environmental impact statement

FINAL FES 74 - 24

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MESA VERDE

NATIONAL PARK/COLORADO

UNITED STATES DEPARTMENT OF THE
INTERIOR

NATIONAL PARK SERVICE

FINAL

ENVIRONMENTAL IMPACT STATEMENT

FES 74-24

PROPOSED

MESA VERDE NATIONAL PARK WILDERNESS
COLORADO

Prepared By
MESA VERDE NATIONAL PARK
NATIONAL PARK SERVICE
DEPARTMENT OF THE INTERIOR

Date:

Raymond L. Freeman
Director, National Park Service

SUMMARY

( ) Draft (X) Final Environmental Statement

Department of the Interior, National Park Service, Midwest Region
Mesa Verde National Park, Colorado

1. Type of Action: ( ) Administrative (X) Legislative

2. Brief Description of Action: The National Park Service, U. S. Department of the Interior, proposes that three units of wilderness totaling 8,100 acres be established in Mesa Verde National Park and be added to the National Wilderness Preservation System.

3. Summary of Environmental Impact and Adverse Environmental Effects: The designation of wilderness is intended to assure permanent protection and minimization of impact attributable to development and use of some of the nation's largest and most unique archeological resources. Environmental impacts discussed include ecological, social and economic considerations. Some of the adverse effects are: restrictions on backcountry facility development; increased costs of backcountry maintenance; curtailment of certain research projects; preclusion of some motorized equipment for archeological excavation and stabilization.

4. Alternatives Considered:
   a. No wilderness classification
   b. Designate Units A, B and C as wilderness as proposed, but delete from wilderness an 1/8 mile management zone along the park perimeter.
   c. Designate roadless area one as wilderness.
   d. Designate roadless area two as wilderness.
   e. Designate roadless area three as wilderness.
   f. Designate roadless area five as wilderness.
   g. Designate all roadless areas as potential wilderness addition.

5. Comments have been Requested and *Received from the Agencies shown on the attached sheet.

6. Date Statement made Available to CEQ and the Public:

   Draft Statement: February 12, 1973
   Final Statement: MAY 2 1 1974

Department of Agriculture
*Soil Conservation Service
*U. S. Forest Service
Department of the Interior
*Bureau of Indian Affairs
*Bureau of Land Management
*Bureau of Mines
*Bureau of Outdoor Recreation
*Bureau of Reclamation
*Bureau of Sport Fisheries and Wildlife
*Geological Survey
*Department of Commerce
*Environmental Protection Agency
*Department of Transportation, Federal Highway Administration
State Clearinghouse, Colorado
*Colorado Division of Wildlife
*Colorado Division of Parks and Outdoor Recreation
*State Liaison Officer for Historic Preservation, Colorado
*Advisory Council on Historic Preservation
Sierra Club
Wilderness Society
National Parks Association
Ute Mountain Ute Tribal Council
Southern Ute Tribal Council

I. DESCRIPTION OF THE PROPOSAL

A. Recommended Action

The National Park Service proposes that three units of roadless land within Mesa Verde National Park totaling 8,100 acres be designated as wilderness and added to the National Wilderness Preservation System in accordance with the Wilderness Act (p.l. 88-577) of 1964.

Of the 52,074 acres which comprise the park, 51,526 are federally owned; 42,900 acres are roadless. The three units proposed for wilderness represent 15.5 percent of the total park acreage or 19.0 percent of the roadless acres. Initial surveys of the areas recommended indicate that they contain lesser concentrations of archeological ruins, both in numbers and importance. Not recommended for wilderness is the balance of roadless area lands (34,000 acres) which contain a high density of archeological resources (up to 150 sites per square mile) which have not yet been fully surveyed.

Backcountry hiking and public use of the roadless areas have not been permitted since the park was established. This has reduced the danger of destruction to fragile and irreplaceable Indian ruins. Camping is restricted to the developed campground in Morfield Canyon. Public use of the proposed wilderness will not be permitted until all archeological resources have been surveyed and those which are deemed to have special significance have been thoroughly investigated or salvaged from destruction.

No public use of the proposed Mesa Verde wilderness areas will be permitted until human carrying capacity can be determined. Human use will be limited so that the area will provide a wilderness experience without destroying the conditions that originally made it desirable as wilderness. Once permitted, public use of wilderness will be restricted to visiting significant ruins on foot or on horseback, in the company of a uniformed ranger. Camping will not be permitted in the wilderness; only in the presently developed Morfield Campground.

Further archeological surveys will be conducted on foot or horseback, and only minimum tools will be used in excavating ruins. Use of motorized equipment will be limited within the wilderness. If significant ruins are found, "permanent structures" will be erected and used for research only if the justification for these structures represents a real management need.

Legislation (46 Stat. 1043) prohibits mining and National Park Service policy precludes grazing, logging or other consumptive uses of resources within the park. Wilderness designation will not alter present restrictions on consumptive use of resources.

B. Purpose of Action

Wilderness areas will be designated at Mesa Verde National Park to give greater security to the natural environment. The climax pinyon-juniper forests will be protected by statutory law from consumptive uses and new developments of man, such as roads, buildings, utility lines and use of motorized vehicles.

Wilderness areas will be preserved for primitive types of recreation. Solitude in virgin wilderness will permit modern Americans to sense the wild character of early America.

It should be recognized that opportunities for solitude and isolation from human activities in these small wilderness areas is somewhat limited.

Units A and B are of small size, and both are near public utility lines and paved park access roads which are used by visitors or for park management. At no time would visitors to these areas be more than one and one half miles from a road, utility lines or a wilderness or park boundary. From the crest of the north escarpment in both units the City of Cortez, U. S. Highway 160, as well as other developments can be seen, including the visually distasteful emissions from a large plywood manufacturing plant 35 miles north of the park near Dolores, Colorado and emissions from a coal burning power generating plant 60 miles to the southeast near Shiprock, New Mexico.

Public access to the roadless areas will continue to be restricted upon wilderness designation. Eventually, however, after archeological resources have been surveyed and protected, portions of the wilderness areas may be made accessible to the public.

C. Location and Dimensions

All three units of wilderness are entirely inside the boundaries of Mesa Verde National Park (Exhibit A).

Mesa Verde National Park is in Montezuma County in southwestern Colorado about 36 miles west of Durango, Colorado (Exhibit B). The three proposed units of wilderness are located along the northern and eastern boundaries of the park.

Wilderness Unit A which contains 1,800 acres is located in the northwest part of the park. It encompasses a portion of the spectacular escarpment along the northern border of the park. Elevation here ranges from 6,600 feet above sea level on the Dolores Plateau to 8,000 feet above sea level on the north rim of the Mesa Verde uplift. Unit A is bounded



EXHIBIT A

WILDERNESS PLAN

MESA VERDE NATIONAL PARK

COLORADO

LEGEND

PARK BOUNDARY	
ROADS, MANAGEMENT	
ROADS, PUBLIC	
HORSE TRAIL	—C—
POWER	— A3Ø —
WATER	— 6"W —
TELEPHONE	— MT —
PRIVATE LAND	P
WILDERNESS AREA LINE	

GROSS PARK ACREAGE	52,073.62
FEDERAL LANDS	51,525.39
PRIVATE LANDS	548.23
WILDERNESS UNIT A	1800
WILDERNESS UNIT B	1250
WILDERNESS UNIT C	5050
TOTAL ACRES	8100

0 1/2 1 2
SCALE IN MILES

307 | 20,007-A
SEPT. 72 | DSC

GNT MICROFILM

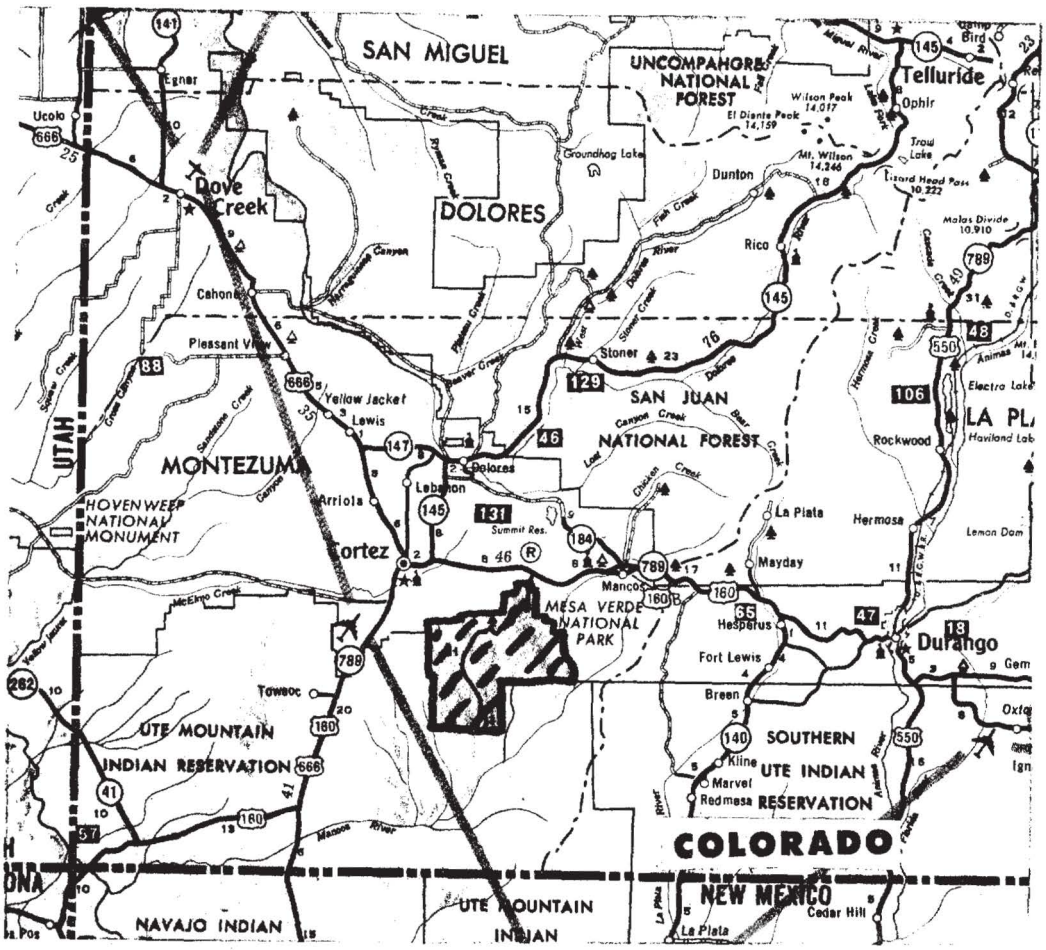


EXHIBIT B

MESA VERDE NATIONAL PARK
Southwest Colorado

on the south by the paved public access road to Chapin and Wetherill Mesas, on the west by the park boundary and on the east by a utilities corridor running up the north facing escarpment. A few Indian ruins have been found in this area, including one small cliff dwelling.

Wilderness Unit B contains 1,250 acres. It is located east of Unit A on the same northern slope of the Mesa Verde escarpment. Elevation in Unit B ranges from 6,800 feet to 8,200 feet above sea level. It is bounded on the west by a utilities corridor which separates it from Unit A, on the south and east by the public access road to Chapin and Wetherill Mesas, on the north by the park boundary.

Wilderness Unit C contains 5,050 acres. Unit C is bounded on the west by Morfield Canyon, on the south by management roads and the park boundary, and on the east by the park boundary, which runs nearly parallel to the Mancos River. Archeological surveys have not been made in this area, but site densities are believed to be very great (perhaps 100 or more per square mile). The potential for locating large and important archeological sites is significant.

D. Timing

Designation of wilderness areas was recommended to Congress on November 28 1973. If Congress adopts the proposal, wilderness areas will be administered in the future in accordance with Wilderness Act of 1964, unless the National Park Service is otherwise directed by the Congress.

E. Inter-relationships with Other Projects

Mesa Verde National Park is the nation's only archeological National Park. It was established by an act of Congress on June 29, 1906 to preserve from injury or spoliation the ruins and other relics of prehistoric or primitive man within the park.

Only about 40 percent of the park has been surveyed for archeological resources. Most of these surveyed areas are in the western portion of the park, and extend eastward to Chapin Mesa. In the future the remainder of the park will be surveyed.

During the surveys, all archeological resources are identified on maps, and some sites may be tested by trenching to determine their extent and the date of occupation. Occasionally specimens of special scientific value are discovered and taken to the laboratory for study or to the museum for exhibit. Some of the more important sites, those that portray unusually significant aspects of early Indian culture, are made available for public visits. The University of Colorado is under contract (NPS No. 4970B20105) until 1980 to survey the entire park.

When portions of the park are placed in the wilderness system, motorized equipment will be limited in archeological research, seismic studies, remote sensing and specific biological projects. Only the minimum tools necessary will be used.

Archeological ruins that are discovered may be made available for public viewing, provided the public travels by foot or on horseback. Public access by motorized vehicles will be prohibited.

II. DESCRIPTION OF THE ENVIRONMENT

General

Mesa Verde National Park is located in the Four Corners region of southwestern Colorado, 36 miles west of Durango in Montezuma County. Mesa Verde is bounded on the west and south by the Ute Mountain Ute Indian Reservation, on the east by the Mancos Valley, and on the west and north by the Montezuma Valley. The San Juan National Forest and the rugged canyon and mesa country forms an outstanding backdrop for the large concentration of prehistoric Pueblo Indian ruins.

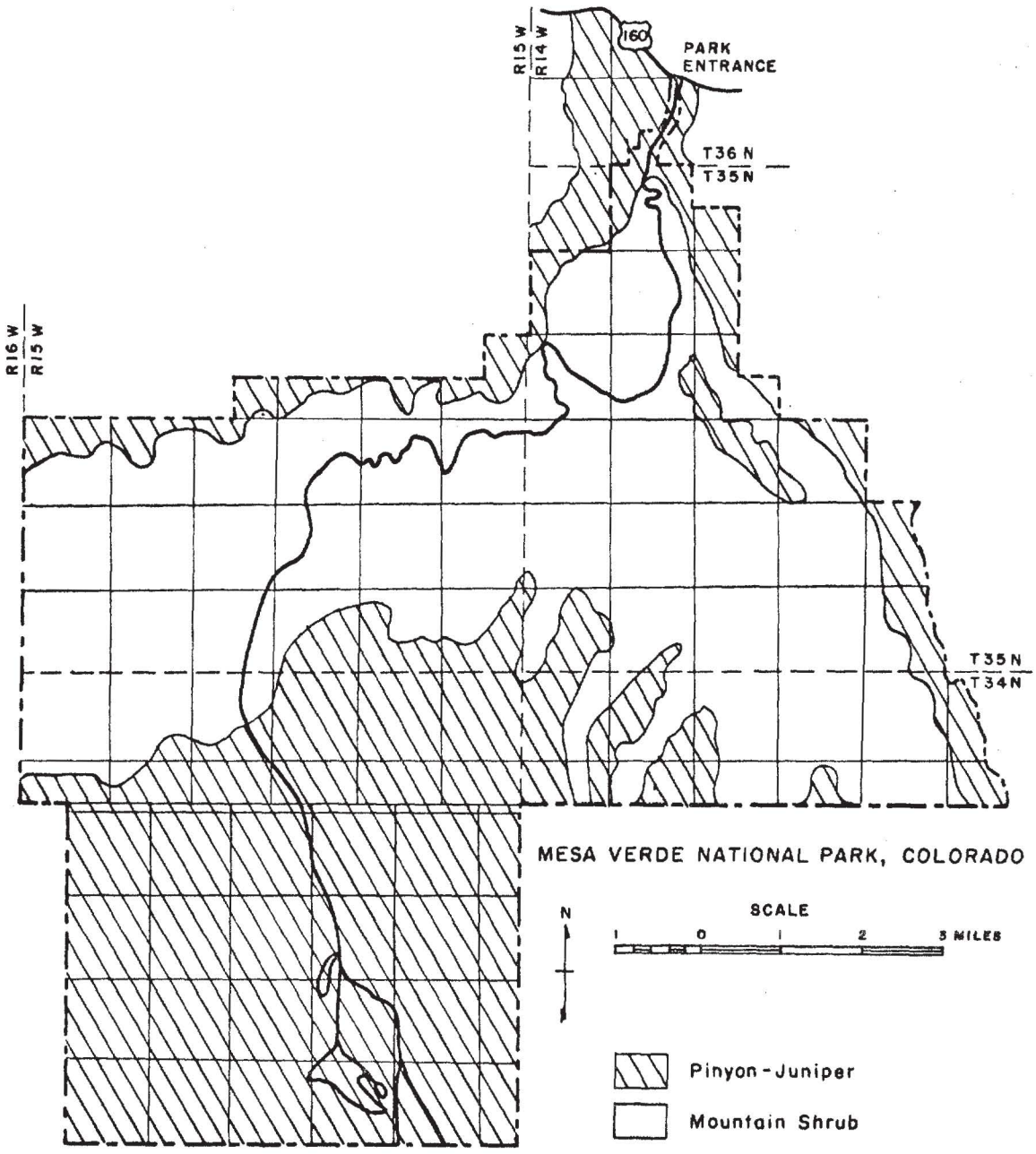
The park comprises 52,074 acres of the high, deeply dissected tableland known as the Mesa Verde uplift which rises nearly 2,000 feet above the plain of the Dolores Plateau. The mesa ranges in elevation from about 8,300 feet along the north escarpment to 6,000 feet near the State line on the south. Steep cliffs which descend into the narrow canyons, separating the finger-like projections of the mesa contain numerous rock shelters, active springs and seeps.

