final environmental statement

master plan

GRAND TETON

NATIONAL PARK / WYOMING

FINAL
ENVIRONMENTAL IMPACT STATEMENT
MASTER PLAN

GRAND TETON NATIONAL PARK

Table of Contents

Summary

( ) Draft (X) Final Environmental Statement

Department of the Interior, National Park Service, Rocky Mountain Region, Grand Teton National Park

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

2. Brief description of action: The National Park Service, U.S. Department of the Interior, proposes a master plan for management and use of Grand Teton National Park which provides for increased public enjoyment of park experiences with reduced impact on park resources.

3. Summary of environmental impact and adverse environmental effects: The master plan proposes to continue the direction of management away from the exploitative uses characteristic of pre-park days, toward further restoration of national and historic resources. The public will be encouraged to accept a way of life that is more in harmony with the environment, while visiting the park. Thus, the plan proposes to reduce unfavorable impacts on the park's ecosystems.

Some of the adverse effects are: reduction in the immediate local economy, high costs for pollution abatement and facility obliteration, and shifting of recreational uses to areas outside the park.

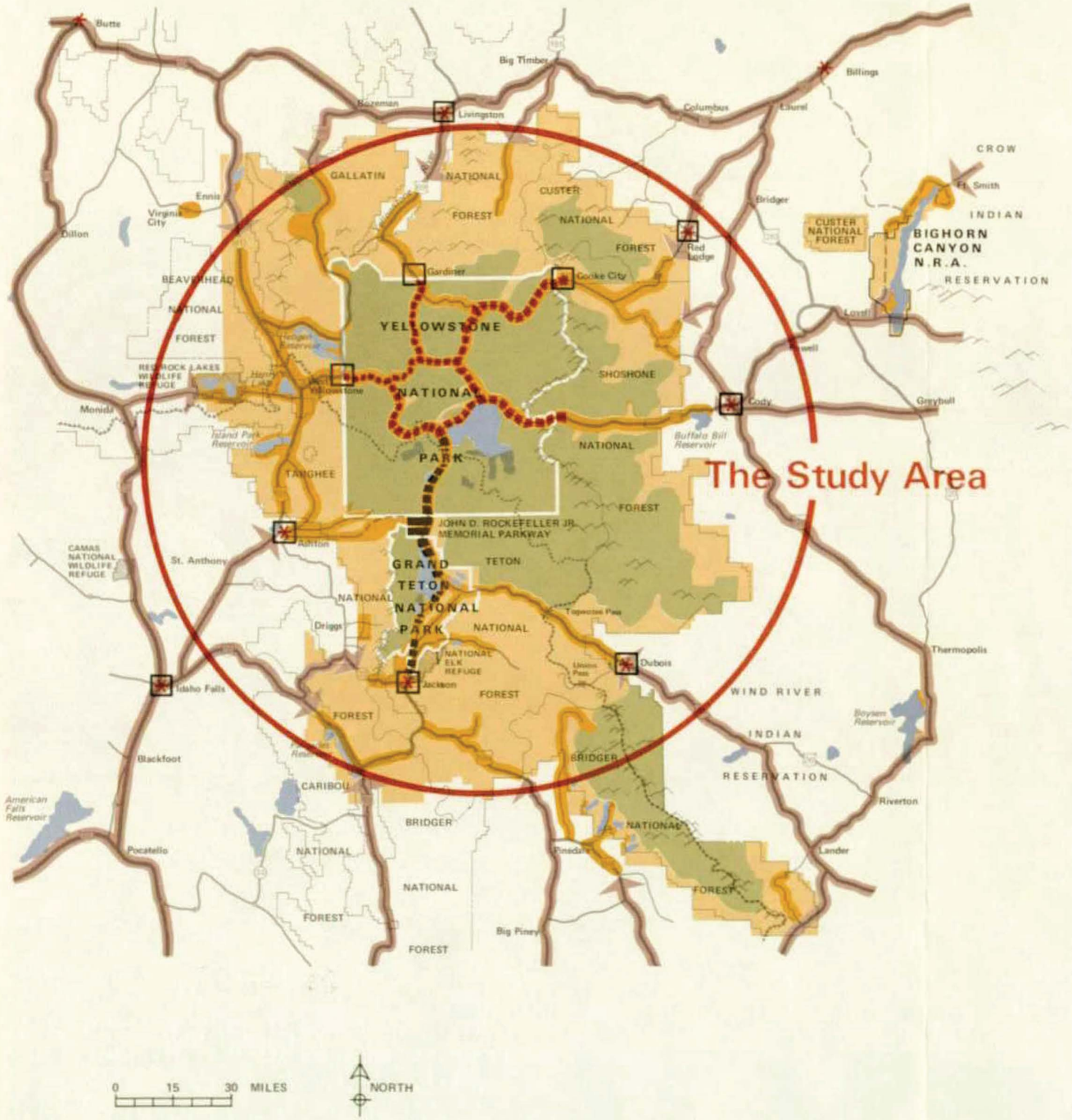
4. Alternatives considered:
Alternatives are discussed for each of the basic master plan considerations.

5. Comments have been requested and received from the following:

Department of Agriculture
*Forest Service
Soil Conservation Service
Department of the Interior
*Fish and Wildlife Service
*Bureau of Outdoor Recreation
*Bureau of Reclamation
*Bureau of Land Management
**Bureau of Mines
*Geological Survey
*Environmental Protection Agency
*State Clearinghouse, Wyoming
*Department of Defense
*State Liaison Officer for Historic Preservation
Department of Transportation
Federal Aviation Administration

6. Date made available to CEQ and the public:
Draft Statement: February 7, 1972
Final Statement: SEP [illegible]75
SEP 24 1975

*Comments received and attached
**On July 1, 1975, the Bureau of Mines informed the National Park Service that they had no comments on the draft environmental statement.



VISITOR IMPACT ZONE

PRIMITIVE / WILDERNESS ZONE

RECREATION / UTILIZATION ZONE

PRINCIPAL ACCESS ROUTE

ACCOMMODATIONS CENTER

COOPERATIVE INFORMATION CENTER

SUPPLEMENTAL INTERPRETIVE SYSTEM

JOHN D. ROCKEFELLER JR. MEMORIAL PARKWAY

The REGION

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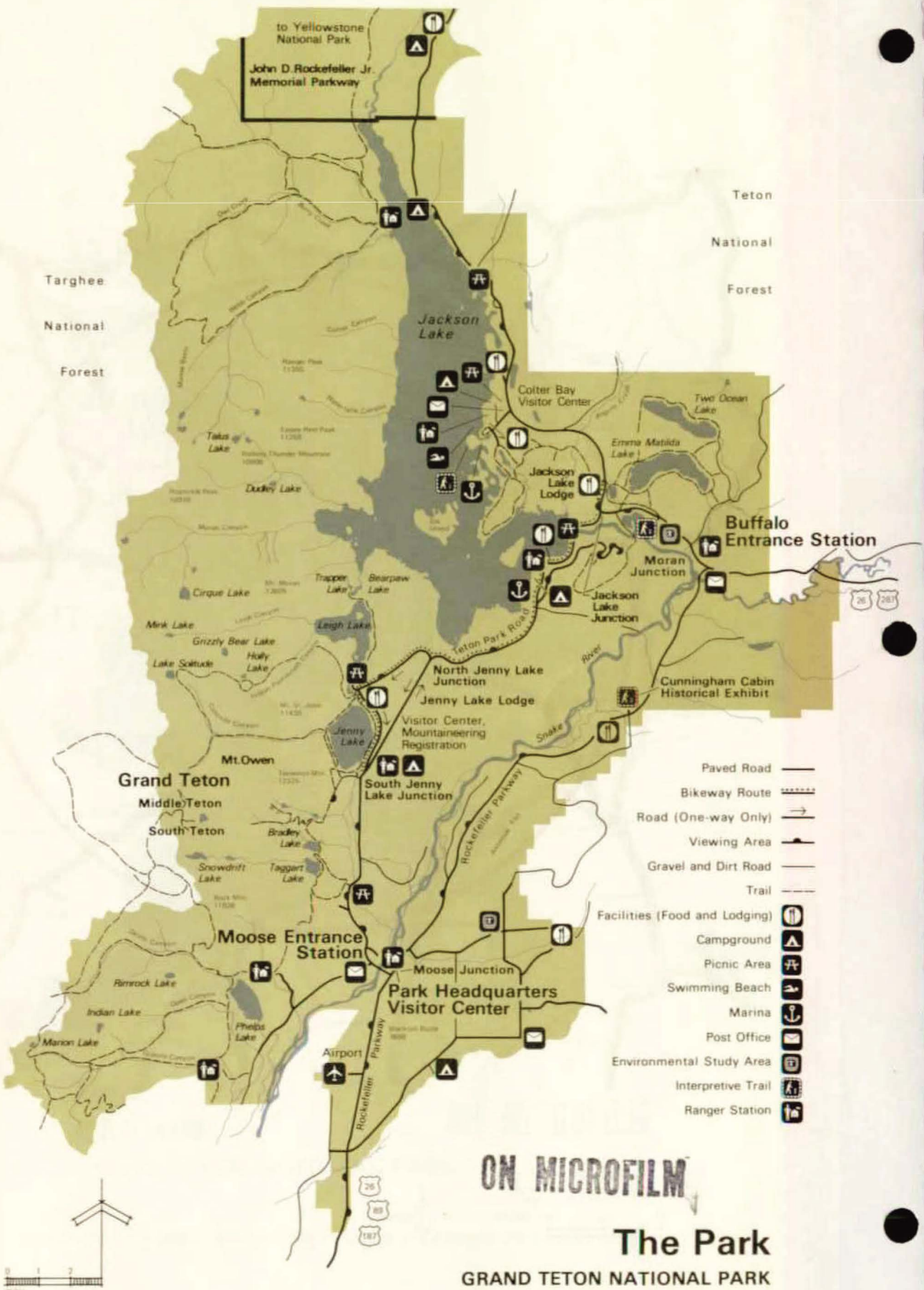

The Park

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I. DESCRIPTION OF PROPOSAL

Since the establishment of the original Grand Teton National Park in 1929, the relationships between people and the natural and historic resources of the park have evolved from light use of the mountains and predominantly consumptive use of the resources of Jackson Hole, to greatly increased mountain use and more emphasis on appreciative use of the valley with reduced impact on park resources. It should be noted that this master plan was developed concurrently with that of Yellowstone National Park.

This master plan calls for a further shift away from the kinds and amounts of uses and accommodations that tend to degrade park resources and associated human experiences, toward those more in harmony with the environment. It must be emphasized that the master plan presents concepts rather than detailed proposals. As planning proceeds and the proposals are better defined in the next step of development planning (development concept plans for specific areas) and resource planning (resources management programs) further environmental assessments, and, if appropriate, environmental statements will be prepared.

The master plan directs management to take the following specific actions.

A. Resource Use Capacities

Implicit in all efforts to accommodate visitors within Grand Teton National Park is the fact that upper limits of use exist, beyond which resource quality and/or the level of visitor enjoyment diminishes. To prevent increased pressures from damaging the park's delicate and interdependent elements, resource carrying capacities must be established. The number of people that can interact and still find a quality park experience varies immensely. Determination of visitor-use impact upon the landscape and methods to identify optimum visitor densities is imprecise. A prescription or formula must be designed ultimately, however. Numerical limits must be established that relate to numbers of people, types of use, and duration of stay within a given area. Furthermore, limits must be flexible to allow management to resolve unanticipated environmental or esthetic deterioration.

B. Development Ceilings

Holding overnight accommodations, visitor convenience facilities, and backcountry trail development to levels not exceeding those reached in 1971, within the park. In the park, there are now overnight lodging facilities for 3,957 persons in lodging and

cabins; 32 primitive backcountry campsites; 1,275 campsites in five developed campgrounds; 115 rental sites for trailers; five automotive service stations; three marinas; seven float trip access areas; several grocery stores, gift shops, coffee shops, and tackle shops; a laundromat; and all of the facilities necessary to the support of that array of accommodations, including sewage treatment and solid waste disposal facilities, and the housing and operational facilities required for the administration and management of the park. The eventual removal of some of the aforementioned facilities from the park, or their placement in less significant parts of the park, is called for by the plan.

C. Pollution Abatement

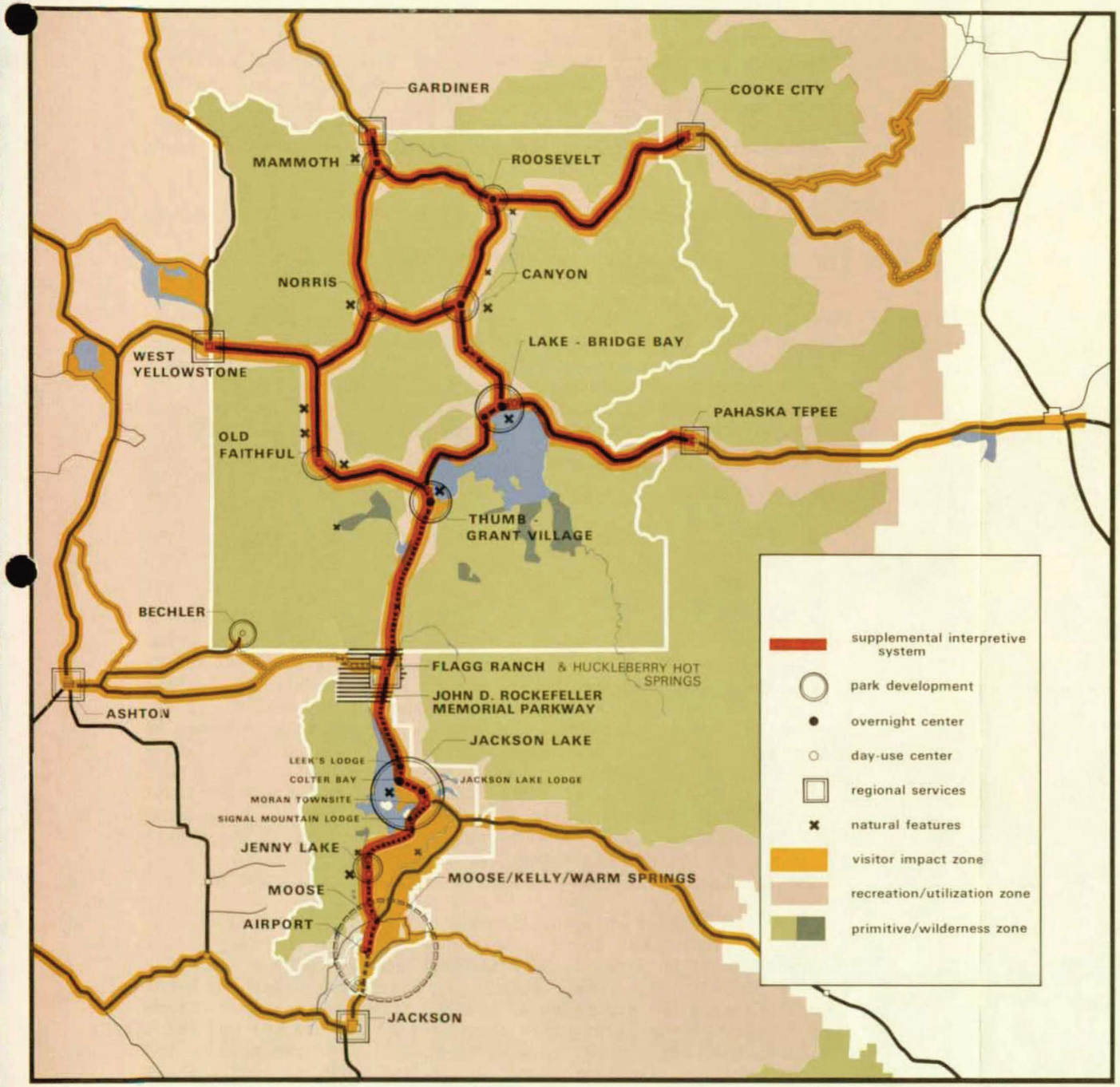
Imposing more strict controls over the pollutants produced in support of park visitors and Service and concession employees. In accordance with Executive Order 11752, the Service plans to install sewage treatment facilities that will eliminate pollution problems now extant (although relatively minor) in the Jackson Lake area and at Moose. Plans have been carried out for the consolidated treatment of all solid wastes collected in the park on a basis fully in accord with the strictures of current federal and state solid waste disposal requirements. This has eliminated the park's three marginal landfill sites and shifted disposal to a landfill operated outside the park with the joint support of the National Park Service and neighboring federal, state, and local entities. Proposed changes in modes and paths of visitor access also should reduce levels of pollution -- primarily, of air pollution.

D. Intrusive Cultural Features

To further reduce the impact of the intrusive cultural features of the Park Service residences and operational facilities at Beaver Creek and Taggart Creek. The program of willing seller-willing buyer acquisition of inholdings and restoration of same to natural or historic conditions is called for in the proposal. Private tracts within the park number in excess of 150, totalling 5,997 acres. A study of alternative sites for the residential and operation complex at Moose is to be conducted and acted upon. Prior to making the decision to remove such structure, it will be professionally evaluated for cultural and historical significance.

E. Visitor Transportation

The existing Teton Park Road superimposes a conflicting through-experience upon an already high-density activity zone, resulting in congestion during peak summer use periods. Through-use of this zone must be eliminated; and some form of supplemental interpretive and transportation system, serving and connecting the park's visitor service and interpretive hubs, must be devised



Visitor Use Concept THE CORE PARKS

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GARDINER
- Accommodations / Services
- Information / Interpretation

MAMMOTH
- Administration – Operations
- Interpretation
  - history
  - geology
- Visitor Services

ROOSEVELT
- Dude Ranch
- Wilderness Trips

COOKE CITY
- Accommodation / Services
- Information / Interpretation

NORRIS
- Interpretation
  - geology
  - history

CANYON
- Accommodations / Services
- Interpretation
  - geology

WEST YELLOWSTONE
- Accommodations / Services
- Information / Interpretation
- Park Operations

LAKE - BRIDGE BAY
- Accommodations / Services
- Water Recreation
- Interpretation
  - wildlife

OLD FAITHFUL
- Interpretation
  - geology
  - history
- Visitor Services

THUMB - GRANT VILLAGE
- Accommodations / Services
- Water Recreation
- Interpretation
  - geology
  - backcountry
- Wilderness Trips

PAHASKA TEPEE
- Information / Interpretation
- Accommodations / Services

BECHLER
- Wilderness Trips

ASHTON
- Information
- Accommodations / Services

FLAGG RANCH & HUCKLEBERRY HOT SPRINGS
- Accommodations / Services
- Information / Interpretation
- Operations

JACKSON LAKE
- Water Recreation
- Accommodations / Services
- Interpretation
  - recreation
  - Indian culture
  - wildlife

JENNY LAKE
- Interpretation
  - geology
  - alpinism
- Visitor Services

MOOSE
- Interpretation
  - history

AIRPORT
- Information / Interpretation

MOOSE/KELLY/WARM SPRINGS
- Administration – Operations

JACKSON
- Information
- Accommodations
- Services

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for this zone. At this time, however, it is difficult to state what type of system or vehicles will be used, since cost, public acceptance, and availability of equipment will influence the decision. As an interim step, the Jenny Lake road will be maintained as a one-way road, and improved bus service will be provided.

