GENERAL MANAGEMENT PLAN
DEVELOPMENT CONCEPT PLAN

Shenandoah National Park
Virginia

prepared by

Denver Service Center
National Park Service
United States Department of the Interior

Approved:

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Date



FOREWORD

This combined General Management Plan and Development Concept Plan (GMP/DCP) document provides a 10- to 15-year "blueprint" of programs and facilities for continuing the mission that started at Shenandoah National Park over half a century ago. The general management portion indicates overall unified programs for park preservation, interpretation, visitor use, development, and administration. The development concept portion refines proposals for the developed areas and discusses the spectrum of existing and new facilities that will allow opportunities for recreation and re-creation to continue for future generations.

This document is the result of a planning process begun in 1972, which proceeded more earnestly in 1976. The process was designed and carried out with the participation of many interested citizens; local, state, and other federal government agencies; a variety of user and conservation groups; and several National Park Service offices. Preplanning workshops and workbooks; circulation of a complete environmental assessment of feasible alternatives and its summary; open-house discussions and written comments on the assessment; distribution of summaries of responses received; analysis and publication of the "Selection of Alternatives and Finding of No Significant Impacts" (February 1982, see appendix B); and public review of a draft version of this document were used to develop the consensus necessary for a plan that is responsive to congressional and administrative policies as well as to general user expectations.

While this document discusses aspects of the entire park, it does not provide everything a reader or park user may wish to know. Considerable discussion of management concerns and possible solutions may be found in the Environmental Assessment for the General Management Plan, Shenandoah National Park (June 1981). The first part of this plan contains a general description of the region and the park resources, facilities, and uses, which is abridged from that document.

The programs and plans presented in the remaining portion of this document provide sufficient detail to implement the proposals and also allow for the necessary flexibility required to adapt to changing conditions over the timespan of the plan.

A portion of the Appalachian National Scenic Trail is located within Shenandoah National Park. The trail is mentioned in appropriate sections of this document because the existing and future use and management of the trail must be coordinated with the park. For readers only concerned with the trail, appendix C contains a compilation of all important excerpts from various sections of this document.

This GMP/DCP provides the overall course as well as individual actions planned for the next 10 to 15 years. National Park Service priorities and budget will be the guide for determining when and how these actions will be accomplished. In some instances nonfederal actions will be required which may delay full implementation within the proposed timespan.

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INTRODUCTION

First explored by Europeans in 1669, the Blue Ridge Mountains attracted pioneers who settled in the coves, hollows, and on the few level mountaintops to operate their farms, mines, and other industries. For 200 years the natural resources of the mountains were used for meager economic gain, and the scenic and recreational benefits were chiefly overlooked. Notable exceptions were the Black Rock Springs Hotel of the mid 19th century and the founding of Stony Man Camp in 1894 by George Freeman Pollock.

Interest in preserving areas in the southern Appalachian Mountains began in the late 19th century. The first official mention of a national park in this area can be found in legislation introduced in Congress in 1901. Proposed again in 1903, the idea was dropped in favor of forest preserves and concluded in the passage of the Weeks Act in 1911, which provided for national forests in the eastern United States.

The national park idea resurfaced in the 1923 annual report of the National Park Service where Director Mather wrote: "There should be a typical section of the Appalachian range established as a National Park with its native flora and fauna conserved and made accessible for public use and its development undertaken with Federal funds."

In 1924 the Southern Appalachian National Park Committee was appointed by the Secretary of the Interior to investigate the possible existence of sites suitable for the establishment of such a park. The result of the committee's work was an act (43 Stat. 958) passed in February 1925 that directed the Secretary of the Interior to determine the boundaries and areas within the Blue Ridge Mountains of Virginia that could be recommended as Shenandoah National Park and such portion of the Smoky Mountains lying in Tennessee and North Carolina that could be recommended as Smoky Mountains National Park. Within the next year considerable public support developed within the commonwealth of Virginia for a large national park in the Blue Ridge Mountains.

In May 1926, another act (44 Stat. 616) was passed providing for the establishment of Shenandoah National Park. Its major provisions were that the lands could be secured by the United States only by public or private donation, that the tract include approximately 521,000 acres (210,800 ha), and that the minimum area to be administered be 250,000 acres (101,150 ha). The citizens of the Shenandoah Valley campaigned to raise the money to purchase the necessary land, which consisted of over 4,000 separate tracts. The Virginia General Assembly provided funds and passed a special law for the acquisition of the land to be donated to the National Park Service. The task proved complicated and costly, so Congress reduced the minimum requirements to 160,000 acres (64,735 ha). By 1935 the deeds were ready, and the commonwealth of Virginia donated approximately 176,500 acres (71,400 ha) to the Department of the Interior. On July 3, 1936, President Franklin D. Roosevelt dedicated Shenandoah National Park "to the present and future generations of America for the recreation and re-creation which we shall find here."

When conceived and authorized, the park was envisioned as a substantive area of plant and animal life in precolonial primitive conditions. But in fact, Shenandoah bore little resemblance to that vision when it was dedicated. The establishment of the park did, however, offer protection to what remained of the plants and animals, and with favorable climate and inherent vitality, nature began its restorative process. Evidence of the settlement period has faded, and the park is now about 95 percent forested. Many of the animals that had been greatly reduced or extirpated have returned. So complete had been the regeneration in four decades that in 1976 nearly 80,000 acres (132,370 ha) were deemed of suitable primitive character to be included in the National Wilderness Preservation System.

While Shenandoah National Park was intended to be a sample of the southern Appalachian portion of primitive America, it was also intended that the available resources be used and enjoyed by great numbers of visitors each year. In underscoring this point, Congress appropriated funds to begin the construction of Skyline Drive in 1931--four years before the establishment of the park on December 26, 1935.

Construction of the Appalachian Trail also started before the park was established. The 95-mile (155 km) portion of the trail within the park was constructed between 1926 and 1936. The entire 2,100-mile (3,380 km) trail from Maine to Georgia was designated the Appalachian National Scenic Trail in 1968.