The Mesa Verde climate is semiarid and the average precipitation is about 18.73 inches with summer rains coming mostly in the form of thunderstorms. Average seasonal temperatures are moderate, ranging from 29.2°F in January to 72.4°F in July.

Flora and Fauna

Vegetation on the Mesa Verde is typical of the Transition life zone of the high arid plateau country of the Southwest and is unique for the general area because livestock grazing has been effectively prevented in most areas of the park for nearly 40 years. Climax vegetation in the high northern part of the park consists primarily of scrub oak (Quercus gambelii) and various grasses, interspersed with serviceberry (Amelanchier utahensis). This mountain shrub vegetation type covers about 48 percent of the park (Exhibit C). The southern and lower portion of the plateau supports a mature pinon pine (Pinus edulis) and pygmy Utah juniper (Juniperus osteosperma) forest which covers about 50 percent of park lands. More sheltered areas along the north rim of the park and in most of the canyons support scattered small stands of Douglas fir (Pseudotsuga menziesii), and an occasional aspen (Populus tremuloides). Ponderosa pine (Pinus ponderosa) occur on some northern and eastern slopes and canyon bottoms where sufficient moisture is present. These three species represent two percent or less of the vegetative cover. Dissecting canyon walls are generally covered with moderate amounts of scrub oak, pinon pine, juniper, some grasses, Oregon grape (Berberis repens) and gooseberry (Ribes leptanthum).

EXHIBIT C



Vegetative types of Mesa Verde National Park.

Various mosses and lichens are found near seeps and springs. At the present time the commercial use of the park flora is limited to 200 acres of land made available on a seasonal basis to the horseback tour concession as a rest area for saddle horses. This acreage is located in Morfield Canyon adjacent to the southern boundary of the sewage lagoons.

The flora and fauna of wilderness units A and B of this proposal are limited by the degree of slope and aspect. The predominant vegetation in units A and B is scrub oak and most fauna described are assumed to be present here with the exception of bighorn sheep. Unit C is characterized by oak thickets to the north and pinion-juniper stands in the south. All fauna described occupy this habitat with the possible exception of bighorn sheep. As this area is seldom patrolled there has been no recent sightings of bighorn sheep in Unit C, however, they have been sighted in similar terrain within the park a short distance to the southwest.

Wild turkeys (Meleagris gallopavo merriami), once native to Mesa Verde, probably do not exist here now. An earlier attempt at reintroducing the turkey was only partially successful in that they florished for a few years and then disappeared for yet unknown reasons. After necessary research another attempt to reintroduce the turkey will be conducted in the future. Various species of birds which represent permanent nesting populations or which frequent the park seasonally total 174 species. Among them are common species such as jays, magpies and crows (Family Corvidae); chickadees, titmice and bushtits (Family Paridae); wrens (Family Troglodytidae); finches and towhees (Family Fringillidae); hummingbirds (Family Trochilidae); goshawk, sharp-shinned hawk, cooper's hawk (Accipiter sp): sparrow hawk (Falco sparverius); and golden eagle (Aquila chrysaetos).

Large mammals found in Mesa Verde National Park include the mule deer (Odocoileus hemionus); bighorn sheep (Ovis canadensis); mountain lion (Felis concolor hippolestes); black bear (Ursus americanus amblyceps) have been observed in years past, as on rare occasions have elk (Cervus canadensis nelsoni).

Small mammals found in the park include, but are not limited to, black-tailed jackrabbits (Lepus californicus); cottontails (Sylvilagus sp); Abert's squirrels (Sciurus aberti); red squirrels (Tamiasciurus hudsonicus); yellow-bellied marmot (Marmota flaviventris); Gunnison's prairie dog (Cynomys gunnisoni); least chipmunks (Eutamias minimus); Colorado chipmunks (Eutamias quadrivittatus); mice (Peromycus sp); weasels (Mustela sp); ringtails (Bassariscus astutus); spotted skunks (Spilogale putorius); voles (Microtus sp); porcupine (Erethizon dorsatum); bats (Myotis sp); coyotes (Canis latrans); foxes (Vulpes and Urocyon sp); and bobcats (Lynx rufus).

Common reptiles of the park include several species of lizards and snakes. Common lizards are the yellow-headed collared lizard (Crotaphytus collaris); the speckled earless lizard (Holbrookia maculata); and two-lined skinks (Eumeces multivirgatus).

Among the snakes, garter snakes (Thamnophis elegans): gopher snakes (Pituophis melanoleucus); Mesa Verde night snakes (Hypsiglena torguata); and rattlesnakes (Crotalus viridis) are seen most frequently.

The "Checklist of Birds of Mesa Verde National Park, Colorado, January 2, 1964" (Administrative Park files) lists two endangered species and one threatened species for the park, but does not identify the precise location of the sightings.

The "threatened" southern bald eagle, Haliaeetus leucocephalus leucocephalus (Linnaeus), is a rare visitor to the park, having been recorded three times.

The "endangered" prairie falcon, Falco mexicanus (Schlegel), a rare resident, is thought to be more common than records indicate.

The "endangered" peregrine falcon, Falco peregrinus anatum (Bonaparte), is a rare visitor to the park.

Resources

The primary resource of Mesa Verde National Park is comprised of the relics of prehistoric Pueblo Indians representative of the Mesa Verde Branch of the northern San Juan Anasazi. Their pueblos were constructed on the mesa tops and in rock shelters in the steep-sided canyons of the Mesa Verde Plateau. In the central part of the park these habitation sites may average up to 100 per square mile, although archeological surveys are now in progress to determine the number and character of such remains. Only 40 percent of the park has been surveyed and about 2,500 archeological sites have been located and recorded; thousands of sites are yet to be discovered.

Nineteen major cliff dwellings and surface pueblos have been excavated, stabilized and made available for visitation on Chapin and Wetherill Mesas. Approximately 30 inaccessible sites can be viewed from overlooks along the present roads and trails.

Secondary resources of the park are scenic in nature. The park and surrounding geologic features, the vegetative cover and wildlife contribute to the visitor's understanding of the prehistoric Pueblo Indian habitation settings.

Archeology

The primary and most significant features within the park are archeological. Mesa Verde National Park is the type locality of archeological remains representative of the northern or Mesa Verde Branch of the prehistoric San Juan Anasazi culture. Thousands of archeological sites including pithouses, coursed masonry pueblos and cliff dwellings, water diversion canals, reservoirs, ceremonial complexes with kivas, and farm terraces are scattered throughout the park, averaging over 100 per square mile in some areas. These archeological resources in the park become scientifically more valuable with the passage of time and the loss of archeological resources in nearby areas. Judging from present knowledge concerning proposed wilderness Units A and B a large number of small multi-component sites are likely to be found in future intensive surveys. Site density in the southern and middle parts of the Unit C should be even greater, and it is anticipated that in addition to many pithouse villages dating between A.D. 550 and A.D. 600, numerous large multi-component pueblos of the late eleventh to late thirteenth centuries, and associated ceremonial structures will be found by survey.

Mesa Verde was first occupied about 1,300 years ago, if not before, by the Basketmaker people of the Anasazi tradition who were relatively widespread throughout the area that is today northeastern Arizona, southeastern Utah, northwestern New Mexico and southwestern Colorado. For several hundred years the people lived on the Mesa Verde and in its canyons. Their culture developed, prospered and changed until the end of the thirteenth century when they abandoned the entire region and moved south, perhaps into what is now New Mexico. When they departed they left behind their homes and other evidences of their culture. Today, some of these relics, including basketry, pottery, weapons, tools and items of clothing and personal adornment are preserved in Mesa Verde National Park. As archeologists continue to study these evidences of a past civilization their research enables them to reconstruct the life of the culture which created them.

Beginning in the sixth century A.D. the inhabitants of Mesa Verde lived in clusters of semi-subterranean pithouses on the top of the mesa or occasionally in rock shelters in the cliffs. The pithouse dwellings were dug into the ground so that the walls of the pit composed the walls of the house. Archeologists have named these people Basketmakers in recognition of their impressive skill in that craft. They also made pottery, but at this stage of cultural development their pottery lacked the quality of their baskets.

They raised crops of beans, corn and squash in the red, aeolian soils of the mesa tops. Dogs and turkeys were their only domesticated animals. Apparently, turkeys were raised primarily for their feathers and not for food. Turkey feathers were woven into blankets and robes for use during the cold winter months.

As time went on the Basketmakers prospered on the mesa, the population increased, and their skills and technology improved. By the middle of the eighth century their descendents were building houses above ground, constructed with vertical poles and plastered with adobe mud to weather-proof the structures.

Houses were built one against another with common walls in a long curving row. Frequently, they built one or two deep pithouses in front of the crescent-shaped rowhouses. Perhaps these were the beginnings of the underground religious rooms (kivas) of later times. The people who built these new villages were the descendents of the Basketmakers, but we call them Pueblo Indians in recognition of their new architectural skill.

Before A.D. 1,000 the prehistoric Mesa Verde people began replacing pole-and-mud architecture with coursed stone masonry. Sturdy compact apartment-like buildings were built, and by the 12th century they were exceptionally well made. Some stood as much as three stories high and contained more than 50 rooms. Often the rooms were built around courtyards which contained several kivas similar to those used today by Pueblo Indians.

Just before the end of the twelfth century the Pueblos abandoned the mesa tops and moved down into the many rock shelters in the cliffs, where they built spectacular cliff dwellings which are observed today by park visitors. The occupation of the cliff dwellings lasted less than 100 years, and before the close of the thirteenth century the Mesa Verde was completely abandoned. The reason for the abandonment of the area is not known, but archeologists continue to gather data that will someday provide an answer. One theory is that this was a time of warfare; local Indians may have fought among themselves or with a foreign enemy tribe and the caves were sought for defensive purposes. Others speculate that the lengthly periods of drought late in the thirteenth century, combined with civil strife resulting from repeated crop failure led to desertion of the area.

It is believed that when the cliff dwellers left here they traveled to the south and southeast--down to the valley of the Rio Grande and its tributaries. They may have joined existing villages of Pueblo Indians in this new land, or they may have established villages of their own. Perhaps both. Whatever happened, it seems likely that some of the Pueblo Indians in central New Mexico are at least partly descended from the cliff dwellers.

At the present time the location, nature and extent of these artifacts of Pueblo culture in the proposed wilderness areas of Mesa Verde is not known but hundreds or perhaps thousands of sites may exist there.

Examples of the houses, tools and clothing of the Mesa Verde people can be seen in the park. Nowhere else in the United States is a sequence of pre-Columbian architectural development so completely displayed as on the Ruins Road drive on Chapin Mesa in the presently developed area of the park. In the very near future, additional architectural remains will be displayed and interpreted on Wetherill Mesa. The National Park Service has attempted to preserve the remains of this ancient people rather than make restorations based on guesswork.

Archeological investigations began in 1908, when Dr. Jesse Walter Fewkes, of the Smithsonian Institution, excavated Spruce Tree House. Since that time numerous investigations have been accomplished which are too numerous to list here. Among the most notable investigations in recent years has been the Wetherill Mesa project, made famous by the National Geographic Society. Time and other resources were at a premium during the course of this project, and neither were expended to research the areas now proposed for wilderness.

Proposed wilderness Units A and B have had some cursory investigation which indicates a relatively low concentration of archeological sites. Proposed wilderness Unit C has had no archeological investigation; however, in 1973 the National Park Service contracted with the University of Colorado to do research and archeological salvage in various parts of the park including this unit. Intensive survey by walking the ground with field parties will determine what resources exist. This contract will be in effect until 1980.

Geology

The Mesa Verde is an erosional remnant rising 1,500 to 2,000 feet above the Dolores Plateau. This high tableland is intricately dissected by steep-walled canyons. The slope of the uplands conforms to the dip of the resistant sandstone beds which underlie it. Viewed from Park Point to the north, the surface slopes southward into a bowl-shaped amphitheater from an elevation of about 8,600 feet in the north to 6,000 feet in the southern part of the park. Units A and B of the wilderness proposal drain north from the high rugged northern escarpment. No active water sources are present in these two areas of the park. Unit C drains east from the northeastern part of the escarpment toward the Mancos River.

The Mesa Verde formation is a sedimentary group of Upper Cretaceous origin found over the large areas of the Southern Rocky Mountains in the plateau Southwest. Rocks of the Mesa Verde group crop out conspicuously on the tablelands of Mesa Verde. Forming the surface of the high plateau they appear as an unbroken escarpment along the north and east rims. The interior of this tableland is deeply dissected by the drainage of the perennially

flowing Mancos River. The canyons of the Mesa Verde drain into the Mancos River which forms the east and south boundaries of the park, but surface flow is rare or non-existent in most canyons except immediately after heavy rains and during spring runoff.

The formation or group consists of three distinct sandstone formations each underlain by marine shale deposits. The Dakota sandstone which underlies the shale formations forms the surface of the Dolores Plateau which crops out at the base of the Mesa Verde. A deep layer of red aeolian soil covers the mesa ridges and colluvial deposits cover the slopes and floors of the majority of the canyons. There are a few igneous intrusions which occur, usually at the shale aquaclude. The uppermost or Cliff House sandstone member of the Mesa Verde group is most visible in the three proposed wilderness units, and outcrops are frequently detected there on the surface.

Soft high-volatile "B" and "C" rank bituminous coal is known to occur in this region and is commonly associated with the Dakota and Menefee Formations. While coal beds of the Menefee Formation may be of minable quality, they cannot, at the present, be exploited because the enabling legislation for Mesa Verde National Park (34 Stat. 616, 1906 and 36 Stat. 796, 1910) closed the area to development and to mineral entry.

