general management plan
december 1980

Mount Rushmore
National Memorial

South Dakota

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GENERAL MANAGEMENT PLAN

Mount Rushmore National Memorial

South Dakota

December 1980

United States Department of the Interior
National Park Service
Rocky Mountain Region
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I. INTRODUCTION

A. Mount Rushmore National Memorial

The major resource at Mount Rushmore National Memorial is the sculpture itself carved between 1927 and 1941 from the southeastern face of a granite upthrust called Mount Rushmore. The sculptured busts of Presidents George Washington, Thomas Jefferson, Theodore Roosevelt, and Abraham Lincoln were named the "Shrine of Democracy" by President Franklin D. Roosevelt in 1937. The memorial is listed on the National Register of Historic Places.

The great granite sculpture is also significant as a unique creative endeavor.

Second in importance is the natural scene surrounding the sculpture as viewed by memorial visitors. A natural stand of ponderosa pine on the surrounding steep mountain terrain provides a backdrop which is vital for retention of full aesthetic appreciation of the memorial.

B. General Management Plan

The general management plan is a parkwide plan for meeting the management objectives of the park. It contains both short term and long-range strategies for resources management, visitor use, and development. These will be planned in compliance with National Park Service management policies, applicable legislative and executive requirements, in accordance with resource capabilities and limitations, and in recognition of public concerns. The plan considers the park as an integrated system and establishes the framework for major programs, facilities, and management actions, as well as legislative and administrative requirements for implementing them.
C. Management Objectives

Management objectives are guidelines developed specifically for management of a national park. All decisions concerning the management, use, and development of the memorial are directed toward achieving these objectives and fulfilling the memorial's purpose. Management objectives provide a framework for conserving memorial resources, for integrating the memorial into its regional environment, and for accommodating environmentally compatible public use in accordance with existing National Park Service management policies.

Management objectives for Mount Rushmore National Memorial are:

To preserve the memorial's historic sculpture as it appeared upon completion in 1941 and to provide continuing protection to the associated artifacts and documents.

To manage the geologic features and vegetative cover of Mount Rushmore National Memorial and adjacent environs to maintain the historical integrity and natural setting of the memorial.


To acquire the 32.5-acre State of South Dakota inholding in order to enhance the efficiency of park management and ensure long-term perpetuation of park resources.

To maximize opportunities and use of alternative energy sources and techniques in the development and maintenance of park facilities.

To ensure, through cooperation with the Forest Service, the Sixth District Council of Local Governments, and other outside interests, that regional land use and management are compatible to the greatest degree possible with the purpose of the memorial.

To foster appreciation and understanding of the sculpture, its method of construction, and its value in commemorating four great American Presidents by providing opportunities for a safe visitor experience in a setting as uncrowded as possible.

D. Constraints

Major issues addressed relate to the management and protection of the memorial's resources and to the development of solutions for overcrowded conditions occurring at the memorial during peak visitor use periods.

Visitor use at Mount Rushmore National Memorial has approached or exceeded the capacity of present facilities. This has resulted in heavy traffic congestion along access routes and in parking areas. Overcrowding at viewing sites has caused distractions to visitors viewing the sculpture.
The National Park Service's management policies were taken into account during the problem analysis and planning process in order to help solve or minimize these problems. The planning constraints are identified as management constraints, land character, and site capacities.


2. Land Character - The accompanying maps inventory the land at Mount Rushmore National Memorial, categorizing it on the basis of its inherent characteristics rather than on the basis of present use (see Figure 1, page 4 and Figure 2, page 5). Memorial lands are categorized into the following four categories:

Shrine of Democracy Area (20 acres): This area includes the sculpture and visually associated features on the east side of Mount Rushmore National Memorial.

Doane Mountain Viewing Area (40.2 acres): The only area for close-up views of all four figures at one time is on the northwest slope of Doane Mountain. Distortion can occur as one looks up at chins from too near, one figure blocks another when one is too far to the side, and the impact of size and height diminishes when one is too far back. Thus, the quality of views is ranked as prime (9.1 acres), secondary (15.4 acres), and marginal (15.7 acres). There are also no-view zones within this area, in hollows and behind large rock exposures.

Generally Level Terrain: On these areas, facilities may be more easily constructed for parking, administrative and maintenance structures, visitor centers, and concession centers.

Steeper Terrain: Because of the rugged topography, these areas are not likely to be developed, except for transportation and utility corridors.

3. Site Capacity - Limitations on visitor use revolve around vehicular circulation and parking capacity. Potential viewing area capacity can be expanded to accommodate several times the number of park visitors that the present parking facilities will permit. Present capacity, based on available vehicular parking spaces, is expressed by the following calculations:
During the months of June, July, and August, the 520 existing automobile parking spaces accommodate an average turnover rate of 1,768 persons (3.4 persons per automobile) per hour. The 4 bus parking spaces accommodate an average turnover rate of 108 persons (an average of 27 persons per bus) per hour.

These figures are seldom reached due to the fact that motor homes require three to four automobile parking spaces resulting in decreased automobile parking potential.

Currently, several things are happening that will increase the visitor capacity: 1) The park is expanding the parking area to accommodate additional buses, and in the 1980 visitor season more people are arriving by bus. Eight additional buses, at 27 persons per bus equals an additional capacity of 216 visitors. Existing capacity of 1,876 plus 216 equals a new capacity of 2,092 visitors per hour. 2) The number of motor homes has decreased slightly during the 1980 visitor season (through June 1980) resulting in additional automobile parking spaces. 3) Travel figures decreased significantly in the 1979 visitor season.

Visitation trends for the years 1970 through 1979 are illustrated in Table 1 on page 18.

II. THE ENVIRONMENT

A. Location and Access

The Black Hills are the easternmost range of the Rocky Mountains. This compact district is 40 miles east-west by 85 miles north-south. Its ridges, peaks, and valleys are covered with ponderosa pine and dotted with meadowed parks. This, in itself, is a national attraction to tourists during the warmer months. Near the center summit and carved from the granite core of the Black Hills is Mount Rushmore National Memorial.

Topography is rugged within the memorial and its immediate area. The summit elevation of Mount Rushmore National Memorial is 5,725 feet above sea level. Doane Mountain viewing area below the sculpture varies from 5,180 to 5,250 feet in elevation. The elevation of the road junction of U.S. Highway 16A and South Dakota Highway 244 is 4,540 feet. To the west, elevations drop less rapidly to 5,200 feet at the park entrance. The landscape is characterized by granite knobs interspersed in areas of moderate relief. The generally level areas in the memorial are restricted in size to a few acres.

Private automobiles provide the principal mode of transportation to the memorial and the surrounding region (see Vicinity Map, Figure 3, page 8). Interstate 90 provides good east-west road connections with the nearest large community, Rapid City. Access from the south is primarily via U.S. Highway 85 from Denver and U.S. Highway 385, both two lane roads.
There are three main access routes to the memorial. Most visitors arrive through Rapid City (east), fewest from the Iron Mountain Road (southeast), and an intermediate number from Hill City and Custer (west) (see Figure 5, page 10). Those visitors driving from the Eastern and Midwest States, as well as those few arriving by public transportation, usually arrive at Mount Rushmore National Memorial through Rapid City (Figure 4, page 9 and Figure 5, page 10). Access road, U.S. Highway 16 is a four lane divided highway for its first 18 miles from Rapid City to the junction of U.S. Highway 16 and U.S. Highway 16A. From this junction a two lane winding mountain road, U.S. Highway 16A, leads through the town of Keystone to South Dakota Highway 244. South Dakota Highway 244 rises along a steep grade up to the memorial's 520 space parking area. The most likely route for Coloradans, Californians, and some northwesterners is from the west through Hill City or Custer by South Dakota Highway 244. The narrow and steep Iron Mountain Road from Custer State Park is less used and approaches the memorial from a southeasterly direction.

Of the vehicles traveling on U.S. Highway 244, May through September, 23 percent is drive-through traffic (mostly non-local) that does not stop at the Doane Mountain parking area. This traffic contributes significantly to the congestion of park roads and slows parking area access and egress.

The Black Hills is a nationally known recreational area. The greatest concentration of use is around Mount Rushmore National Memorial. In 1968 an estimated 3 million persons attracted by Mount Rushmore spent 11 million visitor days in the Black Hills area. These include the following attractions in addition to Mount Rushmore National Memorial:

**Black Hills National Forest:** Nearly 1.2 million acres, managed under multiple use concepts, that include active recreational development.