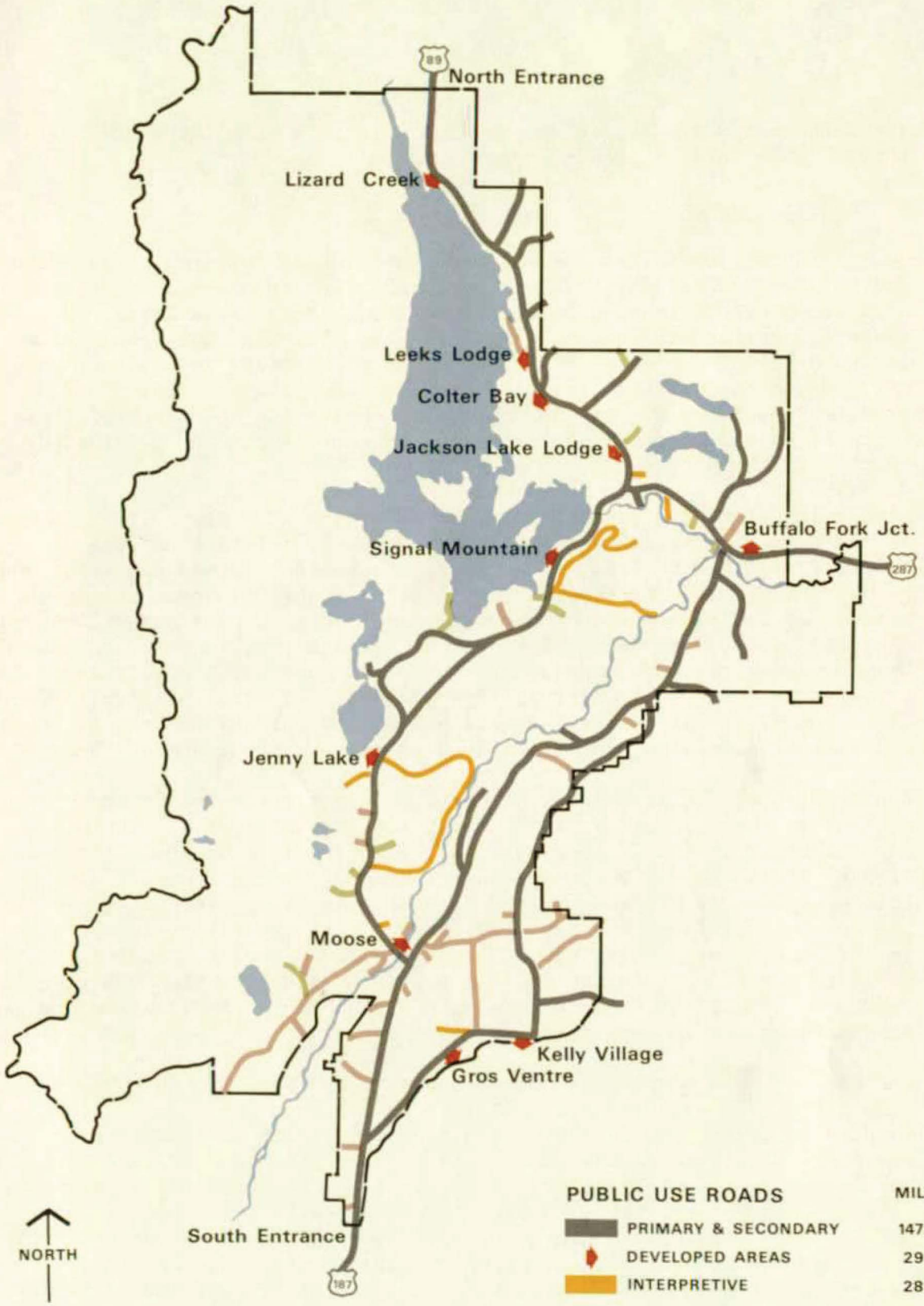
When visitors enter this zone, they gain opportunities to interact more intimately with the resource - to get out and get involved. They must be encouraged to leave their cars if this personal involvement is to be realized, for the intention is that most of their time in the area will be spent without dependence on automobiles. As many alternatives as possible - without injury to the resources - should be offered visitors to see and acquire a feeling for the area. Traditional activities will be featured; float trips, boating, horseback riding, hiking and bicycling in summer; ski-touring, snowshoeing, ice-fishing, appropriate oversnow vehicle travel in winter; and interpretive events and special tours in all seasons.

F. Interpretation and Information

To enhance the visitor's experience, regional and park orientation and interpretation must be expanded and tailored to fit the needs of the individual.

Ideally, information centers should be placed on the periphery of the region, preferably where intra-regional road corridors intersect principal interstate routes. The states in which these centers are located should operate them. These centers should furnish both state and regional information. The Service would provide exhibits, films, brochures, and like materials. The chambers of commerce from the gateway communities, the Forest Service, and other agencies should participate so that the visitor could be informed of the spectrum of recreation and special events available within the region. A contact station of this type is being planned for installation north of Jackson, a joint venture of the Wyoming Highway Commission, the Forest Service, the U.S. Fish and Wildlife Service , local groups, and the National Park Service.

Beyond the contact station, interpretation will be keyed to the specific visitor-use zones. Communication along the main highway corridor will necessarily be brief and general, giving the auto-borne visitor a basic introduction to the park's natural and cultural history and experiential opportunities. Programmed interpretation will be greatest in the visitor use area west of the main highway corridor. Here, various approaches integrating more traditional media - signs, exhibits, films, publications, and talks - with programs emphasizing visitor participation will be undertaken, including nature walks, environmental study area programs, campfire programs, climbing demonstrations, and photography tours. Within



PUBLIC USE ROADS	MILES
PRIMARY & SECONDARY	147.4
DEVELOPED AREAS	29.9
INTERPRETIVE	28.9
MANAGEMENT ROADS	
PARK OPERATIONS	11.1
INHOLDINGS	37.2

EXISTING CIRCULATION ON MICROFILM

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the backcountry itself, interpretation will be accomplished primarily through publications and unobtrusive signs.

G. Resource Management

New insights gleaned from recent problem-oriented research within Teton and Yellowstone National Parks suggest that environmentally regulated ecosystems can ultimately be re-established within Grand Teton. For example, preliminary research has suggested that the moose population in Grand Teton, and certain elk and bison populations in Yellowstone may tend to be self-regulating without the presence of significant predator populations. In the context of increasing knowledge of these factors, park management will continue to work toward the elimination of hunting in the park.

Also critical to the re-establishment of a natural regime within the park is the need to compensate for the many years of militant efforts to suppress all forest fires in the park. Such efforts, and others intended to avert natural "catastrophes" have led to unnatural forest patterns. Within the limits imposed by the necessity of protecting human lives and property, something approaching the natural fire regimen must be restored. Only by doing this can management hope to restore a reasonably natural mosaic of forest stands, with their accompanying natural array of animal life. Within similar limitations, natural periodic outbreaks of insects, floods, and similar phenomena must be allowed to occur without human intervention.

Restoration of the park aquatic ecosystems is complicated by the presence of the dam that raised Jackson Lake to its present levels. The dam was built for irrigation purposes nearly 20 years before establishment of the original Grand Teton National Park. Of special concern within this ecosystem is the Snake River cutthroat trout, representing one of the tow natural large river populations of this trout left in the world. In the past, virtual stoppage of water discharge during annual inspection periods, coupled with heavy fishing pressure, has disrupted the river's cutthroat population. Agreements with the Bureau of Reclamation now give assurance that this condition will not reoccur.

The Jackson Hole Airport is operated within the park by the Jackson Hole Airport Board under a special use permit from the National Park Service which expires in 1995. The facility, which is located near the park's southern boundary, is used by commercial and private aircraft for access to the park region. Because of the presence of the airport, environmentally compatible management of the park's air space is a particularly important management objective. Aircraft operation in the area must ensure minimal disruption of natural resources and the experience of park visitors, particularly in the Grand Teton Wilderness

Area. Management and development of the airport itself must be directed toward reducing visual intrusion, noise levels, and adverse effects on ecological communities and the visitor's experience. In accordance with an airport improvement plan, for which there is final environmental statement (INT FES 74-11), certain safety improvements have been authorized (see p.22). These improvements do not substantially increase the airport's capacity or change the nature of its operations. Any future expansion or redevelopment will depend on the results of on-going regional transportation and other studies designed to evaluate the need for the existing facility in its present location, the need for airport and other transportation facilities in the park region, and the feasibility of relocating the airport to a location outside the park. Proposed implementation plans that will follow these studies will be accomplished by environmental assessments and, where necessary, environmental statements.

The meteeoric rise in backcountry use is such that strict limitations and close control must be effected in order to preserve the park's esthetic values. As a first step toward easing the impact within this critical zone, horse use - other than for extended

trips into the backcountry - will be relocated along the eastern boundary of the park; this will improve the situation temporarily. But anticipated increases in backcountry use suggest that other restraints, in addition to those already in force at such areas as Lake Solitude, Amphitheater Lake, Holly Lake, and Marion Lake, must eventually be imposed and similar restraints extended to other relatively accessible backcountry focal points. These restrictions would include such regulations as requiring that feed be packed in rather than grazed or browsed; that stock be tethered during prolonged stops and be kept from lakeside meadows; and that heavily used areas be restricted to day use, with no fires being permitted.

In more recent years, the presence of the snowmobile has become a characteristic of the winter scene on the flatlands of the park. With the expected increase in other forms of winter use, there must be continuing re-evaluation of snowmobiling and these other uses so that management can initiate the appropriate action.

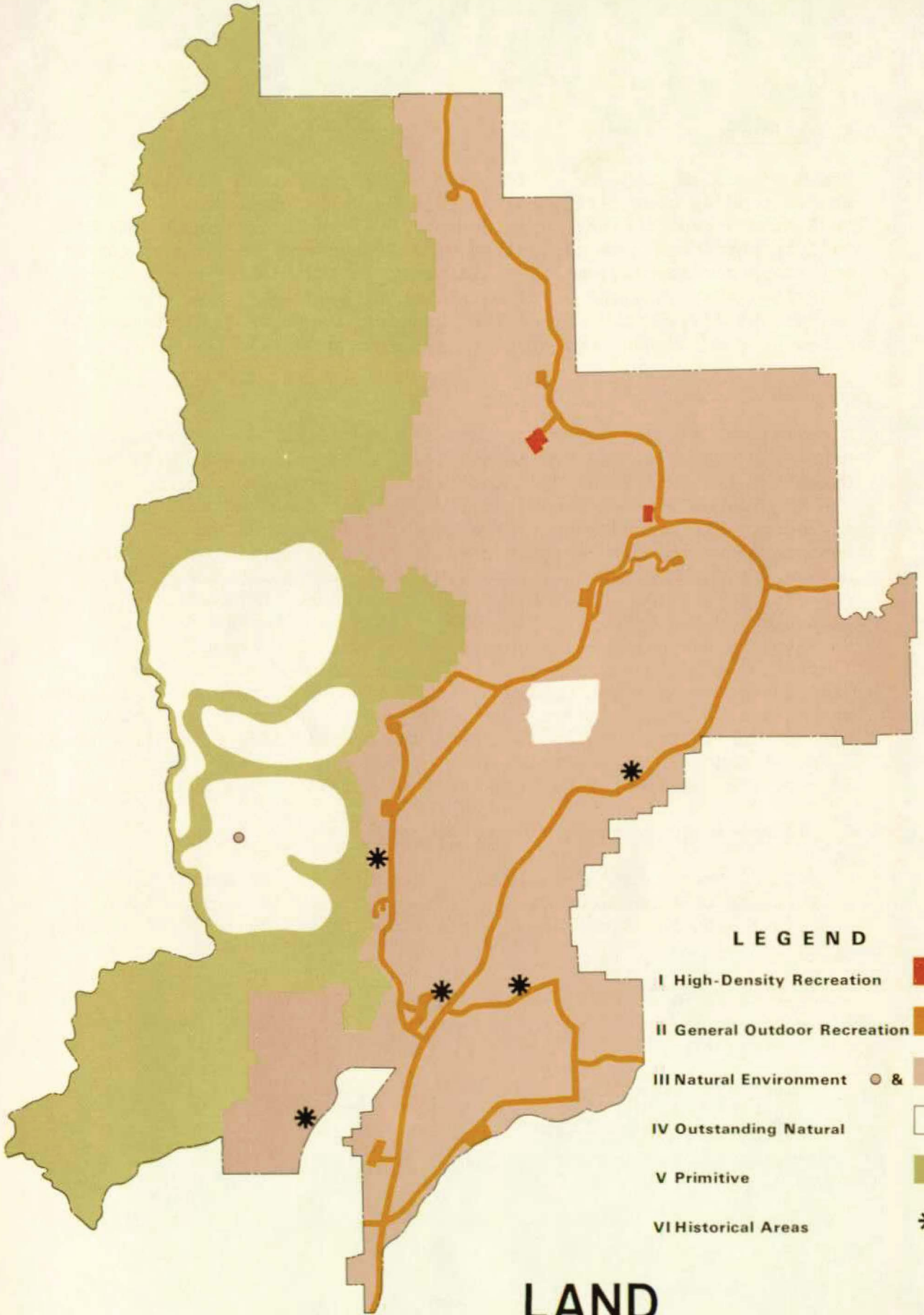
The relative merits of motorboating and other uses on Jenny and Phelps Lakes must be similarly weighed.

H. Cultural Resources

Of major interest to nearly every visitor is the park's history; indeed, the area still exhibits some physical reminders of human activities from other eras. Five distinct chapters of history can be identified: early man, fur trappers, pioneers and settlers, early mountain climbers, and diversely motivated park visitors.

Because it is the logical focus for interpreting the history of human habitation within Jackson Hole, the highest priority should be granted to completing the restoration of the Menor's historic district. Such intrusions as roads, parking areas, introduced shrubbery, non-historic buildings, and powerlines should be removed. Restoration of the gardens would do much toward producing a sense of the essential cohesiveness that historically existed. In addition, current plans to designate the Pfeiffer Homestead a national environmental study area should be furthered; and plans to upgrade interpretation of the Cunningham Cabin, emphasizing the environmental influences that determined its construction and abandonment, should be completed.

Cultural surveys will be programmed to determine historic sites within the park. An archeological survey is currently underway. In accordance with Executive Order 11593, Protection and Enhancement of the Cultural Environment, all potential register properties will be nominated to the National Register of Historic Places.



ON MICROFILM

LAND CLASSIFICATION

GRAND TETON NATIONAL PARK

I. Wilderness

The master plan proposes designation of 115,807 acres as wilderness. As their management will be directed toward the preservation of backcountry experiences, no permanent shelters or developed campsites will be permitted. No mechanized vehicles, except those authorized for emergency service, will be allowed. In addition to the acreage described above, 20,850 acres of potential wilderness additions will be designated wilderness when they qualify. A separate environmental impact statement has been prepared for this proposal (FES 73-25).

J. Regional Planning

Coordinated planning involving national parks, national forests, other public lands, and the communities within the region will be essential if Grand Teton National Park is to provide properly for use by this and future generations. The Park does not exist in a vacuum. Visitor demands for recreation, accommodation, and support services must be considered in regional terms; recognition, however, must be given that each land managing agency has a certain capacity to provide public needs without resource deterioration. Although managed on a sustained yield basis, the Bureau of Land Management and Forest Service land have a carrying capacity limitation similar to that of Grand Teton National Park. The kinds, levels and distribution of activities and support facilities appropriate for each agency must be weighed cooperatively - and within realistic limitations. Intensive coordination with affected agencies and park interests will be effected during the preparation of specific implementation plans that will follow this master plan.

K. Interrelationships With Other Projects

Since a discussion of ecological, jurisdictional and legislative constraints on management is necessarily carried in Section II Description of the Environment, these aspects will not be duplicated here.

Because the many interrelated projects are necessarily discussed elsewhere in this document, the following project list and appropriate page references are summarized for convenience.

Bureau of Reclamation (Jackson Lake) P. 22
Elk Management P. 32
Fish and Wildlife P. 32
Wilderness P. 13
Fire Management Plan P. 31
Backcountry Management Plan P. 9, 10, 13
Rivers P. 32

II. DESCRIPTION OF THE ENVIRONMENT

General

Grand Teton National Park by its Establishment Act of September 14, 1950, was set apart to preserve "...in one national park, for public benefit and enjoyment..." the scenic, scientific and historic values of the Teton Mountain Range and Jackson Hole therein contained. Significantly, the Act specifies that the national park shall provide for the public's understanding of the same. Accordingly, the purpose of the park is to perpetuate the natural environment for the benefit, enjoyment and understanding of the people.

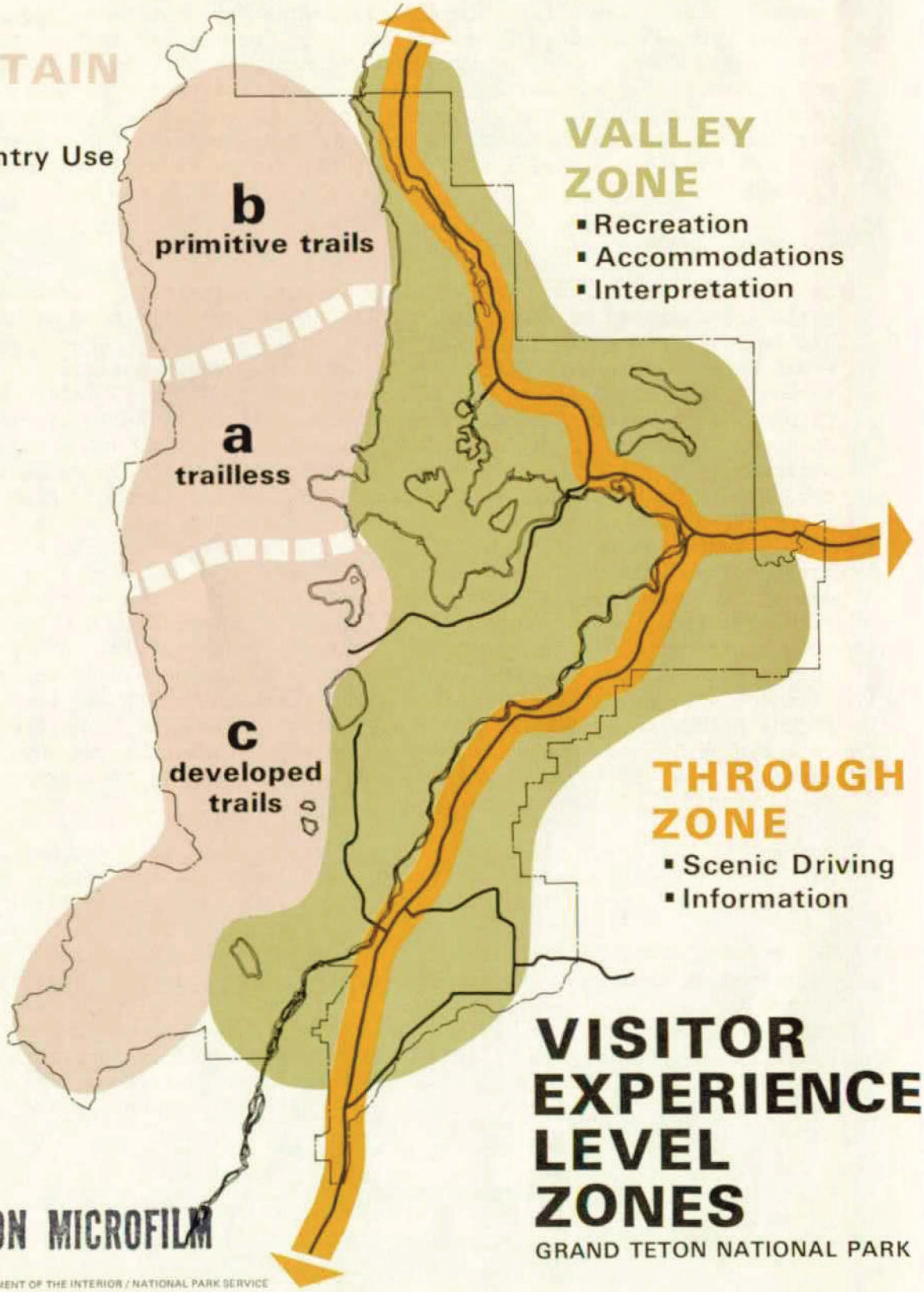
The park is a focal point of public interest at the heart of one of the nation's most extensive and striking wildland regions. Surrounding it is a complex of publicly-owned lands, much of it associated with large ranches interspersing or adjacent to the public land. Along the periphery of the region is a loose ring of gateway towns and cities, served by major highways and feeder routes into Grand Teton and Yellowstone National Parks.

Grand Teton National Park, together with Yellowstone National Park, comprises a strategic core of a vast upland wilderness; five national forests and parts of three others define its perimeter. The park is bounded on the west by the Targhee National Forest, the Teton National Forest on the east, and the National Elk Refuge to the south. A short, contiguous boundary of the Teton Wilderness area borders the northeast side of the park; forest lands within Targhee National Forest are currently being studied by the Forest Service for their eventual designation. The newly established John D. Rockefeller, Jr. National Memorial Parkway now joins Yellowstone and Grand Teton National Parks.

Visitor Use

Jackson Hole was an isolated and essentially difficult location to reach until after the Second World War. Since that time, tourism has changed the economy of the area from the traditional ranching and hunting activities; tourism now accounts for an estimated 70% of the total economy of Teton County. An indication of this tremendous rise in visitation is evident when we note that total park visitation in 1951 was 641,000 people. This rose in 1961 to 1½ million and in 1971 to 3.3 million visitors. Grand Teton National Park is essentially a day-use park at present with 70% of park visitors staying in facilities outside the park. Of the 30% staying overnight within the park, 15% stay in the campgrounds and the other 15% in the concessioner and private overnight accommodations.