Lands within and adjacent to the park are not within a known oil or gas producing geological structure; however, there are several existing oil and gas leases on lands adjacent to and near the park boundary. The Barker Creek gas field in northern New Mexico extends to within eight miles of the south boundary of the park, and small amounts of oil have been taken from the Red Mesa field located twelve miles southeast of the park in Colorado. There are no known metallic or non-metallic mineral resources of significant value on lands within or adjacent to Mesa Verde National Park.

Roadless Study Areas

The five roadless areas in Mesa Verde have a total acreage of 42,900 acres, less than 40 percent of which have been surveyed for archeological resources.

Area 1: This seven by two-mile elongated area contains 12,300 acres. Lying between Wetherill Mesa and Spruce Canyon, it encompasses Long, Wickiup and Navajo Canyons and the intervening mesa tops. The canyons and mesa tops are largely accessible by trail from adjacent management roads. The management roads are utilized only for archeological research and stabilization, fire control or emergency needs. A great number of prehistoric remains are located within this roadless area which lies between the two main developed archeological sites, Wetherill and Chapin Mesas. Area 1 has five major horse trails which are oriented north and south in the principle canyons. Trails in Wickiup, Long and Navajo Canyons are most prominent in this respect.

Area 2: This roadless area of 11,500 acres extends from the south park boundary eight miles north to the main road, between Chapin Mesa and Moccasin Mesa. It spreads two and a half miles at its widest point. The area includes most of the Soda Canyon and School Section Canyon drainage plus a large portion of Park Mesa. Dense scrub oak thickets cover the northern part of this area, limiting archeological research; consequently, many sites have yet to be investigated and recorded. Two major horse trails cross this area from east to west, one from the Far View ruins group on Chapin Mesa up Soda Canyon and across the head of School Section Canyon to Moccasin Mesa. The second begins at the abandoned quarry on Chapin Mesa and runs down Soda Canyon. Two branches of this same trail climb the east side of Soda Canyon and run eastward across Park Mesa to School Section Canyon.

Area 3: This drawn-out, irregularly shaped area of 6,000 acres encompasses the upper portions of Moccasin and Morfield Canyons. Some Indian ruins are found here, and several short horse trails or parts of trails from Area 2 are found in the southern portion of this area.

Area 4: The East Rim roadless area lies along the east boundary of the park. Within this 6,600-acre area are a number of archeological sites. The rough terrain falls off to the east into Mancos Canyon. Portions of the private inholdings along the Mancos River lie within this roadless area. These inholdings are parts of Section 26 and 35, T35N, R14W, and Section 1 and 12 T34N, R14W; 315.8 acres. One horse trail runs north and south through this area in Morfield Canyon. A horse trail runs from Morfield to Waters Canyon and southward.

Area 5: This roadless area, comprising 6,500 acres, stretches between the main park road and the north park boundary. An aqueduct and power and telephone lines cross the area in several places. Very little research has been done in this part of the park; however, a few Indian ruins have been found.

Roadless Area Use:

Unescorted trips by park visitors to isolated ruins are restricted as a means of preserving unexcavated sites from "pot hunting" and indiscriminate digging. There is a three and one-half mile trail to Spring House up Long Canyon where fewer than 100 people go each year. As visitation increases, however, it may become necessary to patrol the management roads by motor vehicle for additional protection of these sites.

Archeological research, stabilization and salvage projects are continuing within the roadless areas. Mechanical equipment is frequently required for these important programs and for the maintenance of stabilized sites. Four-wheel drive vehicles are used to gain access to remote areas. While in the area power winches on the vehicles are used to remove trees, roots and carry away dirt. Power chain saws are used to cut trees and shrubs and portable gasoline powered generators are sometimes used to produce electricity for field camps. A tractor with back hoe may be used to

unearth study sites, and later to re-fill some areas with dirt. In some locations truck mounted water pumps are used to wet down the area to facilitate digging.

During the excavation work the native vegetation is removed, thus causing adverse effects to the natural environment. The extent of these diggings dependsupon the findings. Ruins stabilization crews normally reinforce and stabilize archeological features during or shortly after excavation to preserve their integrity. Some sites are backfilled and landscaped to prevent erosion and deterioration, while others may be left open for future use in interpretive programs. The latter are usually covered with sheet metal shelters to protect them from the weather.

To add further to the visitor's understanding and enjoyment of the park, an attempt may be made to re-create a prehistoric agricultural environment. This may involve investigating prehistoric farming methods and undertaking a vegetation control plan.

Economic potential of resources inside the proposed wilderness area are minimal. Although Ponderosa pine and Douglas fir grow in less than one percent of the area, they are not of sufficient size and density for commercial logging. Mineral resources are basically limited to a few minor coal veins. Grazing is the primary potential consumptive resource and most of the acres in the proposed wilderness area can be grazed, but water sources would have to be developed. It is estimated that ten acres would be needed to maintain one animal on the best range. About 40,000 acres of the park area could be grazed and would support about 2,000 head of cattle per year if water were available. There is no open water on the mesa now, and while one existing 4,192 foot deep well does produce water potable for livestock, its location would not benefit grazing activities.

Regional Setting

The park is bounded by the Ute Mountain Ute Indian Reservation on the west and south. These lands comprising 557,878 acres are used primarily for ranching. Private ranches and farms, and isolated sections of land managed by the Bureau of Land Management are present on the remaining boundaries. In addition to tourism, farming, livestock raising, logging and mining are the substantial contributors to the economy of the surrounding country.

Population in the immediate vicinity of the park is sparse. Montezuma County had a population of 12,952 in 1970. Nearly half of this population (6,032) resides in the City of Cortez. The population rise early in the 1960's in the Cortez area stabilized and subsequently experienced a decline since oil and mineral prospecting decreased. The Cortez population declined from 6,764 to 6,032 between 1960 and 1970. Land around the park is used mostly for grazing and dry farming.

In 1967 Montezuma County had the following land uses:

Cropland	148,102 acres
Pasture	61,106 acres
Rangeland	248,668 acres
Forest and other	359,784 acres
TOTAL	817,660

Livestock in the county include cattle, sheep and horses. Major cultivated crops are pinto beans, wheat and hay.

Considerable public recreation lands surround the park. Northeast of the park lies the Mancos Valley; to the north and northwest the Montezuma Valley with views of the LaPlata and San Miguel Mountains (about 30 miles away), whose peaks tower over 14,000 feet. South of the park is a portion of the great Southwest Desert. Mesa Verde is thus situated between extremely high mountains only 30 miles to the north and desert 25 miles to the south. In the San Juan National Forest, 30 miles northeast of Mesa Verde, substantial recreational facilities attract over 500,000 visitors to the 2,086,462 acre preserve, who camp, picnic, hunt, fish, ski, hike and sightsee. The Ute Mountain Ute Indian Reservation (557,878 acres) which adjoins Mesa Verde National Park on the west and south contains many significant ruins and archeological sites. These Indian lands are mostly undeveloped. With the exception of the Mancos Canyon access road and some minor range improvement, this area remains in a nearly natural state. The land and ruins here are not at present available to the public, but planning for the development of recreational resources in Mancos Canyon on the reservation is proceeding at this time, with assistance from the National Park Service.

National Park Service areas in the vicinity of Mesa Verde National Park include Hovenweep about 53 miles west and Yucca House National Monument about 12 miles west. Aztec Ruins are about 68 miles southeast and Chaco Canyon is about 132 miles southeast, both of which add to the story of the Mesa Verde Indians. Canyonlands National Park, a scenic and geological area, is about 140 miles northwest. It contains sites and ruins of cultures similar to those at Mesa Verde. Arches National Park (135 miles distance) and Natural Bridges National Monument (138 miles away) are of considerable geological importance and possess great scenic appeal, while Canyon de Chelly (154 miles away) preserves outstanding Indian ruins, as well as present day Indian culture. Extensive water-oriented recreation activity occurs at Glen Canyon National Recreation Area, 285 miles west of Mesa Verde, and at Curecanti National Recreation Area on Blue Mesa Reservoir, 100 miles northeast of the park.

Public visitation to Mesa Verde National Park is about 546,000 per year. Between 12,000 and 13,000 persons visit Hovenweep annually. Visitation to Yucca House, an undeveloped archeological monument, is discouraged.

North and west of the park and extending into Utah lie large acreages of National Resource Lands administered by the Bureau of Land Management. These lands are managed for multiple use resource values, including open space, outdoor recreation, wildlife habitat, and domestic livestock grazing. Some of these National Resource Lands contain great numbers of ruins from the same prehistoric culture that occupied the park. Land administered by the Bureau of Land Management to the northeast of the park, known as the Weber-Menefee area, is being studied for possible designation as a primitive area. At the present time the land is being managed as a primitive area.

Approximately 110 miles southeast of the park, on the San Juan River, is Navajo Reservoir; here the State of New Mexico manages Navajo Lake State Park. The Colorado Division of Parks and Outdoor Recreation operates the water-based recreation site at Arboles, 100 miles to the southeast of the park entrance.

From the proposed wilderness Units A and B the City of Cortez, valley farming activities and highways can be observed. Daily flights between Cortez and Durango traverse the park at altitudes of 1,000 to 4,000 feet above ground level over the proposed wilderness area.

III. ENVIRONMENTAL IMPACTS OF PROPOSED ACTION

A. Changes in Existing Environment

1. Prohibition of man-made developments

At the present time wild backcountry portions of the park which do not have modern roads, utility lines or buildings may be entered only by park personnel or other persons who are authorized to enter for research purposes. Motorized vehicles may be used to enter remote, rugged areas for access and research. The National Park Service, by administrative decision, could make developments, such as road, buildings and utility lines for park purposes. These developments would degrade the wilderness character of the area and require removal of natural vegetation.

Adoption of this proposal to designate 8,100 acres of wilderness would establish, by statutory law, a prohibition against man-made developments, such as roads, buildings and utility lines. Therefore, the wilderness character of the wilderness areas will be preserved in its natural condition, where the natural environmental processes are permitted to function substantially uninterrupted by man.

Archeological research will proceed with primitive tools in wilderness areas. When motorized equipment is needed to preserve park resources the minimum tool will be used. Most access will be on foot or horseback. Hand tools, including axes and shovels, will be carried in by men or animals

If archeological sites are discovered that should be made available for public visitation, the public will be permitted to walk or ride horses into the area. Impacts on the environment from public visitation will include soil erosion caused by disturbance of ground cover vegetation and rainfall runoff. This will be less severe than impacts caused by road construction for access, if the area were not designated wilderness.

2. Undisturbed Natural Processes

Natural environments in wilderness units A, B and C have reached a fairly stable ecological balance.

Mesa Verde is an intermediate range for mule deer, rather than a summer or winter range. In summer, the deer tend to move northward

and eastward out of the park, and in winter they move back through the park toward lower and more protected areas in canyons in the park and south of the park on the Ute Reservation. Some deer remain in the park the entire year, but in no case do they significantly alter the habitat. The deer population in the park was estimated at 4,500 deer in the summer of 1967, with an estimated 5,200 deer in the park that fall.

There is a small resident population of bighorn sheep in Mesa Verde National Park. The number of animals in the band(s) fluctuates from time to time, but band size on the whole is relatively stable.

Mesa Verde National Park contains the following outstanding natural features:

Point Lookout, a prominent geological landmark 50 acres in size, which rises to an elevation of 8,427 feet above the scenic park entrance road. Pinyon-juniper, average age 250 years, are seen at an elevation of 6,900 feet to 8,300 feet. Pinyon pine averaging 15 feet in height with an average diameter of 10 inches. Utah juniper averaging 14 feet in height with an average diameter of 12 inches.

3. Social Well-being

Inclusion of 8,100 acres of land in Mesa Verde National Park in the wilderness system will help preserve wilderness values for future generations. Some people will derive benefits by visiting the wilderness, while others will have peace of mind from knowing it is there to be visited.

These natural areas will contribute substantially to our knowledge of Pinyon-juniper forest and mountain shrub vegetation types. Dominant species of the mountain shrube area are Gambel oak (Quercus gambelii) and Utah service berry (Amelanchier utahensis). These natural, virgin woodland areas are excellent examples with which to relate forest management practices in other areas.

4. Archeological research methods will be limited

Research, salvage and stabilization projects frequently require mechanical equipment and access by road. Four-wheel drive vehicles are frequently needed to gain access and provide logistical supply. Backhoes are frequently used for removing overburden on archeological sites, and for backfilling excavated features. Winches are used for drag line power and for pulling stumps, while chain saws and other devices are sometimes utilized to fell trees and clear archeological sites for excavation.

Wilderness designation will preclude or very seriously impede certain forms of research due to the limitation on the use of motorized equipment and vehicles, and the use of permanent or semi-permanent research camps and facilities. Specific researched sites might well be some of the most important in illustrating and conveying certain cultural developments in the park's archeological story. If these sites require it, protective shelters will be employed to protect the resources and facilitate conveying the story of man on Mesa Verde and perhaps elsewhere in the southwestern United States.

Under contract (No. 4970B20105) with the National Park Service, the University of Colorado will conduct archeological surveys, tests and research within Mesa Verde National Park until April, 1980; wilderness designation will restrict modes of travel, testing and survey, and otherwise limit the research effort.

5. Cost of archeological research and stabilization and protection of ruins will increase.

Several pieces of equipment now used in archeological research are motorized, such as, four-wheel drive vehicles with power winches, power saws, electricity generators and tractors equipped with blades and backhoes, which in some cases may be limited in their use.

In the wilderness areas labor costs will increase when trees and dirt at research sites are removed with minimum tools.

The proposed wilderness areas will contain 8,100 acres, or nearly 13 square miles. With an estimated 80 archeological sites per square mile in Unit C, and lesser numbers in Units A and B, it can be seen that the total area may contain 1,000 or more archeological sites.

Cost factors relevant to archeological research in wilderness areas can be broken down into three major categories; field survey, field excavation and field stabilization. With respect to field surveying, limiting motorized vehicles would greatly increase transportation time to specific areas within wilderness; however, the surveying itself requires a great deal of walking, and no substantial cost increases for this phase of field work are anticipated.

Wilderness designation would make it necessary to transport most tools, equipment and supplies needed in site excavation and record

keeping by pack animals, helicopter or fixed wing cargo drops. Logistical problems will require setting up semi-permanent camps which will include sleeping, storage and work tents, field kitchens, and water storage facilities. Much of this equipment would not be needed if personnel commuted daily from the central camp or place of residence in the park to the site.

The excavation of each room in an archeological site requires nine man days of labor, or more if the site is located several miles from camp and must be reached on horseback, walking, or by aircraft. The size of the ruin excavated, and the number and level of expertise of the excavation crew also contribute to cost determinations.

Field stabilization costs are based primarily on labor, at three man days per room and the costs of transporting materials and equipment. Materials requirements per day include one cubic yard of sand, five bags of cement and a minimum of 60 gallons of water. Location of the site in relation to motorized access will determine material transportation time. Regardless of mode of transportation used, one cubic yard of sand weighs 2,700 pouns, cement weighs 90 pounds per bag, and 60 gallons of water weighs 500.70 pounds.

Although there are several pack and dude outfitters located in the vicinity, in January 1973, the park determined that very few pack animals are available for sale or rent in excess of outfitters needs in southwestern Colorado.

6. Potential for public visitation to archeological sites and back-country natural areas will be limited.

Roads will not be constructed in wilderness areas and access in motorized equipment will be prohibited. Therefore, some segments of society, including physically handicapped and elderly persons, will not be able to visit wilderness areas.

