

STATE OF MONTANA

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# DEPARTMENT OF STATE LANDS

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December 9, 1974

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DEC 11 1974  
ENVIRONMENTAL QUALITY  
SECTION

TED SCHWINDEN  
COMMISSIONER

Submitted herewith is a detailed statement on the environmental effects of an easement request submitted by the National Park Service to the Department of State Lands for the construction of a portion of the proposed Big Horn Canyon National Recreation Area Transpark Road. This statement is required by Section 69-6504(b)(3) of the Montana Environmental Policy Act.

The National Park Service has issued a Final Environmental Impact Statement - "Proposed Transpark Road, Big Horn Canyon National Recreation Area" (FES74-17) on the total road project. The Park Service statement should be considered as an appendix to the attached Department of State Lands statement. A limited number of copies of the Park Service statement are available from the Department of State Lands.

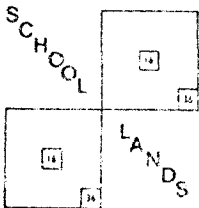
The easement request of the National Park Service will be on the agenda of the meeting of the Board of Land Commissioners scheduled for December 16, 1974.

Sincerely,

Ted Schwinden, Commissioner

Enc.

RSD:TS/aj



A  
RESOURCE  
FOR THE  
PRESENT

AN  
OPPORTUNITY  
FOR THE  
FUTURE

DETAILED STATEMENT  
of  
ENVIRONMENTAL IMPACT

ADMINISTRATIVE ACTION - Proposed Easement to the  
National Park Service for Construction of a Segment  
of the Transpark Road of the Big Horn Canyon National  
Recreation Area across  
Section 36, T8S, R28E, Carbon County, Montana

Submitted Pursuant to the Montana Environmental Policy Act  
Section 69-6504 (b) (3), R.C.M. 1947

Prepared by  
MONTANA DEPARTMENT OF  
STATE LANDS

HELENA, MONTANA  
December, 1974

## DESCRIPTION OF ACTION

On October 15, 1974, the National Park Service applied for a right-of-way easement across the NW $\frac{1}{4}$  and N $\frac{1}{2}$ SW $\frac{1}{4}$ , Section 36, T8S, R28E, a section of state land in Carbon County, Montana. The Park Service proposes to reconstruct and pave an existing dirt road as part of the Transpark Road Project for the Big Horn Canyon National Recreation Area. The Department of State Lands must make a recommendation to the Board of Land Commissioners to grant or deny the easement application. The Land Board must then approve or disapprove the easement.

The National Park Service prepared a draft environmental impact statement on the proposed road which was made public on March 29, 1973. In accordance with the provisions of the National Environmental Policy Act, comments on the draft environmental impact statement were formally requested from numerous public agencies and private organizations. After consideration of the comments received, the Park Service issued a final environmental impact statement on April 24, 1974 (Document Number FES 74-17, Department of Interior, National Park Service).

### Road and right-of-way

The easement application is for a 200 ft. wide right-of-way covering a total of 19.91 acres on the state land. (See Road Alignment Map.) The dirt road is to be replaced with a two-lane bituminous highway with two eleven (11) foot travel lanes and four foot stabilized shoulders. A sloped shoulder of six feet on both sides of the road will make the total road 42 feet wide. Design speed of the road is 45 miles per hour.

The total length of the proposed Transpark Road is 42 miles including spurs to recreational facilities. The road is to be constructed in three phases. The first 9.2 mile segment from the Devils Canyon turnoff to Barrys Landing is designed to cross the state land parcel.

#### DESCRIPTION OF STATE LAND

The land is characterized by broken and rough toe slopes, sloping terraces, and benches. Two drainages intersect the proposed road, both of which carry intermittent streams. (See road alignment map.) The south fork of Trail Creek drains approximately 1014 acres; the other drains about 60 acres.