With no facilities or services, except for a 34-mile (55 km) portion of the Skyline Drive, Shenandoah recorded over a half million visitors in 1935. Over the years, visitation has generally increased and now approximately 2 million people visit each year, with nearly two-thirds coming from outside Virginia. This popularity demonstrates the value of the recreational and re-creational opportunities provided by the park.

People have lived in the Blue Ridge Mountains of northern Virginia for around 12,000 years, and during this time they have caused many changes in the environment. From the Indians who cleared openings in the forests for hunting, to European settlers and their descendants who removed the trees and wildlife, the land was heavily used. Starting in the third decade of the 20th century, with the help of a more gentle hand, this mountain environment began a renewal and regained a primitive character. This did not exclude human use, but it required a reorientation as to the role the environment can play in life. Thus Shenandoah National Park is a tribute to both the vitality of nature and the possibility that people can live in harmony with their environment.

DESCRIPTION OF THE ENVIRONMENT

Shenandoah National Park lies nearly midway between Maine and Florida in the Blue Ridge Province of the Appalachian Mountains. It is the northeast corner of a ten-unit sequence of national parks and forests, which cover a distance of nearly 700 miles (1125 km) and an area of 4.8 million acres (1.9 million hectares) in the southern Appalachian Mountains. More specifically, Shenandoah National Park is the northern park of three interconnected units of the National Park System--the Great Smoky Mountains National Park, Blue Ridge Parkway, and Shenandoah. These units of the National Park System were initiated between 1925 and 1936 to provide public access and enjoyment of the natural and cultural values of the southern Appalachians.

REGIONAL CONTEXT

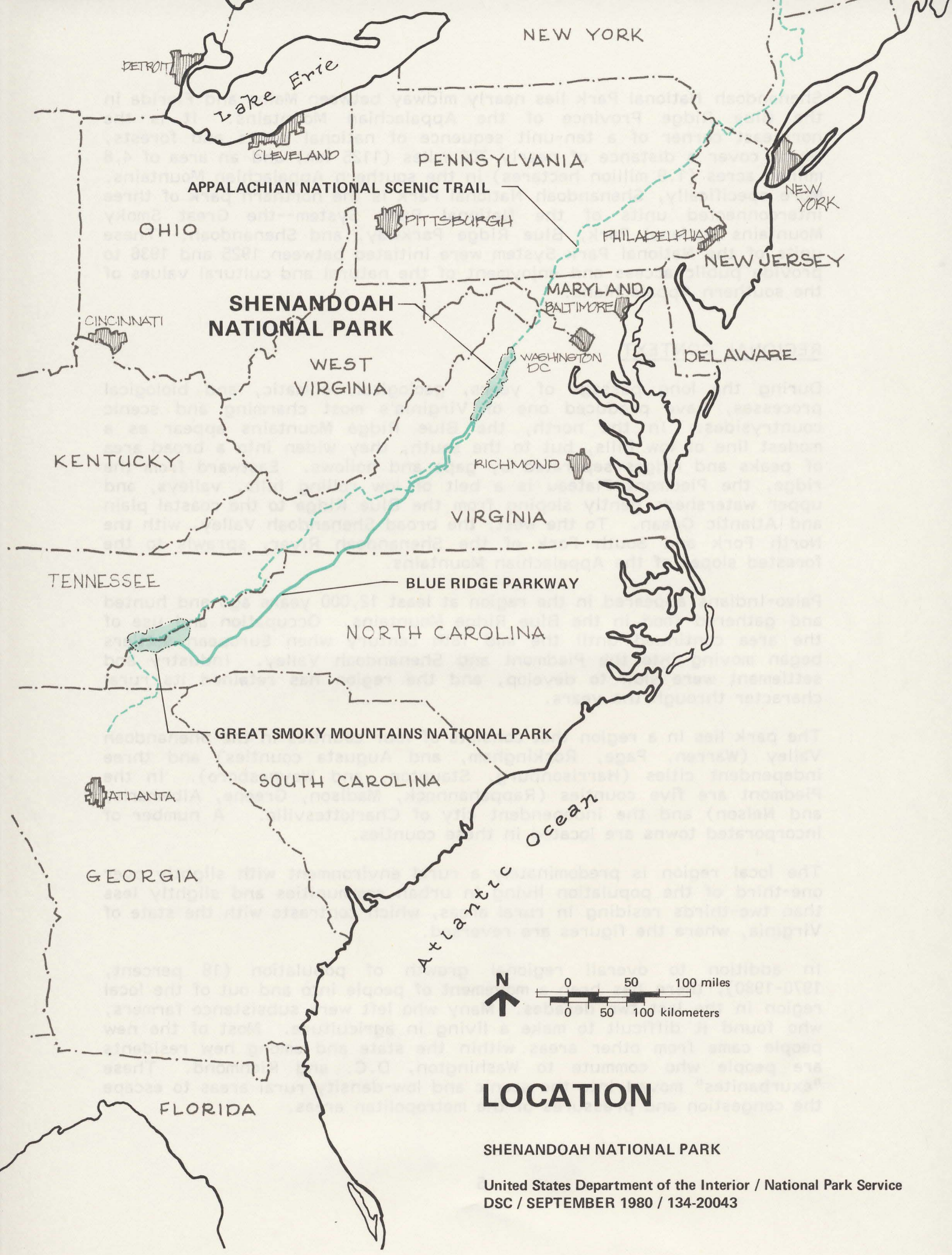
During the long passage of years, geological, climatic, and biological processes, have produced one of Virginia's most charming and scenic countrysides. In the north, the Blue Ridge Mountains appear as a modest line of low hills, but to the south, they widen into a broad area of peaks and ridges separated by gaps and hollows. Eastward from the ridge, the Piedmont Plateau is a belt of low rolling hills, valleys, and upper watersheds gently sloping from the Blue Ridge to the coastal plain and Atlantic Ocean. To the west, the broad Shenandoah Valley, with the North Fork and South Fork of the Shenandoah River, sprawls to the forested slopes of the Appalachian Mountains.