The hard granite and wide range of climbing conditions of the Teton Range hold magnetic appeal for climbers. In summer, more than 200 miles of park trails draw large numbers of hikers and equestrians.



VISITOR EXPERIENCE LEVEL ZONES

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Over 120,000 backcountry hikers registered in 1971; and many more probably used the trails without registration. There were 21,309 registered instances of individual use of reserved backcountry campsites, and probably as many more unregistered. The Snake River and several large lakes offer exceptional boating opportunities, and good fishing. More than 50,000 people float the Snake River each year. Elk, moose, deer, bears, pronghorns, bighorns, beaver, small mammals and an array of birds may be seen -- many of them with very little effort on the part of the visitor. Winter use of the park, taking advantage of the extraordinary beauty and opportunities for enjoyable forms of travel associated with a deep blanket of snow, is rising rapidly.

Flora and Fauna

Jackson Hole has large forested areas located primarily on morainal soils and composed predominately of lodgepole pine with some aspen alpine fir and Douglas-fir mixed in it. There are also large open areas on outwash plains which are primarily sagebrush-grassland communities. Each spring and fall some 3,000 to 5,000 elk migrate through the park area between the southern portion of Yellowstone National Park and the National Elk Refuge just south of Grand Teton National Park. A resident herd of approximately 1,500 elk is located throughout the valley during the summer. Moose are commonly seen along the stream courses of the proposed wilderness area, often feeding in beaver ponds. Bighorn sheep, which inhabit the higher elevations, are seldom seen within the park area. The wolverine is one of the rarest animals existing within the park. The wolf used to roam this area, but at present is believed to be extinct; however, it does occur north of the park in Yellowstone National Park. A preserved natural environment is all important to the survival and well-being of all the animals that inhabit it, from the miniscule shrew to the bulky moose. Golden eagles are occasionally seen by hikers in the high country and would be particularly susceptible to any change in the status or use of the proposed wilderness area away from natural environment management.

Control of elk populations by deputized licensed hunters may be permitted in the northern end of the wilderness, by the provisions of Public Law 787, which brought that portion into the park in 1950.

The great elevational differences within the proposed wilderness are reflected in changes in vegetation composition. Lodgepole pine, subalpine fir and Douglas-fir are dominant on the lower slopes. Whitebark pine, Engelmann spruce, and subalpine fir dominate at higher elevations. The largest whitebark pine in the world is located in the South Fork of Cascade Canyon. At the higher elevations, above tree line, are the many tiny alpine flowers which are the reward of those who hike there.

Wilderness

The wilderness proposal in the master plan (a separate study - please see FES 73-25) represents some of the nation's most spectacularly beautiful alpine topography. Jagged mountain peaks rise dramatically above deeply cut canyons, their uppermost treeless expanses holding living glaciers and alpine lakes. In summer, icy streams cascade from them, coursing through the heavily timbered lower slopes and canyons before entering lakes formed behind terminal moraines at canyon mouths, or entering the flatlands enroute to the Snake River. In winter, a heavy mantle of snow brings extraordinary beauty to the scene--and in many places, the threat of avalanches.

Well developed trails penetrate most of the canyons in the southern one-third of the area, from Granite Canyon to Indian Paintbrush Canyon. More primitive trails reach into the somewhat less spectacular country from Webb Canyon north. Between Indian Paintbrush and Webb Canyons is an area exceeding 35,000 acres in which there are no constructed trails. The park's master plan calls for no further development of trails in any of the area proposed for inclusion in wilderness.

National Forest wilderness areas in the immediate vicinity include the Teton Wilderness, with a short, contiguous boundary on the northeast side of the park, the South Absaroka Wilderness about 40 miles to the east, and the Bridger Wilderness about 40 miles to the southeast.

Geology

The park embraces a unique array of environmental resources. The complex geologic history of the park is described in detail by Love and Reed (1971) in their book Creation of the Teton Landscape. The prominent "fault block" forming the Teton Range extends as high as 13,770 feet along the west edge of Jackson Hole. The Mt. Leidy Highlands border the valley to the east; the Yellowstone Plateau to the north and the Gros Ventre Mountains to the south.

Prominent geologic features of the valley include glacial outwash plains and moraines, isolated buttes, river terraces and flood plains. The major lakes of the valley, including Jackson, Jenny, Leigh and Phelps Lakes are of glacial origin. Jackson Lake has been further impounded by Bureau of Reclamation Dam. The Snake, Buffalo and Gros Ventre Rivers and their tributaries, have cut braided channels through the glacial outwash plain. Waterflows on the Snake River are partially regulated through Jackson Lake Dam.

Soils of the valley floor may be grouped into three main types. Soils of glacial outwash origin occur extensively in valley areas, contain large cobbles and are coarse textured. Soils of glacial moraine origin occur primarily on the northern and western edges of the valley, contain fine particles of rock, consequently are finer textured than outwash-soils of alluvial origin and occur along the major rivers and their tributaries.

Soils of mountain areas are a complex mixture of coarse to fine-textured types developed from Precambrian "basement" rocks (gneiss, schist, and granite), and sedimentary and volcanic rocks of various ages. These parent materials have been variously modified by the activities of glaciers, streams, weather and other agents of erosion.

The Geological Survey reported that the mineral occurrences and possibilities in Grand Teton are similar to that of Yellowstone National Park. The two townships comprising the eastern projection of Grand Teton National Park are considered to have coal deposits of possible value. This is the same coal field that extends into southern Yellowstone National Park. Half of the park is considered to have possible value for oil and gas. There is no close production, but there are two oil and gas unit agreements outside the park to the south and southeast at distances of about 12 and 25 miles respectively. Other mineral possibilities include phosphate, bentonite, asbestos, gold, and lead-silver.

Climate

The climate of the area is characterized by short, cool summers and cold winters. U.S. Department of Commerce weather records for Moran, near the center of the park, show a 30-year (1936-1965) mean annual temperature of 34.8 degrees F. July is the warmest month (mean temperature of 60 degrees F.); January the coldest (10.3 degrees F.).

Approximately 3/4 of the annual precipitation of 22.2" (1936-1965) falls in the form of snow. Snow depth relationships for December through March periods from 1961-1966 show that winters vary considerably in their severity. Rigor of individual winters was rated as "severe", "average", and "mild" by comparing annual snow depth values with a 15-year (1951-1966) mean. Winters within plus or minus on the same spot 15" of the 15-year mean were considered the average.

A west to east gradient in accumulated snow depth occurs in the park area. At the base of the Teton Range mid-winter, snow depths exceed six feet. Snow depths are from 1½' to3' at the same time on the east side of the valley. There was also a decreasing north to south gradient in valley snow depth.

In addition to geographic and short-term annual variations in snowfall, weather records for the Moran area show an increase in mean annual snowfall over the last 54 years. Mean annual snowfall from 1912 to 1930 was 122", from 1931 through 1950, 148"; from 1951 through 1966, 179".

Cultural Resources

In addition to its remarkable natural resources, the park holds an assortment of remnants of human history, revealing something of the saga of man in a harsh, but beautiful, environment.

The area's human history is a significant part of the park experience. European man, although a resident of comparatively recent arrival, has become an integral part of the scene in Jackson Hole. Buildings and

pastures remain as vestiges of an era of ranching that began in 1884, and present opportunities for interpreting the area's recent human history. Among the historic structures remaining from these early days are the Cunningham Cabin, Jim Mange's Cabin, Owen Wister House, Joe Pfieffer Homestead, Trail Ranch, and Menor's Ferry. In accordance with Executive Order 11593, Protection and Enhancement of the Cultural Environment, five historic sites were nominated to the National Register of Historic Places. The Menor's Ferry site is already on the National Register, but it is being renominated as the Menor-Noble Historic District. The Wyoming Consulting Committee on Nominations to the National Register of Historic Places approved the nomination of the Cunningham Cabin, but rejected the other nominations. The Cunningham Cabin is now listed on the National Register of Historic Places.

Since additional data gathered on the Owen Wister Cabin indicates that the one and one-half log construction is unique to the Jackson Hole area, it will be renominated. A historic architect recommended that the structure be removed from its immediate site subject to spring flooding and that it be "mothballed" until its final disposition can be determined. It is currently being stored by the park. A completion report including all of the photographs taken and the measured drawings were submitted to the Historic Preservation Team, Denver Service Center. Moving the cabin will not alter its historic integrity since it was removed from a bench above the Snake River to a location nearer the river when Wister sold his property to the R Lazy S Ranch.

Few traces remain of the earlier trappers and explorers, many of whom passed through Jackson Hole enroute to annual rendezvous in the mountains where they sold their catches, obtained supplies, and dissipated in gusty revelry.

Ethnohistoric data indicates that two Indian groups regularly exploited the resources of the area during the early historic period: the Wind River Shoshoni and the Sheepeater. Others, such as the Gros Ventre of the Prairie and the Blackfeet, made periodic excursions into the region to exploit the trappers.

Archeological evidence suggests that the prehistoric occupations of Jackson Hole, on an annual, seasonal basis, extends back to about 8500-9000 B.C.

The early prehistoric period, which ended around 2500 B.C. is represented by extensive collections made by W. C. Lawrence from the north end of Jackson Lake.

Other known sites include the Owen site, located on the east shore of Emma Matilda Lake, the outlet of Two Ocean Lake and the mouth of a small stream which enters Two Ocean Lake from the south. Most of the area is still unsurveyed.

There are approximately 175 currently known sites in the Jackson Hole area.

Significant sites have been surveyed around Blacktail Butte and the Jackson Hole Airport and there is an ongoing archeological research program underway in the Park.

As the results of archeological work become available, it will do much to enhance understanding of these historic and prehistoric remains.

The Park was established to preserve outstanding resources for the benefit of, and enjoyment by, the people of the United States. The law (P.L. 787) that established the present Park provided for continuance of open rights-of-way, leases, permits and licenses for summer homes, grazing, and stock driveways. The law provided for a program of cooperative management of elk populations through controlled reduction by deputy park rangers. In addition to these influences, there are the existing impacts of manipulation of Jackson Lake and the Snake River by the Bureau of Reclamation, and potential impacts of Reclamation activities on withdrawn lands around the lake.

The impact of human activities on the Park is evident in many other ways. A major highway runs the length of the valley, east of the Snake River, and a system of lesser roads reaches west, across the river, to a number of points of interest near the base of the mountains. These roads carry a heavy flow of traffic throughout the summer. The principle concentration of accommodations and facilities in the Park is in the vicinity of Jackson Lake, at Leek's Lodge, Colter Bay, Jackson Lake Lodge, and Signal Mountain Lodge. Less intensive developments are centered near Jenny Lake, at Moose, and in the Kelly-Gros Ventre area.

On many summer nights 7,000 people spend the night in Service and concessioner-operated facilities within the Park. Others stay on the Park's numerous inholdings; and the town of Jackson provides a wide range of accommodations and services, just beyond the Park's southern edge. Each of these developed areas has substantial impact on the environment.

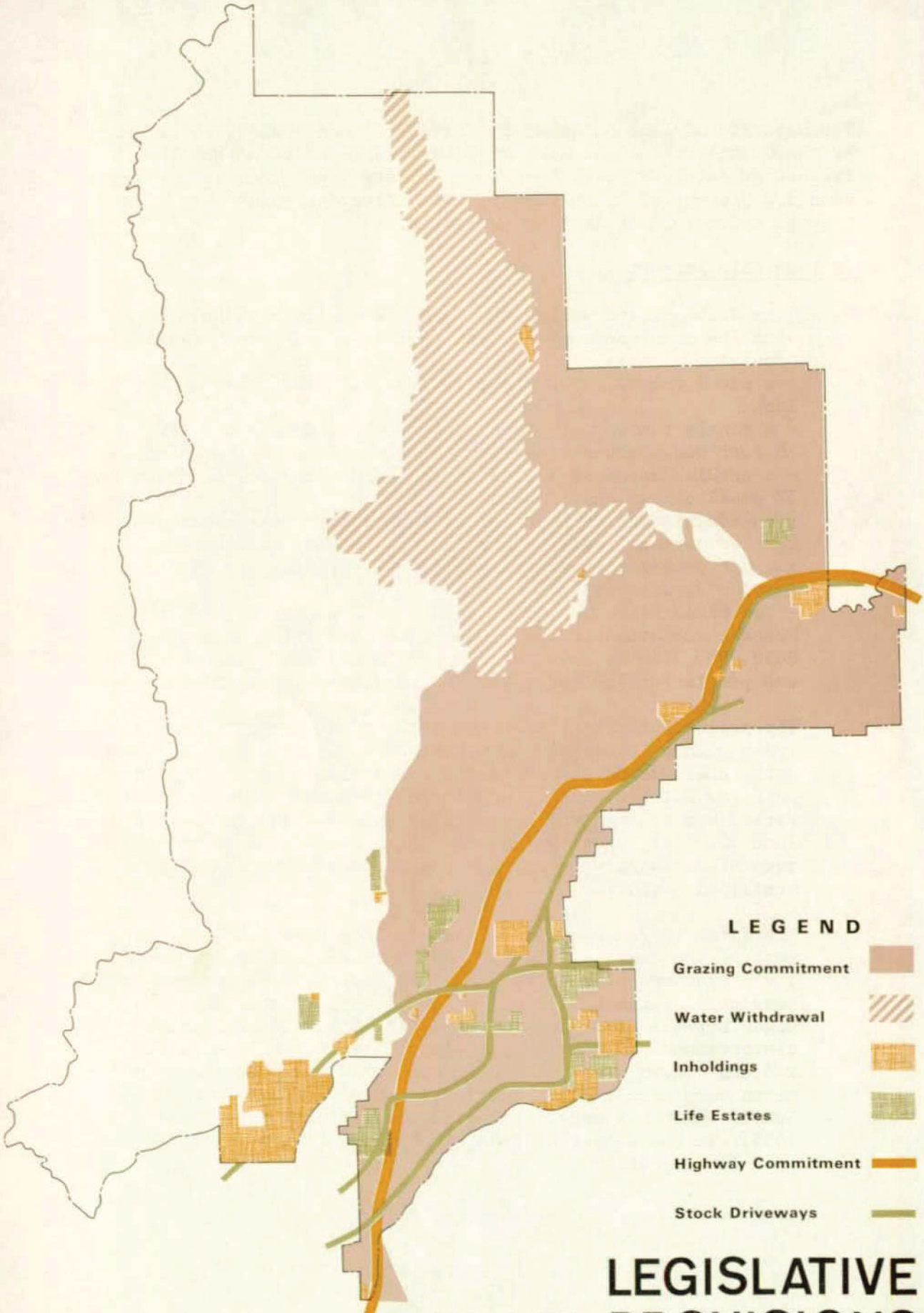
Grazing

Where federal lands included within the Park by Public Law 787 were legally occupied or utilized on September 14, 1950, for residence or grazing purposes, these privileges will be continued. These rights may be renewed from time to time for a period of 25 years from September 14, 1950 and thereafter. These privileges are also available to his heirs, successors, or assigns, but only if they were members of his immediate family on that date. The current number of animal unit months (AUM's of grazing on these lands) is 10,638.

Land Ownership

Federally-owned lands in Grand Teton National Park total 304,353.47 acres. Private tracts within the Park number in excess of 150 and involve nearly 160 individuals:

State School Lands	1366.32
Teton County	11.49
Private	4508.79
School District No. 2	1.19
Total	5887.79



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LEGISLATIVE PROVISIONS

GRAND TETON NATIONAL PARK

The majority of land adjacent to Grand Teton National Park is owned by the United States and is under the management of either the Targhee or Teton National Forests. Private land accounts for less than 5.0 percent of Teton County; this situation results in a great concern about loss of land to tax rolls.

Jackson Hole Airport

Near Jackson, and within the park, is the Jackson Hole Airport with its complement of support facilities. Present facilities consist of:
- a paved runway constructed in 1956, 100 feet wide and 6,305 feet long,
- a single taxiway at right angles to the runway 500 feet long, 75 feet wide, connecting with the administrative building,
- a parking apron of 36,740 square yards provides tiedowns for 52 small planes and 15 twins.
- an administrative building of 3900 square feet housing the air carrier offices, waiting area and restrooms, air charter office and car rental spaces. An additional building was constructed to service rental cars.
- Two fixed base operators, each with a hangar of 6500 square feet.

Present valuation of the airport and facilities is approximately $650,000. The Jackson Hole Airport Board operates under a special use permit for 760 acres with a lease expiring April 28, 1995.

The existing facilities of the Jackson Hole Airport, today lying within Grand Teton National Park, evolved from a landing strip that was developed in the early 1930's on lands then outside, but now within, boundaries of Grand Teton National Park. Use of the land for airport purposes was formalized on June 26, 1942, when the United States executed a lease to the town of Jackson, Wyoming, for the purpose of establishing a municipal airport.

The first improvements were made in 1946 when the lands were part of the Jackson Hole National Monument, through a cooperative agreement between the National Park Service and the Forest Service. Beginning in July of that year, Western Airlines began service into Jackson Hole. In 1958, Western Airlines discontinued service to this airport two years after a 100' x 6,305' paved runway had been completed. All of these improvements were completed in the initial years of a twenty year lease, which was negotiated with the National Park Service in 1955. In the summer of 1959, Frontier Airlines initiated service to this airport.

The town of Jackson, Wyoming, is currently served by one commercial air carrier - Frontier Airlines. This commercial air carrier changes its number of flights per day to compensate for seasonal fluctuations of passengers. In 1971, the normal fall, winter and spring schedule was three flights daily connecting Jackson with Billings, Montana, and Salt Lake City, Utah. During the summer period of 1971, Frontier scheduled eight flights daily with an additional flight scheduled for Saturdays and Sundays only. Included in the additional summer flights was a direct, Denver-to Jackson route. Current segment operations are as follows: Salt Lake City-Jackson-Billings and Denver-Jackson-West Yellowstone. Frontier, as previously discussed, currently uses Convair 580 Turbo-Prop aircraft which have a maximum seating capacity of 50 passengers for all flights into Jackson.

In order to better determine the characteristics of travelers utilizing the Jackson Hole Airport, the Division of Business and Economic Research, University of Wyoming, conducted an air traveler survey from June 14 through July 20, 1972. The results are tabulated on pages 49-50. Approximately one-half (48%) of the passengers were traveling for business reasons (27%) or to combine business and pleasure (21%). A total of 44% were vacationing. For those air travelers who visited both Grand Teton and Yellowstone National Parks, the proportion vacationing, 59%, was considerably higher. Business was a major factor for 61% of the air travelers who did not visit either park. Total use of the airport by park visitors is minimal. One of the more than 3 million visitors to Grand Teton National Park in 1972, less than 1% arrived by air through the Jackson Hole Airport.

According to the study, total direct expenditures in the Jackson Hole area in 1971 by commercial air travelers were estimated to be $2,651,647.* These expenditures, in turn, are estimated to have indirectly increased Jackson Hole sales by another $2,943,328. Thus, the estimated total output in the Jackson Hole area due to commercial air travelers in 1971 is $5,594,975, according to the study. Commercial air travelers thus accounted for approximately 6.5 percent of the total output of the Jackson Hole area estimated by the report to be $85,700,000.

With the exception of 1970, commercial air traffic to Jackson has increased every year since its inception in 1959. However, during this period, several major changes have occurred. While the annual growth was substantial during the early years of

service, the annual rate of change has been slowed considerably in the last four years. A second major change which has occurred is the increased importance of winter air travel relative to total air travel. The development of a major winter skiing facility in the Jackson Hole area may be a significant factor in the winter air travel increase. About 70% of all passengers come during the summer months; information is unavailable on what percentage of winter travelers are skiers.

Frontier Airlines estimates Jackson air traffic to be approximately 33,000 passengers in 1975. They feel this represents a conservative estimate and is based on the assumption that the basic components of their air service remain unchanged - continued use of the Convair 580, continuation of current scheduling arrangements, and no changes in the airport.

Two fixed base operators, Jackson Hole Airport and Imeson Aviation, provide additional air service to the Jackson Hole area, in the form of non-scheduled charter flights which are provided on an individually-arranged basis. These fixed base operations also provide year-round services to the majority of private aircraft currently using the airport. Several local, State, and Federal agencies utilize the airport throughout the year, including the Forest Service, Bureau of Land Management, Wyoming Game and Fish Department, Teton County Sheriff's Department, and others.