#### Vegetation

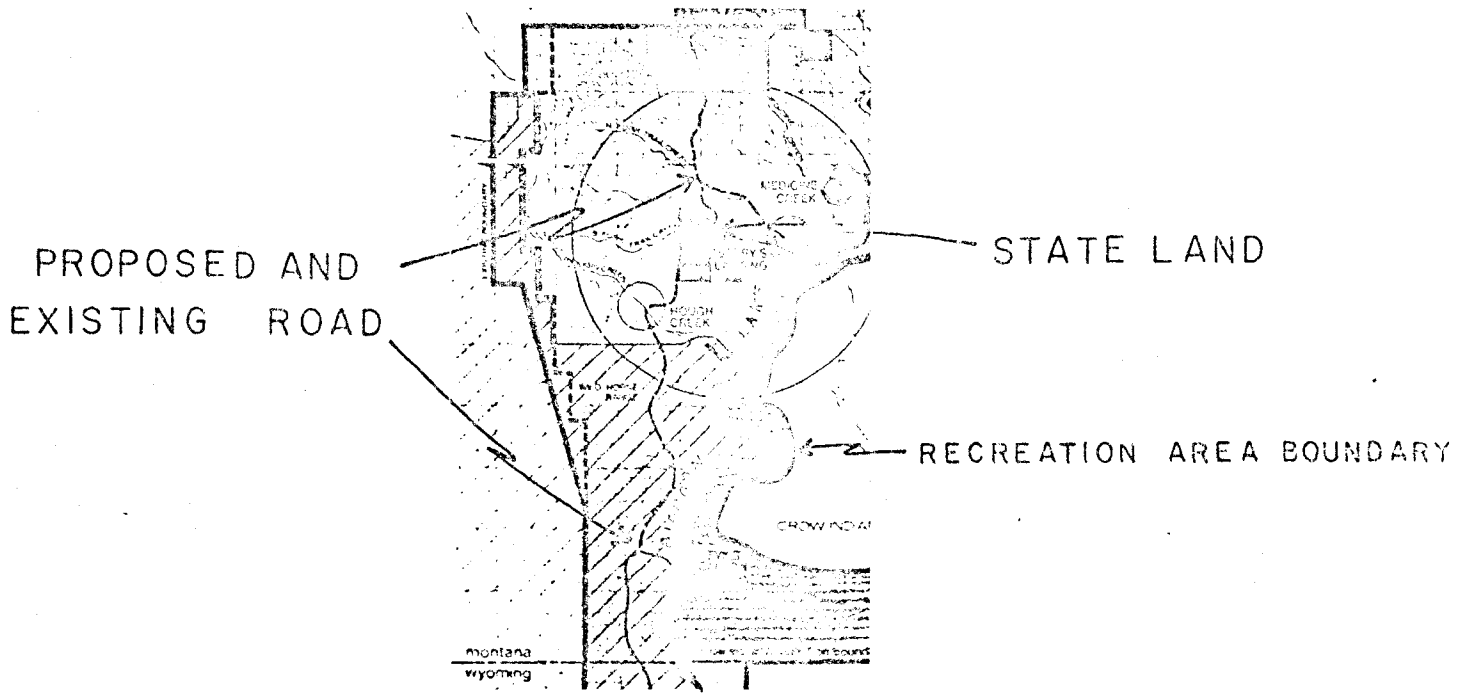
The predominant vegetation community on the tract is a juniper-grassland community, with the principal plants including juniper (*Juniperus osteosperma*) and Bluebunch wheatgrass (*Agropyron spicatum*). Juniper is the dominant species, showing solid to light crown densities. The herbaceous vegetation occupies the open areas near the juniper trees.

The community on this tract, based on the dominance of old growth juniper trees, indicates an edaphic climax type. The low incidence of fires and heavy grazing on the perennial grasses have contributed to the dominance of the juniper especially on the bench areas and drier sites.

#### Wildlife

Wildlife is found in moderate numbers on the state tract. Mule deer are present, particularly in the spring and fall. Small

# STATE LAND LOCATION MAP





mammals are relatively abundant on this land, especially cottontails and other rodent species. These populations attract both coyotes and bobcats as predators.