If significant archeological sites are found in wilderness areas public access will be limited to hiking and horseback riding. Only a small portion of the visiting public would visit sites not near roads. At the present time Mesa Verde National Park has two hiking trails that visitors may use after registering with the Chief Park Ranger. Pictograph Point Trail is 2.3 miles long and Spruce Canyon Trail is 2.1 miles long. With annual visitation to the park totaling 546,000 visitors, only 1,226 (less than 1/4 of one percent) visited Pictograph Point Trail in 1972 and 209 (1/26 of one percent) visited Spruce Canyon Trail in 1972. It is doubtful that the use of trails extending farther than two miles into the proposed areas would be significant.

The present level of visitation to the proposed wilderness areas is negligible. Present administrative policy prohibits backcountry use in Mesa Verde National Park. Wilderness designation does not preclude backcountry use, nor does it supercede the legislative requirement for the care and management and "...for the preservation from injury or spoliation of the ruins and other works and relics of prehistoric or primitive man..." within the park.

If public use is considered desirable, the projected level of visitation will not be great. It is doubtful that wilderness use would be excessive because the extremes of climate, the unavailability of water, the prohibition of using natural fuels and the nature of the topography are not conducive to use. Anyone or all of the above factors would definitely limit wilderness use.

7. Potential catastrophic effects of uncontrolled forest fires.

Lightning and man-caused forest fires are not unusual occurrences during the summer months in the high arid plateau country of the Southwest. On July 11, 1972, a lightning-caused fire broke out in Little Moccasin Canyon inside Mesa Verde National Park in southwest Colorado. When the fastmoving fire had been brought under control on July 15, 2,680 acres of forest on Moccasin Mesa had been consumed.

Although that part of Moccasin Mesa inside the park boundary has not yet been fully surveyed to determine the number and character of archeological sites it contains, a large number of pit house villages and surface pueblos representative of the Mesa Verde Branch of the northern San Juan Anasazi had been recorded at the time the fire occurred. These mesa-top sites range in date from Basketmaker III times to the late Pueblo II and early Pueblo III periods. Subsequent to the fire, a study was initiated to determine what, if any, were the effects of forest fire on masonry surface pueblos and associated artifacts laying on or just beneath the ground surface. Prior to entering the field it was assumed that little damage would be observed on sites, owing to the speed with which the fire spread. Although temperatures in the fire area were high, it was believed they probably were not sustained long enough to cause physical changes in the ruined structures nor in surface artifacts. Heat generated by the wind-driven fire was very intense. Exposed outcrops of sandstone were reddened, and only the trunks of the sturdiest pinon trees remained standing. Juniper trees, pinon pines, and oak brush burned to fine gray ash which covered the ground in most areas to depths exceeding four inches.

Masonry pueblos on Moccasin Mesa were constructed with dressed sandstone blocks derived from formations of Upper Cretaceous age in the Mesa Verde Group. Exposed to intense heat the hydrous ferrunginous oxides in the stone tended to dehydrate and oxidize even further and be transformed to red ferric oxides. In addition to the color changes severe cracking, spalling and disintegration (or alteration) of the bond between the grains of quartz which comprise the stone were also observed.

Sherds from both utility ware and white ware pottery exhibited a good deal of spalling and separation, especially along the lines where individual coils of clay had been joined during fabrication of the pottery. In some instances carbon paint designs on white ware sherds were burned out, indicating the presence of a sufficient amount of oxygen, and temperatures above 700°C for a prolonged period.

Thin iron rich soils on the mesa top also oxidized to varying degrees. It is not known at this time whether the intense heat diminished the soil's fertility or whether the ash will provide interim nutrients necessary to sustain a natural vegetation cycle. These effects, and others as yet undetermined, could arise as a result of letting a natural forest fire burn. In emergency cases involving the protection of park values, motorized equipment may be used to fight forest fires in wilderness areas.

8. Management techniques will be limited.

Grazing is not permitted in Mesa Verde National Park. Occasionally cattle and horses claimed by the Indians of the Mountain Ute Tribe enter the park and are removed with the aid of helicopters, four-wheel drive vehicles and horses.
In the wilderness area removing trespass livestock will be more difficult. Motorized vehicles will not be permitted for horse and cattle drives. Therefore, horses, men and possibly dogs will be used.

9. Access of Indians to nearby Indian lands will be limited.

Adverse impact by impairment or restriction of access will apply to the neighboring Ute Mountain Ute Tribe. Wilderness designation will effectively prohibit Ute access, through park lands, to certain areas of the reservation by motorized vehicle. Access limitations will make it considerably more difficult than normal for the Ute Indians to protect their lands and resources from adverse impact

through trespass and vandalism, and to assist the park in protecting its resources because of the restricted use by the Utes of four-wheel drive vehicles and helicopters to recover trespass livestock on park lands.

10. Development of facilities for visitor convenience will be prohibited.

Visitors to Mesa Verde National Park find many conveniences in various portions of the park. Modern paved roads provide all weather access to key archeological sites. Modern restrooms and a developed campground are available. During the summer months 100 motel rooms are available for lodging. Meals and snacks are served at Far View Lodge and Far View Terrace restaurants on Navajo Hill. Snacks are also available at the store in the headquarters area and at the Morfield Village complex near the campground. In the wilderness areas these conveniences will not be available. Travel will be on foot or horseback. Only minimum public use facilities can be constructed for public health and safety, but none are planned.

11. Watershed management will be hindered.

Restricted access for snow course measurements or for the installation of equipment for precipitation management experiments will seriously handicap maximum use and efficient operation of a watershed in a wilderness area. The absence of sites for gathering vital hydrologic and climatological data and for conducting precipitation management research in connection with a reclamation project could hinder water management programs of other agencies, but would not adversely affect the park.

12. The quality of wilderness will be degraded by the presence of the works of man in the wilderness areas and the lack of solitude.

If public visitation is eventually permitted in the presence of a Park Ranger, solitude in a primitive area will be adversely affected, and there will be some confinement on permitted recreation.

B. Partially known impacts or no impact.

Consideration of the Criteria for Effort, Section 106 of the Historic Preservation Act of 1966, identifies no adverse effects which will lower the present quality of the archeological character; however, wilderness designation may adversely affect archeological resources yet undiscovered.

A meeting has been requested with the State Liaison Officer for Historic Preservation and the Advisory Council on Historic Preservation to access compliance with Section 106 of the National Historic Preservation Act of 1966.

The prairie falcon and peregrine falcon, both of which are endangered and the threatened southern bald eagle may occasionally occur in proposed wilderness areas, but would not be affected by this proposal.

The area would be indirectly affected by the Bureau of Land Management Weather Modification Program underway in the San Juan Mountains located several miles north of Mesa Verde National Park. This affect would be minimal.

IV. MITIGATING MEASURES

A. Potential for Public Visitation to Archeological Sites and Backcountry Natural Areas will be limited.

Wilderness designation will prohibit the development of roads and access, by visitors, in motorized equipment.

If major archeological sites are discovered that should be served by roads and motorized equipment to furnish public access for all citizens, including handicapped persons, the Congress will be asked to remove these areas from the wilderness.

B. Management Techniques will be limited.

Motor vehicles will not be permitted in wilderness areas to remove trepass livestock. At the present time when livestock enters the park, they are removed with the aid of helicopters and four-wheel drive vehicles.

This problem of controlling trespass livestock will be mitigated by fencing the park. The park boundary is about 48 miles long and only about eighteen percent of the boundary is fenced at this time.

C. Protection of Property on the National Register of Historic Places.

Consultation with the State Historic Preservation Officer is currently in progress and the Advisory Council on Historic Preservation is aware of this proposal. No change in management practices that would possibly jeopardize cultural values will be implemented until consultation with the State Historic Preservation Officer and the Advisory Council is complete.

D. Research will be conducted to determine human carrying capacity in designated wilderness areas, with special attention to potential impact of visitation on park resources. A research study has been planned and will be completed as soon as adequate funds are available.

E. The University of Colorado is under contract until 1980 to survey archeological resources in the entire park. Proposed wilderness areas will be surveyed first in hopes of completing the survey before lands are placed in the wilderness preservation system.

F. Preservation of park resources will be facilitated by a special legislative provision. Use of mechanized equipment or any other special action necessary to preserve a park resource will be accomplished by the inclusion of a special provision in the wilderness legislation for an area. A special provision, Section 4 in the bill for Mesa Verde reads, "Within the wilderness area designated by this Act, the Secretary may undertake minimum activity necessary in order to investigate and stabilize sites of archeological interest." As a general precept, Service management of wilderness areas must not degrade the value of resources and therefore must not preclude the use of "minimum tools" as outlined in Departmental guidelines for wilderness which can include mechanized equipment.

V. ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

A. Archeological Research and Stabilization Methods will be limited.

Motorized equipment used in archeological research and stabilization includes four-wheel drive vehicles with power winches, power saws, electricity generating plants and tractors with backhoes.

In wilderness areas minimum tools will be carried in by personnel, on pack animals or by aircraft. This means that research and stabilization will proceed slower and at higher cost. In order to reduce travel time for workers, field camps will be established for researchers.

Stabilization of ruins requires about three man days per room. Needed materials include about one cubic yard of sand, five bags of cement and 60 gallons of water per day. One cubic yard of sand weighs 2,700 pounds. This would require 13.5 pack animals. Five sacks of cement, weighing 90 pounds each, would require 2.5 pack animals. Sixty gallons of water could be carried by four pack animals. Therefore, 20 pack animal trips would be required each day for the stabilization crew.

B. Cost of Archeological Stabilization and Protection of Ruins will increase.

Several pieces of equipment now used in archeological research are motorized: four-wheel drive vehicles with power winches, power saws, electricity generators and tractors with dirt digging equipment. In wilderness areas, the minimum tool required for preservation of park resources will be employed. Where feasible, motorized equipment will not be used.

In the wilderness areas labor costs will increase when the use of motorized equipment is limited.

Between 1958 and 1962 the National Park Service and the National Geographic Society in a joint scientific archeological project excavated five major cliff dwellings and mesa-top ruins on Wetherill Mesa. The project also included an archeological surface survey for sites of antiquity.

The U.S. Congress appropriated approximately $450,000 and the National Geographic Society made available approximately $250,000 for this project. The project was carried out with a large crew of trained specialists of a multiple of scientific disciplines. The site of the major ruins was located approximately 13.5 miles from Navajo Hill on the main

park highway. The area was served by a very primitive road which did permit a variety of motorized vehicles to be used to haul supplies, materials and equipment as well as personnel needed in the project. While a number of the on-site crews did reside in temporary housing at Wetherill, a number of other persons did commute back to the park headquarters and to areas outside the park.

The estimated total cost of this endeavor was $700,000.

If the area where the excavation and stabilization took place had been located in a wilderness area where motorized equipment could not be used, the total cost of the project would have been about two million dollars, nearly three times the cost in non-wilderness.

C. Access of Indians to nearby Indian lands will be limited.

Adverse impact by impairment or restriction of access will apply to the neighboring Mountain Ute Tribe. Wilderness designation will effectively prohibit Ute access, through park lands, to certain areas of the reservation by motorized vehicle. Access limitations will make it considerably more difficult than normal for the Ute Indians to protect their lands and resources from adverse impact through trespass and vandalism, and to assist the park in protecting its resources because of the restricted use by the Utes of four-wheel drive vehicles and helicopters to recover trespass livestock on park lands.

D. Development of Facilities for Visitor Convenience will be prohibited.

Visitors to Mesa Verde National Park find many conveniences in various portions of the park. Modern paved roads provide all weather access to key archeological sites. Modern restrooms and a developed campground are available. During the summer months 100 motel rooms are available for lodging. Meals and snacks are served at Far View Lodge and Far View Terrace restaurants on Navajo Hill. Snacks are also available at the store in headquarters area and at the Morfield Village complex near the campground. In the wilderness areas these conveniences will not be able to be made available. Travel will be on foot or horseback. Only minimum public use facilities can be constructed for public health and safety, but none are planned.

VI. RELATIONSHIP BETWEEN SHORT-TERM AND LONG-TERM PRODUCTIVITY

Wilderness designation will ensure the preservation of the archeological and natural resources within the designated areas for the benefit of future generations. Within the three designated areas preservation of wilderness values will be emphasized at the expense of ease in performance of archeological research, interpretation and education, and at the expense of more intensive visitor use.

Economic productivity in the region will be essentially the same with or without wilderness designation.

Archeological research, salvage and stabilization will be impeded by wilderness management practices, thus delaying the gathering of knowledge about any significant archeological features that may exist within designated lands.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Consumptive use of natural resources is presently restricted due to the areas status of a national park and the resultant constraints of legislatively derived policy. Wilderness designation will be an added constraint upon the use of those resources in those areas actually included and set aside as wilderness. Excavation of archeological resources would be permitted; however, only the minimum tools necessary to accomplish the task would be permitted in wilderness. Should Congress deem it necessary, wilderness designation can be removed and these added constraints eliminated.

Therefore, it is concluded that designation of 8,100 acres of the park as wilderness would result in no irreversible and irretrievable commitment of resources. It is also concluded that wilderness designation would assist in preventing irretrievable loss of natural, cultural, archeological, scenic and recreational resources within areas designated as wilderness.

VIII. ALTERNATIVES TO THE PROPOSED ACTION

A. No Wilderness Classification

If no land in Mesa Verde National Park is designated as wilderness, the area will continue to be managed as a unit of the National Park System which provides for archeological research, frequently with motorized equipment, stabilization of ruins, protection of fragile ruins, and prohibition of backcountry visits by the public. Visitors may camp only in the Morfield Campground, and may visit the museum, and may visit some pueblos when accompanied by a ranger.

The park was established to preserve from injury and spoliation the ruins and other relics of prehistoric man within the designated area. Mesa Verde is unique in that it is the only National Park established solely for protection of archeological resources. This emphasis on the works of man is in contrast to the primary goals of other parks, which seek to preserve the natural environment as it existed before the arrival of Europeans. Portions of the park have been surveyed and found to contain the largest and most spectacular cliff dwellings in the United States. Most portions of the Mesa Verde contain prehistoric pithouses, pueblos, drainage ditches and farming terraces, and site concentrations may number over 100 per square mile. Other areas in the park, including those proposed for wilderness, have not been surveyed for archeological ruins. If these lands are not designated as wilderness, on-going park purposes can be continued unimpeded.

There may be adverse impacts on the plant communities caused by the construction of roads to important archeological ruins in order to facilitate excavations and stabilization. Permanent structures may be constructed to protect fragile ruins. Research, utilizing motorized vehicles and equipment, will be allowed. The adverse effects related to archeological research would thus be eliminated, but at the expense of natural values.

Though none are currently planned, the possibility remains that at some future date roads, hotels, electric devices and advanced sanitary facilities could be developed within the roadless areas to facilitate management and public use. Such facilities would greatly reduce the wilderness values which currently exist.

The original Park Service recommendation was for no wilderness. However, the organizations and individuals favoring a wilderness designation stressed their opinion that the roadless areas do have wilderness character despite the presence of cliff dwellings, mesa-top ruins and other archeological sites. Any archeological work necessary in back-

country sites could be done without motorized equipment, as was done before modern archeological techniques evolved.

As a result of careful study of the oral and written statements received as a result of the public hearing, and after further consideration of management needs, 8,100 acres of wilderness was recommended.

B. Designate Units A, B, and C as Wilderness as Proposed, but Delete from Wilderness an 1/8 Mile Management Zone along the Park Perimeter.

The first National Park Service proposal for wilderness recommended Units A, B, and C with an 1/8 miles management zone along the park boundary, totaling approximately 1,000 acres.

Beneficial impacts of the buffer zone would include an open management option that would permit construction of a ranger station near the boundary of the park in the future if public use should increase to a point that management personnel would be required. A buffer zone between wilderness areas in the park, and federal and private lands outside the park, would eliminate most sounds from motorized vehicles, posthole diggers and chain saws.