In order to accommodate private air travel, the Jackson Hole airport currently provides 56 tiedowns for large and small craft. The types of aircraft utilizing these facilities range from small single propeller craft to large private jets, as well as helicopters. A sampling of private aircraft parked at the airport for the period of June 18 to July 20, 1972 indicated an average of 43.1 planes daily.

In 1971, it is estimated that 7,200 itinerant aircraft with 25,000 people (including flight crews) visited the airport. In the same year there were 3,200 local aircraft operations at the airport.

A Supplemental Appropriations Act (P.L. 92-184) of December 1971 made available $2,215,000 for airport planning, development or improvement at the Jackson Hole Airport. A draft environmental statement was prepared, a public hearing held during September 1973 and a final environmental statement released March 1, 1974

(INT. FES 74-11). In May 1974, the Secretary of the Interior authorized construction of safety improvements but no runway extension. Work will include strengthening and widening of the runway, constructing a parallel taxiway 6305' in length, providing additional aircraft and vehicle parking, installing a new sewage system, and making other minor improvements. No extension was allowed pending further studies, primarily a regional transportation analysis. The presence of the airport on park lands imposes various impacts upon the park, including the obliteration of natural habitat, distrubance of wildlife, and detrimental esthetic and physical effects of the sight and sound of aircraft.

Jackson Lake Reservoir

Restoration of the park aquatic ecosystems is complicated by the presence of the dam that raised Jackson Lake to its present levels. The dam was built for irrigation purposes nearly 20 years before establishment of the original Grand Teton National Park. Its operation causes unnatural fluctuations in the flow of the Snake River.

Of concern are the Park aquatic ecosystems, especially the Snake River cutthroat trout representing one of the two natural large river populations of this trout left in the world. In addition to these effects are the fluctuating water levels which cause broad expanses of barren exposed lakeshores during low water levels. This unnatural expanse of shoreline provides a distracting forescape for the spectacular mountains towering in the background. The Bureau of Reclamation retains complete and exclusive control of the waters of Jackson Lake Reservoir for reclamation purposes, including the right to raise or lower the reservoir at will. However, "...the Bureau will give full consideration to maintaining a constant level of the operating pool, with little or no fluctuation during the recreation season - June through September.

In 1967, the Bureau of Reclamation prepared a reconnaissance report on replacement storage for Jackson Lake and selected six sites which could serve this purpose. Meetings were held with the State of Wyoming, the National Park Service, the Forest Service, and the Bureau of Sport Fisheries and Wildlife to discuss and evaluate the proposed sites. None of these agencies favored developing any of the Wyoming sites. The Idaho Water Resource Board opposed developing the Lynn Crandall site in Idaho as replacement for Jackson Lake storage.

Regional Transportation Study

A Regional Transportation Study has been implemented. The Study will cover a three state area including both the Yellowstone and Grand Teton national parks. Many agencies at local, state, and Federal levels, as well as private businesses, groups and citizens will participate. The main objective of the study is to prepare a status of, and recommended approaches to, the region's transportation problems and requirements. These problems include airport siting, highways, transportation methods, etc. It is anticipated that the project will be completed in the near future.

John D. Rockefeller, Jr., National Memorial Parkway (See Maps, pages 3 & 4)

A bill has been passed by Congress and signed by the President creating the John D. Rockefeller, Jr. National Memorial Parkway between Grand Teton and Yellowstone National Parks, a distance by road of 6.8 miles, including former Forest Service lands on each side of the road totaling 23,000 acres. Designation of the memorial parkway involves an existing Federal Highway 89/287 between the two parks. The Forest Service is considering establishment of wilderness status for those former forest lands remaining between the eastern boundary of the Memorial Parkway and the present Teton Wilderness. This would add 29,000 acres to the existing wilderness.

In addition, that portion of the present roads from Jackson Lake Junction to the northern boundary of Grand Teton National Park and from the South Entrance of Yellowstone National Park to West Thumb is designated as an in-park extension of the Memorial Parkway. Establishment of the parkway is not expected to have an impact on the master plan proposal since an existing road system is involved, and management of the parkway between the two parks will be under the policies of a National Recreation Area, with existing uses and activities essentially continuing.

Jackson Hole Ski Corporation

The Jackson Hole Ski Corporation operates Teton Villages and uses Teton National Forest land by permit, and for ski slopes, some of which join the park. In 1971, there were 56,185 skier days. The 2.4 mile aerial tramway has its upper terminal on top of Rendezvous Mountain, as a park boundary. In the summer of 1971, there were 67,906 passengers. The area surrounding the upper terminal is well trampled by human use. This denuded area extends across the park boundary, which is the hydrographic divide in this location. Nearly everyone at the ridge crest either returns to the Valley by tram (summer) or skis down into Jackson Hole (winter). In 1971, there were 427 who hiked down into the park that summer, and 50 who went with the ski-touring concessioner. Although the tram has the potential to be a major jumping-off place for back-country views, this has yet to materialize.

Probable Future Environment Without the Proposal

The failure to implement this proposal would result in the escalation of effects that this proposal is designed to prevent. Most of these effects would stem from unregulated use by too many people. The direct effects would be such things as the physical damage to the environment through overuse of resources, unrestrained growth of visitor service facilities, growing problems of pollution in all forms (sewage, air pollution, and solid waste), and increased congestion at all levels of park use.

Intrusive cultural features would continue to degrade the esthetic environment.

Fire protection practices would result in the continued accumulation of natural fuels leading inevitably to eventual holocausts.

Public hunting would continue as a regulatory tool for large animal populations.

The fluctuating releases of water from Jackson Lake dam would threaten the continued survival of the Snake River cutthroat trout.

The visitor experience in all aspects of park use would be directly and adversely affected as the natural character of park was altered. The difficult balance of the "Use-Preservation" mandate of the National Park Service would be further compromised.

III. ENVIRONMENTAL IMPACTS

The impacts of the measures called for by the master plan are ecological, social, and economic. A shift toward a more natural environment is expected. Not every effect will be universally regarded as favorable, however, since some visitor impact will be shifted outside the park. An abstract of the expected adverse impacts is listed in Table A.

1. Resource Use Capacities

The ultimate development of a resource carrying capacity limiting numbers of visitors could have an impact socially and economically, as well. Restrictions on access to the park will deny a certain proportion of the American public from visiting the park when the numerical limits have been reached. Whatever the methods used, whether they are reservation systems or similar procedures, such restrictions would impose an inconvenience to the public. These same restrictions would level off use and decrease the normal projection of economic growth, which usually corresponds to increased visitation. The main impact would be on the local economy within the immediate vicinity of the park.

By establishing a resource carrying capacity and development ceilings within the park, visitor use and its attendant impacts will be shunted to areas outside the park. This will place pressures on the National Forests surrounding the park and will encourage developments outside the park. The possibility exists that the non-federal development may result in adverse environmental effects due to lack of coordinated planning. Due to the federal ownership of lands adjacent to the park, most of this private development will be in the Jackson area. The Chamber of Commerce endorses this concept.

Exclusion of further developments of the kind previously referred to will enhance the park environment. For some segments of the public, it will incur reduced ease of access and comfort but it will check further degradation of the esthetic experiences provided by the park.

2. Development Ceilings

Further development of lodging, campgrounds, and certain other service facilities, held to present levels, may have some highly localized adverse economic effects, primarily on park concessioners. It should have favorable effects on the economies of nearby communities, as has been demonstrated by the rapid increase in commercial campgrounds in the last three years. These results are from stated policy that no more campsites would be built in the park.

Table A

Abstract of Adverse Impacts

Proposal	Impact
A. Resource Use Capacities	1. Social impacts of restrictions.
	2. Shunt visitor impact to areas outside the park.
B. Development Ceilings	1. Shift impact of visitor facility development to areas outside the park.
	2. Social impacts on restricting overnight use in the park.
C. Pollution Abatement	1. Construction disturbance.
	2. Cost.
D. Intrusive Cultural Features	1. Social impact of private lands acquisition.
	2. Tax losses.
E. Visitor Transportation	1. Construction disturbance from developing parking areas.
	2. Social impact of restrictions.
	3. Shunt traffic congestion to areas outside the park.
F. Interpretation and Information	1. Construction disturbance from facility development.
	2. Cost.
G. Resource Management	1. Possible unfavorable impacts of the use of fire as a resource management tool.
	2. Shift hunting pressures to areas outside the park.
	3. Maintenance of high water levels in Jackson Lake would limit irrigation waters downstream.

Table A (cont.)

Proposal	Impact
	4. Some construction disturbance from installation of a bypass around the Jackson Lake Dam.
	5. Social impact of restrictions on backcountry use.
H. Cultural Resources	1. Costs of restoration, rehabilitation and maintenance for historic resources.
	2. Costs of protective management and research (inventory, assessment, mitigation) of the area's archeological resources.
I. Wilderness	1. Increased backcountry trail and campsite maintenance costs by preclusion of mechanized equipment.
	2. Social impact of precluded permanent visitor use facilities.
	3. Curtailed research activities requiring installation of permanent installations.
J. Regional Planning	1. Cost of implementing the program on a region-wide basis.
K. Jackson Hole Airport Improvements	1. Increased noise levels and other esthetic intrusions through probable increased air traffic.
	2. Construction disturbance.

Relocation of accommodations and facilities to less significant parts of the park would require development of water supplies in scattered areas and of disposal sites for waste. Such shifts might result in environmental deterioration at the new location.

Removing government facilities at Beaver Creek and Taggart Creek would increase requirements for water and sewage at other facilities. Moving the comparatively large residential complex from Moose to an alternate site would involve the development of a relatively large water supply, which may not be available at many alternate sites.

Those structures that are found to possess historical and archeological merit sufficient to outweigh any intrusive character and sufficiently significant to be preserved will be preserved. There will be a loss of cultural value to those that do not meet this significance test as they will be demolished.

Limiting visitor accommodations within the park will shunt visitor impact outside the park. These visitor concentrations will create a need for accommodations including sanitation, water, power, fire protection and police protection.

3. Pollution Abatement

Imposition of more strict controls over pollution will be costly, but the installation of the necessary facilities will benefit the local and regional economies, and reduce physical damage to the environment and its inhabitants. Plans are underway to eliminate all direct sewage effluent discharge into the Snake River drainage system.

The sewage effluent and waste disposal pollution control measures called for will help insure the integrity of the park's ecological and esthetic values.

4. Intrusive Cultural Features

Elimination of intrusive facilities used by the National Park Service, and by the owners of inholdings (5997 acres) that may be acquired, will reduce detrimental ecological influences but will be costly and will require the purchase or installation of such facilities in other places (presumably, in places less fragile, significant, and essential to national social needs). The latter would have favorable economic effects, locally and regionally.

Elimination of intrusive cultural features will enhance the area's ecological and esthetic values through a gradual return to a vignette of primitive America.

Acquisition of the lands will result in a social impact upon the land owners; nearly 160 individuals are involved. There will be a loss of land to tax rolls and it will also contribute to escalating land values - the price range for land is about $5,000 to $15,000 per acre now.

5. Visitor Transportation

A proposed bus transportation system on the Teton Park road will reduce the per-visitor physical impact on some park resources, and have some favorable effects on local and regional economies (through provision of alternative facilities). The road may be closed to private vehicles when the transportation system is in operation. It will be costly in terms of federal expenditures, but probably no more so than would continued development of facilities for individually-operated motor vehicles.

Establishment of a mass transit system will involve several adverse social impacts. Visitor choice and convenience will be precluded by the regimentation required of such a system. Mass transit will also result in visitor concentrations inherent in the system, which to many visitors is an unpleasant characteristic.

Changing visitor access from cars to buses and foot travel would change the need for water supplies and sanitation facilities. Bus service would involve large parking areas at terminals that would require comfort stations.

Traffic flow limitations within the park will create in adjoining areas concentrations of automobiles with problems of space for parking, esthetics, air pollution and traffic concentration and regulation problems.

Exclusion of private automotive access to the Teton Park road and provision of a bus transportation system would result in some inconvenience for certain visitors--and in greater convenience for others.

6. Interpretation and Information

The park's environmentally-oriented communications through interpretive programs and regional planning efforts will have favorable long-term influences on the environment - that of the nation, as well as the park and its surroundings. This interpretation relates man to his environment, discusses how he is affecting it, and stresses the importance of this relationship. The era of nature study not relating man's influence on the environment is past.

The program will be expensive, but little more so than the interpretive and public relations program currently operated. Improved environmental communications, through the press, television, naturalist programs, and regional planning will contribute to deeper public appreciation of environmental quality and greater ability and willingness to support its assurance, in and beyond the park.

7. Resource Management

Restoration of natural fire and insect regimes will enable maintenance of near natural ecosystems in the park. Regrowth of vegetation will be sufficiently rapid following fire on most sites to prevent any accelerated erosion. A natural diversity of vegetation and wildlife habitat will be maintained through use of fire. Prescribed fire or other techniques will be used to reduce hazardous fuel accumulation - potentially one of the most serious resource management problems in the park. The triumph of control over fire in Grand Teton during the past 50 years is a temporary triumph - largely a result of rarity of extreme burning conditions and luck. A more positive approach to fire and fuel management is a necessity.

Aesthetic impacts of use of fire will be mixed. The most serious impact will be periodic reduced visibility due to smoke. Probably the most serious impact of using fire is the possibility, however remote, of escape. This possibility must be balanced against the very real threat of future uncontrollable holocausts if past fire management is continued, and unnatural fuel buildups are not dealt with.

Although a limited amount of increased erosion may occur following fire in a few areas of the park with unstable slopes, it is not foreseen that this could contribute significantly to the silt load of the Snake River. The only foreseeable adverse effects on areas outside the park would almost certainly be to Forest Service land. The Teton National Forest has similar plans for use of fire in the Teton Wilderness and elsewhere. Considerable interagency cooperation has been characteristic of early stages of fire management planning.

No change from present management is anticipated for the foreseeable future with regard to forest insect or disease control, and no negative environmental impacts are foreseen for areas adjacent to the park. No mountain pine beetle control has been attempted in Grand Teton since 1967. Attempts at control have since ceased in the adjacent Teton and Targhee National Forests and no future control is planned for these areas. The proposed use of fire as a resource management tool may possibly reduce the insect impact on adjacent areas. By maintaining a near natural mosaic of different-aged forest stands, the buildup of large insect populations characteristic of extensive mature stands may be retarded. The maintenance

of different-aged stands may be particularly effective in reducing population buildups of mountain pine beetle - and, at present, appears to be the only promising means of limiting the impact of this insect in forest stands.

Reduction or elimination of the park's elk reduction program would be highly desirable, in esthetic terms - as would the no-kill fishing measures, restrictions on the further development of the airport, to hold noise, traffic and unsightly structures to an acceptable level, and achievement of more natural water flow in the Snake River. Keeping Jackson Lake as near as possible full pool would reduce the esthetic impact of unsightly banks and muddy flats resulting from annual drawdowns. It would do much to overcome the reservoir aspects resulting from the Jackson Lake Dam. Natural water flow in the Snake River would reestablish normal plant successions and aquatic life. It is conceivable that achievement of the latter may be gained only at the cost of the installation of additional impoundments downstream from the park - measures whose deleterious ecological, esthetic, and economic effects might outweigh the gains made. Construction of the bypass around the dam will cause some short-term construction disturbance.

Maintenance of high water levels may result in limiting irrigation water needed on the agricultural lands downstream.

Restrictions on horse use, fires and overnight use in the back-country will result in some social impacts through limiting visitor choice and convenience.

Eliminating the elk management program from the park would be very desirable to some conservationists and is not precluded by Public Law 787. The sight of hunters is disagreeable to most who understand park purposes. To restore historic migration patterns, and thus reduce or eliminate the necessity of annual hunting in the park, it appears necessary to have hunters reduce the selected herd segments before and after they reach the park area. This would be possible, although potentially difficult, in the area between Yellowstone and Grand Teton National Parks, and/or the National Elk Refuge (FWS), where some hunting is now engaged in each fall. One impact would be to shift hunting activities to areas outside the park. Closing down five special hunt campgrounds (not available to the public at other times of the year) would help restore otherwise little used areas to their primitive state. Discontinuing the elk management program would also free managerial and field rangers of 1.5 manyears to do other needed work. Poaching patrols would have to continue as in the past, but they would have to be increased.

The park's value for scientific research will be enhanced by permitting natural phenomena to play their proper roles.

8. Cultural Resources

Restoration of the Menor's historic district will assure that the historic integrity of the site will be improved. Since the Cunningham Cabin and Menor's Ferry are on the National Register of Historic Places, the Advisory Council on Historic Preservation and State Historic Preservation Officer will be contacted as specific proposals are developed for these structures. Section 106 of the National Historic Preservation Act will be considered as this planning progresses.

Relocation of the Owen Wister Cabin will assure that it will not be destroyed by spring flooding of the Snake River.

Archeological research will result in disturbance of cultural resources. Due to their non-renewable nature, once cultural remains are disturbed, they are altered in an irreversible or irrevocable manner. Salvage operations thus have an adverse effect.

9. Wilderness

Establishment of wilderness will preclude use of mechanized equipment in the backcountry except for emergency use. Permanent structures will also be precluded by wilderness designation. Impacts will be increased trail and campsite maintenance costs; exclusion of mass visitor use, thus denying a certain segment of the American public access to the scenic backcountry; and exclusion of permanent research facilities, thus curtailing some fields of research such as weather modification experiment installations.

There will be improved protection and restoration for distinctive wilderness ecological conditions. A segment of American mountain scenery and natural environment will be maintained without loss to incompatible use.

A separate environmental impact statement discusses a detailed analysis of impacts.

10. Regional Planning

With relevant regional and local planning and subsequent zoning, the impressive wonders of the area will not be destroyed by visitor use impacts. In addition to scenic attributes, planning will establish guidelines for rare and endangered species; will devise an integrated solid waste disposal plan; and develop a comprehensive regional transportation plan.

The primary impact of the planning will be the relatively high cost for implementing the plan on a regionwide basis.

Other Considerations

The proposed improvements for the Jackson Hole Airport are discussed since potential impacts are involved.

The Jackson Hole Airport has primarily an esthetic impact at present levels of use. It also affects, to a degree not yet determined, significant wildlife populations in the park, including bald eagles, sage grouse, and ungulates. Commercial and general aviation do not restrict their use of air space to the established flight pattern, but are seen over the entire park, including the proposed Grand Teton Wilderness area.

Major impacts are summarized here, a detailed analysis occurs in INT - FES 74-11. Impacts for the improvement of the airport, scheduled to begin in the spring of 1975, include alterations of sagebrush - grassland ecosystems for taxiway, parking apron, ILS/MALS installation, increased auto parking and sewage disposal facility construction purposes. Approximately 50 acres of land are involved with these projects plus some additional disturbances from undergrounding utilities. Utilities and access will also have to be provided in areas outside the present lease for installation of the ILS and MALS systems. Disturbance of an additional 5 acres of land to obtain 55,000 cubic yards of gravel for construction purposes will also occur. This area will be restored by sloping and contouring.

IV. MITIGATING MEASURES

1. Ultimate development of a resource carrying capacity and limiting Park visitation would assure the perpetuation of the Park's delicate and interdependent elements. It would thus result in continuing the opportunity for a quality Park experience for generations yet unborn. It would prevent environmental or esthetic deterioration.

2. Educational efforts via publications, press releases and interpretive contacts aid compliance with Park regulations, reduce trampling, littering, and teasing of animals, and contribute to the overall enjoyment of a Park visit.

3. Making the bus transportation system as attractive and convenient as possible will alleviate the objections some may have to using it, and will make the Park visit more enjoyable.

4. Control of sewage effluent on the Snake River will avoid contamination or destruction of delicate aquatic ecosystems by effluent by-products. The Environmental Protection Agency and the related state agency will be consulted to assure compliance with state and federal standards in accordance with Executive Order 11752, Prevention, Control, and Abatement of Environmental Pollution at Federal Facilities.

5. In the event any cultural resources are discovered during construction activities, work will cease and the Midwest Archeological Center immediately notified to obtain professional determination on disposition of the find. Cultural surveys will be programmed to identify unknown historic sites. In accordance with Executive Order 11593, potential register properties will be nominated to the National Register of Historic Places.

   Where professionally recommended, salvage excavation and protective management practices will be implemented to assure that sites are not inadvertently destroyed or substantially altered as a result of the master plan proposals.

