	3	1	1	3	-	-	-	-	-	-	-	-	-	-	-	0	0	5	4	1	1
Grassland	4	3	3	1	4	1	5	4	5	4	3	5	3	5	3	0	0	4	3	5	5	5	5	5	5	
Pine-woodland	5	5	5	2	5	2	4	3	4	3	3	2	2	2	2	1	1	4	2	2	2	3	3	3	3	
Ponderosa Pine	5	5	3	1	5	1	3	1	4	5	3	5	3	3	2	4	3	3	2	1	1	3	3	3	3	
Big Sagebrush-Shrub	3	2	3	1	4	1	5	4	5	2	2	4	3	4	3	0	0	4	3	4	4	4	4	4	4	
Broadleaf (Streamside)	5	5	5	2	5	2	5	4	3	3	2	4	1	2	1	3	1	5	4	1	1	5	5	5	5	
Agriculture	3	2	4	1	1	1	5	3		3	1	4	3	2	3	3	0	3	3	5	5	5	5	5	5	

A - Actual Ecosystem rating as it now exists (present condition)
P - Ecosystem potential for producing resources or uses when near climax condition or potential for reclamation following major disturbance.

* Relative potential for reestablishing the current vegetative composition and ecosystem.

** Relative potential for establishing some type of native vegetation in relation to soils and conditions now present.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MANAGEMENT FRAMEWORK PLAN

STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	Decker-Birney																						
Activity	Environmental Enhancement and Protection																						
Multiple Use Recommendation(s)	Analysis																						
<u>Ecological Interrelationships - Ecological Processes - (continued)</u>																							
The ecosystems, consisting of the flora and fauna of biotic communities, soils, air and water of the abiotic environment, the interrelationships between their components, and other considerations such as aesthetics and space, is a base on which management activities may be developed. The objectives of land management would be to create the least adverse effect possible on the total ecosystem in order to fulfill our human needs and goals. Based on an interdisciplinary analysis, none of the program activity recommendations would significantly alter or affect the present ecosystem balance with the exception of the areas outlined for coal strip mining activities. This proposal could take out of production, for varying lengths of time, the following ecosystem acreages to produce 6.8 million tons of coal and the various services and products this resource can produce: <table border="1"> <thead> <tr> <th>Ecosystem</th> <th>Acres</th> <th>% of Original Total</th> </tr> </thead> <tbody> <tr> <td>Grassland</td> <td>30,430</td> <td>14</td> </tr> <tr> <td>Pine-woodland</td> <td>7,040</td> <td>4</td> </tr> <tr> <td>Ponderosa Pine</td> <td>23,660</td> <td>16</td> </tr> <tr> <td>Big Sagebrush-Shrub</td> <td>51,420</td> <td>20</td> </tr> <tr> <td>Broadleaf</td> <td>200</td> <td>2</td> </tr> <tr> <td>Agriculture</td> <td>6,770</td> <td>20</td> </tr> </tbody> </table> In summary, the physical resource impacts and the associated socio-economic impacts that would be generated under various coal development alternatives would significantly alter ecosystems and any associated human life styles. The impacts as with all decisions and actions, could be both beneficial and/or detrimental.			Ecosystem	Acres	% of Original Total	Grassland	30,430	14	Pine-woodland	7,040	4	Ponderosa Pine	23,660	16	Big Sagebrush-Shrub	51,420	20	Broadleaf	200	2	Agriculture	6,770	20
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(October 1970)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MANAGEMENT FRAMEWORK PLAN
STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Environmental Enhancement and Protection	
Multiple Use Recommendation(s)	Analysis
Ecological Interrelationships - Ecological Processes - (continued)	
2. Proper management of the surrounding areas is important for this vegetative habitat.	2. Since the vegetative type occurs in narrow strips and includes free flowing water, it provides significant edge effect and is highly susceptible to damage from mismanagement of surrounding areas and areas higher in elevation.
3. Road construction should not be permitted or should be highly restricted in this environment.	3. Construction could result in the degradation of the environment for wildlife or other land use purposes. Construction in a flood plain can be a physical hazard of great potential magnitude. This, coupled with the fact that the subject habitat encompasses only 1.1% of the area, could initiate adverse losses and side effects that could be of significant social and/or environmental concern.
<u>Aquatic Habitat:</u>	
1. The Water Resources Board should be contacted to ascertain the practices, if any, that can be initiated to more adequately regulate the Tongue River Reservoir and downstream water fluctuations and temperatures of the Tongue River, especially, during the early summer and fall seasons.	1. In general, it appears that the limiting factors for the fisheries resource and any associated aquatic life would be the extreme fluctuating of stream flows (78 to 2550 CFS), the high sedimentation and dissolved solids loads and the wide variation of water temperatures which range from freezing to 87.8 degrees F. in some stretches of the Tongue River.

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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MANAGEMENT FRAMEWORK PLAN

STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	Environmental Enhancement and Protection
Multiple Use Recommendation(s)	Analysis
<u>Ecological Interrelationships - Hazards to human and animal health and safety</u>	
1. <u>Landslide and snowslide areas</u> Investigations of the higher elevations may be in order.	1. This information would be needed is winter sports activities and people use is made of the snow-packed sites.
2. <u>Highly unstable soils</u> Treated under Ecological Interrelationships, ecological processes-general recommendations.	2.
3. <u>High fire danger areas</u> Discussed under "non-living components - air -- particulate matter recommendations".	3.
4. <u>Earthquake or fault hazards</u> Several major faults are depicted on the Mineral resources overlay. The type and magnitude of development should be carefully evaluated and controlled on these sites.	4. Although no earthquakes have been noted in this region, the probability of earth movements and subsequent tremors is greatly increased where faults and any likely geological stresses exist.
5. <u>Unprotected areas, mine shafts or dumps</u> Mining in the area is currently limited to one operation and the elements of hazards and safety have been taken into account. Any new or ongoing commercial or industrial activities, however, should be operated and managed with this safety theme in mind. The open dump sites situated near Birney, Decker, and Ashland have been discussed under the non-living components section of this report outlining the proposed mitigating measures.	5. Self explanatory.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MANAGEMENT FRAMEWORK PLAN

STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Environmental Enhancement and Protection	
Multiple Use Recommendation(s)	Analysis
<u>Ecological Interrelationships - Hazards to human & animal health and safety (con't)</u>	
6. <u>Toxic Water</u> Ground water supplies vary drastically in their quality. It is recommended that surface or sub-surface disturbances not be permitted that mix the contents of underground aquifers unless the quality of water meet State and Federal water standards.	6. Approximately 1,000 persons now reside in the planning unit with a potential for a considerable increase of population due to the abundance of natural resources (coal). The people currently residing in the area and any future inhabitants must be assured of a safe and dependable water supply. This supply would most likely be derived from ground water sources.
7. <u>Areas susceptible to flash floods</u> (See Watershed portion)	