Adverse impacts would include a reduction in land placed in wilderness that does, in fact, qualify. The possibility also remains that at some future date some development could take place within that area which would degrade the adjacent wilderness.

Public feelings, expressed at public hearings, were overwhelming toward inclusion of the management zone in the wilderness. This has been done in the proposal that is recommended.

C. Designate Roadless Area 1 as Wilderness.

Roadless Area 1 contains 12,300 acres (Exhibit D). It is about seven miles long and two miles wide, and is between Wetherill Mesa and Spruce Canyon. It contains Long, Wickiup and Navajo Canyons and the intervening mesa tops. The canyons and mesa tops are largely adjacent management roads. The roads are used only for archeological research and stabilization, fire control and emergencies. A great number of prehistoric remains are located within this area. The exact number of prehistoric remains is not known at this time.

Designation of this area as wilderness at this time would insure retention of the wilderness character of the area. Roads, buildings, utility lines and motorized equipment would be prohibited.

The original purpose of the park, identification, preservation and interpretation of historic resources, would be impeded. Research,



EXHIBIT D

ALTERNATIVES TO PRELIMINARY

WILDERNESS STUDY

MESA VERDE NATIONAL PARK

COLORADO

LEGEND

PARK BOUNDARY	
ROADS, MANAGEMENT	
ROADS, PUBLIC	
HORSE TRAIL	—C—
POWER	— A 3Ø —
WATER	— 6"W —
TELEPHONE	— MT —
PRIVATE LAND	P
ALTERNATIVE PROPOSALS	X,Y

GROSS PARK ACREAGE		52,073.62
FEDERAL LANDS		51,525.39
PRIVATE LANDS		548.23
ROADLESS AREAS	1	12,300
	2	11,500
(NO WILDERNESS AREA PROPOSED)	3	6,000
	4	6,600
PRELIMINARY-SUBJECT TO CHANGE	5	6,500
	TOTALS	42,900 ACRES

0 1/2 1 2
SCALE IN MILES

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AUGUST 71 | EPD-WSC

SOUTHERN MICROFILM

stabilization and salvage projects, which frequently require motorized equipment and access roads, would be limited. Excavation and stabilization costs to preserve historic sites would increase, and the quality of preservation work would decrease. Public access would be limited to non-motorized methods.

Public impact on accessible historic resources is expected to increase unless quotas are set on public access. These impacts could be reduced on currently accessible sites by the discovery and increased availability of new archeological resources in roadless Area 1.

No other impacts are expected on nearby areas.

This large unit of wilderness would provide greater opportunity for isolation and solitude than the small proposed unit when, and if, public access is permitted in the future.

D. Designate Roadless Area 2 as Wilderness.

Roadless Area 2 contains 11,500 acres (Exhibit D). It extends from the south boundary eight miles north to the main park access road, between Chapin Mesa and Moccasin Mesa. It is two and one half miles wide at the widest point. The area includes most of the Soda Canyon and the School Section Canyon drainage plus a large portion of Park Mesa.

Dense scrub oak thickets cover the northern part of this area, limiting archeological research. It is believe many sites have yet to be discovered, investigated and recorded here.

Designation of this area as wilderness before archeological resources are known would impede accomplishment of the assigned mission of this park, identification, preservation and interpretation of archeological resources. It would preserve natural resources by preventing access by motorized equipment and development of roads and buildings.

Public access would be prohibited or limited to visits in the presence of a park ranger.

Research, stabilization and salvage projects would be limited to minimum tools, required for optimum stabilization and salvage. The cost of excavation and stabilization will increase, and probably delay archeological work. Some archeological resources could be altered and perhaps destroyed by natural fies before they are salvaged.

Lack of access to archeological resources in roadless Area 2 will limit resources available to the public, and continue the heavy impact on sites already available to the public. No other impacts are expected on nearby areas.

E. Designate Roadless Area 3 as Wilderness.

Roadless Area 3 is an irregularly shaped area of 6,000 acres (Exhibit D). It encompasses the upper portions of Moccasin and Morfield Canyons. Some Indian ruins have been found here but not all of the area has been surveyed for archeological resources.

Archeological research, stabilization and salvage projects are continuing in this area under contract with the University of Colorado, with motorized equipment, requiring roads. This work would be hampered and the cost increased by wilderness designation at this time. Since archeological surveys are incomplete, the number and importance of prehistoric resources is unknown.

Wilderness designation would preserve the natural environment in a remote area, far from the sights and sounds of modern man. Roads, buildings, utility lines and motorized equipment would be prohibited.

Public access would be prohibited or limited to access in the company of a park ranger to prevent destruction or theft of important archeological resources.

Public visitation by automobile to existing available prehistoric sites is expected to increase unless visitation quotas are set. It would not be possible to make historic sites in roadless Area 3 available to the public by motorized vehicle if this area is designated wilderness.

F. Designate All of Roadless Area 5 as Wilderness.

In the proposal to designate 8,100 acres as wilderness two separate tracts of land in Area 5 were proposed for designation as Units A and B (Exhibit A). Land between these units was not included because of non-conforming utility sources. At the present time power, telephone and water lines enter the park through roadless Area 5 from the north. Wilderness designation would require the relocation of these utility lines at high costs, or burying power and telephone lines. Burying power and telephone lines would be expensive and perhaps would lead to additional soil erosion on the steep slopes.

G. Designate all Roadless Areas as Potential Wilderness Addition.

All of the land in roadless areas of the park contain 42,900 acres (Exhibit D).

The largest of these roadless areas is Area 1, containing 12,300 acres. It is believed to contain a great number of prehistoric remains between the two main developed archeological sites, Wetherill and Chapin Mesas.

Area 2 contains 11,500 acres. It contains most of Soda Canyon and School Section Canyon drainage plus a large portion of Park Mesa. Dense scrub oak thickets cover the northerly part of this area, limiting archeological research. Presumably, many sites have yet to be investigated and recorded.

Area 3 contains 6,000 acres, including the upper portions of Moccasin and Morfield Canyons. Some Indian ruins have been found here.

Area 4, the East Rim roadless area, contains 6,000 acres along the east boundary of the park. It contains a number of archeological sites. Portions of the private inholdings along the Mancos River lie within this roadless area.

Roadless Area 5 contains 6,500 acres. An aqueduct, and power and telephone lines cross the area in several places. A few Indian ruins have been found, but little research has been done here.

Portions of these areas not containing archeological resources would be subject to designation as wilderness by the Secretary of the Interior after they have been surveyed for archeological ruins and relics, ruins have been protected and stabilized, and appropriate steps taken to provide for public access and interpretation. Archeological resources would not be designated as wilderness. The 548.23 acres of private land would be subject to designation as wilderness after Federal acquisition, except for sites with archeological resources.

During the study of Mesa Verde National Park to consider designation of roadless areas as wilderness, it became important to consider that most of the backcountry areas had not been surveyed for archeological resources, and therefore the need for future archeological excavations, stabilization and interpretation was unknown. In developing the proposal to designate 8,100 acres of wilderness it was assumed that there were fewer and less important archeological resources in these areas than elsewhere in the park. Since this is an unsupported assumption, this alternative to classify the roadless areas as potential wilderness

addition, would permit the National Park Service to survey archeological resources before determining which areas could be designated wilderness without undue restrictions on archeological research and interpretation.

If the proposed 8,100 is designated as wilderness now there will be severe impacts on social and natural resources. Access to wilderness areas by the public will be prohibited, or delayed until archeological surveys have been completed.

Archeological research, stabilization, salvage and interpretation will be restricted to use of minimum tools in wilderness areas. Roads would be prohibited for research and interpretation, and severe limitations would be placed on construction structures to protect fragile archeological resources.

These impacts could be reduced by delaying the designation as wilderness until after archeological resources have been identified. The roadless areas would continue to be protected by the National Park Service under existing responsibilities to provide specifically for the preservation from injury or spoliation of the ruins and other relics of prehistoric or primitive man within the park.

After archeological ruins and relics are properly cared for under existing laws pertaining to the park, appropriate qualifying lands could be designated as wilderness by the Secretary of the Interior, under authority given him by Congress.

Economic impacts would be more favorable under this proposal to designate areas as potential wilderness addition. If areas are designated as wilderness now, the cost of surveys and potential excavation and stabilization may be much more expensive than they would be prior to designation as wilderness, because of restrictions on roads, structures and motorized equipment.

Designation as potential wilderness addition would permit orderly accomplishment of the original purpose of the park, preservation from injury or spoliation of the ruins and other relics of prehistoric or primitive man within the park, and would eventually permit designation of natural areas devoid of man-made objects as wilderness. It would avoid severe limitations on archeological research, stabilization and interpretation; and severly limit access by the public to wilderness areas that would occur if portions of park area were immediately placed in wilderness.

CONSULTATION AND COORDINATION WITH OTHERS

A. Consultation and Coordination with Others in the Development of the Proposal and in the Preparation of the Draft Environmental Statement:

On December 16, 1970, a public hearing was held in Cortez, Colorado, on the original Wilderness Proposal. The following Colorado public agencies endorsed the National Park Service recommendations of no wilderness:

Colorado Division of Wildlife
Colorado Division of Parks and Outdoor Recreation) FORMERLY:
State of Colorado Game, Fish and Parks Department, Southwest District
Ute Mountain Ute Tribal Council
State of Colorado Department of Highways
Southern Ute Tribal Council
Mesa Verde Company
Mesa Verde Pack and Saddle
Durango Chamber of Commerce

Combined organizations advocating portions of the park for wilderness designation were:

Wilderness Workshop, Colorado Open Space
Sierra Club, Rocky Mountain Chapter
Colorado Mountain Club
Cortez Garden Club
People United to Reclaim the Environment
Sierra Club, Southwest Representative
The Wilderness Society

A summary of the responses received is as follows:

	Public Agencies	Private Organizations	Individuals	Total
No Wilderness	4	12	233	249
For Wilderness	0	15	114	129
Acknowledgement (no specific comments)	10			10
TOTAL	14	27	347	388

B. Coordination in the Review of the Draft Environmental Statement:

The statement was forwarded to the following agencies and organizations for review and comment. The agencies that responded are identified with an asterisk.

Department of Agriculture
  *U. S. Forest Service
  *Soil Conservation Service
Department of the Interior
  *Bureau of Mines
  *Bureau of Outdoor Recreation
  *Bureau of Sport Fisheries and Wildlife
  *Bureau of Land Management
  *Geological Survey
  *Bureau of Reclamation
  *Bureau of Indian Affairs
*Department of Commerce
*Advisory Council on Historic Preservation
*Environmental Protection Agency
Department of Transportation
  *Federal Highway Administration
*State Liaison Officer for Historic Preservation, Colorado
*Colorado Division of Wildlife
*Colorado Division of Parks and Outdoor Recreation
State Clearinghouse, Colorado
Sierra Club
Wilderness Society
National Park Association
Ute Mountain Tribal Council
Southern Ute Tribal Council

Comments of agencies and National Park Service responses follow in a comment/response section. Letters of agencies are attached after this section.

U. S. Forest Service

Comment: Paragraph 2 of page 3 contains the statement: "Not recommended for wilderness is the balance of roadless area lands (34,000 acres) which contain a high density of archeological resources (up to 150 sites per square mile) which have not yet been fully surveyed." We infer that the density of sites is one of the main reasons for excluding the area from the proposed wilderness. In paragraph 2 on page 7, the inclusion of Unit C in the proposed Wilderness is described: "Archeological surveys have not been made in this area, but site densities are believed to be very great (perhaps 100 or more per square mile). The potential for locating large and important archeological sites is significant." The paragraph on page 2 which contains the first quotation indicates that the areas recommended as Wilderness contain lesser concentrations of ruins, both in numbers and importance.

These quotations raise a question about what criteria were actually used to select areas to be proposed as Wilderness, and whether there is significant difference in terms of the density and importance of sites between the areas proposed and not proposed.

Response: Two major criteria were used to select areas to be proposed as Wilderness. First, it was assumed that all three units proposed contained lesser concentrations of ruins, and ruins of lesser size and importance. The second criteria used was that the units are escarpment terrain bearing fewer significant natural resources and these lands were not necessary nor suitable for future visitor development needs. While the latter still holds, the former has now, in part, been disproved. Archeological surveys during the summer, 1973, by the University of Colorado in and adjacent to Unit C indicate a high density of archeological remains. In the area extending east from Morfield Canyon to the park boundary, 318 archeological sites were mapped, 124 of these, some quite large, fell within proposed Wilderness Unit C. Although it is now apparent that Unit C contains more prehistoric archeological resources than was assumed when the unit was first proposed for wilderness designation it is concluded that, overall, the unit meets the criteria set and should be recommended for wilderness designation.

Comment: On page 38, a statement indicates that the National Park Service, before public hearing, recommended no wilderness in Mesa Verde National Park. There is no explanation of why this recommendation was reversed, or what new information, or different conditions required the change.

Response: The recommendation is based upon more exhaustive study of the park, views presented at public hearings, and written responses concerning the preliminary wilderness proposal.

Comment: On page 20, item c indicates: "Inclusion of 8,100 acres of land in Mesa Verde National Park in the wilderness system will help

preserve wilderness values for future generations." The remainder of the draft statement seems to point toward how few wilderness values will remain in the proposed wilderness. The Wilderness Act defines Wilderness, in part, as being undeveloped Federal land"...without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; has outstanding opportunities for solitude or primitive and unconfined type of recreation..." The report indicates that excavation of ruins may be done by hand tools in the wilderness. Surely, this would leave the imprint of man's work substantially noticeable. The requirement that an uniformed National Park ranger accompany all visitors to the proposed Wilderness will deny an outstanding opportunity for solitude and a primitive and unconfined type of recreation.

Values related to the Act's definition of Wilderness seem to be comprised to the point that the original recommendation against Wilderness may have been well founded.

Response: The impact statement has been modified to more clearly recognize the impacts emphasized, viz., the noticeability of man's work and the lack of outstanding opportunity for solitude in a primitive and unconfined type of recreation. The statement now also makes clear that archeological excavation may be accomplished using the minimum tool and is not necessarily limited to hand tools.

Comment: Paragraph 5 on page 4 indicated that: "Immediately after portions of Mesa Verde National Park are designated as wilderness, public access will be prohibited." The wording seems to indicate this action will follow the designation, yet paragraph 3 on page 3 indicates that backcountry hiking and public use of roadless areas have not been permitted since the park was established.

Response: The confusing wording has been corrected to clearly indicate that public access is presently restricted and will continue to be restricted upon wilderness designation and until all archeological resources have been surveyed and protected.

Soil Conservation Service

Comment: Give the location of any other nearby proposed or actual wilderness and/or Wild River areas.

Response: Done in text.

Comment: State plans for stabilizing erosion from trails into the wilderness and disturbed areas at excavated sites.

Response: All trails into wilderness areas will be constructed in such a manner and by such means as are recognized as good engineering practice

to eliminate or minimize erosion. All historical sites that are excavated will be either stabilized by prescribed archeological methods and adequately sheltered or backfilled for protection.

Comment: What are the expected changes in the resident deer population (page 20) without hunting and what effect will these changes in deer population have on the vegetation (habitat)?

Response: As hunting has been prohibited since enabling legislation, only normal minor fluctuations will continue with little effect on vegetative cover, dependent on hunter take in the park periphery and winter kill. Deer management will not be modified in any way by the proposal.

Comment: What effect will the project have on privately owned operating units adjacent to the National Park?

Response: No effect is expected as wilderness designation would not alter present status quo.

Comment: Are there any other projects in the vicinity which might be affected by this action?