6. The Federal Aviation Administration and the National Park Service will work together to develop methods for mitigating the adverse effects of the Jackson Hole Airport. Methods may include air reservation space over sensitive areas of the Park, restricted flight patterns, as well as voluntary compliance schemes such as notices on pilot manuals. The National Park Service has requested the Airport Board to develop a master paln project to 1995 to include the FAA and local considerations to minimize impacts from aircraft and other operations upon adjacent lands. This comprehensive land use plan will be reviewed and approved by the National Park Service and any new construction analyzed by an Environmental Assessment. All plans for development will not be implemented without review and approval by the National Park Service.

Interior Secretary Morton's directed regional transportation study will consider a comprehensive analysis of airport needs, detailed studies of alternative airport sites and an analysis of alternative modes of ground transportation.

7. The social impact of land acquisition will be mitigated by Public Law 91-646, Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. The law assists an individual who is required to move, assistance in finding a new location, in giving payments to cover moving costs, and in giving additional payments for certain other costs.

   Whenever possible, life estates will be permitted where no adverse effects from land use are involved.

8. Construction disturbance will be mitigated be seeding, mulching and landscaping. During construction recognized methods to reduce erosion will be instigated.

9. The greatest possible care will be exercised in implementing new policies concerning fire management. The management program will be accompanied by a program of public education.

10. Cooperation with other agencies and the public in the development of specific implementation plans will provide useful information to mitigate adverse effects on the park and its surrounding region. Interagency cooperation will have particular mitigating value with respect to management of the Jackson Hole Airport (Federal Aviation Administration and Jackson Hole Airport Board), regional flood control (U.S. Army Corps of Engineers), management of regional recreational facilities (Forest Service, Bureau of Land Management), wildlife management (U.S. Fish and Wildlife Service), and management of Jackson Lake (Bureau of Reclamation).

V. ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

If the measures called for in the master plan are taken, the following adverse economic, ecological and social effects may not be avoided:

A. Increased cost of park operations in installing and maintaining new transportation systems, improved pollution control facilities, improved communications and regional planning efforts, and improved resource management and visitor protection services and facilities.

B. Some elements of the visiting public will find the new controls on park use, and the alternative forms of transportation provided, less convenient. Bus transportation will require development of large parking areas resulting in environmental intrusions and construction impact.

C. Economic gains in neighboring areas, resulting from shifts of certain activities (e.g., elk hunting, "meat-fishing") away from the park may, to some extent, incur some short-term economic losses within the park to the guides involved.

D. Some of the pressures of crowding, pollution, and environmental degradation barred from the park will be brought to bear on areas adjacent to the park. Environmental impacts will result from development shunted from the park.

E. Although partially mitigated by Public Law 91-646, some social impacts will continue for the landowners from acquisition of private lands. Acquisition will result in tax losses to the community.

F. Establishment of wilderness may result in increased backcountry management by preclusion of mechanized equipment; it will cause some social impact by precluding mass recreational facilities, causing a foregone opportunity to enjoy the backcountry except by foot or stock; it will curtail some forms of research by preclusion of permanent research facilities such as weather modification experiment installations.

G. Improvement of the Jackson Hole Airport will result in increased traffic and concomitant increases in noise as well as aerial and visual intrusions. Additional intrusion will result from enlargement of the airport facilities.

H. Some types of archeological research will result in disturbance to the sites through salvage operations. Since these cultural resources are considered non-renewable, once they are disturbed they are irrecovably affected.

VI. SHORT-TERM USES VERSUS LONG-TERM PRODUCTIVITY

The master plan proposals will continue present visitor use, but will modify that use by relating it to the carrying capacity of the park environment. The scenic splendor of the Grand Teton Range will remain for visitors to enjoy - hiking, climbing, nature study, river running, riding, scenic driving, and similar uses.

The principal "product" of Grand Teton National Park is a dynamic equilibrium of the area's biotic and abiotic resources that are not modified by man or his works. The significant benefits from this type of management are esthetic and scientific, and thus are not readily quantifiable. In large part, measurement of their values must be essentially subjective. However, as the numbers, affluence, and mobility of the public increase, and as the quantity of the nation's unspoiled natural areas decreases, the value of the park's "products" will unquestionably rise, by any measure. It is, therefore, essential that those long-term esthetic and scientific benefits not be forfeited irreversibly in the interest of short-term gains -- whether in terms of numbers of users or accommodations to nonconforming activities (e.g., increased airport use, unnecessary elk reduction). Proper use of the park is basically nonconsumptive, and is thus capable of providing unending benefits over the long term. Such benefits within the park will have substantial beneficial effect on the social and economic aspects of the surrounding region through continuing travel to the park. The paradox of any national park is that, to the degree it is kept free of commercialism, it is also of economic value. The short-term uses proposed for continuance by the master plan, under proper management, will not adversely affect the long-term productivity of the mountainous escarpment as a national sanctuary.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The philosophy of management behind this park rests in striking for as natural and undisturbed an environment as possible under applicable laws and policies. A minimum of construction is proposed. It is believed that implementation of this plan would result in no irreversible and irretrievable commitment of park resources. There would, of course, be economic costs involved, but their retrieval - in terms of social and ecological benefits - is highly likely.

Archeological research, especially salvage operations, will result in an irreversible commitment of cultural resources. Once disturbed, these resources are altered forever.

VIII. Alternatives To The Proposed Action

SUMMARY

VIII. ALTERNATIVES TO THE PROPOSED ACTION

The legislation that established the park, and the Act of August 25, 1916, which established the National Park Service and enunciated its basic mandates, clearly delimit the range of allowable alternative management actions. The following are the alternatives conceivable within those limits.

A. Resource Use Capacities: The master plan recommends that resource carrying capacities must be established; resource deterioration in most instances correlates directly with visitor use.

If no carrying capacity is established, then the social impacts of restricted use will be eliminated. Visitor impact would not be shunted to the areas outside the park. Preclusion of additional development would have the same effects as the proposal, facilities would be developed outside the park resulting in economic benefits to the communities involved. It is probable that some of this development would not be coordinated, some of it would result in environmental impacts through inadequate planning and siting. Pollution abatement projects inside the park, however, would continue in compliance with Executive Order 11752.

Preclusion of a carrying capacity for the park may be reasonable if use was limited to day use, if all facilities were provided outside the park, and if mass transportation provided an access to the Teton Park Road. With five million visitors expected by 1979, and with most of this visitation between June and September normally 85% of the total annual visitation, the impact on the environment would be overwhelming without some forms of restricted use. Resource deterioration would result.

A "no action" alternative would allow unrestricted growth of visitor use without regard for the effect upon the park's environment. Effects of overuse by humans vary as much as the ecosystems involved. Very fragile areas such as lakeside meadows are already suffering damage from overuse. In the absence of limits on the use of the area, either numerical limits or limits on the types and duration of use, environmental damage will grow and spread.

B. Development Ceilings: The master plan recommends that ceilings of overnight facilities be held to levels not exceeding those obligated by 1971.

1. Continued provision of facilities, activities and services exactly as they now exist is feasible. With increasing numbers of visitors, evolving public attitudes, and other recogniztion of the unfavorable effects of some situations now existing in the park, such an approach to park management would be unacceptable to the American public. Present overnight accommodations, both concessioner lodges and park camping, are filled to capacity from the middle of June until the end of August. Any increase in the

use load will deteriorate the visitor use facilities and subject sensitive park environment to adverse stresses from overcrowding. Since the park was expanded and developed between 1950 and 1958, visitation has increased by an average of 5% a year and has surpassed three million every year since 1969. If the 10-year forecast by the Department of the Interior holds true, this figure will increase to more than four million by 1975 and more than five million by 1979. Over 120,000 backcountry hikers registered in 1971; more than 50,000 floated the Snake River. The only possibility for expansion of visitor use is either earlier or later in the season. This will be made feasible through present educational programs and plans to extend the school year via the quarter system for kindergarten through high school.

2. In seeking the proper balance between preservation and use, management could provide additional visitor convenience and recreational facilities - more overnight accommodations, more roads, less restrained use of the backcountry and an array of noncompatible entertainment opportunities. The result of overcrowding would be deterioration of the park's natural resources and degradation of the quality of human experiences that the park is now uniquely capable of supporting. It is possible that improved facility design of existing developments would accommodate more visitors with less impact.

As discussed, visitation has increased by an average of 5% a year, and it is estimated that visitation will be more than five million by 1979. Provision of additional facilities would enable a greater number to enjoy the park. Grand Teton is essentially a day use park, however, with 70% of the visitation staying in facilities outside the park. Of the 30% staying overnight in the park, 15% stayed in campgrounds and the other 15% in the concessioner and private overnight accommodations. It is doubtful that the park could continue to increase facilities in relation to increased growth.

The current pillow count in Grand Teton National Park is 2,850; in 1970, the motel pillow count in Jackson was 3,488, in Teton Village 822, and guest ranches outside the park 442. The Jackson Chamber of Commerce endorses the concept of development ceilings inside the park. If development of overnight facilities continued inside the park, it would result in an economic impact to the business community in the Jackson Hole area. Private investment is dependent upon encouragement by the park for developments outside the park.

3. Reduction of the kinds and quantities of facilities, services, and activities provided for the park to such levels that substantially fewer people could enjoy the resources - and then only at considerably greater cost in time and effort - is feasible, but not deemed desirable. It must be confessed that the determination of the proper level of visitor use, accommodations, and services is necessarily based on considerations very difficult to quantify. These are essentially subjective matters and not at all likely to attain universal support.

Reduction of overnight accommodations would involve the currently approved pillow count of 2,850. Involved would be the Colter Bay, Jenny Lake, and Jackson Lake Lodge facilities operated by the Grand Teton Lodge Company, the Signal Mountain Lodge and Leeks Lodge. It would be unreasonable to expect to have these facilities obliterated considering the capital investment involved and the possibility of alternative siting near Jackson.

The master plan proposes that private enterprise and other public agencies be encouraged to provide additional needed visitor accommodations outside the boundaries of Grand Teton National Park. This would shift the impact of such developments outside the park. Economic benefits would result for the local communities. Removal of facilities from the park would eliminate the need for the current levels of utility installations such as water, electricity and sewage. Solid waste disposal would be greatly lessened. Except for a road network for mass transit; hiking trails, day use facilities such as picnic areas, visitor centers, and comfort stations; residences for protection personnel; and lake use facilities, all other facilities could be provided from developments outside the park. The town of Jackson would benefit significantly from such a change, but economic impacts on park concessioners and social impacts from restricted visitor use in the park would also result. Pressures would be shifted to the National Forests surrounding the park; demand for visitor facility development would shift the problems from the park to the Forest Service. It is unreasonable to assume that all development needs should be shifted to another federal agency - a coordinated planning effort appears to be the most rational approach.

All of the aforementioned facilities serve as attractants and, in effect, serve to increase visitor use by making it easier, as well as extending the average stay for the same reason. The proposal calls for the removal of some facilities and the relocation of others in less significant or less sensitive parts of the park in an effort to reduce and/or manage the impacts of human activities. No action would permit the continuation and possibly the continued growth of these effects.

C. Pollution Abatement: The master plan specifies that stringent pollution controls should be instituted to further reduce any negative environmental impact that existing and replacement facilities may have. There is no reasonable alternative to this recommendation since the National Park Service must comply with Executive Order 11752, Prevention, Control, and Abatement of Environmental Pollution at Federal Facilities.

D. Intrusive Cultural Features: The master plan recommends eventual removal of the NPS residential/service facilities at Beaver Creek, Taggart Creek, and Jenny Lake; it also recommends acquisition of all private tracts of land within the park. Without removal of intrusive features, the visual impacts of park development would continue to detract from the aesthetic values of the park. Without facility removal, however, significant relocation costs would be precluded.

Continuance of private inholdings within the park would allow adverse development. Except for visitor use developments and essential administrative NPS developments in non-sensitive areas, the intent of the master plan is to perpetuate the park's ecosystems in or near pristine condition as possible. Developments by private interests would detract from this purpose through visual intrusions such as road access and structual facilities; and from sewage abatement procedures. Acquisition costs, however, of $5,000 to $15,000 per acre for approximately 6,000 acres would not be required. The social impact of restricting private ownership within a national park would also be precluded; the owner's heirs could expect continuance of landownership rights.

E. Visitor Transportation: The master plan recommends a supplemental interpretive transportation system in the Valley zone to reduce congestion.

Preclusion of the mass transit system would eliminate the social impacts of restricted convenience; it will also eliminate the necessity for development of large parking areas for visitor cars. (Congestion during the peak summer use periods would continue on the Jenny Lake Road.) Implementation of a one-way road system would help to alleviate the congestion problem, temporarily, but it would also result in some social impacts from the inconvenience and lack of choice from such visitor routing.

Additional study is needed to determine what type of system or vehicles would be used; cost, public acceptance and availability of equipment will influence the decision. A transportation study will be needed to determine the alternatives of public conveyance. With five million visitors expected by 1979 some form of mass transportation will be required for interior park circulation.

Development of additional roads within the park is not a reasonable alternative and is not considered in this discussion.

F. Interpretation and Information: The master plan discusses a variety of media and facilities to improve communications with the public. During the planning stage there were no alternatives to the proposal that were considered reasonable.

With interpretive and informational services remaining at present levels, the opportunity for visitor understanding and enjoyment would decrease as visitation increased. Preclusion of regional information centers would result in a social impact to visitors since opportunities for proper orientation to the region would remain inadequate. The objective of the master plan is to enhance the visitor's experience.

Without the informational radio broadcasts, there would be no spot announcements on major area stations advising travelers the status of campground space, alternate open areas along their travel routes, and other pertinent data. Short-range transmitters could be utilized in the Park, similar to the Yellowstone National Park system, but the information would have limited value for the traveler in selecting his overnight stop. By the time he reached the Park, his options would be limited.

Restoration of the Menor's Historic District will improve the historic integrity of the area. Without restoration, intrusions such as roads, parking areas, introduced shrubbery, non-historic buildings, and powerlines would not be removed. It should be emphasized that Menor's Ferry is a National Register of Historic Places property; removal of adverse development would enhance its historic setting. There is no reasonable alternative to this action in order to comply with the intent of the National Historic Preservation Act of 1966.

G. Resource Management: The master plan recommends management actions for elk, fire, aquatic ecosystems, backcountry, winter use, and motor boating. A Fire-Vegetation Management Plan and the required Environmental Assessment have been prepared.

Continuance of the past resource management program would not allow restoration of the ecosystems through near natural fire regimes. Reduction of accumulating forest fuels and initiation of new stands of vegetation might be accomplished by means other than through use of fire (through logging and chemical application). However, these alternate methods would fail to accomplish the objective desired - maintenance of natural ecosystems - since they do not have the same impact on ecosystems as fire. The program would also continue elk

reduction in the park and thus not shift this impact to areas adjacent to the park. The social impact, however, of hunting within a national park would remain. If the bypass around the Jackson Lake Dam is not constructed, restoration of the park aquatic ecosystems may not be realized. The Snake River cutthroat trout population would remain disrupted. Short-term construction disturbance, however, would be precluded. Without the restraints on backcountry use, resource deterioration may continue, especially in lakeshore meadows, streams and lakeshores. Heavily used areas would continue to receive overuse-sanitation facilities would remain inadequate and campfire use impacts would continue.

In developing the current fire management program the National Park Service considered and rejected the following alternatives.

1. Continue to extinguish all fires as rapidly as possible: Continued successful suppression of fire would allow a relatively intact mantle of vegetation. With continued fuel buildup in some vegetation types, it is doubtful that suppression will be possible for some future fires under severe conditions. In vegetation types where continued fire suppression is possible, marked changes in vegetation will occur because of fire exclusion.

2. Use mechanical and chemical means as a substitute for fire: A mosaic of different-aged vegetation could be produced by such methods, but such artificial methods would not duplicate fires' effects. Logging would have economic benefits, due to useable timber harvested. Severe adverse aesthetic impacts would inevitably accompany logging. Application of chemical treatments would involve more expense than fire and might have adverse ecological side effects on Park biota.

3. Continue to extinguish all fires as rapidly as possible, but continue research on the Ecological Role of Fire: In order for further meaningful research on the ecological role of fire to be accomplished, burned areas in various ecosystem types are needed. Sufficient research information is already available to formulate a viable management plan aimed at restoring and maintaining natural ecosystems. The sooner the necessary steps are taken, the more promise exists for restoring natural ecosystems. Research effort is being wasted if its findings are not applied to management.

H. Cultural Resources: The restoration of Menor's Ferry is discussed under Interpretation and Information. There are no reasonable alternatives to the preservation and protection of cultural resources if the National Park Service is to comply with the National Historic Preservation Act of 1966.

I. Wilderness: A final environmental statement (FES 73-25) was filed with CEQ on May 11, 1973; a 115,807 acre wilderness area is recommended. Among the alternatives discussed were:

1. Non-wilderness designation: Management would continue according to current policy; this action would be little if any different from wilderness management as specified in the Wilderness Act of 1964.

2. Original NPS Wilderness Proposal: Included within the original proposal (110,700 acres) was a 1/8 mile mangement buffer zone along the wilderness boundary and exclusion of 13 two acre enclaves to permit campground development and ranger station locations.

3. Conservation organization proposal: These groups proposed a 260,000 acre wilderness area; included were all the roadless areas - including areas that contained non-conforming uses.

None of these alternatives were selected as a final recommendation for one of the following reasons: 1. The Wilderness Act requires consideration of all lands qualified for wilderness designation; 2. enclaves and buffer zones offer the opportunity for development and; 3. some roadless areas are needed for visitor use and NPS administrative facilities. The final environmental statement discusses the rationale for selection and rejection in greater detail.

J. Regional Planning: The primary impact discussed in the statement was the high cost of planning and implementation. Without cooperative planning there would be no possiblity of such actions as an integrated solid waste disposal plan, a comprehensive regional transportation plan, an integrated orientation network, and a functional distribution of activities and support facilities. One alternative would be for each agency to develop independently, recreation, accommodation, and support facilities for the regional visitor. Based upon the objectives, there are no reasonable alternatives to this master plan proposal.

K. Jackson Hole Airport Improvements: The proposal put forth in Department of Interior Final Environmental Statement 74-11 was accepted by Interior Secretary Morton. On May 23, 1974, Secretary Morton directed the National Park Service to proceed with the plan as described with any runway extension dependent on the findings of a regional transportation study. Present improvements will not rule out relocation of the airport outside the park at some future date, if studies indicate that is desirable.

Alternatives considered in FES 74-11 were:

A. Maintain the existing facilities and provide an adequate sewage system.
B. Construct an 8000 foot runway, including all other improvements.
C. Construct an 8300 foot runway, including all other improvements.
D. Relocate the airport to a site outside the park.

L. No Action Alternative

A no action alternative would continue the historic management actions and visitor use actions that have existed in recent years. The projection of these trends is somewhat problematic. The following are attempts to project the trends for each of the proposal categories.

1. Resource Use Capacities. A no action alternative with regard to resource use capacities would allow unrestricted growth of the use of various resources. Implicit in such a course would be ever increasing numbers of people and vehicles.

2. Development Ceilings. The allow demand to determine the level of development would lead to increases in overnight accommodations, campgrounds, backcountry campsites, rental sites for trailers, service stations, marinas, grocery stores, food service establishments, etc.

3. Pollution Abatement. An inevitable side-effect of no action on "Resource Use Capacities" and "Development Ceilings" would be an increase in various forms of pollution. The requirements for sewage treatment would increase proportionally to the increased visitation. Air pollution would increase proportionally to ghe aggregate increase in vehicle, boat, and aircraft traffic. Solid waste disposal would follow the same patterns of increase.

4. Intrusive Cultural Features. The 150 privately owned tracts within the park would remain in private ownership. The Park Service facilities at Beaver Creek, Taggart Creek and at Moose would remain in place.

5. Visitor Transportation. The existing interior road would remain in place and the congestion now experienced at summer peak use periods would grow in degree and duration. The float trip use patterns would grow to meet public demand, which would result in crowding and delays at launch sites and pullout sites.

6. Interpretation and Information. The continuation of current functions in this area would involve the maintenance of the headquarters-museum-information desk center and the continuation of interpretive programs, nature walks and lectures in the existing patterns.

7. Resource Management. The park would continue the use of public hunting as a resource management tool to regulate ungulate populations. A fire management plan based on fire suppression would continue.

Fluctuations in the level of and the release from Jackson Lake would continue.

The use of the backcountry has already shown a meteoric rise and would be likely to continue.