Paleo-Indians appeared in the region at least 12,000 years ago and hunted and gathered food in the Blue Ridge Mountains. Occupation and use of the area continued until the mid 18th century when European settlers began moving into the Piedmont and Shenandoah Valley. Industry and settlement were slow to develop, and the region has retained its rural character through the years.

The park lies in a region that consists of four counties in the Shenandoah Valley (Warren, Page, Rockingham, and Augusta counties) and three independent cities (Harrisonburg, Staunton, and Waynesboro). In the Piedmont are five counties (Rappahannock, Madison, Greene, Albemarle, and Nelson) and the independent city of Charlottesville. A number of incorporated towns are located in these counties.

The local region is predominately a rural environment with slightly over one-third of the population living in urban communities and slightly less than two-thirds residing in rural areas, which contrasts with the state of Virginia, where the figures are reversed.

In addition to overall regional growth of population (18 percent, 1970-1980), there has been a movement of people into and out of the local region in the last two decades. Many who left were subsistence farmers, who found it difficult to make a living in agriculture. Most of the new people came from other areas within the state and among new residents are people who commute to Washington, D.C. and Richmond. These "exurbanites" moved into the scenic and low-density rural areas to escape the congestion and pressures of the metropolitan areas.



LOCATION

SHENANDOAH NATIONAL PARK

United States Department of the Interior / National Park Service
DSC / SEPTEMBER 1980 / 134-20043

In the last 40 years, the status of farming has diminished and the number of farms and the proportion of land under cultivation has declined, reflecting the increased costs of land, equipment and labor, higher taxes due to land speculation and development, and a declining interest in farming as an occupation for young people. At the same time, the size of farms and the value of farm products have increased. Also, in recent years, the economy has become more balanced, with new industry attracted by available labor, water supply, and improved transportation to markets in the major metropolitan areas.

The economy of the Valley counties is a balanced combination of agriculture, industry, and scenic attractions. Agricultural products include poultry, cattle, and fruit. Light industry produces furniture, clothing, air conditioning equipment, chemicals, plastics, synthetic textiles, and other items.

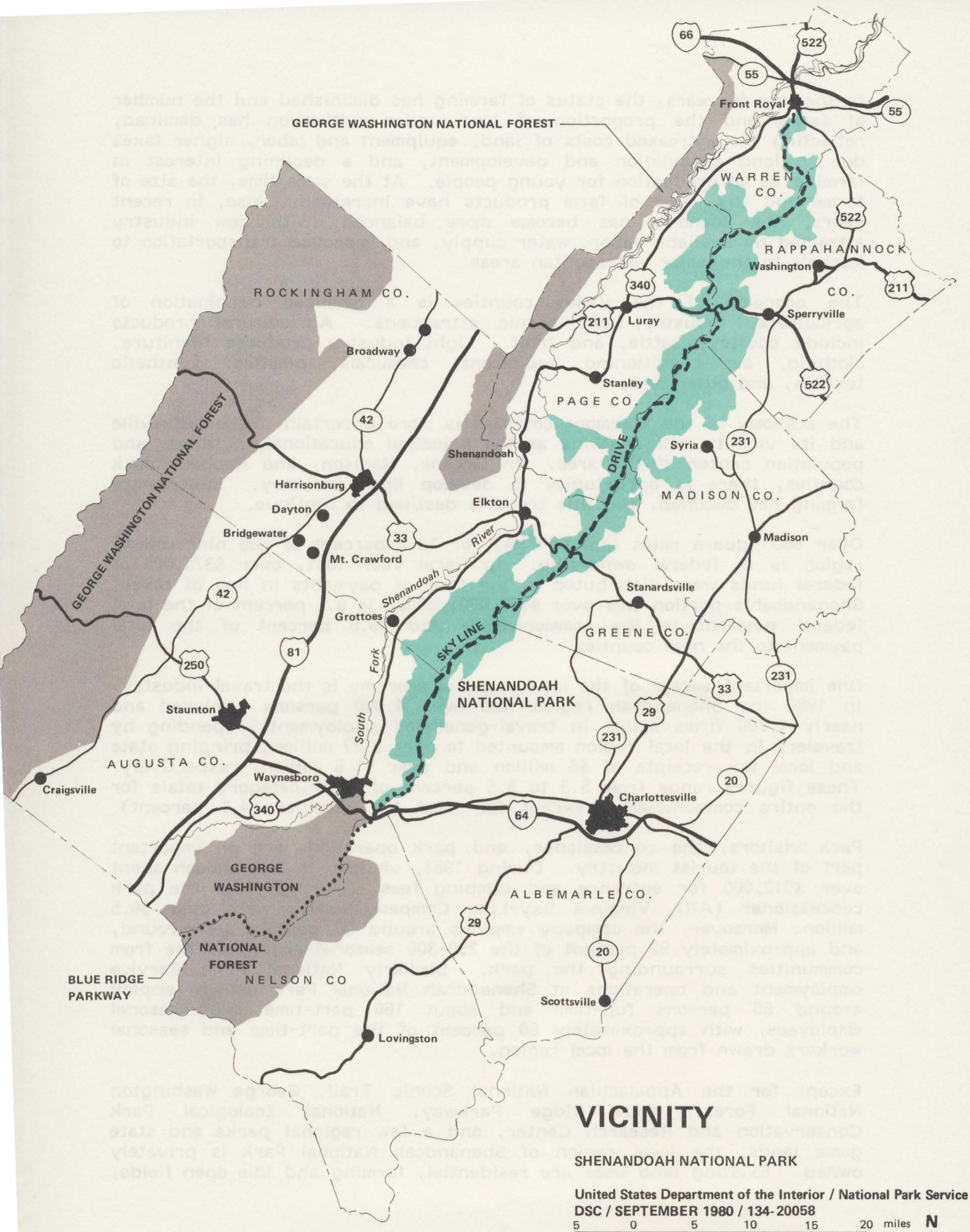
The economy of the Piedmont counties is more uncertain. Charlottesville and its vicinity will continue as the principal educational, cultural, and population center of the area. In Greene, Madison, and Rappahannock counties, there is opportunity to develop light industry. Subsistence farming has declined, and this trend is destined to continue.