Response: None known.

Comment: Are there any rare or endangered species in the proposed wilderness area?

Response: The "Checklist of Birds of Mesa Verde National Park, Colo, January 2, 1964" (Administrative Park files) lists two endangered species and one threatened species for the park, but does not identify the precise location of the sightings.

The "threatened" southern bald eagle, Haliaeetus leucocephalus leucocephalus (Linnaeus), is a rare visitor to the park, having been recorded three times.

The "endangered" prairie falcon, Falco mexicanus (Schlegel), a rare resident, is thought to be more common than records indicate.

The "endangered" peregrine falcon, Falco peregrinus anatum (Bonaparte), is a rare visitor to the park.

Therefore, these birds may occasionally occur in the proposed wilderness areas, but would not be affected by this proposal.

Comment: What width of transitional zone will be required to maintain a wilderness condition? If this transitional zone is located inside the proposed area, how many acres of wilderness condition can be expected?

Response: No transition zone is proposed; however, in all areas proposed the sounds and sightings of man will intrude.

Bureau of Mines

Comment: The statement is essentially an analysis of the many reasons why the three relatively small roadless units should not be made wilderness. Although our review is to include neither approval nor disapproval of the proposed action, the apparent evidence that stands against the proposal leads us to the conclusion that the Department should favor Alternative A, no wilderness classification.

For the sake of completeness we need to take exception to the brief and pessimistic remarks about coal underlying Mesa Verde National Park on pages 15 and 17. Wanek, U. S. Geological Survey Bulletin 1072-M, reported that the Menefee Formation has high volatile C bituminous coal of commercial possibilities and that the park covers a considerable part of the coalfield. Mining from this formation has been confined to three small mines south of the park. Also, sedimentary rock formations known to contain and produce oil and gas, uranium, and carbon dioxide in nearby areas underlie the park.

Response: Text modified to deal with these points under Geology.

Bureau of Outdoor Recreation

Comment: The statement appears to adequately describe the proposal's environmental impacts for those areas in which we have special expertise.

Although Mesa Verde contains resources which qualify as wilderness, the park was established because of its archeological values. It is the singularity of the park's prehistoric ruins and other relics of early man which should establish its management objectives. Therefore, the question becomes: can the Park Service preserve, explore, and adequately interpret for the public the archeological sites if they are administered as wilderness? If the answer is yes, then wilderness study units 2 and 3 should also qualify for wilderness classification.

If indeed the archeological values for which the park was established are compromised by wilderness status, then even the token wilderness areas A and B considered in this proposal should not be classified as wilderness.

Response: The Bureau of Outdoor Recreation has succintly reduced the issue of wilderness designation at Mesa Verde National Park to a single question. The National Park Service developed additional criteria to answer this question namely: areas selected should have been lesser concentration of ruins and those ruins are of lesser size and importance than in other areas; and areas selected are not appropriate for development of visitor facilities to interpret ruins found. The statement presents the impacts of wilderness designation upon archeological resources.

Bureau of Sport Fisheries and Wildlife

Comment: It appears the proposed wilderness area will afford protection of wildlife and wildlife habitat, and environmental aspects have been adequately treated.

With public access limits placed on each unit and with a conversion to a primitive type of recreation, additional protection of wildlife will result. The major problem resulting from a wilderness designation will be archeological research and salvage which does not directly affect our interests.

We find no opposition with the statement for the proposed Mesa Verde Wilderness with regard to Bureau interests.

Response: None

Bureau of Land Management

Comment: The Curecanti National Recreation Area on Blue Mesa Reservoir should be added to the list of National Park Service areas in the second paragraph, page 18.

Response: The area is now mentioned in the text.

Comment: The fourth paragraph, page 18, is inaccurate. We sugges it read: "North and west of the park and extending into Utah lie large acreages of National Resource Lands administered by the Bureau of Land Management. These lands are managed for multiple use resource values, including open space, outdoor recreation, wildlife habitat, and domestic livestock grazing. Some of these National Resource Lands contain great numbers of ruins from the same prehistoric culture that occupied the park."

Response: This statement from BLM has been included in the text.

Comment: The third sentence, fifth paragraph appears inaccurate since commercial outfitters and packers are known to exist in the following towns: Durango, Lake City, Gunnison, Delta.

Response: This reference has been deleted.

Comment: We question the validity of the fifth paragraph, page 24, in light of PL 92-195.

Response: PL 92-195 does not apply to the horses and cattle trespasses in Mesa Verde National Park. Cattle are excluded from the Act and moreover, wild and free roaming horses and burros are defined in the Act to mean "...all unbranded and unclaimed horses and burros on public lands of the United States." The horse trespass from the Ute Mountain Ute Indian Reservation and although unbranded are claimed by that tribe. Additionally public lands are defined in the Act to mean, "...any lands administered by the Secretary of the Interior through the Bureau of Land Management or by the Secretary of Agriculture through the Forest Service." The term "wild horses" is misleading and has been changed to indicate that the horses are those claimed by the Ute Indians.

Comment: The alternative of no wilderness (p. 31) might also discuss the relationship of Mesa Verde National Park Wilderness Proposal with the wilderness potential of other National Park Service lands. It does not point out the uniqueness of the park itself being the only one of its kind in the National Park Service system.

Response: The discussion of the no wilderness alternative was enlarged to include these views.

Geological Survey

Comment: We have nothing to add to the statement concerning hydrologic or geologic aspects of the proposed action.

Response: None

Bureau of Reclamation

Comment: The proposed wilderness units are located entirely within Mesa Verde National Park of southwestern Colorado under jurisdiction of the National Park Service. The Bureau's constructed Mancos Project and authorized Dolores and Animas-La Plata Projects are located in the area surrounding the park. These projects would not be affected by

the proposed wilderness units. The area would be indirectly affected by our Weather Modification Program underway in the San Juan Mountains located several miles north of Mesa Verde National Park. This effect would be minimal.

Response: Text modified to include: "The area would be indirectly affected by the Bureau of Land Management's Weather Modification Program underway in the San Juan Mountains located several miles north of Mesa Verde National Park. This effect would be minimal." This is included under "Partially Known Impacts" section.

Comment: We do not oppose designation of this area as a wilderness. However, our interpretation of the law, which has been reviewed and concurred in by the Solicitor's office, is that weather modification is not precluded in a wilderness area. Therefore, we suggest that the statement recognize the responsibility of the Bureau to conduct a weather modification program in the wilderness area if such a program is found to be desirable.

Response: This determination will not be based on Wilderness legislation, but rather upon the authorizing legislation for the park.

Comment: Restricted access for snow course measurements or for the installation of equipment for precipitation management experiments would seriously handicap maximum use and efficient operation of a watershed in a wilderness area. We believe that any wilderness designation should permit the establishment of and reasonable access to sites for gathering vital hydrologic and climatological data and for conducting precipitation management research activities in connection with the Reclamation program.

Response: The "handicap on use and efficient operation of a watershed" is now recognized as an adverse impact.

Proposed wilderness areas A & B probably are too small and inaccessible to be of interest for gathering hydrologic and climatological data.

The absence of sites for gathering hydrologic and climatological data in proposed wilderness area C is now recognized as an adverse impact to programs of other agencies. The park would not be adversely affected by this prohibition.

Bureau of Indian Affairs, Washington, D. C.

Comment: The document does not appear to consider if the three areas under consideration for wilderness designation actually meet the criteria for such designation.

Response: The document points out that the areas proposed for wilderness are of "sufficient size as to make practicable (their) preservation and use in an unimpaired condition. However, contrary to the definition of wilderness (Sec. 1131 c) wherein the imprint of man's work (is) substantially unnoticed, Mesa Verde National Park was established to preserve the works of man. Units A, B and C contain features of historic value; however, if these units are made available for public use in the future the opportunity for solitude is definitely in question. Views of the surrounding terrain from Units A and B include such features as highways, cities, sawmills, and power plants, and at night the lights of many small communities and ranches. During the daylight hours sounds from the mass transportation system on the nearby Wetherill road are clearly audible. Finally, none of the units may be visited unless the visitors are accompanied by rangers. The latter appears to compromise the values of solitude and opportunity for primitive recreation.

Comment: If a wilderness designation is approved, all forest resources would be subject to the hazard of natural fire without the initiation of fire suppression action.

Response: The document clearly explicates (III,A7) the potential catastrophic effects of uncontrolled forest fires on archeological resources. Wildfire must be suppressed to protect the valuable archeological resources for which Mesa Verde National Park was established. At the present there are differing points-of-view among Federal resource managing agencies concerning the value of suppressing wildfire in natural areas. However, it is a recognized fact that the plateau environment of Mesa Verde is delicate and somewhat brittle, to the extent that the recovery rate by invading plant species in already burned areas of the park is indeed very slow, and more than 100 years are necessary for viable second growth.

Comment: On page 22, it is stated "In January 1973, the park determined that no pack animals are available for sale or rent in southwestern Colorado". Southwestern Colorado stretching from La Veta Pass on the east to the Utah border on the west and Silverton and Saguache on the north to the New Mexico border on the south is horse country. Numerous pack and dude outfits and many operating sales rings have animals for rent all year and have Thursday auctions all year respectively. Horses are available with or without tack.

Response: Answered in text.

Comment: In Section III, A.I.C. (p.20) Pinon-juniper type is referred to as "natural, virgin timber areas". The proper classification would be woodland.

Response: Text modified.

Ute Mountain Ute Agency

Comment: We have reviewed the "Draft Environmental Statement" on the proposed Mesa Verde Wilderness and note that the areas are much changed from the original proposal. The reasons for objection to the original proposal by the Ute Mountain Ute Tribe are no longer valid.

Since the total Mesa Verde is abundantly rich in archaeological remains the entire area should be fully inventoried prior to any wilderness designation. We feel that of the alternatives considered that the designation of all roadless areas as potential wilderness additions is the most realistic. Upon completion of inventories the areas may then be evaluated for wilderness purposes.

National Parks are set aside for specific purposes and reasons. This particular park was set aside to preserve and provide the general public an opportunity to view and learn about the archaeological sites in the area. With wilderness designations the bulk of the general public would not be able to do this now or in the future.

Response: None

Department of Commerce

Comment: A letter was received, but no comment was made.

Advisory Council on Historic Preservation

Comment: This is in response to your request of March 13, 1973, for comments on the environmental statement for Mesa Verde Wilderness, Mesa Verde National Park. Pursuant to its responsibilities under Section 102(2)(c) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has determined that your draft environmental statement is inadequate regarding our area of expertise as it does not contain evidence of compliance with Section 106 of the National Historic Preservation Act of 1966. Because your statement (p. 25, sec. B) clearly indicates an effect caused by the proposed wilderness designation for Mesa Verde National Park, a property listed on the National Register, the environmental statement must contain an account of steps taken in compliance with Section 106. (Procedures for compliance with Section 106 are detailed in the Federal Register of November 14, 1972, pp. 24146-24148).

Response: Consultations with the State Historic Preservation Officer and the Advisory Council on Historic Preservation are in progress. The Procedures for the Protection of Historic and Cultural Properties prepared by the Advisory Council on Historic Preservation, Code of Federal Regulations Title 36, Chapter 8, at Part 800, and published in the Federal Register January 25, 1974, pp. 3366-3370 are being used to assure compliance with Section 106 of the National Historic Preservation Act of 1966 and Executive Order 11593.

The principal concern raised by the State Historic Preservation Officer related to apprehension of increased use due to wilderness designation which will not occur as a direct result of such designation. This is explained herein in response to his comment. No change in management practices that would possibly jeopardize cultural values will be implemented until consultation with the State Historic Preservation Officer and the Advisory Council is complete.

Comment: To insure a comprehensive review of historical, cultural, archeological, and architectural resources, the Advisory Council suggests that the environmental statement contain evidence of contact with the Colorado Historic Preservation Officer, and that a copy of his comments concerning the effects of the undertaking upon these resources be included in the environmental statement. The Colorado Historic Preservation Officer is Stephen H. Hart, State Historical Society, Colorado State Museum, 200 14th Avenue, Denver, Colorado 80203.

Response: Comments of the Colorado Liaison Officer for Historic Preservation are included.

Federal Highway Administration

Comment: We have no comments on this statement and no objections to the proposed action.

Response: None

State Liaison Officer for Historic Preservation, Colo, and President and Chairman of the Board of the State Historical Society.

Comment: I am heartily in accord with Dr. Breternitz's conclusion that it would be a disaster to open any of these areas having important archaeological resources to wilderness area visitors. I have no doubt whatsoever that the supervision of the National Park Service would provide far more protection to these irreplaceable resources than would any existing or proposed wilderness area administration.

Response: The Wilderness Act provides "The inclusion of an area in the National Wilderness Preservation System not withstanding, the area shall continue to be managed by the Department and agency having jurisdiction thereover immediately before its inclusion in the National Wilderness Preservation System unless otherwise provided by Act of Congress."

Therefore, any areas designated as wilderness within the Park would continue to be administered by the National Park Service, unless Congress should provide otherwise.

The proposed action will prohibit public use of wilderness areas until all archeological resources have been surveyed and those which are deemed to have special significance have been thoroughly investigated or salvaged from destruction.

Comment: In addition, I would oppose the opening of areas A and B to wilderness administration until they have been thoroughly explored and the final conclusion had been reached that they contain no prehistoric ruins.

Response: This comment seems to favor an approach similar to that presented in Alternative G, to designate roadless areas as potential wilderness addition, and permit the Secretary of the Interior to designate the areas as wilderness when he determines that they qualify. This would permit time for archeological studies to be completed. Portions of these areas not containing archeological resources would be subject to designation as wilderness by the Secretary of the Interior after they have been surveyed for archeological remains, ruins have been protected and stabilized, and appropriate steps taken to provide for public access and interpretation. Archeological resources would not be designated as wilderness.

Opposition of the State Liaison Officer for Historic Preservation to the wilderness proposal is recognized.

Dr. David A. Breternitz's letter of July 28, 1973 included the following comments in regard to proposed wilderness areas in Mesa Verde National Park:

Comment: "Proposed Wilderness Areas A and B are along the north escarpment of the Mesa Verde. As far as we know there are very few prehistoric ruins in these two areas. The outstanding attractions are scrub and brush slopes which are almost impossible to traverse and the omnipresent view of Highway 160 and the town of Cortez.

"Proposed Wilderness Area C is in the eastern portion of MVNP and includes the eastern escarpment, down into the canyon of Mancos River. We are presently in the process of inventory of the Prehistoric and historic resources of this area. As of this date we have inventoried approximately 75% of Area C and have recorded a total of 108 prehistoric ruins. The sites are predominately surface ruins, and some are quite impressive. Most of the sites are in an undamaged condition and, undoubtedly, some have been purposely visited only by our field crews in the past weeks.

"As an archaeological resource it would be a disaster to open Area C of MVNP to Wilderness Area visitors. There is far more protection for the archaeological resources under the present administrative setup than there would be if this were created as a Wilderness Area.

"It is my personal, and professional, opinion that the archaeological ruins presently in non-visitor areas of MVNP are better protected now than if they were wilderness areas. The archaeological resources within MVNP become scientifically more valuable with the passage of time and the loss of archaeological resources in nearby areas. This cultural resource should be protected as much as possible and I believe that protection is best provided under the present administrative arrangement."

Response: The environmental statement recognizes that Highway 160 and the town of Cortez will be visible from portions of proposed wilderness areas A and B.

The proposed action will prohibit public use of wilderness areas until all archeological resources have been surveyed and those which are deemed to have special significance have been thoroughly investigated or salvaged from destruction.