**Custer State Park:** One of the largest State parks in the contiguous 48 States (73,500 acres), it includes scenic rock formations, recreation reservoirs, wildlife, a welcome center, a playhouse, lodging and meals, camping, and picnicking facilities. Similar to Mount Rushmore National Memorial, Custer State Park's visitation peaks from July 1 to August 20, with mostly out-of-State visitors.

**Wind Cave National Park:** Features a natural setting for wildlife viewing, cave tours, a visitor center, and campground.

**Jewel Cave National Monument:** Features interesting cavern tours.

**An Array of Scenic Roads through the Black Hills:** Includes the Iron Mountain Road which passes along mountain terrain. Tunnels on this road are aligned with views of the "Shrine of Democracy." A summit platform, Norbeck Overlook, near this road presents a Black Hills panorama including Harney Peak and the distant Mount Rushmore sculpture.
vicinity map

MOUNT RUSHMORE NATIONAL MEMORIAL
SOUTH DAKOTA
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FIGURE 3
Mount Rushmore National Memorial

Rapid City

The location

Figure 4

United States Department of the Interior/National Park Service
traffic volumes of access routes

Mount Rushmore National Memorial
United States Department of the Interior—National Park Service

FIGURE 5
The Gutzon Borglum Memorial Highway, South Dakota Highway 244, passes through the memorial.

**Hiking and Riding Trails:** These are located throughout the Black Hills area. A "Black Hills Trail System" connects the park and forests. That portion of the Black Hills Trail System within the park is used primarily by Boy Scouts. Trails enter the park on three sides: the east, south, and north. These trails are lightly used and only the south trail has any horse use, which is minimal (several horses per year). Trails in the park are in primitive condition and require little National Park Service trail maintenance.

**Privately-Owned Parks and Attractions:** The Rushmore/Borglum Museum in Keystone features many Borglum works of art and memorabilia. Other features include mines and gold panning sites, historical pageants such as the Passion Play, animal exhibits, cave tours, helicopter rides (flying over the viewing area at Mount Rushmore National Memorial), and a scenic train. The last 3 miles of the train track were washed out in the 1972 flood. Plans are being made to rebuild this portion.

**Hunting, Fishing, Boating, Water-Skiing, and Snow Skiing:** These activities take place at a variety of locations throughout the Black Hills and near Mount Rushmore National Memorial.

**A Granite Monument to the Indian Hero, Crazy Horse:** This is presently being carved from a mountain about 17 miles southwest of Mount Rushmore National Memorial.

**Bear Butte State Park and Deadwood Historic District:** Both are registered national landmarks. A museum and landmarks illustrate the separate and distinct story of the Black Hills from that symbolized by the "Shrine of Democracy" at Mount Rushmore National Memorial.

Other attractions include the Tri-State Museum in Belle Fourche, Adams Museum in Deadwood, South Dakota School of Mines Museum of Geology in Rapid City, Sioux Museum in Rapid City, and Custer Museum in Hot Springs.

**B. Existing Park Development**

The only road through the memorial is South Dakota Highway 244 (Gutzon Borglum Memorial Highway). The Doane Mountain parking area is located adjacent to the highway and has spaces for approximately 520 cars. The typical breakdown might include 420 cars in lots 1 to 4 and 100 recreational vehicles in lots 5 and 6. There is a small kiosk at the entrance to Mount Rushmore National Memorial (see Figure 6, page 12 and Figure 8, page 14).

Paved walks direct visitors from the parking area to the upper level viewing areas. Wooden rail fences generally guide the flow of foot traffic. Benches are provided along the paths for resting. Enroute to the carvings, an excellent view opens up at an intersection of the paths, but attention is distracted by crowds and buildings.
Existing Development
Doane Mountain

Aerial view looking at sculpture.

1. MAINTENANCE BLDG.
2. BORGLUM STUDIO
3. VISITOR CENTER
4. AMPHITHEATER
5. CONCESSION CENTER
6. CONCESSION DORMITORY

FIGURE 6

ON MICROFILM

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july 1980 RMRO
The visitor center is the first stop from the parking area to the viewing areas. Visitor information services are offered inside the lobby and on the adjoining terrace. The terrace supplies a complete viewing space in the form of an expansive, completely open concrete patio. A taped interpretive message, recorded music, and interpretative panels greet visitors as they look upon the view.

An audiovisual program is presented via 11 closed circuit televisions in the "Presidential Room" directly behind the viewing terrace. Restrooms and administrative headquarters are also located in the visitor center.

A solar demonstration project is being utilized to partially heat and cool the visitor center. The system is the result of a joint program with the South Dakota School of Mines and Technology, private enterprise, the National Park Service, and the Energy Research and Development Administration. A display panel outside the building aids in interpreting the system.

A walkway leads to a concession center beyond the visitor center. The carvings are in view over the roof of the concession building from this walkway. Benches and mounted coin operated binoculars are provided around a small adjacent patio. The concession center provides cafeteria style breakfast, lunch, and dinner, and native American handicrafts, gifts, and souvenirs, and restroom facilities. Another view site, also with pay binoculars, is accessible by a walkway. Food services and merchandise areas are available within the concession center. Restrooms, managerial offices, food preparation areas, and a storage room are also provided in the concession center. A concession employee dormitory is nearby.

The Borglum View Terrace (site of the sculptor's original studio) is situated about two-thirds of the way down the north side of Doane Mountain. The sculptor, Gutzon Borglum, felt this location was the best for viewing the sculpture. The Borglum Terrace features a bust of Borglum and a bronze plaque giving a brief history of the United States. A structural representation of Borglum's original studio (stone fireplaces are still intact) is also located on the terrace. The amphitheater and restrooms are nearby.

A second studio of Borglum's (built in 1939) is located beyond and below the Borglum View Terrace. The studio contains a large plaster model of the mountain sculpture. Other exhibits explaining the unique engineering feat of the carving are on display. This studio is only open in summer, and for special groups, due to limited staffing. Snow and ice on the extensive outdoor stairways is a problem in winter. The area immediately adjacent to this studio is used for employee parking, maintenance operations, and one employee residence.
There are three sets of floodlights trained on the sculpture. One is located southeast of the concession building, another southeast of the amphitheater, and a third is east of the heads at the foot of the mountain.

A workman's trail and stairway lead to the unfinished Hall of Records located near the summit of Mount Rushmore National Memorial. The entire mountain (including the trail and steps) is closed to public climbing and hiking. This enhances visitor safety and allows for a view free of people climbing near or on the faces.

Park employee quarters are located in a small hidden valley near the memorial's east entrance. Most concessioner employees are quartered in the dormitory at Doane Mountain. The dormitory is capable of housing 120 persons in single or married (but not family) units. This facility is also available for government use during emergencies. Concession employee and administrative parking is located in small lots nearby and another lot near the studio (see Figure 7, page 13).

Water supply and sewage disposal are onsite. Commercial power is provided. Garbage is hauled commercially to a disposal area near Rapid City, South Dakota. Hydrants, fire trucks, a brigade, interior standpipes, and hose houses around the area provide structural fire-suppression capabilities.

C. Visitor Use

Mount Rushmore National Memorial receives visitors from throughout the United States and some foreign countries. No one State generates more than 14 percent of the total visitation. However, States of large populations as distant as New York and California supply significant numbers. The adjacent Plains States and the northern tier of the Midwest and Great Lakes States are best represented. They supply approximately half of the visitation. The proximity and use of convenient access routes probably account for this type of use.

Most visitors remain in Mount Rushmore National Memorial for short periods during the day. Some do return for the evening program. Visitor use is light during the months of October through April (see Figure 11, page 21).

Mother's Day, Memorial Day, and Labor Day are traditional times for heavy local visitation at Mount Rushmore. Peak visitation on these holidays and on weekends in spring, fall, and winter show the influence of local use. Poor weather and driving conditions result in minimal use in the dead of winter. July is the most popular month, followed by August, and then June.

Summer visitation is greatest Monday through Wednesday, but decreases the rest of the week. Visitor activity increases rapidly from 7 a.m. to 10 a.m. (see Figure 9, page 19). It remains at this high level through 1 p.m., then drops fairly constantly until 6 p.m. After 6 p.m. visitation increases to another high for the 9 p.m. evening program.
Visitation has generally increased at Mount Rushmore National Memorial for many years (see Figure 10, page 20; Figure 11, page 21; and Figure 12, page 22). Peak visitation to date was in 1971, when the annual visitation was 2,314,822. However, visitor use dropped rapidly in the summer of 1972 to 1,911,604, a decrease of 17 percent. This could have been due to the Rapid City flood, but visitation increased at nearby Devils Tower National Monument and Jewel Cave National Monument in that same year. Visitation again increased in 1978 to 2,296,668 and decreased in 1979 to 1,642,757. The 1979 and 1980 visitation decrease was probably due to the questionable supply of gasoline and escalating fuel prices.