Over 600 square miles (155,000 ha), or 13.7 percent of the nine-county region is in federal ownership. In fiscal year 1981, over $375,000 of federal funds were distributed in the form of payments in lieu of taxes. Shenandoah's portion was over $137,000, which is 6.5 percent of the total federal payment to the commonwealth and 36.6 percent of the total payment to the nine counties.

One important sector of the local regional economy is the travel industry. In 1980 the Shenandoah region had over 4,000 persons employed and nearly 1,700 firms active in travel-generated employment. Spending by travelers in the local region amounted to over $127 million, bringing state and local tax receipts of $5 million and over $1.6 million, respectively. These figures range from 5.3 to 5.5 percent of their category totals for the entire commonwealth, except for local tax receipts (4.1 percent).

Park visitors, the concessioner, and park operations are an important part of the tourist industry. During 1981, visitors to Shenandoah spent over $912,000 for entrance and camping fees. During 1981, the park concessioner (ARA Virginia Sky-Line Company) sales were over $6.5 million. Moreover, the company employs around 50 persons year-round, and approximately 90 percent of the 250-300 seasonal employees are from communities surrounding the park. Similarly National Park Service employment and operations at Shenandoah National Park usually employ around 90 persons full-time and about 160 part-time and seasonal employees, with approximately 50 percent of the part-time and seasonal workers drawn from the local region.

Except for the Appalachian National Scenic Trail, George Washington National Forest, Blue Ridge Parkway, National Zoological Park Conservation and Research Center, and a few regional parks and state game lands, the local region of Shenandoah National Park is privately owned. Existing land uses are residential, farming and idle open fields,



VICINITY

SHENANDOAH NATIONAL PARK

United States Department of the Interior / National Park Service
DSC / SEPTEMBER 1980 / 134-20058

5 0 5 10 15 20 miles

5 0 5 10 15 20 25 30 kilometers

N

forests, and commercial and industrial sites. Less than one-third of the open space is used for agriculture, while forests, including the trees in Shenandoah National Park, cover over 60 percent of the local region.

Some of the forests, idle fields, and agricultural lands are being directed to a new use--vacation homes. Access from the metropolitan areas of Washington, D.C. and Richmond make the park vicinity readily useful for this purpose. Currently, a relatively small number of recreational subdivisions exist; however, proliferation can be expected because of the existing and increasing demand.

Increasing subdivisions could change the character of the local region, especially in the vicinity of the park. Only a few subdivisions can be seen from within the park; however, clearing of vegetation and construction scars disrupt the visual continuity and impressiveness of the Blue Ridge Mountains and their foothills as seen from the Piedmont and Shenandoah Valley. Views of, and from, Shenandoah National Park are particularly sensitive to land use changes that could occur in its region.

The quality and quantity of change in local regional land use is mostly influenced by the degree and enforcement undertaken by regional, county, and municipal governments. The nine counties in the local region are members of four regional planning commissions. These commissions assist the counties with planning and grants-in-aid programs, but they have no planning authority except that derived from their member counties. County planning commissions, as an arm of their respective county boards of supervisors, retain their responsibility for planning and zoning. All the independent cities and almost all counties and incorporated towns have developed zoning ordinances and subdivision regulations.

Additionally, the Virginia Agricultural and Forestal Districts Act, which became effective July 1, 1977, encourages the development and improvement of lands for production of food, crops, and forest products, and conservation of natural, visual, and ecological resources.

The Clean Air Act, as amended in August 1977 (42 U.S.C. 1857 et seq.), extends the influence of the National Park Service beyond the boundary of Shenandoah in order to protect the park's air quality and air quality-related values from an unacceptable level of externally produced air pollutants. The park status as a class I area limits the number and type of industrial developments that have potential for air pollution which may be constructed near the park.

Transportation

The primary mode of travel to Shenandoah National Park is by private automobile. By way of an extensive interstate highway system, most of the eastern United States is within a two-day drive to the park. Connected with this network are U.S. and state routes that provide the final links to the park. The Blue Ridge Parkway connects the south end of the Skyline Drive to the Great Smoky Mountains National Park, 470 miles (755 km) away. Except for certain dreary spots along old main

routes spoiled by commercialism, the roads around the park offer pleasurable driving.

Limited scheduled public bus service in the vicinity of the park is available between Washington, D.C. and Luray, between Washington and Charlottesville, and between Richmond and Charlottesville/Waynesboro. Charter buses for group tours also provide service to and within the park.

Passenger railroad service is extremely limited, with nearest services to the park available in Culpepper, Charlottesville, and Staunton.

Daily commercial air service is available in Charlottesville and the Shenandoah Valley Airport near Staunton. In addition, eight small airports in the region provide runways for private recreation, business, and charter flights.

Recreation

Areas for recreational opportunities in Virginia are diverse, ranging from the Atlantic Ocean to the Appalachian Mountains--national, state, theme, and regional parks; historic and battlefield sites; and caverns, beaches, marinas, ski slopes, forests, and rivers under public and private operation.

The National Park Service administers many areas in Virginia, as shown on the Recreational Opportunities in Virginia map. They are primarily historic sites of the Revolution and Civil War, but they also include the Blue Ridge Parkway, Assateague Island National Seashore, Wolf Trap Farm Park for the Performing Arts, and the Appalachian National Scenic Trail.