#### Soils

Extensive shale outcroppings composed of soft shales and sandstones on convex ridges characterize this land. Loams, sandy loams above bedrock limestone, clay loams above hard shale, and silty clay loams above shale bedrock are also present.

Permeability of the soil ranges from moderately slow to moderately rapid. Organic content and fertility is low.

#### Recreational and aesthetic value

Because of the proximity of the state land to the Yellowtail Reservoir, it has recreational value. There are, however, no recreational facilities on or proposed for the state land. During the summer of 1974, the Department, utilizing a standardized evaluation system, evaluated the parcel for its recreational development potential and its aesthetic value. A copy of the evaluation record is attached. The tract scored low on the scale for recreation potential because of the lack of variety and water resources. The scenic evaluation score was lowered by the intrusion of the existing dirt road on the parcel and a powerline right of way. Although the parcel is within the Big Horn Canyon Recreation Area and, therefore, has recreational and aesthetic value, the parcel, by itself, does not appear to be of significant value for those purposes.

#### Historic Values

The state land in Section 36 is in a region with historic and cultural values, both Indian and non-Indian. The right-of-way





alignment on the state land and the state land parcel have been evaluated for archaeological and historic sites by the National Park Service in cooperation with Dr. Lawrence Loendorf and Western Interpretation Services (Sheridan, Wyoming). There is no known surface evidence of archaeological or historic sites on the state land or the right-of-way.

#### Land Use

The state land is presently leased for grazing. The land has been evaluated as land which requires 8.9 acres per animal unit month (AUM). In other words 44.4 acres would be required to support one cow and calf for a 5 month grazing season. The 360 acres of state land in Section 36 would support 8 cows with calves for a 5 month grazing season. The 19.91 acre right-of-way would produce approximately 2 months of grazing for a cow and calf.

#### ENVIRONMENTAL IMPACT OF THE PROPOSED ACTION

##### State Land

Construction of a new road over this parcel of land, superimposed over the existing dirt road, would have some impact. Trees and vegetation would be removed in widening the existing road especially where cut and fill slopes are created. Expected heavy increased visitation due to improved access to Barrys Landing would increase impacts of noise, sight and smell, while littering and human impact due to sheer numbers would increase.

##### Big Horn Canyon Recreation Area

The Park Service statement discusses in detail the impact of the road project on the Recreation Area.

Of some concern to the Department of State Lands is the effect of increased visitor activities on two parcels of state land near the northern end of the transpark road. These parcels (Sec. 1 & 2, T6S, R30E) are located within ¼ mile of the proposed road near the northern end. Although the parcels are outside the Recreation Area boundary, they contain the well known Grapevine Buffalo Jumps which are eligible for nomination to the National Historic Site Register. Even with the present limited access provided by the dirt road the sites are being vandalized since no agreements or arrangements have been made to protect these sites. Increased vandalism due to increased visitor rates is a probable major impact of the proposed road.

ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

State Land

Topographic disturbance, vegetation removal and loss of grazing land would be unavoidable effects.

Big Horn Canyon Recreation Area

The Park Service Impact Statement discusses in detail unavoidable impacts.

ALTERNATIVES TO PROPOSED ACTION

Alternative Routes

The Alternative Route Map shows the two most likely route alignments to the east (route "C") and west (route "B") of the state land. Alternative route "A" is the proposed alignment across the state land. The following table compares the impacts of these routes.

	ROUTES		
	<u>A</u>	<u>B</u>	<u>C</u>
<u>Length</u>	2.03 miles	1.81 miles	3.84 miles
<u>Ratio of new land disturbance</u>	1	1.38	1.42
<u>Ratio of 20 ft. topographic contour lines per mile</u>	1	1.86	1.50
<u>Ratio of relative costs</u>	1	1.84	5.27

Engineering difficulties for the 3 routes are summarized below:

Route "A" (Proposed): The maximum grade is 5.9%, the largest cut is 40 ft. and the largest fill is 24 ft. The sharpest curve for the alignment is 10°30'. Both grade and curvature limit the design speed for this alignment to 40 m.p.h.