The volume of park visitation is directly proportional to problems associated with vehicular circulation and congestion, parking, amphitheater overflows, and crowded viewing-area facilities (see Figure 12, page 22).

D. Cultural Resources

In 1923, Doane Robinson, State Historian of South Dakota, conceived the idea of a gigantic sculpture in the Black Hills. He wanted the sculpture to illustrate Western heroes such as Red Cloud, John Fremont, and Jim Bridger. Mr. Robinson approached Gutzon Borglum (an established national artist) with his idea. Mr. Borglum was busy at the time working on the Stone Mountain Confederate Memorial, a huge sculpture carved from a granite mountain near Atlanta, Georgia. Mr. Borglum broadened Mr. Robinson's concept to include an American dream of carving a mountain to the entire nation. He wanted to illustrate the philosophy of the government, its ideals and aspirations, and its great leaders.

Mr. Borglum was guided by two convictions. One was that the monument be large, in line with the American lifestyle. The other was that the memorial must represent the spirit and ideals of the westward sweep of American civilization, accompanied by the growth of democratic ideals and institutions.

In the beginning, Mr. Borglum considered only the busts of Washington and Lincoln, but Thomas Jefferson's purchase of Louisiana typified the spirit of American continental growth. Gradually the idea of adding Theodore Roosevelt to the monument also fit into the evolving image of a memorial to the "national builders."

Mr. Borglum felt that if the busts were to last half a million years, some explanation would be needed for future ages. This information would be presented in a "Hall of Records," located behind the busts. It would preserve records of the democracy's beginnings. Other great personages and contributions could be added to the memorial's records as appropriate. The hall was begun, but never completed.

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<th>Maximum Daily Visitation</th>
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<td>1974</td>
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</tr>
<tr>
<td>1979</td>
<td>1,642,757</td>
<td>20,785</td>
</tr>
</tbody>
</table>
Figure 9

Typical travel pattern at Mount Rushmore during peak visitor-use periods (July-August)

Park visitation-vehicles
Mount Rushmore National Memorial
United States Department of the Interior - National Park Service
NUMBER OF VISITORS

annual visitation

MOUNT RUSHMORE NATIONAL MEMORIAL
UNITED STATES DEPARTMENT OF THE INTERIOR - NATIONAL PARK SERVICE
visitation trends
MOUNT RUSHMORE NATIONAL MEMORIAL
UNITED STATES DEPARTMENT OF THE INTERIOR - NATIONAL PARK SERVICE
* NOTE:
- parking area overflow occurs when daily visitation reaches 20,000 visitors/day.
- overflow will occur at 18,000 visitors/day when visitation peaks during special programs.
- grass areas are used for parking overflow, when the grass areas are full visitors are turned away.
Gutzon Borglum and his assistants measured and tested the granite of Mount Rushmore in September of 1925. Actual drilling of the rock began October 4, 1927. The Washington face was unveiled July 4, 1930. Highway access to the memorial was improved. The Iron Mountain Road was laid out by Congressman Peter Norbeck to frame Mount Rushmore through tunnels. The final form of carvings was beginning to be apparent in 1937. Much of the real sculptural work remained to be done.

Mr. Borglum began to hew out the entrance to the Hall of Records in 1938. The scheme called for an 800-foot granite stairway leading to the hall from the studio. The hall was to include records of cultural and political accomplishments (typed on aluminum sheets), an enormous bas-relief carving, and 25 busts of great men and women. Mr. Borglum was persuaded the next year to finish the Mount Rushmore faces first, in view of his age and health. The Theodore Roosevelt figure was dedicated July 2, 1939.

Mr. Borglum died March 6, 1941, after spending 14 years working on the Mount Rushmore National Memorial. His son, Lincoln, who had supervised the work since 1938, was able to continue according to his father's plan. Workers concentrated on Roosevelt's face, refined Lincoln's head, blocked out Jefferson's collar, and refinished Washington's coat collar.

In his final report to the commission, Lincoln Borglum stated that, "with the possible exception of some more work on the hand of Lincoln to make it stand more upright and to balance that memorial, I do not think any more should be done on the figures." He did consider the stairway and the Hall of Records essential to the memorial's completion. In addition, Lincoln Borglum suggested removing the 300-foot deep, 500-ton pile of debris from beneath the sculpture which was never done. This would have provided a greater apparent height to the figures.

A most remarkable sculpture had been created. The heads are 60-feet tall, a scale over 75 times life size.

The Mount Rushmore figures are not fully isolated from nature's weathering processes. Weathering browns the white faces. Frost penetrates into cracks and splits the rock. Rainwater and snowmelt seep through fissures and dissolve the natural iron deposits and iron hardware left by sculptors. This chemically weathered iron seriously stains the surface of the sculpture. Recently, vandalism and defacement have become a concern. Threats ranging from spray paints to bombs are reported. The memorial has become a popular platform to publicize certain political groups' causes and opinions. Some of these demonstrations have threatened to turn violent.

Clear sky is essential for optimum viewing by visitors. Industrial activity in the vicinity of Mount Rushmore National Memorial is limited. Air quality is good because of the motion of air currents off of the mountain. Air clarity is excellent at present, but coal mining in eastern Wyoming could possibly create air quality problems in the future.
Jet aircraft contrails are scarce and do not create any major obstruction to the views. Noise pollution, however, is a problem. Helicopters operate extensively in the area. The memorial's evergreen forest is subject to insect attack and fire. Some trees block good views of the Mount Rushmore National Memorial's faces.

In accordance with Executive Order 11593 and National Park Service Historic Preservation Policies, a systematic, 100 percent archeological survey of the monument was carried out in 1973. No aboriginal sites were located; no significant cultural resources were found.

E. Natural Resources

1. Geology and Soils - In the Black Hills area a small part of the Great Plains began warping upward 70 million years ago. This caused the under-lying strata to bulge into a dome. The higher portions of the rising rock layers were completely eroded away. Their stubs remained as immense concentric rings around an ancient metamorphic core of mica schists and quartzite. The small granite body that makes up the scenic rock formations in the area (Mount Rushmore National Memorial, Harney Peak, the Needles, and Crazy Horse Monument) rises from the center of these rings.

The rocks of the central core are hard and crystalline and resist erosion. Early glacial activity did not affect the Black Hills area. The valleys are narrow and contain a few scattered natural lakes. Some artificial lakes have also been created. The geologic history of this area has determined the course of the subsequent mining, agriculture, forestry, tourism, and even the "mountain carving" industries.

Soil cover, in the vicinity of the proposed development, consists of a 1 to 2 foot layer of mixed organic matter and decomposed granite resting on bedrock.

Lands within the memorial have been withdrawn from mineral and mining entry.

2. Climate - The Black Hills area is generally cooler in summer and warmer in winter than the surrounding plains. Average summer highs in the memorial are in the high 80's. Some maximum temperatures in the high 90's occur a few days each year. Summer night temperatures are cool and usually in the middle 50's with possible frosts. From mid-November through mid-February highs are in the middle 30's with lows of about 10 degrees. The record low of -38 degrees occurred in January 1963.

Severe local thunderstorms accompanied by hail and lightning occur June through August. They are usually of short duration. Average annual precipitation is about 20 inches. Summer precipitation averages about 4 inches per month. Winter precipitation is less than 1 inch per month. The maximum rainfall within 1 hour was 2 inches and within 24 hours was 6.30 inches. Fog is common on spring mornings and occasionally may develop during and after a storm. This obscures the view of the sculpture for several hours or even an entire day.
Snowfall at the memorial is light. Six inches is the typical winter cover. Total annual snowfall is normally less than 8 feet. The maximum recorded snowfall within 24 hours was 24 inches. The heaviest snowfalls usually occur in the spring.

Prevailing winds are from the northwest. Severe winds during late winter or early spring usually come from the west or southwest. Maximum recorded wind velocity was 80 miles per hour.

3. Hydrology - Both precipitation and runoff from snowmelt are at a maximum from April through July. Many of the springs and streams in the central mountain area flow year-round. In the Black Hills, wells can yield varying amounts of water from cracks in bedrock or interconnected pores in alluvial valleys. Water in the higher mountains is likely to be low in dissolved solids and suitable for most uses. Calcium bicarbonate may make this water hard. There is little developed water in the memorial. However, the supply and quality of developable water within the memorial is adequate to serve beyond the year 2000, if it is not impaired by new activities. Lafferty Gulch has a small stream that runs most of the time, although it dries up during any extended dry spell. One series of springs in the memorial produces approximately 14,000 gallons of water per day.