The Blue Ridge Parkway, which is directly connected to Shenandoah National Park, has a scenic drive with overlooks, picnic areas, campgrounds, visitor centers, restaurants, and lodges. For the most part this parkway is no wider than the right-of-way, and the emphasis is therefore on pleasure driving and scenic viewing.

The U.S. Forest Service administers 1,600,000 acres (647,350 ha) of land in the George Washington and Jefferson national forests in Virginia. This amounts to 47 percent of all public land in the state and is managed under the multiple use/sustained yield concept, balancing timber production, forage, water, wildlife, and recreational opportunities.

The Massanutten Mountain of the George Washington National Forest is 12 miles (19 km) west of Shenandoah National Park. This mountain provides hiking, family camping, backcountry camping, horseback riding, cross-country skiing, sightseeing, environmental education, and historic site interpretation. Canoeing, with access to both forks of the Shenandoah River, and fishing, hunting, and timber production are also offered in the national forest. Most roads and trails are open to off-road vehicles, trail bikes, and snowmobiles.

Within 30 miles (48 km) of Shenandoah National Park are many other public and private attractions. Seven large caverns and numerous historic sites, such as Monticello in Charlottesville and the New Market Battlefield, attract many visitors. Nearby recreational opportunities include golfing, skiing, and nearly 3,000 individual sites for camping.

The primary purpose of state parks in Virginia is to provide recreation, while state forests are managed for timber and wildlife protection and recreation (including hunting). Wildlife management areas are managed for public access for hunting and fishing (which includes provisions for boat launches). Natural areas are designated by the state, but actual protection and use of the site is determined by the state, local, or private agency managing the land.

The Virginia Commission on Outdoor Recreation inventoried the supply and demand of outdoor recreation for the 11 regions of the state. The two-state recreation regions (6 and 7) that encompass Shenandoah have an excess amount of federal and state lands for the existing population. This surplus goes a long way towards satisfying the needs of the recreation regions encompassing the Richmond and northeastern Virginia metropolitan areas, which are lacking in outdoor recreation space. However, regions 6 and 7 are lacking in local and regional park acreage and facility-oriented activities. According to the Draft Virginia Outdoors Plan - 1979, there is a lack of approximately 20,000 acres (8,100 ha) of local recreation space, the provision of which is the responsibility of cities, towns, and counties. Close-to-home recreational activities that are needed are picnic areas, baseball diamonds, playfields, and bicycling trails. There is also a need to provide water-based recreation facilities and access.

Conclusion

The above material provides a general portrayal of the characteristics of the setting in which Shenandoah National Park is located. Obviously it is difficult to draw hard and fast conclusions about the local region's future. Change will occur--its rapidity and degree will depend on the external pressures from the Washington, D.C. and Richmond metropolitan areas, and its quality will depend on the planning and adherence to those plans by all government levels, especially at the county and state level. Since George Washington National Forest and Shenandoah National Park are dedicated to conservation, they will ensure that some of the natural and topographic beauty of the area will always be protected and that some of the need for outdoor recreational opportunities in spacious natural settings will be satisfied. As the third largest national park in the eastern United States, Shenandoah will continue to serve not only the eastern seaboard but the nation as well. Thus, Shenandoah National Park will also contribute to the economic well-being of the nine surrounding counties and of the state of Virginia.

THE PARK

Unlike earlier units of the National Park System which were carved from the great reservoir of public lands in the west, Shenandoah was one of the pioneers in a movement to create large parks from populated private lands in the eastern United States. It took a decade to overcome the obstacles that stood in the way of creating this large preserve. Today Shenandoah National Park, with its diversity of flora and fauna, remains of bygone days, variety of recreational facilities, and millions of visitors, realizes, in part, the visions, dreams, diligence, and perserverence of over half a century.

The Land

On December 26, 1935, the Secretary of the Interior accepted deeds from the commonwealth of Virginia conveying 176,430 acres (71,385 ha) of land, and the national park was established. While the basic skeleton was set, hope was strong that more land would be added in the future. Through the years approximately 13,700 acres (5,535 ha) of additional land have been added by transfers from other federal agencies. Donations and exchanges with various private individuals and local/state governments were also used. Today the gross land base of Shenandoah National Park is 195,363 acres (79,043 ha), or only 37.5 percent of the size originally envisioned. The concept of public ownership of a park encompassing more land, providing more room for visitors, and protecting more of the Blue Ridge Mountain landscape has dimmed.

The following table shows that 99.3 percent of the park is in federal ownership. The easement acreage in Albemarle and Augusta counties is restricted to private development for residential and agricultural purposes. Private road or drive construction and removal and modification of existing vegetation beyond usual farm practice and residential maintenance can only be undertaken with the consent of the United States. The easements in Rappahannock, Rockingham, Madison, and Warren counties provide pedestrian and/or equestrian visitor access into the park, while the easement in Madison county also provides for scenic protection of the forest.

Table 1: Land Status Acreage (Hectares) - 1981

County	Fee	Easement	Reserved Rights-of-Way	Lease	Totals
Albemarle	14,600 (5,907)	221 (89)	-	-	14,821 (5,996)
Augusta	11,491 (4,649)	489 (198)	-	-	11,980 (4,847)
Greene	14,924 (6,038)	-	-	-	14,924 (6,038)
Madison	32,382 (13,102)	225 (91)	-	2(1)	32,609 (13,194)
Page	37,256 (15,074)	-	-	-	37,256 (15,074)
Rappahannock	31,763 (12,851)	3 (1)	-	-	31,766 (12,852)
Rockingham	37,980 (15,367)	6 (2)	-	-	37,986 (15,369)
Warren	13,687 (5,538)	4 (2)	330 (133)	-	14,021 (5,673)
Totals	194,083 (78,526)	948 (383)	330 (133)	2(1)	195,363 (79,043)

Note: Totals are rounded to nearest whole acre and hectare.