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BUREAU OF LAND MANAGEMENT

MANAGEMENT FRAMEWORK PLAN

STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Environmental Enhancement and Protection	
Multiple Use Recommendation(s)	Analysis
IV. <u>Aesthetics</u>	
1. <u>Visual</u>	
A. Burning at community dumpsites should not be permitted. They should be managed on a sanitary landfill basis and fences to help keep any blowing trash within the area.	A. Self explanatory and discussed in previous sections.
B. The scoria and gravel pits in the unit should be located out of view of the travelled roadways.	B. Views such as these adversely affect the principle of highway beautification and the viewing pleasure of the general public.
C. The Decker Coal Company mine adjacent to the Tongue River Reservoir should be screened by plantings or other approved reclamation practices. An exception, however, is that area between the road and railroad tract in the fill area. The Highway Department has stated no trees should be planted here as they will produce a snow fence effect and drift snow on the road and railroad track.	C. The strip mining operation may be displeasing to the people who utilize this body of water for recreational purposes. This reservoir is the largest and most important water body in the region serving a multitude of recreational uses.
2. <u>Sound</u>	
This is not known to be a problem at this time in the unit. Land use controls may be a partial answer to prevent encroachment of noise into people use areas or vice versa. Areas meriting consideration and study would be around airports, mining operations, timber, and saw-mill operations, etc.	2. Self Explanatory

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STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name	
Decker-Birney	
Activity	
Environmental Enhancement and Protection	
Multiple Use Recommendation(s)	Analysis
<u>Aesthetics</u> (continued)	
3. <u>Odors</u>	3. Self explanatory
Outside of the three generally open and burning disposal sites situated in Ashland, Decker, and Birney, no sources of undesirable odors are known. The conversion of these sites to sanitary landfills will greatly alleviate the problem. It is also recommended that land use controls should be established to prevent offensive land uses from being established within or near population centers or in geographical areas of high recreational use or enjoyment.	

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BUREAU OF LAND MANAGEMENT

MANAGEMENT FRAMEWORK PLAN
STEP 2 - MULTIPLE USE RECOMMENDATIONS AND SUPPORTING ANALYSIS

Planning Unit Name

Decker-Birney

Activity

Environmental Enhancement and Protection

Multiple Use Recommendation(s)

Analysis

V. Human Interest Value

1. Educational and scientific

A. Geological

(Refer to Recreation section)

B. Ecological

The ecological communities are discussed in Section III of this portion of the report.

C. Archeological

(Refer to Recreation section)

D. Hydrological

There are no geysers, hot springs, mineral springs or unusual lakes located in the unit.

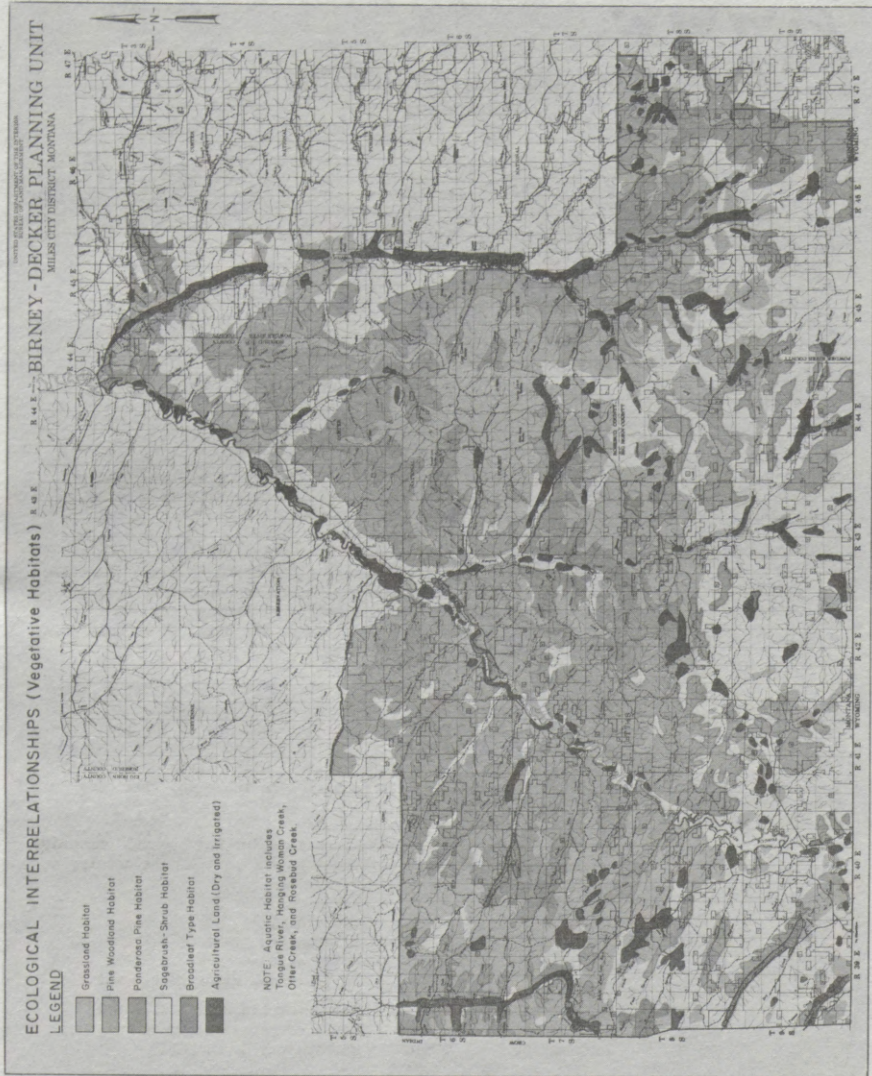
2. Historical

Discussed in Recreation portion of this MFO.

3. Cultural

Much inventory, research, and data compilation must be initiated to develop the present situation and any potentials for protection and/or enhancement of this category.

3. This information and data is very important as it refers to those places, objects and structures that are important to the present day activities of the cultures and sub-cultures inhabiting the area. Studies of this nature should involve the coordination and cooperation of local, State, and Federal units of government.





p.o. box 49022 tucson, arizona 85717

Formerly ARIZONANS FOR WATER WITHOUT WASTE

April 17, 1974

JUEL RODACK
Chairman
JOHN McCOMB
Vice Chairman
ROY M. EMRICK
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PETER WILD
Wilderness
RUTH STOKES
Urban Environment
PAULETTE M. DRYDEN
Mining
LOUIS BARASSI
Legal Counsel
WINTON D. WOODS, Jr.
PATRICIA VIVIAN
CYNTHIA HENRY
Newsletter
Mailing List

Mr. Mike Harvey
Interior and Insular Affairs Committee
U.S. Senate
3106 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Sir:

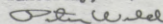
Would you kindly include this letter as part of the record of the hearings to be held April 20, 1974, on Federal coal leasing policies.