It is recognized, however, that persons interested in wilderness areas will be attracted to Mesa Verde by the mere designation of wilderness areas and pressure to permit public use could increase.

The environmental statement has been modified to recognize that archeological resources within the park become scientifically more valuable with the passage of time and the loss of archeological resources in nearby areas.

Opposition to the wilderness proposal is acknowledged.

Colorado Division of Wildlife

Comment: Wildlife Commissioner Dean C. Suttle presented testimony at the public hearing on December 16, 1970, in Cortez, Colorado, which supported an earlier recommendation of the National Park Service to exclude all of Mesa Verde National Park from wilderness designation. We can see no reason for changing the Division's original position in this matter.

Arguments in the DES for wilderness classification are not sufficient to justify such action, in our judgement. Preservation of the pinon-juniper ecosystem could be accomplished with less than wilderness status, especially since substantial acreages of this ecosystem have been recommended for wilderness classification at other national park units in Colorado and elsewhere in southwestern United States.

Response: None

Comment: The small size of the units recommended for classification--under 5,000 acres except for Area C--greatly diminishes their usefulness as wilderness, especially with the proximity of heavily used roads to Areas A and B.

Response: This condition is recognized in the statement.

Comment: The description of the flora and fauna is so deficient that it leads us to believe the pagination is incorrect and that a page may

be missing between pages 9 and 11. The statement at top of page 11 that "most fauna described are present here except for Big Horn (sic) Sheep," seems to substantiate this in that no large herbivors were previously mentioned. Since there is no paragraph listing larger mammals, deer, black bear and mountain lion were not included in the fauna.

Omissions in the listing of small mammals include ringtail cat, porcupine, skunks, weasels, bats, and white-tailed antelope squirrel. Ablert's squirrel should be Abert's.

A reintroduction of wild turkeys at some future date is mentioned. The fact that these birds were reintroduced earlier and successfully established should be mentioned.

With the renewed interest in raptorial birds, the more important raptors found in the park should be mentioned.

The presence of certain rare and endangered species should be listed along with those which might possibly be found in the park. Falcons and black-footed ferret are a few which should be considered. Pergerine falcons, for example, have been observed in the park.

We wouldn't expect wilderness classification to have any impacts upon the fauna found in the park, especially in view of the fact that back country travel is restricted. Nevertheless, the DES should consider this aspect.

Response: The statement has been modified to correct errors and supply needed information.

Comment: The DES should recognize new agency names. On page 18, Colorado Department of Game, Fish and Parks should be changed to Colorado Division of Wildlife, and Colorado Division of Parks and Outdoor Recreation. The same change would apply on page 38.

Response: The appropriate changes have been made in the text.

Colorado Division of Parks and Outdoor Recreation

Comment: From our interest in statewide outdoor recreation opportunities, the question of wilderness designation in Mesa Verde is something of a moot point. The roadless areas in this park have been closed to public use; they would continue to be closed under wilderness management. The net effect on outdoor recreation opportunities per se, would be minor and then only when back country use becomes possible and popular.

Response: None

Environmental Protection Agency

Comment: EPA categorizes the statement as LO-1, Lack of Objections, Adequate.

Response: None

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Washington, D.C. 20250

2320
MAY 1 1 1973

Mr. J. Leonard Volz
Director, Midwest Region
National Park Service
1709 Jackson Street
Omaha, Nebraska 68102

Dear Mr. Volz:

We appreciate the opportunity afforded by your letter of March 13 to review draft Environmental Statement DES 73-8 for the proposed Mesa Verde Wilderness. Our comments follow.

1. Paragraph 2 of page 3 contains the statement: "Not recommended for wilderness is the balance of roadless area lands (34,000 acres) which contain a high density of archeological resources (up to 150 sites per square mile) which have not yet been fully surveyed." We infer that the density of sites is one of the main reasons for excluding the area from the proposed Wilderness. In paragraph 2 on page 7, the inclusion of Unit C in the proposed Wilderness is described: "Archeological surveys have not been made in this area, but site densities are believed to be very great (perhaps 100 or more per square mile). The potential for locating large and important archeological sites is significant." The paragraph on page 2 which contains the first quotation indicates that the areas recommended as Wilderness contain lesser concentrations of ruins, both in numbers and importance.

These quotations raise a question about what criteria were actually used to select areas to be proposed as Wilderness, and whether there is significant difference in terms of the density and importance of sites between the areas proposed and not proposed.

2. On page 38, a statement indicates that the National Park Service, before public hearing, recommended no wilderness in Mesa Verde National Park. There is no explanation of why this recommendation was reversed, or what new information, or different conditions required the change.

3. On page 20, item c indicates: "Inclusion of 8,100 acres of land in Mesa Verde National Park in the wilderness system will help preserve wilderness values for future generations." The remainder of the draft Statement seems to point toward how few wilderness values

will remain in the proposed wilderness. The Wilderness Act defines Wilderness, in part, as being undeveloped Federal land "...without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; has outstanding opportunities for solitude or a primitive and unconfined type of recreation...." The report indicates that excavation of ruins may be done by hand tools in the wilderness. Surely, this would leave the imprint of man's work substantially noticeable. The requirement that a uniformed National Park ranger accompany all visitors to the proposed Wilderness will deny an outstanding opportunity for solitude and a primitive and unconfined type of recreation.

Values related to the Act's definition of Wilderness seem to be compromised to the point that the original recommendation against Wilderness may have been well founded.

4. Paragraph 5 on page 4 indicated that: "Immediately after portions of Mesa Verde National Park are designated as wilderness public access will be prohibited." The wording seems to indicate this action will follow the designation, yet paragraph 3 on page 3 indicates that backcountry hiking and public use of roadless areas have not been permitted since the park was established.

Sincerely,

Philip L. Thornton
Deputy Chief, Forest Service

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P. O. Box 17107, Denver, Colorado 80217

April 16, 1973

Mr. J. Leonard Volz, Director
National Park Service
Midwest Region
1709 Jackson Street
Omaha, Nebraska 68102

Dear Mr. Volz:

The draft environmental statement for the proposed Mesa Verde Wilderness, in Montezuma County, Colorado, that was addressed to Mr. Kenneth E. Grant; Soil Conservation Service; Washington, D. C.; on March 13, 1973, was referred to me for review and comment.

1. Give the location of any other nearby proposed or actual wilderness and/or Wild River areas.

2. State plans for stabilizing erosion from trails into the wilderness and disturbed areas at excavated sites.

3. What are the expected changes in the resident deer population (page 20) without hunting and what effect will these changes in deer population have on the vegetation (habitat).

4. What effect will the project have on privately owned operating units adjacent to the National Park?

5. Are there any other projects in the vicinity which might be affected by this action?

6. Are there any rare or endangered species in the proposed wilderness area?

7. What width of transitional zone will be required to maintain a wilderness condition? If this transitional zone is located inside the proposed area, how many acres of wilderness condition can be expected?

The Soil Conservation Service does not have any projects which will be affected by this proposal.

We appreciate the opportunity to review and comment on this proposed project.

Sincerely,

M. D. Burdick
State Conservationist

OFFICE OF THE DIRECTOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON, D.C. 20240

April 23, 1973

Memorandum

To: Director, Midwest Region, National Park Service, Omaha, Nebraska

Through: Deputy Assistant Secretary--Energy and Minerals APR 26 1973

From: Director, Bureau of Mines

Subject: Draft environmental statement, proposed Mesa Verde Wilderness, Mesa Verde National Park, Colorado

We have reviewed the draft environmental statement of the Park Service proposing wilderness for three units of Mesa Verde National Park, Colorado.

The statement is essentially an analysis of the many reasons why the three relatively small roadless units should not be made wilderness. Although our review is to include neither approval nor disapproval of the proposed action, the apparent evidence that stands against the proposal leads us to the conclusion that the Department should favor Alternative A, no wilderness classification.

For the sake of completeness we need to take exception to the brief and pessimistic remarks about coal underlying Mesa Verde National Park on pages 15 and 17. Wanek, U.S. Geological Survey Bulletin 1072-M, reported that the Menefee Formation has high volatile C bituminous coal of commercial possibilities and that the park covers a considerable part of the coalfield. Mining from this formation has been confined to three small mines south of the park. Also, sedimentary rock formations known to contain and produce oil and gas, uranium, and carbon dioxide in nearby areas underlie the park.

Acting Director

United States Department of the Interior

BUREAU OF OUTDOOR RECREATION
WASHINGTON, D.C. 20240

IN REPLY REFER TO:
D7223-Mesa Verde Wilderness

APR 9 1973

J. Leonard Volz
Director, Midwest Region
National Park Service
1709 Jackson Street
Omaha, Nebraska 68102

Dear Mr. Volz:

Thank you for providing the opportunity to review and comment on the draft environmental impact statement prepared for the proposed wilderness areas in Mesa Verde National Park.

The statement appears to adequately describe the proposal's environmental impacts for those areas in which we have special expertise.

General Comments

Although Mesa Verde contains resources which qualify as wilderness, the Park was established because of its archeological values. It is the singularity of the Park's prehistoric ruins and other relics of early man which should establish its management objectives. Therefore, the question becomes: can the Park Service preserve, explore, and adequately interpret for the public the archeological sites if they are administered as wilderness? If the answer is yes, then wilderness study units 2 and 3 should also qualify for wilderness classification.

If indeed the archeological values for which the park was established are compromised by wilderness status, then even the token wilderness areas A and B considered in this proposal should not be classified as wilderness.

Sincerely yours,

for James G. Watt
Director

ADDRESS ONLY THE DIRECTOR,
BUREAU OF SPORT FISHERIES
AND WILDLIFE

United States Department of the Interior
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE
WASHINGTON, D.C. 20240

In Reply Refer To:
FSF/RF

Mr. J. Leonard Volz
Director, Midwest Region
National Park Service
1709 Jackson Street
Omaha, Nebraska 68102

In accordance with your request of March 13 we have reviewed the subject environmental statement. It appears the proposed wilderness area will afford protection of wildlife and wildlife habitat, and environmental aspects have been adequately treated.

With public access limits placed on each unit and with a conversion to a primitive type of recreation, additional protection of wildlife will result. The major problem resulting from a wilderness designation will be archaeological research and salvage which does not directly affect our interests.

We find no opposition with the statement for the proposed Mesa Verde Wilderness with regard to Bureau interests.

L. Kahl Martinson

Acting Assistant
Director

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

DES 73/8

Memorandum

To: Director, Midwest Region, National Park Service, Omaha, Nebraska
Through: Assistant Secretary--Land and Water Resources

Frpm: Director, Bureau of Land Management

Subject: Draft Environmental Statement Wilderness Proposal - Mesa Verde National Park, Colorado

We have reviewed the draft environmental statement on the proposed wilderness area in Mesa Verde National Park, Colorado, and have the following specific comments.

1. The Curecanti National Recreation Area on Blue Mesa Reservoir should be added to the list of National Park Service areas in the second paragraph, page 18.

2. The fourth paragraph, page 18, is inaccurate. We suggest it read: "North and west of the Park and extending into Utah lie large acreages of National Resource Lands administered by the Bureau of Land Management. These lands are managed for multiple use resource values, including open space, outdoor recreation, wildlife habitat, and domestic livestock grazing. Some of these National Resource Lands contain great numbers of ruins from the same prehistoric culture that occupied the Park."

3. The third sentence, fifth paragraph appears inaccurate since commercial outfitters and packers are known to exist in the following towns: Durango, Lake City, Gunnison, Delta.

4. We question the validity of the fifth paragraph, page 24, in light of PL 92-195.

5. The alternative of no wilderness (p. 31) might also discuss the relationship of Mesa Verde National Park Wilderness Proposal with the wilderness potential of other National Park Service lands. It does not point out the uniqueness of the Park itself being the only one of its kind in the National Park Service system.

George A. Turcott
Associate

United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20244

OFFICE OF THE DIRECTOR

April 24, 1973

DES 73-8

Memorandum

To: Director, Midwest Region, National Park Service, Omaha, Nebraska

From: Director, Geological Survey

Subject: Draft environmental statement Wilderness Proposal--Mesa Verde National Park, Colorado

We have reviewed the subject draft environmental statement as you requested in a letter of March 13. We have nothing to add to the statement cocerning hydrologic or geologic aspects of the proposed action.

Acting Director

United States Department of the Interior

BUREAU OF RECLAMATION
WASHINGTON, D.C. 20240

IN REPLY
REFER TO: 739
125.

APR 18 1973

Mr. J. Leonard Volz
Director, Midwest Region
National Park Service
1709 Jackson Street
Omaha, Nebraska 68102

Dear Mr. Volz:

This responds to your letter of March 13 furnishing a copy of the draft environmental statement for the proposed wilderness classification, Mesa Verde National Park, Colorado.

The proposed wilderness units are located entirely within Mesa Verde National Park of southwestern Colorado under jurisdiction of the National Park Service. The Bureau's constructed Mancos Project and authorized Dolores and Animas-La Plata Projects are located in the area surrounding the park. These projects would not be affected by the proposed wilderness units. The area would be indirectly affected by our Weather Modification Program underway in the San Juan Mountains located several miles north of Mesa Verde National Park. This effect would be minimal.

We do not oppose designation of this area as a wilderness. However, our interpretation of the law, which has been reviewed and concurred in by the Solicitor's office, is that weather modification is not precluded in a wilderness area. Therefore, we suggest that the statement recognize the responsibility of the Bureau to conduct a weather modification program in the wilderness area if such a program is found to be desirable.

Restricted access for snow course measurements or for the installation of equipment for precipitation management experiments would seriously handicap maximum use and efficient operation of a watershed in a wilderness area. We believe that any wilderness designation should permit the establishment of and reasonable access to sites for gathering vital hydrologic and climatological data and for conducting precipitation management research activities in connection with the Reclamation program.

Sincerely yours,

Acting Commissioner

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
WASHINGTON, D.C. 20242

IN REPLY REFER TO:
Environmental Quality
A98

MAY 9 1973

Memorandum

To: Director, Midwest Region
National Park Service

From: Acting Director, Office of Planning

Subject: Draft Environmental Statement Wilderness Proposal-Mesa Verde National Park, Colorado (DES 73/8)

We have reviewed the subject statement in response to your request of March 13, 1973, and submit the following comments:

General Comments:

The document does not appear to consider if the three areas under consideration for wilderness designation actually meet the criteria for such designation.

If a wilderness designation is approved, all forest resources would be subject to the hazard of natural fire without the initiation of fire suppression action.

Specific Comments:

On page 22, it is stated "In January 1973, the Park determined that no pack animals are available for sale or rent in southwestern Colorado". Southwestern Colorado stretching from La Veta Pass on the east to the Utah border on the west and Silverton and Saguache on the north to the New Mexico border on the south is horse country. Numerous pack and dude outfits and many operating sales rings have animals for rent all year and have Thursday auctions all year respectively. Horses are available with or without tack.

In Section III, A.I.C. (p. 20) Pinon-juniper type is referred to as "natural, virgin timber areas". The proper classification would be woodland.

4/c

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF INDIAN AFFAIRS
Ute Mountain Ute Agency
Phillip Coyote Sr., Memorial Hall
Towaoc, Colorado 81334

April 19, 1973

Mr. Ronald R. Switzer
General Superintendent
Mesa Verde National Park,
Colorado 81330

Dear Mr. Switzer:

We have reviewed the "Draft Environment Statement" on the proposed Mesa Verde Wilderness and note that the areas are much changed from the original proposal. The reasons for objection to the original proposal by the Ute Mountain Ute Tribe are no longer valid.

Since the total Mesa Verde is abundantly rich in archaeological remains the entire area should be fully inventoried prior to any wilderness designation. We feel that of the alternatives considered that the designation of all roadless areas as potential wilderness additions is the most realistic. Upon completion of inventories the areas may then be evaluated for wilderness purposes.