8. Cultural Resources. A no action alternative would not include the restoration or interpretation of such cultural resources as the Menor's district, the Pfieffer Homestead, Cunningham Cabin, the Owen Wister Cabin, the Maude Noble Cabin, and many other sites which may be of National Register quality. The existing intrusions on these cultural resources such as roads, parking areas, introduced shrubbery, non-historic buildings and utility lines, would remain.

CONSULTATION WITH OTHERS

A. Consultation and coordination in the development of the proposal and in the preparation of the draft environmental statement.

During preparation of the master plan, the views of many interested individuals and groups were considered. Chief among these were the conservation leaders listed on the Master Plan Advisory Team, representatives of various interested state, federal, and local organizations, and individuals who have expressed a special interest in park matters.

The proposed master plan brochure and a draft environmental statement were prepared for public information and were given wide distribution. Public hearings were held in Jackson, Wyoming, on March 10, 1972, at which testimony was received from public agencies, organizations, and individuals. That testimony, and written comments received during the review period, have been considered thoroughly in the revision of the master plan and in preparation of this final environmental statement.

During the public review period prior to the meeting, many individuals and organizations were consulted. The following is indicative of the types of groups contacted:

Department of Agriculture
  Forest Service
  Soil Conservation Service
Department of the Interior
  Fish and Wildlife Service
  Bureau of Mines
  Bureau of Outdoor Recreation
  Bureau of Land Management
  Bureau of Reclamation
  Bonneville Power Administration
Environmental Protection Agency
  Water Quality Office
  Office of Pesticides
Montana Fish and Game Department
Idaho Fish and Game Department
Wyoming Game and Fish Department
Izaak Walton League
The Sierra Club
National Wildlife Federation
State and Local Chambers of Commerce
State Highway Commissions
Dude Ranchers and Outfitters Associations
Newspapers, Radio and Television Stations
Other Interested Organizations and Individuals
Department of Transportation
  Federal Aviation Administration

The analysis of the record of the public hearing and written responses is as follows:

Conservation Group Proposal:

The Wilderness Society, Sierra Club, Izaak Walton League, National Parks and Conservation Association and a number of local conservation and environmental organizations presented statements that supported the National Park Service Master Plan proposed for Grand Teton National Park. These interested groups suggested alternative considerations that were addressed to the problems of preservation and use such as limiting of snowmobile use, ceilings and further restrictions on use patterns, preservation of historic heritages. Most expressed and reiterated the need for more attention to regional planning, removal of facilities to gateway communities, need for improved transportation systems, and review further the impact of the airport expansion.

State of Wyoming:

Governor Stanley K. Hathaway presented a statement that said the state agrees basically with the plan. Among the areas of concern were highway planning, wilderness designation, adequate park staffing and the role of various state agencies in planning and development for the park. There is a specific concern for the continuation of elk management and the Snake River cutthroat trout fishing.

Senator Clifford P. Hansen:

Mr. Ed Webster, representative of the Hon. Clifford Hansen, U.S. Senator, State of Wyoming, expressed that the plan for Grand Teton National Park should emphasize regional planning with state, federal and local governments, as well as private citizens; that all planning should include every effort to upgrade the service to the visitor to insure a quality experience.

Jackson Chamber of Commerce:

The Chamber supports the provisions of Public Law 787 of September 14, 1950, that provides for the administration of Grand Teton National Park and recommends continuation; concurs in the concept of regional planning and the continuing of elk management and the present fishery programs in the park; advocates widening of park roads - more automobiles and people; recommends limiting of campgrounds and trailer courts and advocates location of such facilities outside the park; and favors the extension and expansion of the Jackson Hole Airport.

General Public and Concessioners:

The viewpoint of the public citizenry and representatives of concession operations in Grand Teton National Park support the master plan proposal in general. Those items that should be emphasized included opposition

to moving concessioner operations to the park's east side; horses should occupy a more important role in services to the visitor; and the airport should remain and automobile travel encouraged. There were expressions in support of revised transportation systems to reduce impact; elimination or reduction of snowmobiles; need to encourage the continuation of dude ranch operations as part of the Jackson Hole historic legacy; and support for National Park Service control of fishery and elk management programs.

Summary of Responses Received:

TABULATION OF RESPONSES
GRAND TETON NATIONAL PARK MASTER PLAN

Letters

Responses in Letters

	Agency	Organizations	Individuals	Total
NPS Proposal	0	1	10	11
NPS Proposal with reservations	3	8	11	22
Disagree	0	0	0	0
Totals	3	9	21	33

Public Meeting

Hearing Viewpoint

	Agency	Organizations	Individuals	Total
NPS Proposal	0	4	0	4
NPS Proposal with reservations	0	4	7	11
Disagree	0	0	0	0
Totals	0	8	7	15

B. Coordination in the review of the draft environmental statement.

The draft environmental statement was distributed to the following state and federal agencies for their comments concerning areas of their expertise, jurisdiction or interest. Their comments, as applicable, were incorporated into the final environmental statement; those that responded are identified by an asterisk.

Department of Agriculture
*Forest Service
Soil Conservation Service
Department of the Interior
*Fish and Wildlife Service
**Bureau of Mines
*Bureau of Outdoor Recreation
*Bureau of Land Management
*Bureau of Reclamation
*Geological Survey
*Environmental Protection Agency
Department of Defense
*Army Corps of Engineers
Department of Transportation
Federal Aviation Administration
*State Liaison Officer for Historic Preservation, Wyoming
*State Clearinghouse, Wyoming

Specific comments concerning the draft environmental statement were received from nine federal and state government agencies. The pertinent comments are summarized below and copies of these letters are attached to the environmental statement.

Forest Service

Comment: The master plan discusses the need for coordinated planning for Grand Teton National Park and the surrounding areas, then makes unilateral recommendations relating to National Park Objectives.

Response: The master plan made recommendations for consideration in regional planning. It suggests the need for guidelines and zoning for even limited residual grazing, lumbering and mining that continues in the region; an overall plan for preserving the region's prime scenic attributes; guidelines for the management of rare and endangered species; an integrated solid waste disposal plan; an all weather intra-regional road circulation; and upgrade the coordination of planning for land and water resources. (pp. 6,13)

The statement identifies the concentrated visitor use of Grand Teton National Park and recommends a better distribution throughout the region. The master plan is a flexible planning document and it can be adapted as regional planning develops. The problem for the park is immediate and the master plan recommends various actions. Regional coordination of resources use is one of those actions.

**On July 1, 1975, the Bureau of Mines informed the National Park Service that they had no comments on the draft environmental statement.

The master plan presents only conceptual strategy for managing the park and for integrating the park into its regional environment. Full coordination with other agencies and the public will be achieved during the development of detailed implementation strategies, which will be the subject of future planning efforts. For example, the National Park Service is presently conducting major regional transportation and boundary studies in which numerous affected agencies, including the Forest Service, and the public are actively involved.

The National Park Service is committed to the continuing involvement of the public and other agencies in its planning process. Major actions affecting the park or areas outside the park will be initiated only after all affected interests have had opportunities to make their concerns known. These occasions will take place when future implementation plans are made available for public review.

Comment: The draft master plan mentions regional planning, then evaluates the effects upon Grand Teton National Park with little attention being given to the environmental effects outside the parks.

Response: The discussion of environmental impacts upon the lands outside the park has been strengthened. (p. 24)

Comment: Limiting visitor accommodations within the park will create environmental effects outside the park.

Response: The statement now discusses this point. (p. 24)

Comment: Traffic flow limitations within the park will create environmental effects outside the park.

Response: The statement now discusses this point. (p. 24)

Comment: If human erosion from existing ski lifts on the National Forest is an impact on wilderness values then the wilderness boundary should be altered.

Response: The wilderness recommendation has been revised accordingly.

Comment: The discussion on the John D. Rockefeller, Jr. National Memorial Parkway states that the Teton Wilderness boundary is the eastern parkway boundary. This is incorrect. The eastern boundary leaves, at present, about 29,000 acres between it and the wilderness boundary.

Response: The statement has been revised accordingly. (p. 23)

Comment: The first paragraph under section III should read, "The impacts of the measures called for by the master plan are preponderantly favorable within the National Park but have not been evaluated fully outside the park."

Response: The paragraph has been revised to include mention of impacts outside the park. (p. 24)

Comment: The impacts of natural fire and insect regime restoration in the park have not been evaluated for lands outside the park.

Response: This point is now covered in the statement. (p. 29)

Comment: The unavoidable impact on pressures of crowding, pollution and environmental degradation barred from the park is treated superficially.

Response: The discussion of environmental degradation outside the park has been expanded. (p. 24)

Corps of Engineers, Department of the Army

Comment: Flood control measures should be discussed if National Park policy does not allow any artificial alteration of flow patterns in the boundary rivers by structures within the park. The effects of such a policy on lands outside the park should be discussed.

Response: The environmental statement discusses proposals of the master plan, not National Park Service policies. The National Park Service, however, is willing to discuss mutual problems.

Comment: Due to the esthetic effects of lake level fluctuation, more information concerning this matter should be incorporated in the environmental impact statement.

Response: A brief discussion on the esthetic effects of water fluctuation is now included in the statement. (pp. 10, 30)

Comment: The statement mentions the elimination of sewage effluent discharge to the Snake River. The method of effluent disposal should be discussed in greater detail.

Response: The details of pollution abatement are not available at this stage of planning. The method of disposal will be decided after consultations with the Environmental Protection Agency and the related state agency. (p. 33)

Comment: The possible effects of concentrating development outside the park should be discussed in greater detail.

Response: An expanded discussion is now included. (p. 24)

Comment: There seem to be several contradictory discussions in the statement on reducing vehicular traffic within the park. Establishment of the memorial parkway appears to conflict with the concept.

Response: The John D. Rockefeller, Jr. National Memorial Parkway does not establish an additional road network. It is an existing highway between the two parks, which now commemorates Mr. Rockefeller for his many contributions to conservation. The statement has been clarified on this point. (p. 23)

Comment: The environmental and socio-psychological aspects of the mass-type transit system should be discussed in greater detail.

Response: These points are now discussed. (p. 41)

Comment: "Environmentally oriented communication" should be defined.

Response: The statement has been revised accordingly. (p. 29)

Comment: The reference to natural fire and insect regimes is somewhat vague.

Response: The discussion has been expanded accordingly. The environmental assessment for Grand Teton Fire-Vegetative Management Plan has been prepared. (pp. 10, 29)

Comment: The control and guidance of winter use should be discussed.

Response: Winter use is being evaluated in order that management can initiate the appropriate action. The statement now discusses this point. (p. 11)

Comment: It may be worthwhile in the alternatives to discuss what effect increasing the number of national parks or national recreation areas would have on the attendance at Grand Teton Park.

Response: The alternatives section discusses alternatives to the proposals within the master plan. The primary point to consider is where facilities could be developed to serve the region. Most of the region is under federal ownership now.

Comment: Increasing the facilities and visitor use of adjacent National Forests to help reduce overcrowding in the park should also be discussed.

Response: This point is now discussed. (p. 26)

Fish and Wildlife Service

Comment: Concern is expressed that attempts to reduce or eliminate hunting in the park will result in increases in the winter herd numbers on the National Elk Refuge and cause serious management difficulties.

Response: The statement has been revised to state that efforts will be coordinated with the U. S. Fish and Wildlife Service to assure that winter herd populations will not increase beyond present management capabilities. No unilateral action will be taken by the National Park Service to radically change present procedures of elk reduction in the park. Any major changes in management will require approval of the Jackson Hole Cooperative Elk Studies group, which includes representatives from the Fish and Wildlife Service, Wyoming Game and Fish Department, Forest Service, and National Park Service. (p. 32)

Comment: Are the locations of the historic migration routes known sufficiently and are management techniques available to alter present routes? Further, can the total effect of altering migration routes be predicted?

Response: Cooperative elk studies (Wyoming Game and Fish, the U.S. Fish and Wildlife Service, Forest Service, and National Park Service) have been conducted since 1950. In 1963 elk management problems were identified as follows:

1. A large herd of non-migratory elk was developing in Jackson Hole. The elk move to the refuge in October and use forage that should be reserved for the winter period.

2. Late migrating herd segments from southern Yellowstone National Park which traveled through roadless wilderness areas before they crossed Grand Teton had become too large to manage without assistance from reductions carried out in the park.

3. Herd segments that migrated through roaded areas east of Grand Teton or summered on the more accessible national forest lands (Rockefeller National Memorial Parkway) between the two parks had been reduced to levels where they no longer represented the major portion of the elk herd.

This definition of problems led to cooperative management programs which had the long-term objectives of restoring historical elk distribution and migration patterns, and reducing the need to artificially control elk within the park. Based on the assumption that

the ultimate herd size is a function of the winter range capacity and inherent factors of refuge management programs, the method of achieving the stated objectives is to a) reduce the level of the non-migratory herd; b) increase the removal of migratory herd segments crossing the park; and c) reduce hunting pressures on the migratory herd segments using routes east of the park. Alternatives to this program would involve different management strategies on the elk refuge and adjacent historical winter ranges of the herd.

Comment: The statement indicates that hunting in the National Elk Refuge could be expanded to lessen the need for park hunting. This is questionable. It may be that increased park hunting will be needed to control winter herd numbers.

Response: See response above.

Comment: It is stated that the elk herd would benefit by the eventual acquisition of over 150 parcels (6,566 acres) of privately-owned land. This acquisition may not be entirely beneficial to the elk since under park policy it would lead to less control by hunting.

Response: Restoration of the ecosystems to their natural conditions by removal of intrusive roads, buildings and fences would result in beneficial effects for all wildlife. It would also result in beneficial esthetic effects. The elk management program is reviewed above.

Geological Survey

Comment: If implemented, the proposed action would result in considerable impacts on water resources and related aspects of the environment in the area surrounding the park.

Response: The points presented by the Geological Survey are now included in the statement. (p. 10)

Comment: The mineral occurrences and possibilities are similar to Yellowstone National Park; a list is provided.

Response: This material is now included in the statement. (p. 18)

Bureau of Outdoor Recreation

Comment: The negative impacts of the Jackson Hole Airport expansion should be mentioned in the "Adverse Environmental Effects That Cannot be Avoided." It should be also discussed in the alternatives section.

Response: The statement has been revised accordingly. (pp. 37, 38)

Comment: It is assumed that the airport improvements are funded by the Airport and Airways Development Act (P.L. 91-258) and subject to the provisions of Section 4(f) of the Department of Transportation Act (P.L. 89-670). Both of these laws require strong documentation of the necessity of the proposal and the steps taken to minimize harm to the lands involved.

Response: An environmental statement discussing airport improvements has been prepared (INT FES 74-11). During the review process, the scope of improvements proposed and approved has been amended. Please see page 22 of this statement. The Secretary of the Interior has directed a study be made to determine the feasibility of implementing alternative solutions to extension of the airport.

Strong documentation as to steps to minimize harm and related to alternatives is being prepared.

Bureau of Land Management

Comment: Restriction of park use may be expected to increase the impact of use on adjacent lands, at present ill-equipped to cope with such use.

Response: The environmental statement recognizes that "some of the pressure of crowding, pollution, and environmental degradation barred from the park is likely to be brought to bear on other nearby areas." The discussion has been expanded. It should be recognized, however, that current levels of use in the park are far greater than levels occurring on adjacent lands outside the park. For example, few, if any, backcountry areas in the northern Rocky Mountains receive such heavy use as do some fragile subalpine meadows in the Teton Range. Agencies managing adjacent lands are aware of potential problems of over-use and are planning appropriate action. (p. 26)

Comment: A coordinate effort to develop regional planning may help with the problem of overuse throughout the region.

Response: The National Park Service has distributed a proposal for interagency planning for the region.

Bureau of Reclamation

Comment: With respect to the use of Jackson Lake water for primarily recreational purposes, it appears that the alternates for providing storage for irrigation are unattractive compared to the existing operational plan. The Bureau should be involved in any plans which would affect the existing reclamation project.

Response: The master plan, as a conceptual document, states what would be desirable in a natural area. Admittedly, the goal of maintaining Jackson Lake at full pool is probably unrealistic for the near future. We recognize, however, that an additional reservoir will possibly be built downstream on the Snake River in the future. If this happens, it might become realistic to maintain Jackson Lake at full pool in most, or all, years. In any event, the Bureau of Reclamation will be involved in any plans to modify the existing operation of Jackson Lake Dam.

The interagency meeting is now discussed.

Environmental Protection Agency

Comment: Expansion of the Jackson Hole Airport within Grand Teton National Park does not appear to be in harmony with the concept of encouraging the public to accept a way of life that is more in harmony with the environment. Airport expansion does not seem justified in terms of the stated purpose of the plan.

Response: The proposal has been studied and modified. Please see page 22 of this statement.

Comment: Shift of impacts to the surrounding area should be evaluated more fully.

Response: The statement now recognizes that limiting park use will shift problems such as waste disposal and traffic congestion elsewhere. However, "elsewhere" is probably largely outside of northwestern Wyoming. If limits are imposed on park use through a reservation system, for example, potential visitors will be able to determine in advance whether or not they can obtain reservations for a park visit.

The extent to which environmental degradation will be shifted to other parts of northwestern Wyoming is extremely difficult to evaluate. It depends on the extent of attempts of other agencies and private enterprise to accommodate large numbers of people. If such attempts are made, there will be definite adverse impacts. If regional planning determines that such impacts cannot be absorbed without unacceptable damage to the local environment, the alternatives of discouraging the influx of summer visitors through decreased advertising, etc., exists. At any rate, it should be clear that Grand Teton National Park cannot absorb an unlimited amount of use.

Comment: Attempts to acquire stabilization of the level of Jackson Lake would be accomplished only by construction of another reservoir downstream.

Response: The National Park Service does not advocate sacrificing another part of the scenic Snake River for an additional reservoir. However, if another large reservoir is built, consideration should be given to reducing drawdown on Jackson Lake. Another possibility is that enlargement of an existing reservoir (such as Palisades) might provide a substitute for Jackson Lake Reservoir without serious environmental damage. A careful analysis of environmental impacts would have to be made, however, before this could be determined.

Comment: It is recommended that snowmobiles and trail bikes be strictly delimited to certain existing access routes. A transportation policy should be formulated to reduce impact near primitive areas.

Response: Park regulations currently restrict trail bikes to routes designated as open to automobiles and other motorized traffic. Snowmobiles are allowed off unplowed roads in certain areas of the park where their ecological impact is believed minimal since deep snow covers vegetation and wintering wildlife is not vulnerable. The esthetic impacts of snowmobiles is considered severe by some. The master plan states that "there must be continuing reevaluation of snowmobiling." (p. 11)

Comment: Reintroduction of natural predators such as wolves and mountain lions might be desirable in the wilderness portion of the park.

Response: The concept presented certainly has merit. However, the area proposed for wilderness could not provide a year-round food source for these predators. No particular problem of overpopulation of ungulates exists in the park. Because of the proximity of various ranching operations, including grazing rights within the park, the concept of restoration of efficient predators appears impractical. In large wilderness areas, such a proposal might be successfully implemented.

Comment: A park policy which prohibits aircraft from flying over wilderness areas is desirable.

Response: This is an excellent suggestion. At present, no such limitations exist for any national parks or wilderness areas, except for the Boundary Waters Canoe Area in Minnesota. Special legislation on this topic would be beneficial to preservation of wilderness esthetics. The National Park Service and the Federal Aviation Administration will work together to develop ways to reduce the adverse impacts of airport operations on the park. As part of this on-going effort, the Federal Aviation Administration has already issued notices to Airmen to limit travel over the park.

Comment: Motorboating on areas adjacent to wilderness could be discouraged or prohibited.

Response: Such action would be appropriate not only to management of wilderness, but to the management of a natural area of the National Park System. However, the unnatural condition of Jackson Lake - a reservoir - and the traditional use of motorboats by concessioners and the public militates against their prohibition there. The master plan calls for continued reevaluation of the role of motorboats and oversnow machines on Jenny Lake.(p. 11)

Comment: Does the proposal to phase out or relocate "some" of the existing built-up structures in the park refer to semi-permanent commercial facilities, as well as to Park Service facilities? Will provisions be made to restore such areas?

Response: In the foreseeable future, some Park Service facilities will be moved and the areas restored to as near natural a condition as possible. (p. 6)

Comment: The recommendation is made that a joint plan of development for the Teton area be worked out between the National Park Service and the Forest Service.