Route "B", to the west: Fills that would be encountered on this route, to the south of the ridge, would have a maximum height of 30 feet. In crossing over the ridge there would be cuts and fills of 50 feet, and to the north on a downgrade of 8 percent, there would be a major cut of 50 feet with several small drainages to cross with average fills of 20 feet. Grade and alignment on this route would limit the design speed to 30 m.p.h.

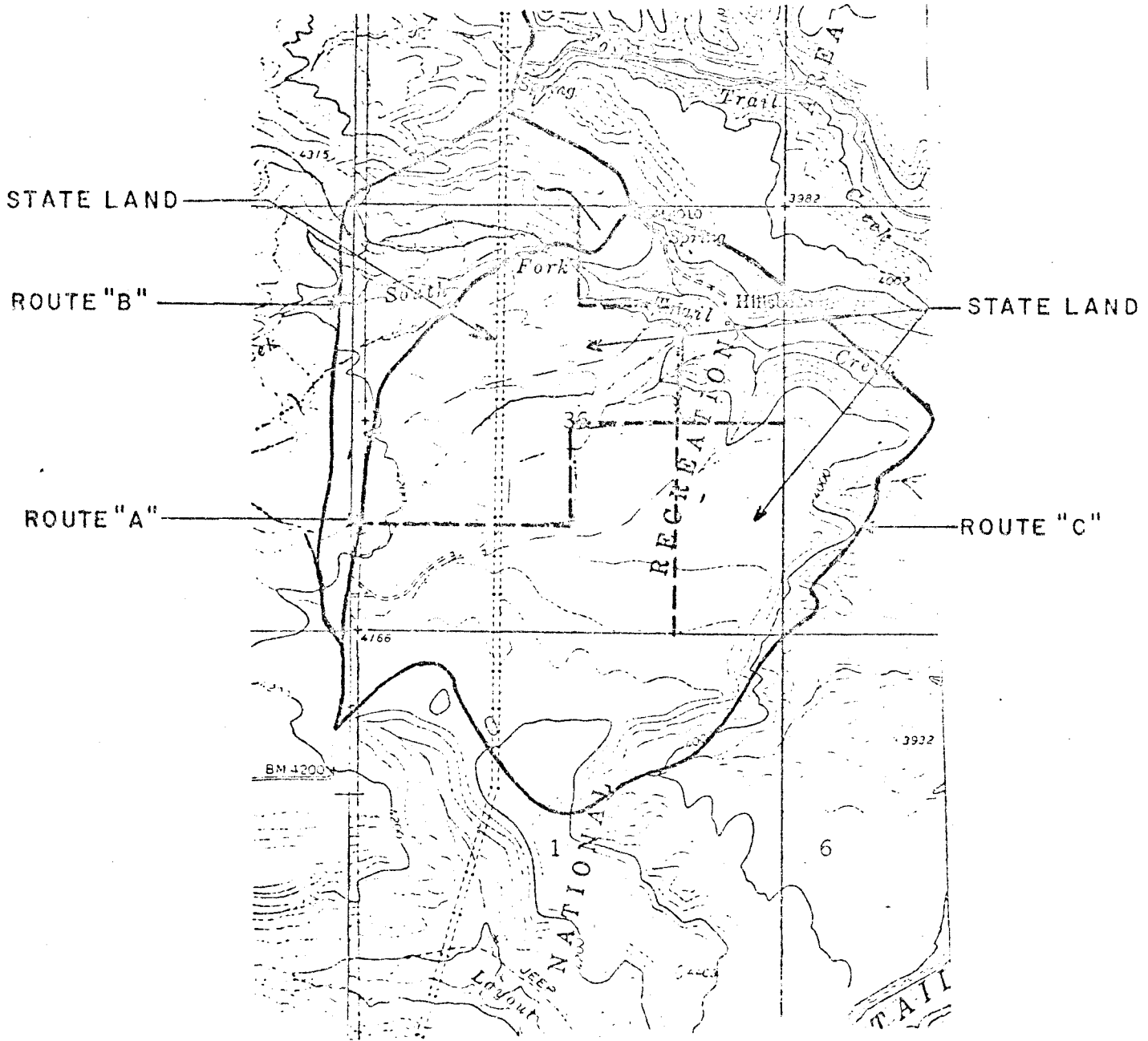
Route "C", east: While this alignment starts from the south on fairly flat terrain for some distance, it would break over the crest of a hill with 30-35-foot cuts and follow the side of the hill down a draw at a grade of 8 percent for 4,000 feet. It then would wind along the toe of the slope cutting across small ridges and drainage areas. In several areas the cuts would exceed 45 feet and fills would be 35 feet. A 200-foot-long, 40 foot high bridge would be required near the Hillsboro Ranch to cross Trail Creek. From there the route would climb at a grade of 8 percent for 2,400 feet to return to the preferred alternate "A" staked line. Both grade and curvature on this alignment would limit the design speed to 30 m.p.h.