Because Arizona unfortunately is experiencing the awesome and irreversible effects of strip-mining, it is hoped that the Committee will demonstrate its concern for the future by supporting such provisions as are found in H.R. 11500 and by retaining firm controls of strip mining. Beyond the provisions of the bill, it is felt that strip mining should be abolished.

Those in positions of authority should be careful that in their concern for immediate energy needs they do not commit the nation to a policy that will sacrifice the long-term welfare of the land for short-term gains. It is difficult to understand how a process which obliterates the earth for temporary gains, with little or no possibility of restoration, can be justified to those who will come after us.

Development of alternatives, such as solar and thermal resources, would demonstrate wisdom and foresight on the part of the country's elected officials.

Sincerely,


Peter Wild

Co-Chairman, Wilderness Committee

cc: The Honorable Lee Metcalf
U.S. Senate
Washington, D. C. 20510

The Honorable Morris K. Udall
House of Representatives
Washington, D. C. 20515



STATE OF NORTH DAKOTA

EXECUTIVE OFFICE

BISMARCK

ARTHUR A. LINK
Governor

May 15, 1974

Mr. Mike Harvey
Interior and Insular Affairs Committee
United States Senate
3106 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Mr. Harvey:

This letter represents the position of the State of North Dakota concerning the leasing of federal lands to surface mine for lignite and other mineral resources in the State of North Dakota. Please include this letter in the printed record of the hearings conducted on the Federal coal leasing program in the Northern Great Plains.

Many of the controversial issues presently facing North Dakota relate to the management and utilization of this state's lignite resources. The extent of lignite utilization in North Dakota could determine whether North Dakota will retain its primarily agricultural character or whether it will become a center of energy-related industrialization and urbanization. Related thereto is the extent the air and water quality in this state will be degraded; the loss in agricultural and wildlife productivity of surface-mined land; the economic impact of lignite utilization; and the impact of these developments on our entire quality of life.

As the total impact of lignite utilization in North Dakota depends to a great extent upon the impending decisions on coal leasing by the federal government, I wish to make the following recommendation on the federal leasing program:

a. Consistent with Montana's "Preliminary Statements of Position," for at least the first initial five years of the EMARS (Department of Interior's Energy Minerals Allocation Recommendation System) coal leasing program, North Dakota people and their government would assent to federal leasing of coal only if its combustion or conversion would take place near the nation's high demand areas. Exception: When the State of North Dakota, through the State Water Commission and/or any other appropriate agency, has expressly authorized the construction of an electrical generation plant, a gasification plant, or other energy-conversion facility within this state or when such a facility already exists, it is recommended that the leasing of federal lignite be permitted so as to enable the authorized energy-conversion facility to obtain a contiguous "block" of mineable lignite.

Leasing lignite for use at the load centers only in the initial period will allow necessary evaluation of the consequences of mine-mouth industrialization in North Dakota and will permit more definitive research on the little-known cumulative impacts of such industrialization.

b. All federal lignite leases should require as a minimum compliance with all federal/state laws and regulations (viz., environmental protection legislation and legislation concerning severance and land disturbance taxes which may be imposed by the state.

c. Federal lignite leasing should proceed in North Dakota only after all resource values and land uses have been very thoroughly inventoried and the mining plan thereon jointly approved by the federal/state governments. Although the state may have impliedly recommended federal leasing within a certain area by the grant of a water permit or other appropriate authorization for an energy conversion facility, it is certain that not all land should be surface mined. An inventory is necessary to ascertain whether certain land must not be surface mined because of poor reclamation potential, unique aesthetic value, etc. This "selective denial" concept is critical to sound resource management; the historic method of federal leasing only in the areas of greatest corporate interest should not be resumed.

d. All federal leases must provide maximum protection to the surface owner. The federal government should ensure adequate compensation to the surface owner for permanent loss of land or temporary displacement from the mined land and the reduced agricultural productivity following mining/reclamation operations.

The State of North Dakota desires to assist in the effort to meet the "energy needs" (to be distinguished from mere "energy demands") of the nation. But, concurrent with the offer of assistance, this state will demand that necessary environmental, social, and economic safeguards to protect the state. North Dakota will not "subsidize" the energy needs of the rest of the nation by bearing a disproportionate share of the social and environmental costs of massive energy production.

The decisions the federal government is considering may have a profound influence on the future of North Dakota. Therefore, the involvement of this state in the decision-making process is critically important and necessary for any equitable decision on federal lignite leasing in this state. Your consideration of the matters contained in this letter is appreciated.

Sincerely yours,

Arthur A. Link

ARTHUR A. LINK
Governor

AAL: mk

cc: Secretary Rogers C. B. Morton
Secretary Earl L. Butz
Senator Milton R. Young
Senator Quentin N. Burdick
Senator Lee Metcalf
Representative Mark Andrews
Governor Thomas L. Judge
Governor Stanley K. Hathaway
Mr. Ed Zaidlicz
Mr. Dan McIntyre
Mr. Jack Neckels

Plevna, Montana
April 26, 1974

Mr. Mike Harvey
Senate Interior Committee Staff
Room 3106
Dirksen New Senate Affair Bldg
Washington, D.C. 20510

Dear Mr. Harvey:

Since I was unable to appear at Senator Metcalf's hearing in Billings, Saturday April 20, 1974 because of inclement weather, I will take this means of registering some of my concerns about strip mining Lignite Coal in the Northern Plains.

1. Detrimental affects of chemicals distributed by plants. Our deep rooted plants especially the "milkvetches" have demonstrated in the past, their ability to bring Selenium up from the subsoil, and distribute it on top of the ground where it is accumulated and distributed through various species of grass plants to grazing animals. This causing a very serious condition called "Photosensitization," Many livestock have been lost due to this condition.

This chemical and others known and unknown at this time should be given serious study in any reclamation project.

2. Underground water supplies.

Many pastures have as the only source of water, wells that pump from the very coal veins considered for strip mining as well as most domestic wells.

A. Who is responsible with an immediate dependable alternate water supply should these supplies be polluted with nitrates and or other poisonous materials or the supplies be interrupted temporarily or permanently?

Hundreds of people and thousands of Livestock will be adversely affected resulting in costs staggering to any affected individual.

3. Run-off water:

It is my understanding that several coal companies have made studies of stream potential water supplies from past amounts. No where have I seen a projected stream flow based on 2 very important factors.