Water in South Dakota is declared to be the property of, and is administered by, the State government. Therefore, its use for a specific purpose, such as resource development on Federal lands, must include determination of a water right.

4. Vegetation and Wildlife - The natural resources of the memorial have no real significance in themselves. The lands are only a small 1,300-acre segment of a 1,300,000 acre public land tract. However, the natural scene is a significant complement to the bas-relief sculpture, and the rugged forested terrain must be preserved as a contrast to the starkness of the sculpture. The intensely deep blue sky and numerous billowy clouds make an ideal setting for the sculpture and a pleasant environment for the visitors.

The fire hazard is high in Mount Rushmore National Memorial. The memorial is situated on a mountain top in a zone of frequent lightning strikes. Heavy recreational use is high in the immediate area. There have been only five forest fires (burning 0.21 acres) since 1931. This allowed the buildup of fuel in the vegetative cover. This fire hazard proposes a threat to the visitors, to the expensive developments for visitor use, to the forest setting, and to the carvings themselves. The sculpture could spall in excessive heat or become grayed by smoke. The fire season begins as early as March and lasts until mid-October. The burning of brush piles is practiced during safer periods to reduce fuel concentrations in flatter areas. Limited control burns may be considered in the resource management plan to maintain ponderosa glades and prevent fuel buildup. The varied topography and steep slopes within the memorial make control of fires impractical. Roads and parking areas do serve as partial firebreaks and provide exit routes in case of emergency.
Ponderosa pine of varying age dominates the vegetative communities. Constant control of the pine bark beetle is required to avoid epidemic outbreaks and massive tree die-offs. Black Hills spruce, aspen, white birch, bur oak, and Rocky Mountain juniper also scatter across the countryside. Lesser vegetative types include chokecherry, pin cherry, kinnikinnick, grasses, and sedges.

A diversity of large mammals is native to the region. Their well-being is now assured by parks and wildlife preserves and by game management practices. The Norbeck Wildlife Preserve which includes the memorial lands and part of the surrounding Black Hills National Forest was established by Congress in 1920 for the protection of and as a breeding place for game animals and birds. Custer State Park and Wind Cave National Park extend this preserve to the south as a continuous game preservation area. Mule deer, white-tailed deer, mountain goats (exotic), elk, bobcats, and coyotes can occasionally be seen within the memorial and adjacent areas. Smaller animals include chipmunks, squirrels, porcupines, cottontail rabbits, jackrabbits, raccoons, skunks, marmots, and weasels. Both the bald eagle and golden eagle cohabit in Mount Rushmore National Memorial during their spring and fall migrations.

F. Socioeconomic Environment

Few people reside near Mount Rushmore National Memorial. In 1970 only five States had smaller populations than South Dakota. The entire population of South Dakota was 666,000. Rapid City, the State's second largest city, has a population of 55,000. Ellsworth Air Force Base has a population of 6,000. Within the Black Hills area, the Deadwood-Lead area has 8,000 people, Custer 1,600, Hot Springs 4,400, Hill City 400, and Keystone 170. The towns of Spearfish 4,700, Sturgis 4,500, and Belle Fourche 4,200, surround the Black Hills. The population in the Black Hills area increased slightly from 1960 to 1970. It dropped somewhat in the State as a whole. The region lost a valuable resource in the exodus of its young people due to the lack of job opportunities. Large Indian reservations occupy the southern and central areas of the State. The Indian population accounts for 4 percent of the State's residents. The State's population is expected to grow 4 percent by 1990 if urbanization continues.

The economy is affected by the management of large Federal and State land areas in the region. Private holdings are small and scattered (see Figure 13, page 27). Revenues from public domain lands are distributed to State and county governments and public schools, because these entities do not receive much revenue from taxes.

The recreation industry is a major revenue producer in the Black Hills. Several thousand residents are largely dependent on it for their livelihood. Extending the season of use and lengthening individual visits are recognized as a challenge. The basic recreational resource is administered by and at the expense of the Federal and State Governments who own the preponderance of land in the Black Hills.
The Homestake Gold Mine at Lead is presently the largest gold producer in the United States. The Black Hills region is also a prime area for economically valuable pegmatite minerals. These include mica, feldspar, beryl, and lithium. They are commonly found in the Custer-Keystone region where small mines are operated sporadically. Iron is present in Iron Mountain and at a variety of locations throughout the region.

Forests are retained in a generally natural state within various national parks, monuments, and memorials. Black Hills National Forest and Custer State Park practice silviculture. The wood industry of the Black Hills has not had the capacity to fully utilize the available timber. Increased capability is expected.

Studies have concluded that the greatest potential in resource development for the Black Hills lies in multiple-use management. Coordination among various land uses and users is essential. Lumbering and mining should be compatible with recreational use. The recreation industry has over advertised and exploited its resource. Area-wide planning councils recognize this problem and plan for future needs without over saturating visitation or degrading resources.

III. THE PLAN

The general management plan addresses the memorial as an integrated system. The organization and content of this plan is structured in a way that it communicates the interrelationships between the proposed actions. This section of the general management plan provides a broad framework for integrating resource management, visitor use, and development strategies; provides the rationale behind them; and relates them to the plans and activities of other interests in the park and vicinity. Specific actions are proposed with programs for each of these areas of management concern, and rationale is provided for these specific proposals.

A. Management Zoning

Park lands are zoned to designate where various strategies for management and use will best fulfill management objectives and achieve the purpose of the park. Such management zoning was developed in consideration of capability of the land to support identified uses. Management zoning for the memorial are illustrated on Figure 14, page 29.

The four management zones within the memorial are: Natural, Park Development, Historic, and Special Use. The following is a brief description of management strategies for each of these zones.
management zones
Mount Rushmore National Memorial South Dakota

- Natural Environmental Subzone with Potential for Wilderness
- Natural Environment Subzone
- Special Use Subzone
- Outstanding Historic Feature Subzone
- Development Subzone
- Historic Subzone
- Potential Boundary Adjustment

FIGURE 14
Natural Zone - Lands in this zone will be managed to ensure that natural resources and processes remain largely unaltered by human activity. Developments will either be absent or limited to dispersed recreational and management facilities that are essential for management, use, and appreciation of natural resources. The Natural Zone is comprised of two categories: lands with and lands without potential for wilderness. Lands with wilderness potential are addressed in part III, B. of this document. Natural Zone lands that do not qualify for wilderness due to the influences of activities and visual impact of the development zone, will provide a buffer between developed lands and potential wilderness.

Park Development Zone - Lands in this zone will be managed to support nonhistoric park development and intensive public use which substantially alter the natural environment. Parking lots, public use roads, aggregations of buildings, and park utilities are included in this zone. Developments permitted on other zones do not constitute a Park Development Zone. The Park Development Zone is restricted to the smallest area necessary to accommodate required major development and intensive use.

Historic Zone - This zone includes lands managed primarily to preserve the sculpture and historic features relating to the actual sculptor's operations.

Physical development in the Historic Zone will be the minimum needed for preservation and interpretation of cultural values. Activities generally will be limited to interpretation, viewing, and study of the sculpture. However, this limitation will not preclude or discourage appropriate adaptive use of historic structures for utilitarian purposes or other uses permitted by National Park Service policy.

The entire memorial is on the National Register of Historic Places and, therefore, automatically identified as a Historic Zone. However, only a small portion of the memorial will be managed as a Historic Zone. The Commemorative Subzone, within the Historic Zone, is comprised of the sculpture and immediate lands surrounding the sculpture that form its setting. This subzone will be managed under the same guidelines as the Historic Zone with emphasis on the preservation and interpretation of the sculpture.

Special Use Zone - This zone contains undeveloped lands within the memorial owned by the State of South Dakota. This 32.5-acre inholding is administered by the South Dakota Department of Game, Fish and Parks. This tract, if determined to be excess to the State needs, may eventually be transferred to the memorial through land exchange with the Forest.
Service or donation by a nonprofit organization. A Memorandum of Understanding will be developed between the State and the memorial as to the handling of resource violations on these lands.

A nonzoned narrow strip of Forest Service land (approximately 14 acres) exists between the memorial boundary and the town of Keystone. This parcel can be effectively administered in a natural state within the Black Hills National Forest Land Management Plan. If, however, the Forest Service ever disposes of the property, it should be acquired by the memorial to serve as a buffer zone.

B. Wilderness

From the earliest beginnings of the National Park System, the concept of wilderness preservation has been an integral part of park management philosophy. In the ensuing century, the national park movement has been a focal point for an evolving wilderness philosophy within our country.