Archaeologic and historic resources would be affected as follows:

Route "A": No known archaeologic or historic resources affected.

Route "B" (west): This route would bisect the Bad Pass Trail in Section 35, T8S, R28E and would thus diminish the integrity of the trail at this one crossing. The Bad Pass Trail has been nominated to the National Register of Historic Sites.

# ALTERNATIVE ROUTES



Route "C" (east): This route would visually impact the historic Hillsboro site thus reducing the historical integrity of the site. The Hillsboro site has been nominated to the National Register of Historic Sites.

RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

State Land

Larger numbers of people will visit the recreation facilities; for some, the aesthetic and wilderness quality of the experience will be diminished.

Big Horn Canyon Recreation Area - Transpark Road

The U.S. Congress has decided to designate the Big Horn Canyon area for recreational use. This decision means a commitment of land resources to a particular use. The decision of the Park Service to develop this recreational use by construction of the transpark road will mean irreversible commitment of resources including:

- destruction of 155 acres of vegetative cover
- damage to landscape
- destruction of archaeological resources
- deterioration of visual resources
- utilization of mineral aggregates and other construction materials and fuels.

Energy consumption promises to be one of the most critical resource allocation problems facing the state, the nation, and the world in the years ahead. The irreversible decision to allocate a portion of our energy resources to the construction and use of a recreational highway is a decision of considerable interest. For this reason a discussion of the magnitude of this commitment is of particular interest to the public and the decision makers who must weigh the relative merits of any segment of the Transpark Road. The energy allocation for the road can be divided into three basic

components: (1) energy required for road construction materials; (2) energy required for road construction; (3) energy required for road use.

#### Energy for Construction Materials

The primary energy usage in this component involves the asphalt for the road surface. The 3" deep 22 ft. wide road will require an estimated 726 barrels or 22,869 gallons of asphalt per mile for the bituminous road surface.<sup>1</sup> For the 42 mile road this would mean the irretrievable commitment of 30,492 barrels or 960,498 gallons of petroleum resources for the road surface.<sup>2</sup> Energy needed to produce culverts, bridges, fences, guardrails and signs is unknown.

#### Energy for Road Construction

The contractor has estimated a fuel requirement of 211,000 gallons of diesel fuel for the construction of the first 9.2 mile road segment or an average of 22,935 gallons per mile. If this average is the same for the entire road project 963,270 gallons of fuel would be required.

#### Energy for Road Use

The proposed transpark road will be used primarily for recreational travel. Commercial vehicles, except for farm and ranch trucks, will be prohibited from using the road. The road therefore will increase fuel consumption for pleasure driving. The following table details an estimate of this increase after complete development of the recreation area.

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<sup>1</sup>Based upon 94% aggregate - 6% asphalt mix.

<sup>2</sup>Asphalt can be refined to produce 85% petroleum resources and 15% coke.

ESTIMATE OF RECREATIONAL FUEL CONSUMPTION - 1980

	<u>Case I(10%)</u>	<u>Case II(25%)</u>	<u>Case III(40%)</u>
No. of visits <sup>1</sup>	242,503	606,260	970,017
No. of vehicles <sup>2</sup>	67,362	168,406	269,449
No. of miles <sup>3</sup>	6,736,200	16,840,600	26,944,900
No. of gals. of fuel consumption <sup>4</sup>	561,350	1,403,383	2,245,408
Equivalent Grain Production <sup>5</sup>	2,120,656 bu.	5,301,669 bu.	8,482,652 bu.