A. The saline-seep problem caused by summer-fallowing will undoubtedly see thousands of acres less land being fallowed thus cutting down stream flow. In the streams the coal companies expect to extract thousands of acre feet of water for mining and gasification purposes.

B. Probably the most important factor concerning stream flow in the northern plains area is a new method of contour furrowing to utilize all the water that falls on the land. This method stops almost all run off where it is applied. It is simply a conservation practice used in range management to increase range production and cut down on erosion from wind and water and build up topsoil.

The application this ranch practice in the next 6 years could easily cut spring stream flows 35% from present amounts, a factor to receive serious consideration issuing water to Coal companies.

4. Quality of Life.

If the problems of Welfare, Poverty, Human Suffering, Local and State Taxes, and corruption, that exists in the area of the "richest hill on Earth," is an example of what we can expect here in the strip mining area, I'm sure most if not all will agree, "this we don't need."

Respectfully Submitted,

Frank Sparks
Frank Sparks
Plevna, Montana

AMERICAN LUTHERAN CHURCH



Box 632

Baker, Montana 59313

April 26, 1974

Earl H. Barnard, Pastor
Phone 406-778-2612

Mr. Mike Harvey
Senate Interior Committee Staff
Room 3106
New Senate Office Building
Washington, D.C. 20510

Dear Mr. Harvey:

In relation to coal developement in Eastern Montana, I see a number of consequences that will drastically effect the people of my area. For one, like at Forsythe, Mt. the development will bring in a large number of people to build and develop the area. The morals of those who come will definitely erode and corrupt those of the people that they come in contact with. The demands for services, schools and such will be great for a few years with a drop in demand after development. The local people who are already tax burdened will be saddled with the additional burden with economic chasesthe result.

Aside from the above I have a great concern for the water of our area. It is the one essential that determines whether you live or die in our area. If strip mining is done along the East side of the anticline, then those in the Western area say of the Lamb Jones Development will be cut off from all water as the shallow wells draw their water from the coal seam which acts as a stream in many areas.

Considering that water is essential for coal development and the Fox Hill Sands are the source of many residents drinking water, furthur depletion of the Fox Hills Sands for coal development could be disaterous for Baker, Plevna and other communities. Right now the Schell Oil company is using these waters for their water flood project. This waterflood has lowered many of the wells in the area more than 100 feet. Furthur depletion would be disaterous.

I have great concern for many ranch families who ~~homesteaded~~ homesteaded this area and yet do not have the coal rights. I'm not sure of their wording on their homesteads but I have been told that if improvements were made they were to "have and to hold" this land. Now if the government sells the coal rights they in effect havefraudulently dealt with these homesteaders. There could be a real legal hassel to the upreme Court on this issue alone.

I am greatly concerned too, that the Burlington Northern and the Government have a monopoly on the coal in our area which brings up many legal questions. This issue too would end up in the Supreme Court if I anticipate correctly.

We already have an air pollution problem on hand if we don't get the moisture we anticipate. Just the other day the summer fallow fields were blowing and causing clouds of dust. Rain settled all that but there may be a day when like in the 50's the rains didn't settle it. Compile that with an operation that we have no idea whether we can regrow grass and we have a dustbowl prospect.

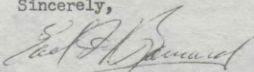
One of the terrible things that is going on is that in the leasing of these lands, Coal companies are telling the ranchers, "you might as well lease because we will get it anyway. We will get the coal from the government on your East- your neighbor leased on the North of you and we are dickering with the man on the South. You will be an island in the midst of a coal development without any water or friends." So many are selling their leases. There is the attitude of futility- how can you fight a monster machine. So the ranchers lease, figure on working the land till they are chased off, hoping that it will take 10 or more years and that by that time they can find another ranch where there is no coal under it. This takes away the incentive to improve and practice soil conservation. People who have been sincere and making a real attempt to improve the land are planting wheat where they shouldn't - saying the prices and the future destruction by the coal companies absolve them of responsibility. True it is no excuse- yet they do view it with that end in sight.

One rancher- Red Keirle has been improving a bad lands area for the past 20 years, creating hundreds of dams to check runoff- in rearing the productivity of the land by over 200%- increasing the amount of wildlife- you find grouse, sagehen, deer, antelope in abundance now, where they were scarce before. Red has put his life into the land- the Government owns the coal beneath. What's a life? The faith of our Fathers who founded this nation said that a man's life was precious, and our nation was founded on the dignity and the right of the individual to pursue life, liberty and happiness. Now the government -has within its powers to deny the very thing it was created to do.

The current coal leases I have examined- bundle in the contract of coal all other minerals in that layer of coal, which means uranium is taken off without compensation. The leases leave it up to State authority, the conditions of reclamation which removes the 1 to 1 responsibility to the land owner. A fixed figure of 28¢ a ton royalty makes no allowance for inflation. ~~THESE REVENUES ARE TAKEN FROM THE LEASES~~ The lease money received now is against future royalties which many feel is not paying in the here and now for the tying up of the property. Lease now- pay in full- royalties later for what they take. Enclosed is a guide that I drew up from listening to a hearing concerning coal leases, in the several leases I have gone over with people I find the Coal Companies have little or no concern for the people leasing- they'll skin them any way they can, and in this country where a man's word is his bond, they haven't been looking for someone out to skin them and take advantage and say one thing and hang them on the printed page. Nieve? Sure- but great people.

My great concern, the rape of the land to the power companies for energy that need not be exploited.

Sincerely,



Earl H. Barnard



AMERICAN ASSOCIATION of UNIVERSITY WOMEN

MONTANA DIVISION

May 9, 1974
731 S. 12th
Bozeman, Mt. 59715

Senate Committee: Interior and Insular Affairs
c/o Sen. Lee Metcalf
Room 427 Senate Office Building
Washington, D. C. 20510

Dear Sen. Metcalf,

Will you please include the following statement in the formal record of the hearings your committee held in Billings, Mt., April 20, 1974.

The Montana Division of the American Association of University Women has worked for passage of strict reclamation laws the state now has. We urge that those laws be respected on federally owned lands in Montana. This is of special concern since the new federal reclamation law has not passed Congress.

The Division sponsored a trip to the strip mined areas of Montana last November. As a result of our trip to Colstrip, we developed several position statements which were approved by our branches across the state. One of the position statements recommends permitting construction of only those power plants needed by Montana. Coal that is not needed by these plants should be exported.

The Study Committee on the Potential for Rehabilitating Lands Surface Mined for Coal in the Western United States, sponsored by the National Academy of Science, concluded that "while enough water exists in the Western coal fields to fill the relatively meager needs of strip mining itself (and in most cases, rehabilitation of the land), there simply is not enough water in the Western coal states to permit the enormous congregations of coal-fired generating, gasification, and liquefaction plants envisioned in recent years by utilities and oil companies (Science: Vol. 182, Nov. 2, 1973, pp. 456-8). We urge you to carefully consider the results of this study committee.