The Wilderness Act specifies that designation of a park area as wilderness shall in no manner lower the standards evolved for the use and preservation of such park in accordance with the Act to Establish a National Park Service, August 25, 1916 (39 Stat. 535), and other applicable legislation.

The Act defines wilderness, in part, as undeveloped Federal land retaining its primeval character and influence which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable.

Eight hundred and ninety six acres of the Natural Environmental Subzone of Mount Rushmore National Memorial has potential as wilderness, contingent upon the outcome of wilderness classification of surrounding Forest Service lands. Roadless portions of the memorial do not contain enough acreage to qualify as wilderness. However, acreage requirements will be met if contiguous Forest Service lands receive wilderness classification.

C. Resource Management

This section of the general management plan outlines management strategies for maintaining or altering cultural and natural resources at Mount Rushmore.

1. Cultural Resources - The principle resource at Mount Rushmore National Memorial is the sculpture of the four Presidents. It will be retained substantially in the condition of its 1941 completion. Periodically,
fractures in the granite are resealed to prevent water from penetrating and freezing which would cause damage. At some time the faces may have to be refurbished to remove stains caused by weathering. The sculptor intended that the rubble pile be removed to give the faces a greater apparent height. However, the rubble pile will remain as is since it is now a part of the historic scene. Future carvings will not be added.

The sculpture will be protected from vandalism. Restrictive barriers, signs, and monitoring will prohibit unsupervised access to the mountain. Supervised access will be provided in special situations.

Climbing will not be allowed on the talus slope or on Mount Rushmore because it is unsafe and will also interfere with the viewing experience of the visitor. Climbing is permitted in all other areas of the national memorial.

Those groups wishing to use the memorial with the sculpture as a backdrop to benefit a cause or a belief, will be allowed to do so as long as others are able to have an undisturbed visit.

2. Natural Resources - The forest will be maintained to provide a natural setting for the memorial. The forest will be managed to reduce the possibilities of forest fires and insect infestations. Trees growing from the rubble pile that block views will be removed to improve the appearance of the sculpture.

D. Interpretation and Visitor Use

The primary visitor interest at Mount Rushmore National Memorial is viewing the sculpture. Park interpretation will revolve around the sculptures through programs in the visitor center and sculptor's studio, evening amphitheater programs, self-guided interpretation, and with special programs prepared for the visitor. Additional areas are needed for individual and small group contemplation of the sculpture and its significance. Both the sculptor's studio and view terrace will play a more prominent role in the future through improved visitor access.

The park's interpretive prospectus to be prepared in the near future will provide more detailed information on how and where emphasis on interpretation will be given.

E. General Development Plan, Doane Mountain Area

This section deals with development planned to solve major problems. These problems at the memorial are identified as: overcrowding visitor use facilities, inadequate motor vehicle parking spaces, and restricted highway access up the steep grade to Doane Mountain from Keystone. These problems occur simultaneously during peak visitor use periods of mid-June through Labor Day from 9 a.m. to 4 p.m. and again from 8 p.m. to 10 p.m. This plan presents methods to effectively deal with these major problems, improve visitor experience, and minimize adverse effect upon the memorial.
1. Doane Mountain Entryway (see Figure 15, page 34) - The entryway walks between the parking area and visitor center will be widened and follow the existing path. Other paths will lead to the viewing terraces and the concession center. There will also be paths leading downward to lower-level viewing areas, the studio, and the amphitheater.

2. Walkways and Viewing Points - Walkways will help in the disperelement of visitors and provide different viewing perspectives. A series of knolls or view terraces along the walkways will contain supplemental interpretive devices.

The widest segments of the walkways will be located at arrival, exit, and group assembly points. All principal pathways will accommodate at least four persons walking abreast (approximately 10-feet wide). Bridging may be necessary in some places to provide enough space to separate pedestrian movement without a change of level. Gentle ramps will be used instead of stairs where a change of level is necessary. Redesign of the walkway approach to the visitor center is needed for better direction of visitors.

Shelters with benches for protection from the sun and rain will be placed strategically throughout the viewing area. The size of these shelters will be adequate to accommodate the optimum seasonal use. Shelters will be oriented to permit visitors to view the sculpture in most weather conditions. Restrooms as needed in the prime viewing area should be easily accessible or where they will not obstruct the view.

An attempt will be made to accommodate the physically handicapped throughout the viewing area. Facilities will be developed to permit physically handicapped persons to visit a representative sample of the area and to attend all group programs and principal exhibit areas. Surfaces of walkways and roads will be designed to blend in with the natural environment. Large expanses of pavement will be broken up by a sensitive landscape design utilizing terraces, planters, and rockworks. Benches will be provided off walkways where they will not interfere with circulation. Drinking fountains will be dispersed throughout the area. Some ice melting devices may be installed for walkways and viewing terraces for winter use.

3. Borglum Memorial View Terrace - The Borglum Memorial View Terrace is a special area because of its excellent viewpoint. Interpretive presentations will introduce the relationship between the artist and the sculpture. Redesigning for visitor access is needed.
4. Amphitheater Access - Amphitheater expansion can include a balcony to the existing amphitheater, thus reducing grade differences between the visitor center and the amphitheater. The balcony may be designed with a shelter for protection from sun and rain and viewing platform on the roof, if compatible with the site. A walkway, without steps, appears feasible to connect the two levels. Additional study of this walkway system is needed.

5. Evening Program - A more versatile projection and lighting system will be used for the evening program. The program will present an inspirational group experience in an amphitheater setting, utilizing lighting on the sculpture, combined with multiple interpretive data. Consecutive programs may be presented, if needed. Circulation systems will be designed to ease entering and exiting congestion. The present amphitheater, which will seat 800, will be expanded and redesigned to accommodate approximately 1,500 people. The amphitheater will be available to bands and other groups as long as their use does not conflict with established interpretive programs.

6. The Studio - The sculptor's studio has been reopened as a summer use area. Of major significance within are Borglum's plaster models of Mount Rushmore at the scale of 1:12, and the model of the Hall of Records. The studio with the associated Borglum View Terrace, original air compressor, cable car site, and sculptor's tools should play a major role in the memorial's interpretive program. When the maintenance functions are removed from the studio and immediate area, post-1940 structures should be removed. The studio should be remodeled to preserve the building and make interior modifications as an adaptive use for museum and interpretive purposes subject to guidelines for historic structures. The basement should be returned to its original use of storage for the tools used in the mountain carving, other items of historic value, possible visitor viewing and the fire cache. Provisions should be included for heating, cooling, and humidity control in the entire building not only to provide year-round use, but to provide a more uniform climate to preserve the numerous plaster models. Access by trail should be improved as well as provision made for shuttle bus transportation between the parking area and studio. As the studio can only comfortably handle 40 to 60 visitors at one time, a careful balance should be maintained between ease of access and viewing time required. The existing residence near the studio will be adapted to park administrative use.

F. Parking Area Expansion

A study to identify potential modifications to reduce congestion and increase parking capacity took place concurrently with the preparation of this general management plan. Results of this study are intended to modify the existing facilities in areas already disturbed and not to significantly enlarge the area impacted by the current visitor parking area.
As travel increases, a second parking area for 200 to 300 cars may be needed for use during peak season. The site would be located at the bottom of the steep grade to Doane Mountain. A public shuttle bus would be needed to transport visitors to Doane Mountain.

Four sun and rain shelters would be constructed to provide protection for visitors awaiting the shuttle; three at the new lot and one at Doane Mountain. All will contain restrooms and basic information on the memorial.

The increased use of bicycles with improved access to the memorial will require bicycle stands where bicycles can be locked near the parking area.

An area near the proposed maintenance facilities is considered for parking seasonal employee vehicles. A shuttle van and/or a ½-mile trail would provide employee access to Doane Mountain. After hours concessioner employee traffic could be a problem.

An area located on the hilltop across South Dakota Highway 244, south of the existing parking area, was again reviewed for potential parking expansion. Development of another large parking area on Doane Mountain at this site would open an unsightly scar on the landscape as seen from the Norbeck Overlook and the Iron Mountain scenic road. It would be located too far from existing viewing areas for many people to walk, would create an automobile and pedestrian problem on South Dakota Highway 244, and does not solve any of the slow moving traffic problems up the steep grade to Doane Mountain. Parking expansion will not take place at this site.

G. Rubble Pile

The rubble pile beneath the sculpture will be retained as a part of the historic scene of Mount Rushmore National Memorial.