Response: This suggestion has much merit. Considerable cooperation does exist between the National Park Service and the Forest Service in this area. As discussed in the master plan, it is important that a greater regional approach must be taken in planning and development. Inherent in this concept is the need for translating visitor demands for recreation, accommodations, and support facilities into terms of coordinated regional concerns rather than responsibilities to be met solely by the National Park Service. Within this regional framework, gateway towns would serve as primary visitor service hubs, and adjacent National Forests would have an increasingly important role in the recreation picture, thus relieving Grand Teton of the necessity of maintaining and developing facilities and services inappropriate to a National Park.

State Liaison Officer for Historic Preservation, Wyoming

Comment: The feeling is expressed that, although Grand Teton National Park is primarily a natural area, history is an important secondary consideration.

Response: The cultural resources are now discussed in greater detail. (pp. 18, 19)

State Clearinghouse, Wyoming

Comment: Proposals aimed at reducing the number of visitors would be inconsistent with the principle that the parks are for the enjoyment of the public.

Response: The master plan stresses that use should be within the carrying capacity of the environment, otherwise the level of the visitor enjoyment diminishes as the resource deteriorates.

Appendix I

Letters

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Washington, D.C. 20250

MAY 3 1972

1940

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

Dear Mr. Volz:

Thank you for the opportunity to review the environmental statements on Yellowstone and Grand Teton Park Master Plans.

The Yellowstone and Grand Teton National Parks' Master Plans make a strong case and justification for coordinated planning for the National Parks and the surrounding areas including five National Forests, three States, and several local units of government. Then, the Master Plans make unilateral recommendations or decisions relating to National Park objectives for restructuring visitor use, access to and circulation within the Parks, resource management, and visitor protection. These unilateral recommendations or decisions, when implemented (some are being implemented at this time), have direct and sometimes major effects upon the National Forests, States, and local jurisdictions with which such decisions should have been made if coordinated planning had taken place.

The draft Master Plans just mention regional planning and then evaluate the effect of their decisions upon the National Park environments with little attention being given to the environmental effect of their decisions on areas outside the Parks. We believe the Master Plans cannot stand alone. They must be coordinated on a regional basis. Until such coordination is achieved, along with coordinated objectives for management of the entire area, it will not be possible to evaluate the environmental effects of the Master Plans except upon the limited area within the Parks. We believe the essence of environmental statements is in evaluating the effects of an action upon as much of the total environment as can be reasonably discerned. Thus, the environmental impacts of the Yellowstone and Grand Teton National Parks' Master Plans must be considered upon the surrounding region.

The draft Environmental Statement for Yellowstone points out (page 1) that the Act of March 1, 1872, established Yellowstone

N.P. "as a public park or pleasuring-ground for the benefit and enjoyment of the people" and "for the preservation, from injury or spoilation, of all timber, mineral deposits, natural curiosities, or wonders . . . and their retention in a natural condition." The Environmental Statement then says that this language must be translated in terms of contemporary conditions and should read, "to perpetuate the natural ecosystems within the Park in as near pristine conditions as possible for their recreational, educational, cultural, and scientific values for this and future generations."

We see the administrative interpretation of the Act as de-emphasizing its "public park or pleasure-ground" direction and emphasizing strongly the preservation of its resources and wonders "in their natural condition." Such interpretation has immediate and serious implications for areas surrounding Yellowstone and GTNP because the Master Plans' proposals are being implemented already. The objectives of the Master Plans and the actions taken to implement them may well have preempted much meaningful coordination of management objectives with the adjoining lands upon which the environmental impacts of such actions will fall.

We believe that the draft Environmental Statement should consider the environmental effects outside the National Parks of the following:

1. Limiting visitor accommodations within the National Parks. Such action has environmental effects outside the Parks in terms of concentrations of people, need for accommodations including sanitation, water, power, fire protection and police protection. Problems relating to water, air, and esthetic qualities must be weighed against improving these environmental qualities within the Parks.

2. Traffic flow limitations within the Parks will create in adjoining areas concentrations of automobiles with problems of space for parking, esthetics, air pollution from engine emissions, traffic concentration and regulation, and health and safety problems associated with concentrations of people. The Master Plans' rejection of the use of Yellowstone's road system for interstate through-traffic could place environmental impact upon the physical and economic resources of adjoining areas through construction of such through-traffic facilities.

3. Restoring the natural regime within the Parks has many environmental implications outside: Removal of artificial food sources for bears inside the Yellowstone may cause outside

communities to need expanded garbage disposal facilities; bears may frequent outside communities creating safety hazards; re-establishment of natural predators, such as wolves, inside Yellowstone may have environmental impacts on domestic animals outside; elimination of gravel pits and hot mix operations within Yellowstone transplants the environmental impacts of black smoke, dust, and excavation to lands outside.

These evaluations must be made if the Master Plans' impacts are to be assessed upon the environment of the region in which the Parks are located.

The following specific comments apply to the two environmental statements for the draft Master Plans:

Yellowstone draft Master Plan:

Page 3, item 9 - The contiguous NP and NF areas will form the largest blocks of Wilderness in the contiguous 48 States. It is not all designated Wilderness at present.

Page 5 - We have pointed out in our comments upon the Wilderness proposal that enclaves destroy the integrity of wilderness.

Page 6 - Cabins in the Wilderness stocked with food which can be replaced or paid for smack of commercial enterprises prohibited by the Wilderness Act.

Page 11, first full paragraph, describes the proposed John D. Rockefeller, Jr., Memorial Parkway erroneously. The Teton Wilderness boundary is not the eastern Parkway boundary. The eastern Parkway boundary leaves, at present, about 29,000 acres between it and the Wilderness boundary.

Page 19, item L. Removing problem bears to remote areas removes a threat to visitor safety in areas of concentrated use but could increase the threat of bears to the back-country visitor.

Page 20, item C, is superficial treatment of an important and complex subject--the effects of the proposed action on the regional environment.

Page 23, Alternative No. 1, last sentence indicates that Yellowstone is the only recreational aspect of the region. This is not factual. Surrounding communities have a recreational base in terms of snowmobiling, hunting, fishing, camping, hiking, sightseeing, etc., that would still provide an economic base for the communities even without the National Parks.

Page 23, Alternative No. 3. It is not clear how this alternative differs from the proposed action.

Grand Teton draft Master Plan

Page 7, next to last paragraph, states that existing ski lifts on the National Forest have this effect: "Human erosion has thus brought less than 600 feet from the proposed Trois Tetons Wilderness area." If this is of concern, it is certainly feasible and timely to alter the boundary of the proposed wilderness before it is established. Thus, the wilderness characteristics of the proposed area will not be endangered.

Page 8, paragraph 1, contains the same factual error as noted for the Yellowstone environmental statement on page 11 relating to the proposed John D. Rockefeller, Jr., Memorial Parkway.

Page 8, first paragraph under III, should read "The impacts of the measures called for by the master plan are preponderantly favorable within the National Park but have not been evaluated fully outside the Park."

Page 10, Item 7, states, "Restoration of natural fire and insect regimes will have salutary ecological effects inside the National Park in meeting its objectives." The effects of natural fire and insect regimes have not been evaluated for lands outside the Park.

Page 14, Item V(D), notes an adverse environmental effect of Park actions on the lands outside. This is very superficial treatment of major impacts created by unilateral setting of National Park objectives and implementation of management practices to meet the objectives.

Sincerely,

Thomas C. Nelson

Thomas C. Nelson
Deputy Chief.

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BLDG. 602, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON 99362

NPWEN-PL

5 April 1972

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

Dear Mr. Volz:

Your letter A98 MWR (CFS) to General Clarke dated 1 March 1972 concerning the Grand Teton Park master plan has been referred to this office for reply. Thank you for the opportunity to comment on this statement. This letter contains the official comments of the Walla Walla District on the park statement as required by the National Environmental Policy Act of 1969 and our own guidelines. In addition to our official comments, we have inclosed several comments (Inclosure 1) on items not directly related to our Congressional authorities, which we hope will be of use to you in preparation of your final statement. The supplementary comments cover the impact statements for both the Yellowstone and Grand Teton master plans.

Our official comments are as follows:

At the present time, flood problems exist along the Snake, Gros Ventre, and Buffalo Fork Rivers; all three have sections which form a part of the Grand Teton National Park boundary. In recent years this office has received numerous requests for alleviation of flood problems on private lands along these rivers, both in reaches adjacent to the park and other areas. Any work which we might propose to do in these areas, whether adjacent to the park boundaries or not, must take into account any effects our work might have on the park. For example, if we were to do some levee work on the private lands, flows might be deflected into the park unless work was done on the park side of the river to prevent it. Whether or not Park Service policy would allow a levee to be built within the park would have a direct result on any work we would propose, since we obviously do not want to simply transfer a problem from one side of the river to another. Whatever the policy of

the Park Service toward flood control measures within park boundaries, it should be spelled out and its effects discussed in terms of both the effect on the park and the effects on neighboring private lands. If, for instance, the policy is to not allow any artificial alteration of flow patterns in the boundary rivers by structures within the park, then the effects of such a policy on lands outside the park should be discussed.

It is obvious that this issue is a difficult one, basically because of the conflict between land use policies with the park being managed to preserve and encourage natural phenomena while the private lands are managed to provide maximum economic yields and, as a result, are adversely affected by natural phenomena. This is a situation which has direct effects on both the Park Service and the Corps of Engineers and should be the subject of a definite policy to guide both our agencies' actions. We believe it is also something which should be discussed in both the park master plan and the environmental impact statement. We in this office would be glad to get together with officials of the Park Service to discuss the problems in the area and to attempt to formulate some definite policy which would help direct future action.

The fluctuation of Jackson Lake is caused largely by use of water supplies stored in the lake for irrigation use. The Bureau of Reclamation is responsible for the operation of the project, although the Walla Walla District does provide criteria for operation of the project for flood control. Fluctuation of the lake solely for flood control is usually not necessary since, as a result of irrigation use of the stored water, the lake level is already depressed. During the late fall and winter period it is possible that the lake level could be lowered for flood control storage, but in the past this usually has not been necessary. Additional information which would be of use in the master plan can be obtained from the Bureau of Reclamation. Due to the aesthetic effects of lake level fluctuation, more information concerning this matter should probably be incorporated in the environmental impact statement and the master plan.

Paragraph 3, page 9, mentions the elimination of sewage effluent discharge to the Snake River. As the paragraph now reads, there is no indication as to what will be done with the effluent. A little more discussion of this point would help clarify the matter.

If we can be of any help to you in discussing our comments contained in this letter, please feel free to call on us at any time.

Sincerely yours,

H. L. DRAKE
Acting District Engineer

1 Incl
As Stated

SUPPLEMENTARY COMMENTS ON ENVIRONMENTAL
IMPACT STATEMENTS FOR MASTER PLANS OF
YELLOWSTONE AND GRAND TETON NATIONAL PARKS

These comments are provided in addition to our official comments in the hope that they will be of some use to you in preparation of your final statements.

GRAND TETON NATIONAL PARK

a. Although it is alluded to in several places, there could perhaps be more discussion of the possible effects of concentrating development outside of the park. When one sees what has happened at West Yellowstone, where excessive border development has occurred, it becomes evident that there are problems associated with this approach. There is also an important question as to how large urban-type developments near a park entry would affect potential park visitors. What would such development do to the visitor's state of mind when he should be concentrating on the "nature" experience he will enjoy in the park? Also, would this surrounding growth have an encroaching effect on possible wild rivers of the region (e.g., Upper Snake, Gros Ventre, Henrys Fork) or the adjacent Teton wilderness area?

b. Your emphasis on reducing vehicular traffic in the park is an important goal; however, there seem to be several contradictory discussions in the statement concerning the various aspects of the proposed plan. For instance, extension of the parkway system would seem to be at odds with the stated desire to reduce automobile traffic in the park. The extension of the runway of the airport to enable it to handle jet aircraft also seems to be out of place unless it is tied directly to eliminating individual automobile traffic in the park and is considered as an integral part of a mass transit system. Given the stated goal of returning the park to a more naturalistic state, the plan to continue and even expand the use of the airport and the parkway seems to strike a discordant note and, as a result, merits further discussion in the environmental statement.

c. One related point, which concerns future transportation systems, is the likelihood that by utilizing a mass-type transit system, the actual concentration of people will increase. This concentration may be desirable for certain purposes, such as sewage treatment and solid waste disposal, but may cause adverse user reaction due to necessary regimentation that would accompany mass transit. The environmental and socio-psychological aspects of the matter of user concentration would be a topic for more discussion.

d. Paragraph 6, page 9, contains a discussion of "environmentally oriented communication" which is difficult to understand. Perhaps a little added discussion, which contrasts this new approach with present methods, would make the paragraph and its contents more meaningful.

e. Paragraph 7, page 10, contains a reference to natural fire and insect regimes which is somewhat vague. We believe that we understand what is proposed here, but the public at large will need more discussion of the effects of such a program, especially since fire and insect control have been incorporated into our life style for a long time now.

f. Another point which could be discussed in more detail is the potential for winter use of the park. As you have stated, this facet of the recreational use of the park is rapidly growing, and the master plan impact statement should include some discussion of what will be done to control and guide its growth.

g. Though somewhat afield from the alternatives normally considered to be applicable to a specific master plan, perhaps it would be worthwhile to discuss what effect increasing the number of national parks or national recreation areas would have on attendance at Grand Teton Park. Would attendance pressures decrease? Increasing the facilities and visitor use of the adjacent National Forests to help reduce overcrowding in the park could also be discussed.

h. In general, we are very favorably impressed with two of the major ideas contained in the master plan: (1) the proposal to determine what the natural carrying capacity of the park is for visitor use while preventing the loss of the resource; and (2) the proposal to reduce vehicular congestion which, at this point in time, seriously detracts from the full enjoyment of the park.

YELLOWSTONE NATIONAL PARK

It appears that you have done a very good job in setting forth the impacts of the proposed master plan and in the process have addressed several very difficult and controversial resource management questions. Our only major comment concerns the lack of a comprehensive discussion of the effects of moving most of the service and related facilities outside of the park boundary. As we stated previously in our comments on the impact statements for both the Grand Teton National Park master plan and the Yellowstone National Park wilderness proposal, there should be more discussion of the effects on the surrounding area of the policy of moving development outside the park. Although this is undoubtedly a necessary action to preserve the integrity of the park, there are also possible major adverse effects on the boundary areas. We note on page 3, paragraph 8 of the statement, that the Park Service plans to participate in planning

for the gateway communities. In our opinion, this is absolutely necessary to prevent future degradation of both the park and the surrounding areas, and this point should be more fully covered in the environmental impact statement.

The discussions of restructuring visitor use, traffic flow, and resource protection are very good.

As a result of the tremendous visitor pressure that a natural area such as Yellowstone National Park is subjected to, it becomes increasingly difficult to insure that the resource will be preserved for future generations. Only through the judicious use of management practices such as those discussed in this statement will the resource survive.

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

APR 4 1972

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

Dear Mr. Volz:

On behalf of Acting Director Smith, thank you for the opportunity to comment on the draft environmental statements for Yellowstone and Grand Teton Master Plans and Wilderness Proposals.

We have no specific comments on the Yellowstone statements other than to note that in DES 72-30 the bald eagle is named as a "species considered endangered here...." Such wording could be misleading, particularly to the uninitiated reader since the northern bald eagle is not considered as endangered. Other than this point, the Yellowstone statements are well-written and comprehensive.

Our primary interest in the Grand Teton statements centers around the numerous references concerning the harvest from the south Yellowstone (Jackson Hole) elk (wapiti) herd. The Grand Teton National Park is strategically located on elk migration routes to the extent that winter management of the herd would assume monumental proportions without the harvest achieved on the Park. Winter herd numbers would increase beyond our present management capabilities. Present management is keeping the herd at desired and agreed upon numbers; actions that will upset this balance must be thoroughly considered. With the Park closed to hunting, the elk would quickly adapt to the situation with herd reduction and control becoming virtually impossible.

Statements in both releases suggest restoration of historic migration routes to eliminate the need for Park hunting. Are the locations of these routes known sufficiently and are management techniques available to alter present routes? Further, can the total effect of altering migration routes be predicted.

Your statement indicates that National Elk Refuge hunting could be expanded to lessen the need for Park hunting. Present hunting on the refuge is managed for the control of a resident herd of some 200 animals. Additional hunting to permit control of migrating herds could well prove similar to the situation so objectionable in the recent past with the North Yellowstone herd. In both documents, it is stated "...This (herd reduction outside the Park) would be possible, although potentially difficult...." We consider this an understatement and are inclined to agree with page 7, paragraph 2 of DES 72-31 "...Complete elimination of the elk reduction program (in the Park) seems unlikely;...." Use of the word "complete" connotes a reduction of hunting in the Park. It may be that increased Park hunting will be needed to control winter herd numbers. For this reason, it might be appropriate to consider an exception to National Park Service policy regarding no hunting in wilderness areas, as a part of the legislation, although presently the proposal does not include the lands most used by migrating elk.

In DES 72-31, it is stated that the elk herd would benefit by the eventual acquisition of over 150 parcels (6,566 acres) of privately owned land. We cannot agree that this acquisition would be entirely beneficial to the elk since under park policy it would lead to less control by hunting.

It is our privilege to provide these comments and hope that they will be helpful in preparation of the final statements.

Sincerely yours,

Acting Deputy Director

United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

OFFICE OF THE DIRECTOR

May 3, 1972

Memorandum

To: Director, Midwest Region, National Park Service

From: Director, Geological Survey

Subject: Proposed Master Plan and Wilderness Area -- Grand Teton National Park

We have reviewed the subject drafts. The enclosed statements on mineral occurrences in the Grand Teton area and of the impact on water resources of the proposal are furnished for your use in any further study of the proposed wilderness.

Acting Director

Enclosures

United States Department of the Interior

GEOLOGICAL SURVEY
WASHINGTON, D.C. 20242

March 21, 1972

Memorandum

To: D. A. Bunevich, Office of the Director

From: G. H. Chase, Water Resources Division

Subject: Draft environmental statement--proposed Master Plan Grand Teton National Park, Wyoming (DES 72-31)

We have reviewed the subject draft statement with the assistance of the Wyoming District, WRD. Our comments are as follows:

If implemented, the proposed action would result in considerable impacts on the water resources and related aspects of the environment in the areas surrounding the park, although it may help to lessen impacts on the park itself. However, because the development of the surrounding areas is already in progress--as a result of the popularity of the park and of the adjacent Yellowstone--the net effect should be a lessening of adverse impact on the area. Examples of the impacts and problems that are anticipated include the following:

(1) Relocation of accommodations and facilities (page 1, item B) to less significant parts of the park would require development of water supplies in scattered areas (in some parts of the area these may be difficult to obtain) and of disposal sites for waste. Such shifts might result in environmental deterioration at the new location.

(2) Removing government facilities at Beaver Creek and Taggart Creek would increase requirements for water and sewage at other facilities. Moving the comparatively large residential complex from Moose to an alternate site would involve the development of a relatively large water supply, which may not be available at many alternate sites.

(3) Changing visitor access from cars to buses and foot travel would change the need for water supplies and sanitation facilities. Bus service would involve large parking areas at terminals that would require comfort stations. Areas open only to travel on foot, horseback, or bicycle would require more small sanitation facilities and many small water supplies for drinking; such small water supplies might necessitate building pipelines that could result in adverse environmental impact in some areas.

George H. Chase

Mineral occurrences in the proposed
Grand Teton Wilderness Area

Mineral occurrences and possibilities are similat to Yellowstone National Park.

Coal. Rougly, the two townships comprising the eastern projection of the Grand Teton National Park are considered to be of possible value. This is the same coal field that extends into southern Yellowstone National Park.

Oil and gas. Rougly half of the park is considered to have a possible value for oil and gas. There is no close production, but there are two oil and gas unit agreement areas outside the park to the south and southeast at distances of about 12 and 25 miles respectively. Nevertheless, prospects are not considered strong for the area.

Phosphate. About half a township along the southeastern boundary has phosphate possibilities and also a small area in the northern portion.

Geothermal resources. Only a miniscule portion, comprising the very northern tip, is considered as being of possible value.

Bentonite. There is one area in the northeast corner of the park.

Other minerals. There are a few scattered occurrences reported of asbestos, gold (including placer), and lead-silver.

Prepared in Conservation Div.
George W. Brett
April 12, 1972

United States Department of the Interior
BUREAU OF OUTDOOR RECREATION
MID-CONTINENT REGION
BUILDING 41, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO:

E3035

APR 5 1972

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 letter of March 1, 1972 requesting our review of the draft environmental impact statement for the proposed Master Plan, Grand Teton National Park, Wyoming.