The Montana Division of the AAUW has fifteen branches throughout the state and a membership of approximately 1200. We have long had a concern for our environment and have pursued this concern through our study topics and continuing interests. As a result of study, the Division has actively supported specific environmental legislation.

Our major concern in this regard is that the state's land and water resources be protected. The United States' goal for becoming reasonably self sufficient in energy sources by 1980 heightens our concern that this may cause undue exploitation of the resources of this state with little regard for the consequences to Montanans.

In your consideration of how our national coal resource will be developed we urge you to abide by Montana reclamation laws and to consider the social, economic, and environmental problems associated with massive coal strip mining and generation of energy.

Sincerely,

Judy Mathre (Mrs. Don)

Mrs. Don Mathre, Mont. Div. Topic Chrm.
Global Interdependence

UNITED STATES SENATE SUBCOMMITTEE
Minerals, Materials and Fuels

April 20, 1974

Testimony by

Clyde Jarvis, President
MONTANA FARMERS UNION
750 6th St. S.W., Great Falls, Montana

I am Clyde Jarvis, president of the Montana Farmers Union, a statewide family farm and ranch organization representing approximately 8,000 families, with headquarters in Great Falls, Montana.

The members of our organization and others in agriculture who till the soil and tend the stock long have advocated the wisest use of our natural resources, with special emphasis on soil and water conservation and land utilization.

These are people whose lives and livelihoods give them a deep and abiding concern with what happens to our land, our water, our air, our animals and our plants.

There is no such concern with those profit-only motivated energy combines who sit in pavement surrounded steel and concrete enclaves amidst the already despoiled environment of the metropolitan areas.

They have disproved any right to act as stewards of any portion of such land, air and water as we have in this vast country of Montana.

Their past record of non-performance here and elsewhere in the United States should be weighed heavily in the deliberations by our Federal Government in granting coal leases.

That is why the Montana Farmers Union in our past two conventions resolved to seek a moratorium on strip mining until federal and state legislation had been enacted to regulate such operations and provide for adequate reclamation.

But I remind you that in 1966 the Kentucky Legislature, responding to a wave of public concern, passed a strip mine bill hailed as the strongest in the nation at that time. Our Montana Legislature in 1973, responding to the demands of a concerned public, passed a strip mine bill, which has been called the strongest in the nation. But the year following passage of the Kentucky bill, strip mine acreage in Kentucky doubled and the trend continues there and in other states.

There are serious implications which must be considered before an intelligent decision can be made on further leasings of federal lands for strip mining. These have wide ranging effects and cannot be ignored.

Federal lands belong to the people and the people of Montana are vitally concerned with what happens to these lands and the ultimate effects on us by industries which may get the leases. I call your attention to a letter written in 1972 by the Environmental Defense Fund which cited some of the concerns and I quote, "Serious potential for large scale degradation of both human and natural environments: disruption of rural life patterns, strip mining, air, water and noise pollution, destruction of fish and wildlife habitat, soil erosion, diversion of major rivers and explosive local population growth." end of quote. All these possibilities must be seriously considered.

Scientific studies prove that Northern Plains coal, in terms of energy demand for electricity, would have a very small part in satisfying

the total energy demand. It is particularly revealing when we compare the ratios of deep-mineable low sulphur coal in Montana to strippable low sulphur coal in Montana. The ratio averages 40 to 1, which makes us believe we should be pursuing the deep-mineable low sulphur coal in Montana.

The decisions to be made by Federal agencies are critical to us, because these decisions could affect our lives and not only our health, but the health of generations to come. So we are concerned and respectfully ask that no decisions be made in haste.

The present and future growth of coal mining and related activities might well herald the most profound changes--economically, sociologically and politically that Montana has ever seen.

And, we ask: WHAT WILL IT COST?

Land is involved, water is involved, air is involved, and most importantly, people are involved.

Montana Farmers Union works in behalf of all family agriculturists in the state and we are concerned, both for the well being of the agricultural industry and the well being of all those individual farmers and ranchers who contribute so significantly to the economy of Montana.

Any development in our state which disturbs the land surface or changes the use of that land should be evaluated ahead of time as to its effects on agriculture.

Any development which has not only a significant effect on land surface, but also air and water quality should be scrutinized doubly before proceeding.

Consider carefully the role of agriculture in Montana. We produced a billion dollars worth of food and fiber last year. This is new wealth and the production will recur next year and the next, on and on. All from the same land.

Agriculture is by far the largest dollar-producing business in Montana and the fact we deal exclusively in renewable resources must be emphasized. Agriculture has been, is and will continue for the foreseeable future to be the economic and social foundation for Montana, regardless of other developments.

Exploitive industries might appear extremely attractive on the short term economic scene, but they come and go--and they can go just as quickly as they come.

Just as vital as agriculture is to the economy of Montana, so is water vital to agriculture. But, the amount of water available also happens to be a critical factor in the development of energy plants using coal.

Clean water from underground sources is a must for livestock operations and of course for domestic use. Already we know that in some of the strip mines, water is draining into the pits and being pumped out into streams which eventually enter the Yellowstone River. Any contaminants it picks up are pumped along with it.

The waters of the Yellowstone River and its tributaries are used on 23 percent of Montana's total irrigated acreage for cash crops. With sufficient water, the Yellowstone Basin will continue to bloom and produce, from now on, if need be. Without sufficient water, the economy of the area will suffer sharp reverses.

With amounts of water from eight hundred thousand up to two and one-half million acre feet per year being claimed or talked about for future generating facilities, who will have first claim on the water? When the river gets so low at Sidney that water can't reach the canals, who will do without---the energy companies or the farmers and ranchers with their crops and livestock? Will the water diverted from the Yellowstone preclude any future agricultural appropriations?

An acre of crop or range land produces its wealth every year. An acre mined of its coal will never produce coal again...and quite possibly nothing else!

Considering Montana's land and rainfall, our topography, types of grasses, climate and all, we still don't have the answers as to whether we can successfully and permanently reclaim and revegetate the land disturbed by strip mining.

Is the short term economic boost of coal development equal to or greater than the potential long-term loss to agriculture? Is it worth it to disrupt a significant segment of our largest industry?

We can't just talk about agriculture alone. Another clean, renewable, growing industry in Montana is tourism. Why do tourists come here, spend money, leave and hope to return again? Will the newest attractions be spoil banks, fly ash and gaseous pollutants? No, I don't think tourists will come to see barren pits, dry and dirty streams, a sky that is brown or gray from power generating facilities.