Through a memorandum of understanding with the Smithsonian Institution, National Zoological Park Conservation and Research Center, a right-of-way has been reserved between U.S. 522 and Virginia 55 for an alternate north entrance road on land the Smithsonian acquired by transfer. Also, the National Park Service has been leasing land in Weakly Hollow since 1974 to help alleviate parking problems for visitors climbing Old Rag Mountain.

Public Law 94-565 (90 Stat. 2662), Payments In Lieu Of Taxes, was enacted in 1976 to provide compensation to counties, or other local governmental units, for certain federal lands. In 1978, Public Law 95-469 (92 Stat. 1319) amended the definition of entitlement lands to allow certain state-donated lands to be eligible. The following table indicates payments made; the total for Shenandoah is 6.5 percent of the total federal payments in lieu of taxes to the commonwealth of Virginia.

Table 2: Fiscal Year 1981 Payments In Lieu of Taxes for Shenandoah National Park

County	Eligible Acreage (Hectares)	Payment Under PL 94-565[a]
Albemarle	14,418 (5,834)	$ 10,905
Augusta	11,491 (4,649)	7,052
Greene	14,919 (6,036)	11,322
Madison	32,383 (13,102)	24,369
Page	37,256 (15,074)	25,618
Rappahannock	31,761 (12,850)	23,821
Rockingham	37,980 (15,367)	24,101
Warren	13,686 (5,537)	10,104
Totals	193,894 (78,449)	$137,292

[a] Total payment for sections 1 and 3; in counties where other federal lands are entitled, the amount indicates Shenandoah's proportion of payment.

As land was acquired and donated for Shenandoah National Park, some of the deeds contained reservations allowing existing uses to continue, such as roads, utilities, cemeteries, and the like. Over the years, various level governmental agencies and regional utility concerns have found no feasible alternative but to use and cross the Blue Ridge Mountains. Through special use permits these needs have been accommodated in the park.

The land base of Shenandoah National Park is not considered ideal for a public park committed to protecting a mountain environment. Today, certain areas lack visual and ecological integrity, and in many places the perimeter of federal holdings and interests remain unrelated to topographic features, natural and recreational resources, and visitor access routes. While highly significant property is within United States protection, other important properties, often surrounded by park

holdings, are not. Similarly, the configuration of the park's land base causes difficulties for suitable land use and limits the existing and potential ability to support recreation. At the same time, protrusions can interfere with private land uses occurring outside the park, such as a park forest dividing private pastures.

Natural Resources

The quiet beauty of Shenandoah National Park with its forested ridges and rocky escarpments creates an impression of permanence that belies the existence of a tumultuous past that began possibly 1.3 billion years ago. Uplifting, erosion, volcanic activity, and compression ultimately produced a series of long parallel folds that formed the Appalachian Range. The park provides considerable evidence of the geological processes that created the mountains and the climatic and biological elements that influenced their appearance.

Wind, rain, gravity, frost riving, and other weathering agents have shaped the present contour of the land along the lines of differential rock resistance to erosion. The Shenandoah part of the Blue Ridge Mountains is a single crest of rounded peaks and lower ridges situated in a general northeast-southwest direction. Elevations along the ridge range from 4,049 feet (1,235 m) atop Hawksbill Mountain to a low of 478 feet (146 m) at Front Royal. Within the park are more than two dozen peaks over 3,000 feet (915 m) high.

The same weathering agents that shaped the contour of the land continue the process of transforming bare rocks into organic soil. The soils of Shenandoah National Park are generally rocky, deep, rapidly drained, and well-suited to woodlands and wildlife. Severe to moderate slope limitations restrict development and agriculture.

Lateral ridges protruding from the main ridge and the deep interior valleys (popularly called hollows) are the most distinctive features of the Shenandoah landscape. Precipitation (52 inches (132 cm) annually) falling on the side slopes seeps down to form the small streams, creeks, runs, branches, forks, prongs, and rivers which flow to the park edge. The streams often drop over ledges, creating waterfalls up to 93 feet (28 m) high. There are 42 watershed basins on the west side of the park and 28 watershed basins on the east. The only flood prone areas that would affect the park, as delineated by the U.S. Geological Survey, are segments of the South Fork of the Shenandoah River.

Water quality of park streams is well above state standards, and the Virginia State Water Control Board has placed park streams into four major classes. Tributaries to the Rappahannock and James rivers are classified as free flowing streams (class III), except those specifically classed as put-and-take trout waters (class V) or natural trout waters (class VI). Streams flowing into the South Fork of the Shenandoah River are classified as mountainous zone streams (class IV), except those specifically classed as put-and-take trout waters or natural trout waters. None of the streams of the park are known to be polluted; however, instances of pollutants may occur with local effects.

There are no water impoundments within the existing park lands; however, a number of ponds and reservoirs are located nearby, including the municipal water supply reservoirs for the communities of Luray and Charlottesville.

Shenandoah National Park is included within the most floristically diverse region of the United States and represents one of the nation's most valuable botanical areas. The documented flora of the park numbers nearly 1,400 species of plants. Many species have limited distribution and are restricted to the central and southern parts of the Appalachian Highlands. A remarkable similarity exists between the flora of central China, Japan, and the Appalachian region of North America, and in this context, Shenandoah and other protected areas in the southern Appalachians have an ecological value of international importance.

From the 1720s to the establishment of the park, much of the area was cleared. A significant gap in the forest cover also occurred when the chestnut blight eliminated the American chestnut (Castanea dentata). The establishment of the park in 1936 ended human-caused destruction of the forest and today a few remnants of original vegetation are left in scattered, untouched pockets. A community of about 100 trees, called Limberlost, contains an eastern hemlock tree over 420 years old, the oldest known tree in the park.