<sup>1</sup>The Park Service has estimated the number of annual visits by 1980 based upon percentages of present visits to Yellowstone Park. Cases I, II and III are at 10%, 25% and 40% of Yellowstone Park visits.

<sup>2</sup>The Park Service has determined that there is an average of 3.6 persons per vehicle visiting National Parks.

<sup>3</sup>Based on estimate of 100 miles travel per vehicle.

<sup>4</sup>Based on national average of 12 miles per gallon.

<sup>5</sup>The estimate of Equivalent Grain Production is an estimate of the number of bushels of winter wheat which could be planted and harvested in Montana using the gasoline consumed by recreational driving on the proposed road. The estimate is based on a use of 9 gallons of fuel per acre for summer fallow, seeding, applying herbicides and fertilizers and harvesting. The production estimate is 34 bushels per acre.

Energy Consumption Summary

Estimates for increased energy consumption for facilities construction and operation are not available. Additional fuel will be consumed by motor boats and other small recreational vehicles as well as by park administration operations. The total estimate using the three major components can be summarized as follows:

Road Construction

Road Surface:	960,498 gallons
Road Construction:	963,270 gallons

Other Construction Materials	<u>Unknown</u>
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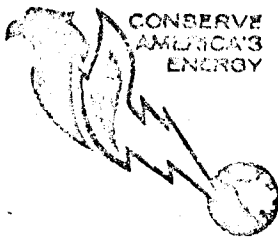
TOTAL	1,923,768
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Road Operation

20 yrs. road use (Case II):	28,067,660 gallons
Facilities Operation:	Unknown
Administration:	Unknown
Recreation Vehicles:	<u>Unknown</u>

TOTAL	28,067,660 gallons
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National Park Service stationery carries the commendable imprint reproduced below...



*Save Energy and You Serve America!*

the Transpark Road should be evaluated in that context.



SUMMARY OF COMMENTS

The Department of State Lands issued on November 18, 1974, a "Notice of Pending Decision" which requested comments from citizens and public agencies on the action of granting the easement. Following is a summary of the comments received. Copies of letters can be obtained from the Department of State Lands.

<u>NAME</u>	<u>COMMENT SUMMARY</u>
Big Horn County Rod and Gun Club, Wyoming	In favor of building road
Homer Keller, Lovell, Wyoming	Road is needed
Vernon Sundberg, Bridger, Montana	Road is wasteful
Vicki Podness, Billings, Montana	No action should be taken
Sheridian County Chamber of Commerce, Wyoming	Need recreation road
Richard Trembath, Big Fork, Montana	Decision should be delayed
E.M. Barthelson, Conrad, Montana	Oppose road
Thomas E. Horobik	Road would damage resources
Mr. & Mrs. Roland Renne, Bozeman, Montana	Road is not needed
Phyllis Hill, Lovell, Wyoming	Easement should be granted
Miles City Chamber of Commerce, Montana	Easement should be granted
Kiwanis Club of Lovell, Wyoming (2 letters)	Urge construction
Town of Lovell, Wyoming (2 letters)	Development of area is needed
Herman Fink, Lovell, Wyoming (2 letters)	Easement should be granted
Dean Pond, Lovell, Wyoming	Road would have little affect on environment
Tony Walsh, Lovell, Wyoming	Urge granting of easement
Glenna Myers, Lovell, Wyoming	No alternate routes, no impact
Michael Radke, Billings, Montana	Opposed to easement
Billings Chamber of Commerce, Montana	Support road
U.S. Senator Galc McGee, Wyoming	Road would benefit citizens
Cal S. Taggart, Lovell, Wyoming	Expedite road
Rep. Ward Myers, Lovell, Wyoming	Easement is needed
Jerry Hayes, Lovell, Wyoming	Easement should be speeded