I do think it's more probable that they have been coming to Montana increasingly for the abundant, clean water we have presently, for the fish which thrive therein, for the clear sky through which they can see for distances unheard of where most of them come from, for the air they can breathe without the stench burning their nostrils or the grit of ashes settling in their lungs. It's to our beautiful countryside they come to escape all those ills of the industrialized, advanced areas where they live.

I'm not surprised that a West Virginia Congressman proposed a bill to abolish strip mining, which he refers to as "Profits Without Honor". This same Congressman charges, and I quote, "The record of the coal companies is as black as the product they rip out of the ground".

Admittedly those are harsh words, but I believe they are necessary to get all of us to focus our attention on the many ramifications of the actions federal agencies may make in the future.

We sincerely urge you, please put people before profits.

STATEMENT OF RAY GASKILL, ASHLAND, MONT.

I am a small rancher and farmer running around 200 head of cattle on 2560 deeded acres with 141 head on Forest permit of which 15 head is special use forest permit for isolated forest tracts. This ranch is located mostly in Sections 1, 11, and 12, T3S., R45E., Powder River County, on East Fork of Otter Creek, Tongue River Drainage.

I am almost completely underlain by some of the prime strippable coal, being on a seam of coal from approximately 50 to 70 feet thick with an overburden of 40 to 100 feet. These are not figures from the air as my ranch has been almost completely core tested by Peabody Coal Company who has the leases on 1240 acres of coal owned by Burlington Northern Railroad and I own the surface to this same land. For example, one test hole near my buildings has 56 feet of coal with 58 feet of overburden and another test hole on our ranch has 70 feet of coal where by best hay meadows are.

It is a well known fact that the Burlington Northern and the lessee have the right to evict, so to speak, any and all surface owners if and when they care to mine this coal.

We also own 160 acres of fee coal which was leased back in 1969 to "scalpers" for a very small fee because of my ignorance of what was going on. It is with great regret that I admit my greatest mistake of mine and my family's lives. It is nothing but a reworded oil lease with no reclamation provisions for the land or water.

I have no desire for a great amount of money. All we want is to continue our accustomed way of life.

I do not believe the federal government should be able to evict the ranchers or others from their land, or destroy their land and water without their permission. I believe the rancher should have the right to say whether the coal under his ranch should be leased.

Also, water is one of our states most precious resources. Our creek which is the East Fork of Otter Creek is a live running stream through our ranch and another ranch below us for a distance of about $3\frac{1}{2}$ miles.

Home Creek is another creek paralld to East Fork two miles to the south which has about the same flow of water for about the same distance flowing through two more ranches. This water flows from numerous springs at a rate of 400 gallons per minute in each creek. This water never freezes in the winter. These are the creeks with which I am familiar. I am sure there are numerous other springs and creeks in this coal area that would also be affected or destroyed by coal mining.

I believe the government, both state and federal should give the ranchers and farmers all the help and protection they can possibly give, because as individuals we simply do not have the manpower or economic resources to cope with the giant coal and energy corporations.

Our area is one of the more productive and scenic areas of the State and should be preserved for future generations at all cost.

RAY GASKILL,
Ashland, Mont.

BALLANTINE, MONT., April 20, 1974.

To: The Senate Subcommittee on Minerals, Materials, and Fuels.

The Yellowstone County Farmers Union and The Huntley Project Farmers Union, wish to make the following statement to the committee.

Representing most of the farmers in this area, our organization has a long standing record of being for the orderly development of our resources, in behalf of all the people. We feel this is especially necessary in the case of our coal, and water it will require.

We request that the leasing of coal lands be limited to a very minimum annual production basis, that will provide the current year by year need after all other sources of energy production have been fully developed.

We request that our water and air be fully protected adequate and healthful quantities there of for future generations, for domestic and agricultural needs.

We ask congress to enact a very strong Federal stripmining bill, with a strong reclamation of the land and water provision in it, that will protect the people and the area for all time to come. We deplore the delaying tactics being used by vested interest groups to Title II of the stripmine reclamation bill now before congress.

We request that coal leases be renegotiable every three years. That there are additional generators installed at all existing dams in the western U.S. before any large or extended coal leases are entered into. That other dam sites be explored and development of same be done simultaneously with our coal development.

We request that solar energy and wind power also be developed along with our water power and coal, and that more information be made available to the public, as to what is now available in these fields, and future planned development.

YELLOWSTONE COUNTY FARMERS UNION AND
HUNTLEY PROJECT FARMERS UNION LOCAL.
CHAS. A. BANDEROB, *President*.

STATEMENT OF MRS. J. E. GILLILAND, BIRNEY, MONT.

I wish to thank Senator Metcalf for seeing that the Subcommittee hearings are being held in Billings and Casper or "where the action is" as the majority of those involved are unable to attend hearings in "remote" Washington, D.C.

We have a family owned and operated cattle ranch on Hanging Woman Creek in the noted Decker-Birney area under study for possible coal development by the Bureau of Land Management and the U.S. Forest Service.

I wish to commend the district heads of the two departments, who had the foresight to engage in, to my knowledge, the first study of this kind in this country's history with no additional money or personnel.

This undertaking has opened a Pandora's box of unanswered questions that apply directly to this specific region but could be used as a criteria for other lands in the coal rich western states. With extended time and research many answers could be found for the good of Montana, Wyo., the Dakotas and the rest of the nation.

Although it is known that the ground water in this region is either in or adjacent to the coal layers, there has been no research into the possible danger of severing or destroying the main aquifers of the whole area. The water re-charge areas have not been located and placed strictly off limits for any mining activity. With the recommendation of the leasing 119,000 acres of Federal coal in the Decker-Birney study area it is known that 45 wells, 92 springs and 144 reservoirs will be directly affected; however, what of the possible loss of wells and springs in the total area leaving the rest of the 900,000 acres with no water for wild life, domestic animals or man? No one knows any of the answers as to the origin, length or importance of any aquifers or re-charge areas, and yet the cry is for resuming federal leasing?

What of good reclamation? We in Montana can look with pride to what our Governor and state legislators have accomplished with quote, "the strongest reclamation bill in the nation" and the noble efforts of our U.S. Senators and our eastern district Congressman on the federal level; however, unless soil samples are taken prior to leasing for possible detrimental substances as well as depth of top soil it might prove impossible to reclaim large areas. How do you spread an inch of top soil over a section of disturbed land? Yes, an inch! In some areas that's all there is and yet it has produced good native grasses, forbs and shrubs sustaining livestock and wild life for centuries.

We have the opportunity to see if reclamation is possible in southeastern Montana with the three strip-mines that are in present production (Decker Coal Company at Decker, Western Energy and Peabody at Colstrip) and Westmoreland Coal Company about to begin production on Sarpy Creek out of Hardin.

In five years, possibly, there will be proof as to whether the land can be put back into production "as good or better than before," which we are told is possible but have never been shown.