National Parks are set aside for specific purposes and reasons. This particular park was set aside to preserve and provide the general public an opportunity to view and learn about the archaeological sites in the area. With wilderness designations the bulk of the general public would not be able to do this now or in the future.

If we can be of further assistance in this matter please feel free to call upon us.

Sincerely yours,

Superintendent

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Science and Technology
Washington, D.C. 20230

APR 23 1973

Mr. J. Leonard Volz
Director, Midwest Region
U. S. Department of the Interior
1709 Jackson Street
Omaha, Nebraska 68102

Dear Mr. Volz:

Thank you for your letter of March 13, 1973, to the Secretary of Commerce, transmitting the environmental impact statement of the Department of the Interior on the Wilderness Proposal - Mesa Verde National Park, Colorado, for Department of Commerce review. This letter has been directed to the attention of Dr. Sidney R. Galler, Deputy Assistant Secretary for Environmental Affairs.

Dr. Galler will direct the Departmental review of this proposal and provide you with any comments which may be forthcoming. In order to expedite the Department's review, further correspondence concerning this proposal should be addressed to Dr. Galler.

Sincerely,

Betsy Ancker-Johnson

Betsy Ancker-Johnson
Assistant Secretary
for Science and Technology

ADVISORY COUNCIL
ON
HISTORIC PRESERVATION

WASHINGTON, D.C. 20240

MAY 17

Mr. J. Leonard Volz
Director, Midwest Region
National Park Service
1709 Jackson Street
Omaha, Nebraska 68102

Dear Mr. Volz:

This is in response to your request of March 13, 1973, for comments on the environmental statement for Mesa Verde Wilderness, Mesa Verde National Park. Pursuant to its responsibilities under Section 102(2)(c) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has determined that your draft environmental statement is inadequate regarding our area of expertise as it does not contain evidence of compliance with Section 106 of the National Historic Preservation Act of 1966. Because your statement (p. 25, sec. B) clearly indicates an effect caused by the proposed wilderness designation for Mesa Verde National Park, a property listed on the National Register, the environmental statement must contain an account of steps taken in compliance with Section 106. (Procedures for compliance with Section 106 are detailed in the Federal Register of November 14, 1972, pp. 24146-24148.)

To insure a comprehensive review of historical, cultural, archeological, and architectural resources, the Advisory Council suggests that the environmental statement contain evidence of contact with the Colorado Historic Preservation Officer, and that a copy of his comments concerning the effects of the undertaking upon these resources be included in the environmental statement. The Colorado Historic Preservation Officer is Stephen H. Hart, State Historical Society, Colorado State Museum, 200 14th Avenue, Denver, Colorado 80203.

Should you have any questions on these comments or require any additional assistance, please contact Louis S. Wall of the Advisory Council staff.

Sincerely yours,

Myra Harrison

Myra Harrison
Acting Compliance Officer

THE COUNCIL, *an independent agency of the Executive Branch of the Federal Government, is charged by the Act of October 15, 1966, with advising the President and Congress in the field of Historic Preservation, commenting on Federal, federally assisted, and federally licensed undertakings having an effect upon properties listed in the National Register of Historic Places, recommending measures to coordinate governmental with private activities, advising on the dissemination of information, encouraging public interest and participation, recommending the conduct of special studies, advising in the preparation of legislation, and encouraging specialized training and education, and guiding the United States membership in the International Centre for the Study of the Preservation and the Restoration of Cultural Property in Rome, Italy.*

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON, D.C. 20590

APR 23 1973

IN REPLY REFER TO: HEV-10

Colorado

Mr. J. Leonard Volz
Director, Midwest Region
National Park Service
U.S. Department of the Interior
1709 Jackson Street
Omaha, Nebraska 68102

Dear Mr. Volz:

Thank you for the opportunity to review the draft environmental statement which was forwarded by your letter dated March 13, 1973, for the proposed wilderness proposal for Mesa Verde National Park, Colorado. We have no comments on this statement and no objections to the proposed action.

In future cases of projects which involve natural, ecological, cultural, scenic, historic, or recreation resources of national significance or of actions with national policy implications, the statement should be furnished to the Secretary of Transportation for comment. Other projects can be coordinated directly with the appropriate Regional Federal Highway Administrator. We are enclosing a list for your convenience.

Sincerely yours,

Joseph M. O'Connor

Joseph M. O'Connor
Associate Administrator for
Right-of-Way and Environment

Enclosure

Reg. No.	RFHWA	Division Office
1	W. H. White 4 Normanskill Blvd. Delmar, N.Y. 12054	Connecticut (Hartford) Maine (Augusta) Massachusetts (Boston) New Hampshire (Concord) Rhode Island (Providence) Vermont (Montpelier) New Jersey (Trenton) New York (Albany) Puerto Rico (Santurce)
3	William O. Comella 31 Hopkins Plaza Baltimore, Md. 21201	Delaware (Dover) District of Columbia Maryland (Baltimore) Pennsylvania (Harrisburg) Virginia (Richmond) West Virginia (Charleston)
4	Harry E. Stark 1720 Peachtree Rd, NW. Atlanta, Ga. 30309	Alabama (Montgomery) Florida (Tallahassee) Georgia (Atlanta) Kentucky (Frankfort) Mississippi (Jackson) North Carolina (Raleigh) South Carolina (Columbia) Tennessee (Nashville)
5	Gerald D. Love 18209 Dixie Highway Homewood, Ill. 60430	Illinois (Springfield) Indiana (Indianapolis) Michigan (Lansing) Minnesota (St. Paul) Ohio (Columbus) Wisconsin (Madison)
6	James W. White 819 Taylor Street Fort Worth, Tex. 76102	Arkansas (Little Rock) Louisiana (Baton Rouge) New Mexico (Santa Fe) Oklahoma (Oklahoma City) Texas (Austin)
7	John B. Kemp P. O. Box 7186 Country Club Station Kansas City, Mo. 64113	Iowa (Ames) Kansas (Topeka) Missouri (Jefferson City) Nebraska (Lincoln)
8	William H. Baugh Rm. 242, Bldg. 40 Denver Federal Center Denver, Colo. 80225	Colorado (Denver) Montana (Helena) North Dakota (Bismarck) South Dakota (Pierre) Utah (Salt Lake City) Wyoming (Cheyenne)
9	Frank E. Hawley 450 Golden Gate Ave. San Francisco, Calif. 94102	Arizona (Phoenix) California (Sacramento) Hawaii (Honolulu) Nevada (Carson City)
10	Louis E. Lybecker 222 SW. Morrison St. Portland, Ore. 97204	Alaska (Juneau) Idaho (Boise) Oregon (Salem) Washington (Olympia)

THE STATE HISTORICAL SOCIETY OF COLORADO

Colorado State Museum, 200 Fourteenth Avenue, Denver 80203

August 13, 1973

Mr. Farrell S. Copelin
National Park Service
160 So. Ames
Denver, Colorado 80226

Dear Mr. Copelin:

Enclosed herewith is a letter from Professor David A. Breternitz of the University of Colorado, Director of its Archaeological Research Center at Mesa Verde, dated July 28, 1973. I apologize for the fact that this letter was held in the offices of the State Historical Society and not forwarded to my downtown office until the end of last week. Dr. Breternitz's knowledge of the three proposed wilderness areas is infinitely greater than mine and if we differed, I would advise following his judgment. However, based on superficial knowledge of the area as well as long experience with administration of public lands and particularly national parks and wilderness areas, I agree completely with Dr. Breternitz.

I do have some background in this general area having served for approximately six years as the liaison officer for Governor Love to the Public Land Law Review Commission which studied the total problem of the administration of public lands and the interrelationship of various agencies concerned with them. I am heartily in accord with Dr. Breternitz's conclusion that it would be a disaster to open any of these areas having important archaeological resources to wilderness area visitors. I have no doubt whatsoever that the supervision of the National Park Service would provide far more protection to these irreplaceable resources than would any existing or proposed wilderness area administration. In addition, I would oppose the opening of areas A and B to wilderness administration until they have been thoroughly explored and the final conclusion had been reached that they contain no prehistoric ruins.

I am writing this letter not only as the President and Chairman of the Board of the State Historical Society which has jurisdiction over certain archaeological resources in Colorado, but also as Colorado State Historic Preservation Officer which is

presently engaged in analyzing Colorado's archaeological and historic places for restoration, preservation and nomination to the National Register of Historic Places.

Sincerely,

Stephen H. Hart

SHH:sw
cc - Dr. David A. Breternitz

UNIVERSITY OF COLORADO

ARCHAEOLOGICAL RESEARCH CENTER

MESA VERDE NATIONAL PARK

COLORADO 81330

28 July 1973

Mr. Stephen Hart
State Liaison Officer
Colorado State Historical Society
14th and Sherman Streets
Denver, Colorado

Dear Mr. Hart:

I am writing in regard to the Wilderness Area(s) proposed for Mesa Verde National Park.

Proposed Wilderness Areas A and B are along the north escarpment of the Mesa Verde. As far as we know there are very few prehistoric ruins in these two areas. The outstanding attractions are scrub and brush slopes which are almost impossible to traverse and the omnipresent view of Highway 160 and the town of Cortez.

Proposed Wilderness Area C is in the eastern portion of MVNP and includes the eastern escarpment, down into the canyon of the Mancos River. We are presently in the process of inventory of the Prehistoric and historic resources of this area. As of this date we have inventoried approximately 75% of Area C and have recorded a total of 108 prehistoric ruins. The sites are predominately surface ruins, and some are quite impressive. Most of the sites are in an undamaged condition and, undoubtedly, some have been purposely visited only by our field crews in the past weeks.

As an archaeological resource it would be a disaster to open Area C of MVNP to Wilderness Area visitors. There is far more protection for the archaeological resources under the present administrative setup than there would be if this were created as a Wilderness Area.

It is my personal, and professional, opinion that the archaeological ruins presently in non-visitor areas of MVNP are better protected now than if they were wilderness area. The archaeological resources within MVNP become scientifically more valuable with the passage of time and the loss of archaeological resources in nearby areas. This cultural resource should be protected as much as possible and I believe that protection is best provided under the present administrative arrangement.

Sincerely yours,

David A. Breternitz

David A. Breternitz
Director, Mesa Verde
Research Center

cc: Gen. Supt., MVNP

STATE OF COLORADO
~~XXXXXXXXX~~, Governor, John Vanderhoof
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
[illegible], Acting Director
[illegible]
[illegible], Colorado 80216 (825-1192)

July 24, 1973

JUL 1973

Mr. James L. Dunning, Colorado State Director
National Park Service
Box 26248
Lakewood, Colorado 80226

Dear Mr. Dunning:

This Division has had an opportunity to review the draft environmental statement for Proposed Mesa Verde Wilderness, Mesa Verde National Park, Colorado, identified as DES 73-8, dated February 12, 1973, prepared by the National Park Service.

Wildlife Commissioner Dean C. Suttle presented testimony at the public hearing on December 16, 1970, in Cortez, Colorado, which supported an earlier recommendation of the National Park Service to exclude all of Mesa Verde National Park from wilderness designation. We can see no reason for changing the Division's original position in this matter.

Arguments in the DES for wilderness classification are not sufficient to justify such action, in our judgement. Preservation of the pinon-juniper ecosystem could be accomplished with less than wilderness status, especially since substantial acreages of this ecosystem have been recommended for wilderness classification at other national park units in Colorado and elsewhere in southwestern United States. The small size of the units recommended for classification--under 5,000 acres except for Area C-greatly diminishes their usefulness as wilderness, especially with the proximity of heavily used roads to Areas A and B. The requirement that visitors be accompanied by a ranger raises serious doubts as to whether these areas will provide the "soltitude" mentioned in the Wilderness Act of 1964.

The description of the flora and fauna is so deficient that it leads us to believe the pagination is incorrect and that a page might be missing between pages 9 and 11. The statement at top of page 11 that "most fauna described are present here except for Big Horn (sic) Sheep," seems to substantiate this in that no large herbivors were previously mentioned. Since there is no paragraph listing larger mammals, deer, black bear and mountain lion were not included in the fauna.

DEPARTMENT OF NATURAL RESOURCES, T. W. Ten [illegible]utive Director • WILDLIFE COMMISSION, [illegible] Chairman

Omissions in the listing of small mammals include ringtail cat, porcupine, skunks, weasels, bats, and white-tailed antelope squirrel. Albert's squirrel should be Abert's.

A reintroduction of wild turkeys at some future date is mentioned. The fact that these birds were reintroduced earlier and successfully established should be mentioned.

With the renewed interest in raptorial birds, the more important raptors found in the Park should be mentioned.

The presence of certain rare and endangered species should be listed along with those which might possibly be found in the Park. Falcons and black-footed ferret are a few which should be considered. Pergerine falcons, for example, have been observed in the Park.

We wouldn't expect wilderness classification to have any impacts upon the fauna found in the Park, expecially in view of the fact that back country travel is restricted. Nevertheless, the DES should consider this aspect.

The DES should recognize new agency names. On page 18, Colorado Department of Game, Fish and Parks should be changed to Colorado Division of Wildlife, and Colorado Division of Parks and Outdoor Recreation. The same change would apply on page 38.

We appreciate your providing us with an opportunity to comment on this document.

Sincerely,

Robert R. Elliott
Acting Director

RLH:jr
cc: R. Brown

STATE OF COLORADO
John A. Love, Governor

DEPARTMENT OF NATURAL RESOURCES
T. W. Ten Eyck, Executive Director

DIVISION OF PARKS AND OUTDOOR RECREATION

6060 BROADWAY, DENVER, COLO. 80216

GEORGE T. O'MALLEY, JR., Director

PARKS AND OUTDOOR RECREATION BOARD
Mrs. Rowena Rogers, Chairman
Lyman W. Thomas, Vice Chairman
Herbert L. Jones, Secretary
Marvin Elkins, Member
Theodore R. Schubert, Member

23 JUL 1973

July 18, 1973

Mr. James L. Dunning
National Park Service
P.O. Box 26248
Lakewood, Colorado 80226

Dear Mr. Dunning:

Thank you for requesting our comments on the draft impact statement regarding proposed wilderness in Mesa Verde National Park.

From our interest in statewide outdoor recreation opportunities, the question of wilderness designation in Mesa Verde is something of a moot point. The roadless areas in this park have been closed to public use; they would continue to be closed under wilderness management. The net effect on outdoor recreation opportunities per se, would be minor and then only when back country use becomes possible and popular.

Sincerely yours,

Alan R. Everson
Senior Planner

ARE/bb

cc: R. Brown

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80203

April 20, 1973

Ref: AWIE

Mr. J. Leonard Volz
Director, Midwest Region
National Park Service
1709 Jackson Street
Omaha, Nebraska 68102

Dear Mr. Volz:

The Environmental Protection Agency has reviewed the draft environmental statement for the proposed Mesa Verde Wilderness, Mesa Verde National Park, Colorado and concurs with the proposal to designate 8,100 acres of the Park as wilderness. We have no comments on whether additional areas should be proposed for wilderness areas at this time.

In accordance with the current guidelines of the Environmental Protection Agency, the proposed action and environmental statement will be categorized in the Federal Register as LO-1. A copy of the rating system is enclosed for your information.

Please send us a copy of the final environmental statement at the time it is transmitted to the Council on Environmental Quality.

Sincerely yours,

John A. Green
Regional Administrator

Enclosure

Environmental Impact of the Action

LO--Lack of Objections

EPA has no objections to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER--Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2--Insufficient Information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

If a draft impact statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.