For over 40 years the natural process of succession, aided in a few spots by Civilian Conservation Corps revegetation projects, has transformed the area. Today, approximately 95 percent of the park is forested. Successional species include black locust, black birch, Virginia pine, pitch pine, sassafrass, and staghorn and smooth sumacs. Climax species of chestnut oak, red oak, bear oak, or white pine predominate in upland areas, while eastern hemlock, scarlet oak, gray birch, or cove hardwood types predominate in streamside sites, and lowland areas support tulip poplars and sycamores.

Tree-of-heaven, princess-tree, and japanese honeysuckle are three of many exotic plants introduced in the area prior to the establishment of the park, but they are the only ones which are widely naturalized and potentially disruptive to forest ecosystems. However, since it is thought that few exotic species have the ability to successfully compete with native successional species, no control measures are undertaken except for the purposes of public health, recreational enjoyment, or when an exotic threatens the perpetuation of a native species or a significant scientific feature.

It is the policy not to manipulate the park native vegetation except in certain instances, primarily for visitor use and safety. Old and decaying hazard trees and noxious plants such as poison ivy are removed in campgrounds, picnic areas, and other places of high visitor use. Road shoulders and vistas along the Skyline Drive, as well as sites in the major park developments, are maintained in grass or other low vegetation to provide visitor safety and aesthetic experiences. Park vegetation may also be controlled in order to maintain historical landscapes, such as Big Meadows which is kept open by controlled fire.

Only in a few instances have insects and diseases had more than a minimal impact on park vegetation and these are monitored. No current control measures are undertaken unless such infestations pose a threat to visitor health and welfare or to adjacent property.

About 85 percent of the forest fires in the park are caused by man; the remainder are caused by lightning. An average of seven fires a year occur, burning an average of 200 acres (81 ha) total. Inasmuch as Shenandoah is a ridgetop park, most fires burn toward the interior, that is, uphill. Currently all wildfires are extinguished in a manner that causes the least amount of damage.

There are no known endangered or threatened species of plants (50 CFR 17, rev. 12/15/80) endemic to the park; however, several species, which include northeastern bullrush (Scirpus ancistrocjaetus), leatherflowers (Clematis albicoma and C. viticamlis), Swamppink (Helonias bullata), Virginia clover (Trifolium virginicum), wolf's milk spurge (Euphorbia purpurea), cliff green (Pachystima canbyi), swordfich phlox (Phlox buckleyi), mountain pimpernel (Pseudotaenidia montana), and white-fringed prairie orchid (Platanthera leucophaea), are in review category by the Office of Endangered Species, U.S. Fish and Wildlife Service. These are plants for which there is not sufficient information available to determine their status. General surveys have not been done to determine their location or abundance. However, specific surveys are conducted at sites being considered for development, disturbance, or transfer.

The commonwealth of Virginia maintains a similar classification (1979), including species endangered, threatened, of special concern, status undetermined, and extinct in Virginia. Of the plant species found in the park, leather grapefern (Botrychium multifidum) is classified as endangered, and American ginseng (Panax quinquefolius), fir clubmoss (Lycopodium selago var. appressum), one-flowered rush (Juncus trifidus var. monanthos), three-toothed cinquefoil (Potentilla tridentata), and corral-root orchid (Corallorhiza trifida) are classified as threatened. The commonwealth has classified 18 other plants found in Shenandoah as species of special concern or undetermined status.

The clearing of land by settlers changed the type of vegetation on the ridge and thus wildlife habitats were changed, resulting in a more profound effect on most animal species than actual killing or trapping. However, the establishment of the park reversed the trend of habitat alteration. White-tailed deer were reintroduced in 1934 and have increased to where they are commonly observed along the Skyline Drive. Black bear are no longer considered rare; by the 1970s, state game officials estimated the park's bear population at 300. Rabbits, gray squirrels, chipmunks, and woodchucks frequent areas along the Skyline Drive. Bobcats, gray fox, skunks, and raccoons are common in the forest.

The park also includes a diverse population of birds, fish, reptiles, amphibians, and insects. At least 200 species of birds have been observed, including 104 species that breed here. Twenty different birds of prey have been recorded, as well as seven species of woodpeckers and

35 species of warblers. Protection afforded by the park allowed the reintroduction and increase of indigenous turkeys.

Over 52 species of amphibians and reptiles are found within the park. One particular species, the Shenandoah salamander, is rare, occurring only in a few rockslide habitats within the park.

There are 22 known species of fish in park streams; however, the native brook trout is the most important to the visitor. Fishing is a traditional activity in Shenandoah and management aims are to provide native brook trout streams with quality angling. The native brook trout fishing opportunities in Shenandoah are considered the best in Virginia.

Shenandoah supports a population of West Virginia white butterflies (Pieris virginiensis) thought to be rare throughout their range because of habitat destruction. This species would be on the federal endangered list if it was not found within the park.

Only one animal species on the federal list of threatened or endangered species (50 CFR 17.11, rev. 5/20/80) is known to be endemic to the park. Sightings of the eastern cougar (Felis concolor cougar) have been reported since 1941 by park personnel, tourists, and others; however, none have been substantiated with photographs or track casts.

The commonwealth of Virginia does not have a separate list of threatened or endangered animal species at this time.

Most of the diverse park fauna go unnoticed by visitors and are little affected by existing development and use. However, the larger, more conspicuous species may be encountered by visitors or have their habitat or behavior patterns disturbed by human activities. Due to the lack of complete information on deer herds and their habitat, no management actions have been undertaken except problem deer relocation, visitor education program, and research studies.

Incidents between bears and people often cause property damage, injury, and/or relocation of bears. In response to a dramatic rise of incidents, a bear management program was initiated in 1975. This program strives to ensure that unnatural food sources are removed, incidents are reported, problem bears are removed, visitors are educated, regulations are enforced, and research is undertaken.