The energy crisis is the "huen cry" for western coal. Why then has Western Energy refused to mine a second seam of 16.6 million tons which—they say is unmarketable? Why have they cut back production and laid off crews saying they can't find markets?

Why in the name of the energy crisis, hasn't there been presurer applied to place hydro-generators in the spaces available at the Yellowtail and Fort Peck dams? How many other dams are also being ignored?

Why in the name of the energy crisis, hasn't there been encouragement for the utilization of 65 billion tons of low sulfur, high B.T.U. coal in West Virginia alone. Certainly, it has to be deep-mined and will be more expensive but it will put men back to work and take their families off the welfare rolls. Do we really want to leave future generations with the more expensive energy sources and less agricultural land or should we share the burden?

We, the American people, have been told we must conserve all forms of energy and yet the energy companies have not been encouraged to improve the utilization of coal. The Corette plant in Billings has for 11 years only been able to reach 35% efficiency in the conversion of coal to electricity and their new plant under construction at Corstrip will be no better. Why have no funds been made available for research into magneto-hydro-dynamics which would at least raise the efficiency to 65% with far less pollution and less water needed?

If federal coal is not opened up for further leasing then some of these problems will be solved for more quickly than they would be if leasing is allowed to begin immediately.

In no way is a person more affected than when his neighbor leases for strip-mining. Our sub-surface neighbor in the west is the federal government and you in your elected positions are literally the stewards of these lands. Your decisions will be crucial not only to those who live here, but also to all Americans and our future generations.

I can not impress on you strongly enough the importance of thorough comprehensive studies of all areas in Montana, Wyoming, North and South Dakota before leasing is resumed. There must be absolute assurance that water supplies will not be harmed for it is the life blood of the west and the absolute assurance that the land can be reclaimed as grass is the base of our livelihood.

It's in your hands! Don't fail the present and future generations of the greatest nation on earth.

SALLY W. GILLILAND.

POLSON, MONT.

INTERIOR AND INSULAR AFFAIRS COMMITTEE,
U.S. Senate,
Dirksen Senate Office Building,
Washington, D.C.

SENATOR METCALF: I was glad to hear that the Interior Committee is holding hearings to ascertain local opinion on coal leasing and the development of coal in the Northern Great Plains. I am not sure that this letter can be included in the hearing record, but I would like to express my views on the subject.

387 thousand acres have so far been leased to coal development in Montana, Wyoming, and North Dakota by the Federal Government. I think that leasing should be discontinued. The overall impacts of coal have not been considered enough, and most piecemeal impact statements do not really take into account that operations have cumulative environmental and social drawbacks. Sometimes if impact can only be partially known or is unclear or unexpressed, it is passed over as if the burden of proof actually was on the environment or its spokesmen rather than coal development. This is partly due to pressures to vastly increase energy production. These pressures should be assessed also, as I believe, they reveal serious drawbacks in our attitudes towards both energy and environment. In presenting these views some facts will be used of which you are probably aware.

The Northwest Power Study of a few years ago, conducted jointly by government and industry, projected a series of thermal power plant complexes of 200,000 megawatts total capacity by the turn of the century for the northern plains area. Among these were thirteen plants of 10,000 megawatts each and numerous plants of smaller design. These were to be steam plants of the kind now in operation at Four Corners, N.M., but with the larger ones about $4\frac{1}{2}$ times as large. The Four Corners plant is the only single source of air pollution visible from manned satellites. With western low sulfur coal and a 90% emission control standard, the plants outlined above would still emit 840,000

tons of sulphur yearly, in addition to very large amounts of dangerous cadmium and fluoride compounds. Although details of this study appear to have been modified, approximately comparable massive development centered on steam generation still seems to be contemplated. The reasons for these projections have not been made public, however, there is no reason to suppose that they have changed. So far attempts to lessen the consumption of power have been only on an emergency basis. 40% of the power produced by the Bonneville system goes to the aluminum industry. The power required to refine aluminum from ore is several times that required for other metals and 25 times that required for recycled aluminum. Preferential freight rates for virgin materials slows down a deeply needed recycling program. Funds allocated for additional on site hydro-power plant are not forthcoming, and exploration of different power alternatives has had but a faltering start.

Neither government nor industry have given real attention to relationships that obtain between pollution and jobs, including its relation to occupational diseases. The plans for the northern plains give another kind of example. It is very possible that massive development of strip-mines and gas and thermal plants will mean basically a single industry economy for the region, with some support and service jobs, and few other industries. The dependence on surface deposits and very large amounts of water may drastically limit other industries. Strip-mining and air pollution are very detrimental to agriculture. Reclamation for agriculture with thin topsoil and sparse rainfall is unlikely; at best, expensive and spotty. Pilot projects have required large quantities of water and fertilizer, with no proof of permanent success. Development on the scale of the Northwest Power Study would commit most of the surface resource, and make large areas nearly uninhabitable. At the present rate of 375 tons per hour per 1000 megawatts about 1.2 billion tons would be burned yearly, double our country's annual production for all purposes. With projected greater use of coal for gas, synthetics, and export, a sixfold increase in coal production is not unlikely, without recycling and programs for reducing consumption. So far, strip-mining has taken about 5000 square miles of land, and currently takes about 360 square miles per year. Only a small fraction (about 4%, according to Friends of the Earth) is adequately reclaimed. At an unaccelerated rate another 9000 miles will be destroyed. But, in addition, according to the National Academy of Sciences study of reclamation in the west as much as double the amount of territory stripped could be adversely affected. Ground water systems will be contaminated by accelerated leaching, and, where it courses along coal seams, probably dispersed or destroyed. About 15000 miles of streams have been contaminated to various degrees. This does not include the areas lost to water impoundments and power line corridors. Most of these two latter areas may end up as single use areas in the west. Under full current 500 kilovolt and larger lines are serious hazards to animals and humans. Present steam generators employ about 1 person per million dollars of plant. Strip-mine technology employs few people for the amount of coal extracted and damage done. According to Arnold Miller between 25,000 and 40,000 eastern mining jobs will be lost in the event of a rapid large scale western coal development. Many of these will be underground mining jobs, further eroding an underground mining tradition. The more rapidly the west is strip-mined, however, the sooner underground mining will have to be restored to. Very large dependencies on steam power will be established, which may mean that underground mining will have to be rushed into, using poor, unsafe methods and without the training and manpower. If underground mining were emphasized now, these problems would be less acute. It is more compatible with agriculture, and does not have as much adverse effect on the surroundings. The Northern Great Plains, with a varied economy, could probably support a medium density population. More revenues would stay in the area with more local diverse industry, making living conditions more stable. However, its carrying capacity will be greatly reduced with present industrial plans meaning heavy damage to its land and water base. The country's population, even with its present low birthrate, will continue to grow long after surface coal reserves are lost or committed, and the region will not be able to absorb its part of probably 50 million, and possibly many more, people.