H. Hall of Records

The Hall of Records, as conceived by Gutzon Borglum, was essentially an archives located in the canyon behind the sculptures, with a grand stairway leading up to it. The great room carved out, at least 90 by 110 feet, would contain, quoting Borglum, "the records of our republic, its successful creation; the record of its westward movement to the Pacific; its presidents; how the memorial was built; and frankly why."

Borglum started the excavation, getting a 14- by 20- foot passage back about 80 feet before his death.

Interest to complete the Hall of Records has surged and waned over the years.

The concept of the Hall of Records is a significant part of the Mount Rushmore story and should be a part of the interpretive program, with the model of the hall within the sculptor's studio.
The actual Hall of Records will probably remain as Borglum left it, a sort of unfinished symphony. If, however, it is ever considered for completion through non-Federal funds and construction activities are environmentally acceptable, the scale would probably be reduced from its original concept.

Due to the concept and the desire to preserve the setting of the sculpture, the location of the hall should not be changed, nor should the staircase be built because the area would not be readily accessible to visitors.

I. Buildings on Doane Mountain

Buildings on Doane Mountain will remain and function in their current capacities for the foreseeable future. Concession facilities will not be expanded within the park. Circumstances may necessitate relocation of structures and their functions in the future. The park maintenance building will be relocated and the existing site restored.

J. Utilities

Utilities in the viewing area will be concealed. Existing overhead lines will be relocated underground. Some structures, including light banks for evening sculpture illumination, will be built out of sight from viewing areas. Existing water, sewer, and power facilities are adequate to meet the needs of all facilities addressed in the general management plan. Sewage and water systems will continue to operate in the present areas. Fire hydrants with ample storage reserves will continue to be provided. The fire truck and cache were originally located in the basement of the studio and will be relocated there after the new maintenance area is completed.

K. General Development Plan, Parkwide

1. Relocate Maintenance Facilities (see Figure 16, page 40) - A new site for the maintenance area has been selected. The relocation of the maintenance facilities has nothing to do with age or condition of the present facilities. The present maintenance facilities are too small with little room at the present location to expand. Maintenance functions have expanded to the basement of the sculptor's studio, which presents a severe conflict between interpretation and visitor use on the upper floor while hammers, electric saws, and other disturbing noises arise from the basement maintenance shops.

Another incompatible use exists at the present maintenance facility. This conflict arises between the potential to interpret the sculptor's huge old air compressor, and the present location of the gas pumps and parked vehicles. Removal of the pumps and maintenance yard will permit public access to the large old compressor that ran air hammers that were used to carve the sculpture.

Dry space is needed to store original sculpture equipment and other artifacts that are now rusting away under the amphitheater. The basement of the studio will provide the needed storage space when maintenance functions are removed. The basement will also be used for interpretation including sculpture equipment.
The select maintenance area site is located as illustrated on Figure 16, page 40. The site is much closer to Doane Mountain than the previously addressed site located near the junction on South Dakota Highways 244 and U.S. Highway 16A. The site has water and power connections nearby that are not available at the other previously addressed site, and the area has fair winter sun exposure. Winter sun will melt snow on drives and walks, help reduce winter heating needs, and provides the potential of utilizing solar energy for heating.

2. East Parking Area and Shuttle Station - The area selected for offsite parking was addressed as the new administrative and maintenance area in the environmental assessment and review of alternatives for the draft general management plan. The area is not visible from South Dakota Highway 244 and contains room enough to park approximately 200 to 300 cars. A portion of the area is an existing abandoned borrow pit. Round trip bus travel from this site to Doane Mountain is 1.8 miles shorter than the round trip distance to the previously discussed parking area near Keystone. The site is located at the toe of the steep grade to Doane Mountain. A reduction in park visitation during 1979 and 1980 indicates that this development may not be needed since the expansion of the existing parking area should be adequate to handle the reduced vehicular traffic volume. If the area is needed in the future, it may or may not need water, sewer, and power. Flexibility remains to address this situation if or when the need for use arises.

3. Widen South Dakota Highway 244 - A second traffic lane up the steep grade from U.S. Highway 16A to the Doane Mountain parking area will provide a slow moving vehicle lane. Officials from the South Dakota State Highway Department have no objections to widening this 2 mile length of road. A widened traveling surface can be provided by filling and paving the existing drainage ditches and adding asphalt curbs on the outside of the paved area where needed to control water runoff. The width of the existing road prism appears to offer space for three traffic lanes and paved shoulders with a minimum of additional cut or fill.

Increasing bicycle traffic demonstrates a need for a bicycle lane to Doane Mountain. Further studies concerning widening South Dakota Highway 244 will consider bicycle lanes to encourage safe bicycle use.

4. Boundary Adjustment - A narrow strip of Forest Service lands, (approximately 14 acres) between Keystone and the memorial boundary, serves as an effective buffer strip. If ever declared surplus, this land should be included within the memorial. Legislation may be needed to adjust the boundary.

5. Employee Housing - No additional housing for the National Park Service or concessioner employees will be constructed within the park boundary.
6. Recreation Development - Since camping, fishing, hunting, hiking, horseback riding, boating, swimming, and other outdoor recreational pursuits are being met quite adequately by others immediately outside the memorial, there is no need to dilute the primary purpose of the memorial by attempting to offer any of these activities.

7. Extend Visitor Use Periods - Some overcrowding, parking, and traffic congestion may be reduced by encouraging visitors to visit the memorial during slack visitor use periods. The park Superintendent and the concessioner will cooperate in a public information plan to inform the traveling public of uncrowded conditions on Doane Mountain during the early morning and evening hours of the 60-day summer peak visitor use period. They will also encourage off-season travel in the spring and fall. Presentation of this information to the public can be accomplished at the local level and nationally. Public information efforts and potential future fuel shortages may eliminate some of the overcrowded parking and access conditions at Mount Rushmore National Memorial.

8. Advisory Organizations - The Mount Rushmore National Memorial Society of the Black Hills is a tax exempt corporation incorporated under the laws of the District of Columbia in 1930. Over the decades, the society has been and continues to advise the National Park Service in management and planning, and through a memorandum of understanding provides some financial support to the interpretive programs.

The parent organization, the Mount Rushmore National Memorial Commission, created by Congress in 1929, played a major part in assuming financial responsibility for the sculpturing by employing staff for the carving, and distributing Federal and private funds. The commission terminated on June 30, 1942, but was revived by the act of July 12, 1943, for the sole purpose of constructing a crypt for the remains of Gutzon Borglum and his wife. However, the crypt is not desired by their survivors and thus the commission should be abolished.

9. Legislation Needed

a. Mount Rushmore National Memorial Commission - Legislation will be required to abolish the Mount Rushmore National Memorial Commission.

b. Boundary Adjustment - If the boundary is adjusted, legislation will be needed. Adjustment of the east park boundary will assure protection of the eastern park approach from commercial development. This would be at the instigation of the Forest Service should they ever declare the lands surplus to their needs.
LEGEND:
- PARK BOUNDARY
- EXISTING ROAD
- EXISTING STRUCTURE
- PROPOSED DEVELOPMENT
- POTENTIAL BOUNDARY ADJUSTMENT

general development plan
park wide
FIGURE 16

mount rushmore
national memorial
pennington county, south dakota
### DEVELOPMENT SCHEDULE