NAMECOMMENT SUMMARY

Rocky Mountain Center on Environ- ment, Denver, Colorado	Road would destroy area
Mr. & Mrs. Randall Gloege, Billings, Montana	Road would cause irreversible damage
Frank J. Tholt, Billings, Montana	Opposed to road
Ray Nitz, Havre, Montana	All impact laws should be followed
Ms. Charley McCaulay, Great Falls, Montana	Opposed to road
Montana Wildlife Federation, Montana	Action should be delayed
Lovell Chamber of Commerce, Wyoming	Route through state land would have least impact
Department of Natural Resources, Montana	No urgency in road
Elizabeth Smith, Bozeman, Montana	Oppose easement
John McKethen, Lovell, Wyoming	Expedite decision
Grant Taggart, Cowley, Wyoming	Easement should be granted
John T. Nickle, Lovell, Wyoming	State land is best route
Al Kongable, Lovell, Wyoming	Road is necessary
Phylliss Hill, Lovell, Wyoming	In favor of road
Rick Applegate, Bozeman, Montana	Opposed to road
Big Horn Canyon Highway Association Hardin	Favor road
Carl Wambolt, Bozeman	Action should be delayed
Urban Roth, Butte, Montana	Easement should be granted
Donald R. Marble, Chester, Mt.	Action should be delayed

*Big Horn Canyon Highway Association*

RECEIVED

74 DEC -9 AM 11:22

*Wyoming*

*Montana*

Hardin December 4, 1974

Environmental Coordinator  
Department of State Lands  
Capitol Building  
Helena, Montana  
59601

STATE OF MONTANA  
DEPT. OF STATE LANDS  
MONTANA

Gentlemen:

In response to your notice of Pending Decision on granting a Right of Way to the National Park Service for construction of a segment of the Transpark Road in the Big Horn Canyon National Recreation Area.

I am certain that the Board of Land Commissioners and Mr. Ted Schweinden, State Land Commissioner, are aware of the following facts but feel they should be brought out in this letter of response.

1. Some question has arisen relative to the possibility of an alternate route and a study including another Environmental Impact Statement on this option. It would be very inconvenient and extremely costly to alter the routing around the State of Montana section. This would also create another road where none exist. The alignment called for in the application for the right of way follows an existing roadway nearly in its entirety.

2. The National Park Service has expended over \$260,000.00 doing a Master Plan, Environmental Impact Statements and Archeological surveys. We feel it would not accomplish anything further for the State of Montana to duplicate this work. The Final Environmental Impact Statement has been accepted by the Department of Interior, filed with the Council on Historic Preservation and the Office of Environmental Quality all according to law. The contracts that the National Park Service are calling for in the Big Horn Canyon Recreation Area with respect to roads call for qualified personnel to proceed construction to guard against destruction of any Historical, Archeological or Cultural finds that may be discovered by construction.

3. Hearings have been held, comments requested and action taken on the Final Environmental Impact Statement as required by law.

4. The Right of Way asked for by the National Park Service is through State of Montana owned land that is being considered as a trade with the Federal Government at this time and in all likelihood will be exchanged to the benefit of all parties concerned.

5. We feel that the Environmental, Archeological and Historical questions have all been adequately answered in the Final Environmental Impact Statement and by the Court.

6. To the Big Horn Canyon Highway Association it seems that there is no longer any opposition from any of the Montana State Agencies.

Environmental Coordinator

7. Construction of a modern, limited access road will offer immediate and positive security to an area being plundered at the present time by hundreds of people yearly. Using all terrain vehicles, over dozens of trails and roads that now exist in the area many items are being removed that could and should be protected by the National Park Service.

8. Limited or no harm can occur to the Flora and Fauna in the area covered by the right of way request. Experience has proven that exactly the opposite is the rule. Proper management exercised by the Montana Fish and Game Department will determine the extent of Game increase or decrease in any area. Forage being a prime factor in this management. As noted in the Notice of Impending Decision under Land Use the area is semi-arid and sparsely covered with vegetation. The 19.91 acres required for the right of way if granted would not adversely effect the grazing of either game or domestic animals as the right of way is now being used as a road.