Industry and government projections of power needs are considerably out of proportion to population growth. Possibly they are based on a continued

accelerating turnover rate of goods and materials, including the dominance of throwaway and short-lived articles. Increasing number of people are employed in the manufacture of goods for which there is little necessity and of rock quality. They, of course, may suffer considerably without a rational energy policy. There is an increasing rate of diminishing return on our power consumption, due partly to increasing shortages of materials. In the power industry the exceptional expense, plant, and economic centralization required for resource extraction seems to give impetus to the promotion of artificial appetites and products having no real advantages, and increased consumption levels instead of living. Solar, wind, and geothermal resources do not need the comparable extractive effort, nor the transport and refining of resources. Yet, according to a NASA-NSF study a 1000 megawatt solar plant occupying 2 square miles could be built by 1980, and the sun could supply the same amount of power projected from nuclear plants by the turn of the century. Sufficient funding would probably be nowhere near the 100 billion sum recently being posed in government agencies as a subsidy for synthetic gas plants. Also according to the NSF, with a 100 million dollar research and development fund 135 thousand megawatts could be produced from geothermal sources by 1985, and 390 thousand megawatts by the turn of the century. Present plant installation costs for geothermal power are about two thirds those of steam, coal fired, generators. Geothermal sources are spread throughout the west and would require less long distance transmission. Industrial systems should complement and ecosystem rather than supplanting it. Man has to ingest the air water and products from the soil. Pure air and water have many more uses than polluted air and water. Strip-mining is basically a one time only use of land. There is some evidence that pollution tends to beget pollution. Probably strip mine spoils will contribute to the spreading of intense air pollution by not being able to absorb an hold it. Large amounts of plant required for pollution abatement exemplify the diminishing return cycle. It represents a net loss in costs and materials unless it is used for resource recovery.

The resource itself is an argument against mass strip-mining. Nationwide the proportion of surface to deep mineable coal is about 1:30. In Montana the ration for sub-bituminous is 1:40; for lignite 1:27. There is virtually no surface bituminous. To begin by taking the surface reserves may deprive countless future Americans of worthwhile work in a relatively hospitable, wholesome, and beautiful environment. Lignite contains slightly more than $\frac{1}{2}$ the heat value of bituminous coal, sub-bituminous about three fourths. For a given amount of power more coal is used with greater extraction and transportation costs. In actual use western low sulphur coal is not really low sulphur, is high in sodium and water and high in cadmium and fluorides. West Virginia alone has low sulphur deep mineable reserves with a BTU content greater than that of the surface coals of the west, excluding Colorado; about 46 billion tons, according to the Environmental Policy Center. It is folly to begin mass development based on stripping coal in the west.

There is no reason why western coal development should not have the best possible environmental and social planning. Urban and industrial problems will not be alleviated by reproducing them here in the west. They may, however, be intensified. It may result in greater net demands in both regions, caused by a lessening in primary food sources, an increasingly unhealthy environment requiring additional plant, very large drains on materials, and possibly unemployment.

There are other serious considerations. With our relatively low population density Americans use very large amounts of land and water per capita, in comparison to other parts of the world. Ground water tables in California are already showing serious signs of overuse and depletion. With accelerating world and domestic food needs, the value of dryland farmland, grazing land, and irrigable land with low to moderate amounts of surface water is very great indeed. Construction of the largest air cooled, instead of water cooled, steam plant is scheduled to begin this year. It is a 330 megawatt plant. Water cooled plants using 10 times that amount per kilowatt, and gasification and liquification plants using up to 4 or more times those, still seem to be regarded as the mainstays. Air cooled magnet-hydrodynamics using about 1 twentieth the water of steam plants is hardly discussed. Industry applications for water from the Yellowstone basin already exceed those projected by the Northwest

Power Study. 3.3 million acre feet to 2.6 million. Meeting those needs would require single use impoundments, taking more land out of potential or actual production, community use, or wildlife use.

It has been said that coal development is only an interrim resource for power to be soon superceded by nuclear power. It is risky, however, to push for full development of coal on the single supposition that nuclear power can be developed. At present it is rated at about 4-5% of our capacity, but performs at 1-2%. This has been largely due to various kinds of malfunctions and accidents, including a few close calls. The AEC receives several hundred reports of safety related aberrations each year. Only a small amount of stoppages has been caused by environmental litigation. Breakdowns result in stoppages lasting for months, a fact which may make necessary the construction of double facilities. Actual operating experience with nuclear reactors is small, and, for plants over 800 megawatts amounts to a very short time. The risks of achieving a large nuclear capacity may be greater than those attendant on not doing so. In addition to being a considerable source of thermal pollution (having a thermal efficiency of about one third), several radioactive products are produced. A large number of breeder and fission reactors will involve the production, transport, and storage of many tons yearly of Plutonium-239, perhaps the most potent carcinogen known. A large number of these plants spread around the world will pose formidable security problems, including transport accidents, sabotage, plant maintenance and inspection, and the disposal of wastes. With a half life of 24,400 years, plutonium-239 will be a thorn in the planet's side. It is possible that a massive commitment to coal development, without reductions in the waste of power, metals and other materials, and resources, reductions made more difficult by various aspects of that development, could result in severe shortages when the more easily extracted surface coals are taken. Our very large coal reserves may be deceptive. Their presence does not require their being used.

It is also being said that we must turn to coal for national self sufficiency in power production. However, we continue to waste metals that we cannot be self sufficient in and at a great cost in power. Metals in particular have highly specific physical characteristics. We tend to foreclose on our future when we waste them. It is likely that dependence on a single domestic commodity may be as disruptive as dependence on a single foreign commodity. A diverse power technology based on diverse relatively non-polluting techniques, possibly including fusion power, and especially solar, geothermal, wind and recycling of human and animal solid wastes, which are, of course, not pollutants essentially, would have many advantages. It would promote cross-pollination in research, utilize diverse materials to their best advantage, make shortages less disruptive, require less power, forestall the increasing occurrence of environmental cancers, leave our descendents more options, and be a very apparent, intelligible, contribution to peace. Persisting in an inferior coal and nuclear technology will have repercussions all over the world. Because it involves only a small portion of the public and business community it diminishes research and the application of new knowledge. Areas of the world with large crowded rural areas will be deprived of knowledge and technology with requisite ecological finesse. Conflicting needs for the same or similar materials will develop, with fewer ways of meeting them. The versatility requisite for beneficial development will be more difficult for other countries to achieve. Their dependency may increasingly become thrall dom.

Thank you for your attention,

WILLIAM BRUCE.