**MOUNT RUSHMORE NATIONAL MEMORIAL**

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<tr>
<th>Package Number</th>
<th>Description</th>
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<tr>
<td>116</td>
<td>Reconstruct concession dormitory to meet safety code including enclosing stairwell, installing self-closing fire doors, exit corridors, alarm system, emergency lighting, and smoke detectors.</td>
<td></td>
<td></td>
<td>10</td>
<td>39</td>
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<td>49</td>
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<td>126</td>
<td>Relocate maintenance facilities including new 7,000-8,000 sq. ft. building, utility connections, obliterate old 3,000 sq. ft. building, rebuild 1,500 ft. access road, build equipment wash pad, garbage storage area, and bituminous and gravel parking areas.</td>
<td>197</td>
<td>197</td>
<td>1,724</td>
<td></td>
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<tr>
<td>153</td>
<td>Construct entrance plaza (4,800 sq. ft.) at Doane Mountain including 1,200 sq. ft. shelter, exhibit, and restroom building, terrace, landscaping and grounds improvements, parking area modification, walks, retaining wall, relocation of 200 ft. of entrance road, and obliteration of 200 ft. old entrance road.</td>
<td>67</td>
<td>74</td>
<td>758</td>
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<tr>
<td>142</td>
<td>Remodel Borglum Studio (7,000 sq. ft. building) to museum, remove maintenance facilities, add new exhibits, new fire cache, storage, and renovate house (1,300 sq. ft.).</td>
<td>95</td>
<td>95</td>
<td>821</td>
<td></td>
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<tr>
<td>122</td>
<td>Improve viewing areas at Doane Mountain including four 800 sq. ft. weather shelters, one restroom, addition of 700 seats to amphitheater with rear screen projection, walk lights, wiring, landscaping, widen 1,800 ft. of walks, add 2,000 ft. of new walks, terraces, and retaining walls.</td>
<td>178</td>
<td>175</td>
<td>1,520</td>
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<td>114</td>
<td>Bury 2,000 ft. primary powerlines at Doane Mountain.</td>
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<td>183</td>
<td>185</td>
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<td>157</td>
<td>Widen 2-mile entrance road to add second uphill lane including bicycle lane, paved shoulders, curbing, and four 10-car paved scenic viewing parking pullouts.</td>
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<td>197</td>
<td>1,719</td>
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<td>Construct east side mass transit parking areas including three restrooms with attached shelters, exhibits, drinking fountains, utility extensions, landscaping, 300-car parking area, and 1/2-mile of two way road.</td>
<td>277</td>
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<td>151</td>
<td>Replace sculpture lighting system at Doane Mountain.</td>
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**TOTALS** 547 783 5,488 2,047 2,868 11,733
### ESTIMATED ADDITIONAL STAFFING REQUIREMENTS PER DEVELOPMENT SCHEDULE PHASES

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<th>Seasonal (Man-Year)</th>
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<td>2.4 Seasonal (Man-Years)</td>
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**Additional Annual Staffing Cost Estimate**

*Estimated Annual Staffing Costs include Salaries and Benefits – October 1979 Base Data*
APPENDIX B

Bibliography

Environmental assessment for the draft general management plan dated April 1978

Review of alternatives for the draft general management plan dated October 2, 1978

Federal Register announcement of the environmental review and negative declaration dated October 27, 1978 (Volume 43, No. 209)

Statement for management, Mount Rushmore National Memorial dated July 19, 1979

Archeological survey - National Park Service, 1974

APPENDIX C

Planning Team

National Park Service Staffs
Division of Park Planning, Rocky Mountain Region
Superintendent, Mount Rushmore National Memorial
Midwest and Rocky Mountain Team, Denver Service Center
March 3, 1925.
(H.R. 11726.)
(Public, No. 589.)

Harney National Forest.
Memorial authorized in, by Mount Harney Memorial Association.

Proviso.
No Government expense, etc.

CHAP. 471. - An Act To authorize the creation of a national memorial in the Harney National Forest.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Mount Harney Memorial Association hereafter to be created by the Legislature of South Dakota is hereby authorized to carve a memorial in heroic figures commemorative of our national history and progress upon a suitable exposure of the Harney Mountain Range, located within the boundaries of the Harney National Forest in the State of South Dakota. Such association is further authorized to select the name, location, and design of such memorial: Provided, That the United States shall be put to no expense in respect of such memorial, and that the Secretary of Agriculture finds that the location of the site will not interfere with the administration of the Harney National Forest.

Approved, March 3, 1925.
IX. LEGISLATION RELATING TO NATIONAL AND INTERNATIONAL MEMORIALS

1. Mount Rushmore National Memorial

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An Act Creating the Mount Rushmore National Memorial Commission and defining its purposes and powers, approved February 25, 1929 (45 Stat. 1309)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a commission is hereby created and established, to be known as the Mount Rushmore National Memorial Commission (hereafter referred to as the commission), to consist of twelve members, who shall be appointed by the President. The members shall serve at the pleasure of the President, who shall fill all vacancies that from time to time occur.

The members of the commission shall serve without compensation, except that their actual expenses in connection with the work of the commission may be paid from any funds appropriated for the purposes of this Act or acquired by other means hereafter authorized: Provided, That the secretary may be paid such salary for his services as may be determined by the commission. The commission is also authorized to pay such actual and necessary expenses as the secretary may incur in the performance of his duties. Such salary and expenses shall be paid by the treasurer of the commission upon the order of the secretary thereof and then only when approved and countersigned by the chairman of the executive committee.

Sec. 2. The commission when appointed shall organize by electing a chairman, a vice chairman, a secretary, and a treasurer: Provided, That a treasurer may be selected...
outside of the commission and may be a bank or trust company. Such treasurer shall execute a bond so conditioned and in such amount as shall insure the protection of funds coming into his possession.

The commission may also create from its own membership an executive committee of five, which shall exercise such powers and functions within the purview of this Act as may be authorized by the commission.

SEC. 3. The purpose of the commission is to complete the carving of the Mount Rushmore National Memorial to consist of heroic figures of Washington, Jefferson, Lincoln, and Roosevelt, together with an entablature upon which there shall be cut a suitable inscription to be indited by Calvin Coolidge, and to landscape the contiguous grounds and construct the entrances thereto. Such memorial is to be constructed according to designs and models by Gutzon Borglum, now owned or contracted for by the Mount Harney Memorial Association of South Dakota. No charge shall ever be made for admission to the memorial grounds or for viewing the memorial.

SEC. 4. The commission is authorized—

(a) To receive and take over all property, contracts, rights, and moneys now in the hands of and possessed by the Mount Harney Memorial Association, including memoranda, records, sketches, models, and the incomplete figures on Mount Rushmore.

(b) To receive funds and pledges to cover the expense of finishing such memorial, and to pay out the same upon properly receipted vouchers to persons entitled.

(c) To employ the services of such artists, sculptors, landscape architects, and others as it shall determine to be necessary to complete said memorial, including the landscaping of the grounds and construction of the entrances thereto.

(d) To exercise such powers and functions as are necessary and proper to carry out the purposes of this Act.

SEC. 5. That not more than one-half of the cost of such memorial and landscaping shall be borne by the United States, and not to exceed $250,000 is hereby authorized to be appropriated for the purpose. Upon requisition of the executive committee herein provided for, the proportionate share of the United States shall be advanced to the treasurer of said commission from time to time by the Secretary of the Treasury out of any available appropriation, and in sufficient amounts to match the funds advanced from other sources to said commission, whether such funds are in the hands of its treasurer or have already been expended upon such memorial by the commission or by its predecessor. The Mount Harney Memorial Association: Provided, That the Secretary of the Treasury shall first be satisfied that the funds received from sources other than the United States are actually available in the hands of the treasurer of the commission or have been properly expended in carrying out the purposes of this Act.
Sec. 6. That such commission, on or before the 1st day of December of each year, shall transmit to Congress a report of its activities and proceedings for the preceding year, including a full and complete statement of its receipts and expenditures.

An Act To amend the Act entitled "An Act creating the Mount Rushmore National Memorial Commission and defining its powers and purposes", approved February 25, 1929, and for other purposes, approved June 26, 1931 (48 Stat. 1223)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

That section 3 of the Act entitled "An Act creating the Mount Rushmore National Memorial Commission and defining its powers and purposes", approved February 25, 1929, is amended by adding at the end thereof the following new sentence: "If by reason of death, disability, or other cause, any individual to whom functions are assigned under this section has been or shall be rendered unable to perform such functions, the Commission is authorized to designate or employ such other person as it deems competent to perform such functions."

Sec. 2. Section 5 of such Act of February 25, 1929, is amended to read as follows:

"Sec. 5. There is hereby authorized to be appropriated the sum of not to exceed $250,000 for the purpose of defraying the cost of such memorial and landscaping. Such sums as may be appropriated pursuant to this Act shall be advanced to the treasurer of said Commission from time to time by the Secretary of the Treasury upon requisition of the executive committee provided for by this Act."

Sec. 3. Any funds heretofore made available for expenditure under the provisions of such Act of February 25, 1929, are hereby made available for expenditure under such Act as amended by this Act.

An Act To provide additional funds for the completion of the Mount Rushmore National Memorial, in the State of South Dakota, and for other purposes, approved August 29, 1935 (49 Stat. 962)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

That there is hereby authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, not to exceed the sum of $200,000, in addition to the amount previously authorized, for the purpose of defraying the cost of completing the Mount Rushmore National Memorial, in the State of South Dakota, including landscaping of the contiguous grounds thereof, constructing the entrances thereto, and constructing a suitable museum room in connection therewith.

Sec. 2. The Mount Rushmore National Memorial Commission, with the approval of the Secretary of the Interior,
is hereby authorized to enter into contract for the execution and completion of the work and to fix the compensations to be paid to artists, sculptors, landscape architects, and others, who may be employed by the Mount Rushmore National Memorial Commission, in the completion of the said Mount Rushmore National Memorial pursuant to the provisions of section 3 of Public Law Numbered 805, Seventieth Congress, approved February 25, 1929, as amended by section 1 of Public Law Numbered 471, Seventy-third Congress, approved June 26, 1934.


Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Mount Rushmore Memorial Act of 1938".

SEC. 2. The Act entitled "An Act creating the Mount Rushmore National Memorial Commission and defining its purposes and powers", approved February 25, 1929 (45 Stat. 1300), as amended, is amended as follows: Strike out all of such Act, after the first paragraph of section 1, and insert the following: "Any six members of the Commission shall constitute a quorum. No member of the Commission shall receive compensation for his services, but the actual expenses of any member in connection with the work of the Commission may be paid from any appropriations available for the purpose of carrying out the provisions of this Act: Provided, That nothing in this section shall be deemed to prohibit the payment to any member of the Commission who may be elected secretary or treasurer of the Commission of such compensation for the performance of his duties as secretary or treasurer, as may be determined by the Commission.

"Sec. 2. The Commission shall elect its chairman, vice chairman, secretary, and treasurer. The chairman and the vice chairman shall, and the secretary and the treasurer may but need not, be elected from among the members of the Commission. The treasurer may be a bank or trust company. The treasurer shall execute a bond so conditioned and in such amount as shall assure the protection of funds coming into his possession. The Commission may create from its own membership an executive committee of five, which shall exercise such powers and functions within the purview of this Act as may be authorized by the Commission.

"Sec. 3. The Commission shall, in accordance with designs and models prepared by the designer-sculptor, complete the Mount Rushmore National Memorial, including an entablature upon which shall be cut a suitable inscription, construction of a museum and a stairway to the mu.
Sec. 4. The Commission is authorized—

(a) To designate and describe by metes and bounds an area of not more than fifteen hundred acres of the public lands of the United States within the Harney National Forest, State of South Dakota, immediately surrounding the Mount Rushmore National Memorial. Upon such designation such area is hereby reserved for and declared to be a part of the Mount Rushmore National Memorial, and withdrawn from location or entry under the mining and other laws of the United States. The Commission shall prepare a survey of such area and shall furnish a plat thereof to the Secretary of Agriculture, the Secretary of the Interior, and the United States land office at Pierre, South Dakota:

Provided, That this Act shall not defeat or affect any vested right under the mining or other laws of the United States and which is hereafter maintained in accordance therewith.

(b) To receive and take over all property, contracts, rights, and moneys heretofore possessed by the Mount Harney Memorial Association, including memoranda, records, sketches, models, and the incomplete figures on Mount Rushmore.

(c) To administer funds appropriated, or obtained by gifts, the acceptance of which is hereby authorized, for the purpose of completing, developing, and maintaining the memorial, and to pay out the same upon proper receipted vouchers to persons entitled thereto.

(d) To employ, without regard to the civil-service laws and the Classification Act of 1923, as amended, such artists, sculptors, landscape architects, and other employees as it shall determine to be necessary to carry out the purposes of this Act.

(e) To administer, protect and develop the memorial.

(f) To exercise such other powers and functions, including the promulgation of such rules and regulations, as may be necessary and proper to carry out the purposes of this Act.

Sec. 5. For the purpose of carrying out the provisions of this Act, there is hereby authorized to be appropriated, in addition to any sums authorized to be appropriated prior to the date of approval of this Act, the sum of $300,000, or so much thereof as may be necessary. Upon requisition of the Commission, the Secretary of the Treasury shall advance to the treasurer of the Commission out of any amounts appropriated for such purpose, such sums as may be needed by the Commission to exercise its functions.

Sec. 6. The Commission shall, on or before the first day of each regular session of Congress, transmit to Con-
gress a report of its activities and proceedings for the preceding fiscal year, including a full and complete statement of its receipts and expenditures."

Excerpt from "Reorganization Plan No. II, Prepared by the President and transmitted to the Senate and the House of Representatives in Congress assembled, May 9, 1939, pursuant to the provisions of the Reorganization Act of 1939, approved April 2, 1939." (4 Fed. Reg. 2731; 53 Stat. 1431, 1444)

(i) Mount Rushmore National Memorial Commission.—The Mount Rushmore National Memorial Commission and its functions are hereby transferred to the National Park Service in the Department of the Interior. The functions vested in the Commission by section 3 and 4 (a) of the Act of June 15, 1938, (c. 402, 52 Stat. 694) shall continue to be exercised by the Commission. All other functions of the Mount Rushmore National Memorial Commission shall be administered by the National Park Service under the direction and supervision of the Secretary of the Interior. (5 U.S.C. sec. 133t note, p. 90.)

An Act To amend the Mount Rushmore Memorial Act of 1938, approved May 22, 1940 (54 Stat. 218)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 4 of the Mount Rushmore Memorial Act of 1938, approved June 15, 1938, is amended as follows:

Strike out the words "fifteen hundred acres" and insert in lieu thereof the words "eighteen hundred acres: Provided, That while appropriations necessary to complete the Memorial as authorized by law may be made, no part of any funds appropriated to the Rushmore Memorial Commission may be used for the development of the three hundred acres herein proposed to be added to the Memorial Reserve and no part of any funds appropriated under any Act may be used to pay a royalty or percentage to the sculptor for any work other than that necessarily incident to the sculpturing project."

Excerpt from "An Act Making appropriations to supply deficiencies in certain appropriations for the fiscal year ending June 30, 1941, and for prior fiscal years, to provide supplemental appropriations for the fiscal year ending June 30, 1942, and for other purposes," approved July 3, 1941 (55 Stat. 541, 553)

NATIONAL PARK SERVICE

National historical parks and monuments: * * * Provided, That the Mount Rushmore National Memorial Commission shall cease to exist or function on June 30, 1942."

1 Amended by Act of July 12, 1943, p. 141.
An Act Authorizing the construction of a crypt for the remains of Guzik and Mary Borglum, approved July 11, 1941 (55 Stat. 684)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Mount Rushmore National Memorial Commission, organized under the authority of Public, Numbered 629, Seventy-fifth Congress, is hereby authorized to construct a crypt which shall serve as the permanent resting place for the remains of Guzik and Mary Borglum, of such a design and at such place in Mount Rushmore National Memorial as the Commission deems appropriate after consultation with the Secretary of the Interior: Provided, That such crypt shall not be located in the immediate vicinity of the central figures of such Memorial.

Sec. 2. The cost of the tomb authorized by this Act shall be borne entirely from funds privately subscribed.

Excerpt from "An Act Making appropriations for the Department of the Interior for the fiscal year ending June 30, 1914, and for other purposes," approved July 12, 1943 (57 Stat. 481, 488)

Mount Rushmore National Memorial Commission: Notwithstanding the proviso under this head in the Second Deficiency Appropriation Act, 1941, approved July 3, 1941, the Commission is hereby revived for performing, without any expense to the United States, the functions authorized by the Act of July 11, 1941 (Public Law 164), and when such functions are accomplished the Commission shall cease to exist or function.
APPENDIX E

Agreements and Permits - The following agreements and permits remain in effect and are being renegotiated with the other parties to conform with recently issued guidelines. Principal changes will be to limit the duration to 5 years, include a standard cancellation clause, and provide for nondiscrimination action.


For installation and maintenance of existing telephone lines.


*Right-of-way for highway from east boundary to junction of 244 and 16A.


For installation of power line to the tramway. This line is to be rerouted and this permit can be revoked at that time.


For installation and maintenance of existing power lines belonging to Black Hills Power and Light Company that supply power to the memorial facilities.


A Mutual Aid Fire Control Agreement.


Memorandum of Understanding - Forest Fire Control.

State of South Dakota Department of Highways: Maintenance Agreement for South Dakota 244 remains in effect until either party gives a 90-day written notice of termination.

The State agrees to maintain without cost to the Federal Government that part of the Gutzon Borglum Memorial Highway lying within the boundary of Mount Rushmore National Memorial.
State of South Dakota: State Permit No. 51.

Permit for discharge of wastewater.


Lays out responsibility of the concession for management of buildings and lands assigned to them and the provision of food and souvenir services.

State of South Dakota Department of Game, Fish and Park: Water Line Easement.

Water line easement across 32.5 acre tract of State parkland.

1. National Park Service has to install a "T" or watertap and allow the State free water for its operation.

The memorial is surrounded by the Black Hills National Forest. The Forest Service is normally notified of any type of open burning to avoid any misinterpretation by fire personnel.

The entire memorial is on the National Register of Historic Places and therefore requires compliance with Section 106, Executive Order 11593.
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 the United States administration.