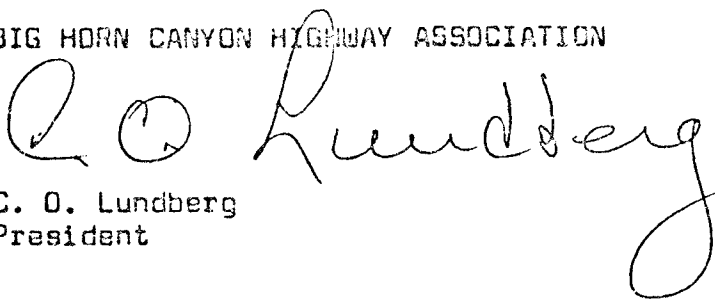
9. The Big Horn Canyon Highway Association request that the State of Montana grant the National Park Service the right of way permit as requested. Construction of the Transpark Road will enhance rather than damage the Archeological, Historical and Cultural aspects of the entire routing.

10. The National Park Service has agreed to have qualified personnel interpret the history, cultural and other aspects of the area to users when the road is completed. The segment now ready for construction will provide access to one of the Areas prime spots, Barry's Landing. This area already offers an improved boat landing ramp, picnic tables, rest rooms and camping area.

Very truly yours,

BIG HORN CANYON HIGHWAY ASSOCIATION

C. O. Lundberg  
President

A handwritten signature in cursive script, reading "C. O. Lundberg". The signature is written in dark ink and is positioned to the right of the typed name and title.



that would be inappropriate.

Third, the notice of pending decision does not give any indication of the current relationship between the National Park Service and the Department of State Lands. In fairness to reviewers, I think it is important that the sudden change in Park Service plans be called to everyone's attention. The Park Service was all set to attempt land exchanges on the state tracts involved, but was apparently unwilling to pay the fair market price for those lands. When push finally came to shove, and the Judge signed the injunction, the Park Service changed its stance and is now trying to get an easement across the lands. This situation should be made clear, so that the current Park Service effort can be understood in its proper perspective.

Fourth, the evaluation mentioned in the notice of pending decision was primarily a recreational/aesthetic evaluation. The tract of state land in question calls for a more thorough going inventory, including the archeological resources of the tract of state land and their relationship to the archeology of the surrounding area.

Fifth, I understand that the Department of State Lands is considering eventually incorporating the National Park Service environmental impact statement. I would proceed with some caution on this, since the Department's efforts to do this in the case of the Westmoreland coal mine could have been the subject of lengthy litigation. Additionally, in issuing the preliminary injunction, the Judge did not point out all the deficiencies alleged in the Montana Wilderness Association and Montana Wildlife Federation complaint. As I understand it, he merely indicated those arguments that were sufficient for the issuance of a preliminary injunction. The other claims made in the litigation still stand for later judicial scrutiny. Accordingly, incorporating the National Park Service impact statement would be dubious.

Sixth, since the Bighorn Canyon road has been the subject of Court action, I don't see how the Department of State Lands can proceed without having copies of the pleadings in the case and the transcript made of the hearing on the motion for preliminary injunction. Some very important testimony on the adequacy of the National Park Service environmental and economic studies in the Bighorn Canyon Recreation Area was offered at that hearing. Proceeding without having that information available would mean that the Department does not have some of the most important documents bearing on the pending decision.

Seventh, since the entire road proposal should be considered, I think it is premature for the Department of State Lands to make decisions on rights of way until the position of the Crow tribe has become clear. Crow tribal decisions have an important bearing on the overall impact of the road and other development proposals. Should the tribe refuse to grant rights of way for the road, Park

Ms. Sharon Solomon  
December 3, 1974  
Page Three

Service plans are likely to change quite drastically.

Finally, I think it would be wise to circulate a list of the recipients of the notice of the pending decision. Without that, we cannot be sure that all those who are interested in the proposed right of way have been contacted. I would appreciate receiving a copy of this list at your earliest convenience.

Sincerely,

*Rick Applegate*

Rick Applegate

RA:gb