Our only comment is in regard to the proposed expansion of the Jackson Hole Airport. The negative impacts of this project have been discussed on page 10 under "Environmental Impacts." It appears to us that mention of these impacts should also be made under "Adverse Environmental Effects That Cannot Be Avoided," and as an element of discussion under "Alternatives To Proposed Action."

We assume that the airport project is an FAA approved and funded project. If so, it would seem that the airport expansion project would be subject to the provisions of Section 4(f) of the Department of Transportation Act (P.L. 89-670) and to Section 16(c)(4) of the Airport and Airways Development Act (P.L. 91-258). Both of these laws require strong documentation of the necessity of the proposal and the steps taken to minimize harm to the lands involved.

Also, we note that Sec. 23(c) of P.L. 91-258 states that "Unless otherwise specifically provided by law...," national park lands are exempt from the provisions which relate to the transfer of government-owned lands for airport use. We call this to your attention in the event it might be germane to this case.

Enclosed is a copy of P.L. 91-258 and a copy of P.L. 89-670.

Thank you for the opportunity to comment.

Sincerely yours,

Maurice D. Arnold
Regional Director

Enclosures

cc: BOR, Washington

transferred under this Act, and orders and actions of the Administrators pursuant to the functions, powers, and duties specifically assigned to them by this Act, shall be subject to judicial review to the same extent and in the same manner as if such orders and actions had been by the department or agency exercising such functions, powers, and duties immediately preceding their transfer. Any statutory requirements relating to notice, hearings, action upon the record, or administrative review that apply to any function transferred by this Act shall apply to the exercise of such functions by the Secretary, the Administrators, or the National Transportation Safety Board.

(d) In the exercise of the functions, powers, and duties transferred under this Act, the Secretary, the Administrators, and the National Transportation Safety Board shall have the same authority as that vested in the department or agency exercising such functions, powers, and duties immediately preceding their transfer, and their actions in exercising such functions, powers, and duties shall have the same force and effect as when exercised by such department or agency.

Safety records of applicants, investigation.

(e) It shall be the duty of the Secretary—

(1) to promptly investigate the safety compliance records in the Department of each applicant seeking operating authority from the Interstate Commerce Commission (referred to in this subsection as the "Commission") and to report his findings to the Commission;

(2) when the safety record of an applicant for permanent operating authority, or for approval of a proposed transaction involving transfer of operating authority, fails to satisfy the Secretary, to intervene and present evidence of such applicant's fitness in Commission proceedings;

(3) to furnish promptly upon request of the Commission a statement regarding the safety record of any applicant seeking temporary operating authority from the Commission; and

(4) (A) to furnish upon request of the Commission a complete report of the safety compliance of any carrier, (B) to have made such additional inspections or safety compliance surveys which the Commission deems necessary or desirable in order to process an application or to determine the fitness of a carrier, and (C) if the Commission so requests, to intervene and present evidence in any proceeding in which a determination of fitness is required.

(f) The Secretary shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. After the effective date of this Act, the Secretary shall not approve any program or project which requires the use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use.

Transportation activities. Cooperation with HUD Secretary.

(g) The Secretary and the Secretary of Housing and Urban Development shall consult and exchange information regarding their respective transportation policies and activities; carry on joint planning, research and other activities; and coordinate assistance for local transportation projects. They shall jointly study how Federal policies and programs can assure that urban transportation systems most effectively serve both national transportation needs and the comprehensively planned development of urban areas. They shall, within one year after the effective date of this Act, and annually thereafter, report to the President, for submission to the Congress, on their studies

Reports to President and Congress.

application by any municipality or other public agency which is subject to the law of any State if the submission of the project application by the municipality or other public agency is prohibited by the law of that State.

(c) APPROVAL.—

(1) All airport development projects shall be subject to the approval of the Secretary, which approval may be given only if he is satisfied that—

(A) the project is reasonably consistent with plans (existing at the time of approval of the project) of planning agencies for the development of the area in which the airport is located and will contribute to the accomplishment of the purposes of this part;

(B) sufficient funds are available for that portion of the project costs which are not to be paid by the United States under this part;

(C) the project will be completed without undue delay;

(D) the public agency or public agencies which submitted the project application have legal authority to engage in the airport development as proposed; and

(E) all project sponsorship requirements prescribed by or under the authority of this part have been or will be met.

No airport development project may be approved by the Secretary with respect to any airport unless a public agency holds good title, satisfactory to the Secretary, to the landing area of the airport or the site therefor, or gives assurance satisfactory to the Secretary that good title will be acquired.

(2) No airport development project may be approved by the Secretary which does not include provision for installation of the landing aids specified in subsection (d) of section 17 of this part and determined by him to be required for the safe and efficient use of the airport by aircraft taking into account the category of the airport and the type and volume of traffic utilizing the airport.

(3) No airport development project may be approved by the Secretary unless he is satisfied that fair consideration has been given to the interest of communities in or near which the project may be located.

(4) It is declared to be national policy that airport development projects authorized pursuant to this part shall provide for the protection and enhancement of the natural resources and the quality of environment of the Nation. In implementing this policy, the Secretary shall consult with the Secretaries of the Interior and Health, Education, and Welfare with regard to the effect that any project involving airport location, a major runway extension, or runway location may have on natural resources including, but not limited to, fish and wildlife, natural, scenic, and recreation assets, water and air quality, and other factors affecting the environment, and shall authorize no such project found to have adverse effect unless the Secretary shall render a finding, in writing, following a full and complete review, which shall be a matter of public record, that no feasible and prudent alternative exists and that all possible steps have been taken to minimize such adverse effect.

(d) HEARINGS.—

(1) No airport development project involving the location of an airport, an airport runway, or a runway extension may be approved by the Secretary unless the public agency sponsoring the project certifies to the Secretary that there has been afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport location and its consistency with the goals and objectives of such urban planning as has been carried out by the community.

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United States Department of the Interior

1792.2 (220)

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

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

APR 19 1972

Dear Mr. Volz:

This is in reply to your request of March 1, requesting review and comments on the draft environmental statements for the proposed master plan for Yellowstone and Grand Teton National Parks and the Yellowstone and Trois Tetons Wilderness Areas.

These statements vividly identify the effects of overuse of parks. Restriction of use by proposing portions of the parks be identified as wilderness or restricting the number of persons allowed in the parks can help solve the immediate problems of overuse. It may also serve to shift the impacts to adjacent lands at present ill equipped to cope with increased use. Recognition of the effect shifting use can have on adjacent lands is needed.

A coordinated effort to develop regional plans which recognize and reflect the opportunities and needs for diverse recreational experiences may help with the problems of overuse and also provide for protection of natural resources and the environment in other areas.

Sincerely yours,

Assistant Director

United States Department of the Interior

BUREAU OF RECLAMATION
WASHINGTON, D.C. 20240

IN REPLY REFER TO: 736
120.1

MAY 16 1972

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 March 1 letter requesting our review of draft environmental statements for the proposed master plans and wilderness proposals for Yellowstone and Grand Teton National Parks.

On pages 7 and 12 of the proposed master plan environmental statement, Grand Teton National Park, specific reference is made to the Bureau of Reclamation's withdrawn lands for Jackson Lake storage. The implication is that the Jackson Lake facilities should be reoriented to recreation purposes. In 1967, the Bureau prepared a reconnaissance report on replacement storage for Jackson Lake and selected six sites which could serve this purpose. Meetings were held with the State of Wyoming, the National Park Service, the Forest Service, and the Bureau of Sport Fisheries and Wildlife to discuss and evaluate the proposed sites. None of these agencies favored developing any of the Wyoming sites. The Idaho Water Resource Board opposed developing the Lynn Crandall site in Idaho as replacement for Jackson Lake storage. With respect to the use of Jackson Lake water for primarily recreational purposes, it appears that the alternates for providing storage for irrigation are unattractive compared to the existing operational plan.

Since the proposed master plan of the National Park Service for management of Grand Teton National Park would affect the Jackson Lake Storage Project which is now used primarily for irrigation, we should be involved in any plans which would limit or adversely affect the existing project.

We find the statement on Yellowstone National Park to be adequate and have no comment.

In the future, it would aid our review and coordination efforts if our Regional Director was included in the list of agencies receiving copies of environmental statements and related reports.

Sincerely,

Ellis L. Armstrong
Commissioner

ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
SUITE 900, 1860 LINCOLN STREET
DENVER, COLORADO 80203

May 11, 1972

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

Dear Mr. Volz:

We have reviewed the environmental impact statement for the Tetons Master Plan, and offer the following comments:

1. The proposed Master Plan for Grand Teton National Park is a forward looking proposal for protecting the future environment of one of the nation's most valuable scenic natural areas. Though the plan calls for new management techniques that will impose certain restrictions on visitor use of the park, it is recognized that the great number of people who visit the park each year could destroy the very resources they seek, unless new techniques are implemented to control visitor impact. The Master Plan would go a long way toward assuring park protection while, at the same time, providing for visitor enjoyment and activity.

2. The draft environmental statement for the Master Plan states that: "The Master Plan proposes to continue the direction of management away from the exploitative uses characteristic of pre-park days, toward further restoration of national and historic resources. The public will be encouraged to accept a way of life that is more in harmony with the environment, while visiting the park." The next paragraph follows with the statement that: "Thus, the plan proposes to reduce unfavorable impact on the park's ecosystems. In so doing, the plan would tend to shift certain impacts to some of the surrounding area - impacts more appropriate to those areas, and having favorable economic effects on them." These two paragraphs raise several questions.

First, if one purpose of the management plan is to encourage the public to accept a way of life that is more in harmony with the environment, how will the extension of the Jackson Hole Airport some 1700 feet into Park lands coincide with this purpose? If the average Park visitor, the great majority of whom visit the Park via private automobile, is asked to park his car and enter the Park by means of mass transit, then how can an airport extension, which would appear to serve only a minority of visitors, be justified in terms of restricting visitor environmental impact? Is there a possibility that the addition of a longer runway and the addition of jet service

and attendant noise and visual pollution and possible effects on wildlife be justified in terms of the stated purpose of the management plan? Has the total impact of the airport extension been adequately evaluated?

Second, the evaluation of the effects of a shift of "certain impacts to the surrounding area" should be adequately evaluated. Grand Teton National Park is very much a part of the much larger and scenic area surrounding it. Waste disposal and stream pollution problems will have adverse environmental effects that must be dealt with, whether on Park land, National Forest land, or private land. Limiting Park use will only shift these problems elsewhere. Likewise, if Jackson Lake were stabilized at a more constant year-around level, would this only be accomplished by another reservoir on the scenic and wild reaches of the Snake River downstream?

3. No consideration is given in the Master Plan for snowmobile and trailbike usage policy. It is recommended that such vehicles be strictly delimited to certain existing access routes to the Park only. A total transportation policy should be formulated to encourage transportation modes of diminishing environmental impact the closer the visitor gets to more primitive areas.

4. We would recommend that the points elaborated in EPA's comments on the Trois Tetons Wilderness areas regarding natural predator establishment, aircraft restrictions, and motorboat uses, be considered in the overall Master Plan.

5. The proposal that "some" of the existing built-up structures in the Park will be phased out or relocated elsewhere is extremely vague. We wonder whether this pertains to semi-permanent commercial facilities, such as at the Colter Bay, as well as Park facilities, and if provisions would be made to restore such areas.

6. It is apparent that from the numerous references to activities of adjoining National Forest areas, that the overall development of the Master Plan must be coordinated with the National Forest Service and Bureau of Land Management. We would recommend a joint plan of development for the Tetons area be worked out between the Forest Service and the National Park Service to coordinate facilities and policy. This could include stressing certain uses by the Forest Service in lands closest to the Park, as already envisaged by proposed contiguous wilderness areas, but also by minimizing commercial timbering and mining activities where possible. Planning for campground facilities,

transportation facilities, highway access routes, and recreation development, should reflect consideration of the results of studies to determine carrying capacities of forest, water and biotic resources as are now being considered by the Park Service.

The participation of the Park Service in the development and management of regional plans for the protection and enhancement of the whole area would be strongly encouraged. The impact of the Master Plan on non-park resources would then be better taken into consideration.

Sincerely yours,

John A. Green
Regional Administrator

604 East 25th Street, Box 309, Cheyenne, Wyo. 82001

Telephone: Area Code 307 — 777-7695

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August 2, 1972

GRAND TETON NP
RECEIVED
AUG 9 1972

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

Dear Mr. Volz:

This is in reply to your letter of June 23, 1972, (your reference file A 98 MWR CF) covering the Environment Statement for a proposed Master Plan, Grand Teton National Park, Wyoming, in which you ask for comment from the State Liaison Officer in Wyoming for the National Historic Preservation Act.

Grand Teton National Park being an entity where natural factors predominate and where aesthetic considerations must receive first priority, any historic preservation comment made here is only offered in a secondary or supporting role basis.

We believe that it is important to remember that Grand Teton National Park is a relatively late established park. Thus there are historic factors of civilization which pertain to it much more closely than to neighboring but older Yellowstone National Park. This is especially true of the Conservation Movement as it has developed in America.

Thus, while certainly not compatible with the National Park idea, Grand Teton National Park does have a U.S. Reclamation Project within its boundaries. It also includes lands which once belonged to the U.S. Forest Service. It is closely linked, by reason of migratory wildlife patterns, with the U.S. Fish and Wildlife Service's Federal Elk Refuge. It also includes the once privately owned lands of pioneer ranchers. In short, the National Conservation Movement as it began to develop in the late 19th century and the early years of the 20th century, has produced a number of unique historic sites in the valley of Jackson's Hole. Some of these sites are within the boundaries of Grand Teton National Park, others are immediately adjacent.

We feel that this history is a part of Grand Teton National Park---granted a secondary consideration but still a part. We take this opportunity to record that feeling.

Sincerely,
Paul H. Westedt, Director
Wyoming State Liaison Officer

Ned Frost

By: Ned Frost
Historian

NF/mr

WYOMING
EXECUTIVE DEPARTMENT
CHEYENNE

STANLEY K. HATHAWAY
GOVERNOR

February 12, 1973

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

Dear Mr. Volz:

Thank you for the opportunity to comment on the draft environmental statement prepared for the proposed master plan for the Grand Teton National Park.

The objectives of the master plan to provide for increased public enjoyment of park experiences with reduced impact on park resources is a proper and worthwhile goal which most Americans will endorse and support.

It is recognized that there is a limit to the number of visitors that can ultimately be accommodated without degrading the park's resources. At the same time proposals aimed at reducing the number of visitors would be inconsistent with the principle that parks are for the enjoyment of the public. The State of Wyoming is opposed, for example, to the earlier proposal for a wilderness classification for Grand Teton National Park. Once a wilderness designation is made the opportunity to meet changing problems and programs is severely limited, flexibility of management is gone, and public input into the policies and practices governing the public's own parks is foreclosed. In the case of Grand Teton National Park, a wilderness designation could, among other things, impair the management of its fisheries and elk herds.

Adequate staffing will allow for the protection of its resources while enabling the public to enjoy and benefit from a summer or winter time visit to the park.

Sincerely,

STATE CLEARING HOUSE

Keith Osborn
State Planning Coordinator

KO:e

Appendix II

Management Objectives

MANAGEMENT OBJECTIVES

General Management

To achieve, through coordination with federal, state, and local government agencies, in conjunction with private enterprise, a regional cooperative and coordinated program that will perpetuate the natural and historic environmental values, while at the same time providing for the visitor in a manner that brings appreciation as well as enlightenment.

To manage Grand Teton National Park in a manner that will focus the attention of the visitor upon seeing, feeling, and understanding the park as total environmental resource.

To review and study the feasibility and desirability of possible boundary modifications; analyze the interrelationship of land uses and values within and adjacent to Grand Teton National Park; and determine what actions are necessary to protect, perpetuate, and interpret the significant resources of the Park.

To manage Grand Teton National Park on a year-round basis, with two use periods; the conventional summer-fall period from May 1 through November 30; and the cold-weather winter-use period from December 1 through April 30.

To manage the park in a centralized manner, with park headquarters remaining at Moose, and to relieve the pressures on prime park lands by removing intrusive residential and operational facilities. The park will continue to be divided into two districts, and functional responsibilities for management of the northern section of the park will be continued from the operating centers at Colter Bay. Colter Bay and an area to be selected in or near the southern section of the park will be the centers for year-round maintenance, administration and housing facilities.

To eliminate seasonal National Park Service and concessioner quarters from outlying areas, except where the quarters are essential for security reasons.

To develop a solid waste disposal system that will require a minimum of land area, and avoid pollution emissions that would degrade the environment.

To design sewage treatment facilities to prevent the discharge of any effluent directly into streams or lakes of the park, as well as to avoid the disruption of the area's ecosystems through the pollution or alteration of the ground water.

To enhance the natural qualities of water habitats by seeking to give a "lake" rather than a "reservoir" aspect to Jackson Lake, to the

extent that is possible without requiring serious impairment to downstream resources. As steps toward this objective, the Service will seek:

To provide for an agreement with the Bureau of Reclamation to ensure maintaining Jackson Lake at or very near its full pool elevation of 6,770 feet during the visitor impact period.

To develop procedures with the Bureau of Reclamation in the operation of Jackson Lake Dam to ensure water flows on the Snake River to provide adequate environment for the native fishes, and protection of resources downstream.

To develop in the northern Grand Teton/southern Yellowstone National Park area a winter base for the departure of oversnow trips into Yellowstone from Wyoming.

To develop a means of transportation that will relieve motor vehicle congestion in the Jenny Lake/String Lake areas, and extend their application to other sections of the park, in keeping with the results.

Resource Management

To manage the biotic resources of the park for the purpose of perpetuating the indigenous plant and animal associations of the Teton Mountain Range and Jackson Hole.

To consider as high priority in all management decisions the scenic quality of the forest mantle lying on the slopes of the Teton Mountain Range and facing Jackson Hole, all of which form an integral part of the scenic resource of mountains and valley.

To manage the Teton Range for its wilderness value, in accordance with the original act creating Grand Teton National Park in 1929.

To develop elk management programs with the Wyoming Game and Fish Commission, Forest Service, and Bureau of Sport Fisheries and Wildlife, aimed at ultimately eliminating the necessity for a public elk reduction program on lands within Grand Teton National Park.

To display wildlife under conditions that are natural and unrestrained.

To manage, in cooperation with the Wyoming Game and Fish Commission, the native Snake River cutthroat trout so as to assure the perpetuation of a native wild population as part of a natural ecosystem within its range in Grand Teton National Park.

Visitor Use

To hold overnight accommodations to the level that can be managed without increasing the aggregate amount of land now being utilized for visitor services. A currently approved pillow count of 2,850 exists. Encouragement will be given private enterprise and other public agencies to provide additional needed visitor accommodations outside the boundaries of Grand Teton National Park.

To maintain campground capacities at the number currently developed or now planned for completion at five locations within the park.

To study use and determine carrying capacity, as well as determine essential sanitation requirements for designated backcountry campsites.

To designate and develop small boat-in campsites of specified carrying capacity on the shores of Jackson and Leigh Lakes, for camping and picnic use.

To manage access points to the Snake River for scenic and fishing float trips, so as to perpetuate a natural and wilderness-type environment through which float trip groups can travel. Undertake studies to determine the capacity of visitor use on and along the Snake River.

To direct trail development and management toward alleviating conflicts between hikers and horseback riders.

To relocate saddle horse stable areas from the base of the Teton Range to eastern zones of the park. Horse operations along the Teton Mountain Zone of the park will be confined to departure facilities without holding corrals.

To confine dude ranch operations (a historic activity indigenous to Jackson Hole) within the park to the area east of the Snake River and along the eastern boundary of the park.

To provide day-use facilities, sanitation, and automobile parking at access points for oversnow-vehicle access to the open areas of Jackson Hole. Open areas for oversnow-vehicle travel to include parts of the open country east of the base of the Teton Range, except the floodplain of the Snake River.

Interpretation

To develop, through a projection of environmental awareness, an interpretation program stressing a relevance and meaning to the resources of the Tetons and Jackson Hole. The challenge of the mountains and the floral and faunal ecology are key elements in developing the relationship of man in this theme.

To interpret the historical resources within the park by not only giving attention to man's historic niche in this environment, but by interpreting the historical events taking place at Cunningham's Cabin, Menor's Ferry, and the Maude Noble Cabins, in context with the nation's history in general. Living histories are to be considered in the park's interpretive program, particularly ferry operations and dude ranches.

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The Department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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