Free-roaming dogs are seen along the Skyline Drive. They are often pets lost by visitors or strays from homes near the park, and it is unlikely that many of the pets will become feral since they cannot adjust to the wild and will shortly die of starvation. Whenever possible, lost pets are captured and returned to their owners. On the other hand, loose hunting dogs from surrounding homes can adapt to the wild and have a rather significant impact on native wildlife. Park management works for a greater understanding with hunting dog owners, captures and returns animals to their owners, and takes appropriate measures to minimize this threat to the park's wildlife.

A summary of the more outstanding natural features are illustrated on the Special Natural Features map.

All of the natural systems are molded by climate, which is determined by the area's latitude, topography, and its proximity to the Atlantic Ocean. Shenandoah lies in the zone of prevailing easterly movement of the earth's atmosphere, and in or near the main path of tropical, moist air from the southwest Atlantic and Gulf of Mexico during much of the summer and early fall seasons. The mountains modify these patterns, creating many local climatic conditions. The most noticeable local difference is the cooler temperatures on the top of the ridge. Mean maximal temperatures in July average 10° to 12° F (6° C) cooler in Big Meadows than in the lowlands around the park. Temperatures in January range from 20° to 39° F (-7° to 4° C) and in July, 57° to 76° F (14° to 24° C). Record temperatures are a high of 94° F (37° C) and a low of -21° F (-30° C).

Snow (36 in. (91 cm) annually) and ice are common in the winter, but they usually melt quickly, leaving the ground bare. Occasional major snow or ice storms may cause considerable damage to trees and overhead utilities in the park and a temporary inconvenience to winter visitors.

Fog is a common experience for park visitors and occurs most frequently in the summer. Warm, moisture-laden air moving in from the coast rises when it reaches the Blue Ridge, then expands, cools, and condenses into fog. When the air descends into the Shenandoah Valley, the fog dissipates.

Haze is the characteristic for which the Blue Ridge Mountains were named. This naturally occurring blue haze shades the distant horizons and limits visibility. It is explained as dust in the air combined with water vapor and/or organic compounds given off by the trees. However, haze is becoming more prevalent and is associated with increased air pollution throughout the entire eastern United States.

Air quality is of special concern in Shenandoah National Park, where numerous overlooks offer distant views and valley vistas. Under the Clean Air Act, as amended in August 1977, Shenandoah was classified as a mandatory class I air quality area. Under the program of Prevention of Significant Deterioration (PSD), class I designation allows very little additional deterioration of air quality over established baseline concentrations of certain pollutants, and none of the National Ambient Air Quality Standards (NAAQS) are to be exceeded. The act also mandates responsibility to protect related values (visibility, flora, fauna; archeological, historical, and geological resources; etc.) that may be affected by changes in air quality. Special provisions are included for protecting visibility and remedying existing visibility impairment. Work is continuing with the EPA, the State Air Pollution Control Board, VPI & SU, University of Virginia, and other nearby institutions and independent researchers to document incidents of air pollution and its effects on the park environment.

Cultural Resources

In the Shenandoah Valley, Paleo-Indian sites at the Thunderbird and Flint Run archeological districts along the Shenandoah River provide examples of 12,000 years of Indian occupation. The first inhabitants were hunters and gatherers, who primarily remained in the Valley, venturing into the mountains for at least short periods of time. They established seasonal hunting camps in the Blue Ridge Mountains as early as 8,000 B.C. Recent evidence indicates the possibility of more permanent settlements in the mountains, although most occupation was concentrated in the valleys and lowlands. By A.D. 1000, farming land had been introduced into the Shenandoah Valley and eventually settlement became more permanent. During the 17th century, the Manahoac, Monacan, Chickacoan, and Iroquois tribes occupied the vicinity; however, much of the Shenandoah Valley was free of Indian settlement because of constant raids from tribes at the north and south ends.

As part of the Appalachian Range, the Blue Ridge Mountains were a hindrance to European exploration. Dr. Lederer, a German scholar and physician, was the first known European to venture across the Blue Ridge to explore the area in 1669 and investigate the potential for the fur trade and possible areas for settlement. In the summer of 1716, Governor Spotswood of Williamsburg, Virginia, led an expedition across the Blue Ridge with the ostensible purpose of encouraging settlement in the Piedmont and Shenandoah Valley.

Settlement of the Shenandoah Valley began as early as 1726 by the German, Dutch, Scot, and Irish, and included those of the Quaker and Mennonite religious persuasions. In about 1754, all remaining Indians disappeared from the Shenandoah Valley; however, uprisings and skirmishes between Indians and settlers became common--preludes to the French and Indian War. The mountain area remained out of the mainstream of the French and Indian War and the Revolution, except it did provide a possible haven for Loyalists and mercenary deserters.

While previous settlement was predominantely in the lowlands, after the Revolution more families moved into the hollows. Some landownership remained with the wealthy Valley and Piedmont families who had received large grants from the Crown or the commonwealth. Often tenants occupied this land and grazed livestock for the owners. Other land in the hollows and on the mountains was frequently sold in parcels of 50, 100, and 150 acres (20, 40, and 60 hectares) to less wealthy families. Exactly how many mountain people were landowners, tenants, and squatters remains a subject of controversy.

After the Civil War the settlement patterns were relatively stable. Families occupying the hollows grew vegetables and grazed cattle, sheep, and hogs. They collected tanbark and chestnuts for food and barter. Small settlements often included grist mills and carding mills, which were located at the bases of the hollows. Other mountain industries included lumber, basket weaving, shingle making, weaving, and subsistence farming.

The Shenandoah Valley fared better with a more consistent and stable economy. Turnpikes and roads were constructed across the mountains to connect the Piedmont and the Valley, establishing solid transportation routes, expanding trade patterns, and providing cultural ties between the predominantly German settlements on the west and the predominately English settlements on the east. Increased trade saw the development of iron furnaces, such as Miller's Iron Works along Madison Run, to process ore mined in the mountains.

By the 1860s, the Shenandoah Valley area was well settled and the population was an integral part of the state of Virginia. Trade routes served as a direct avenue of access between the North and the South and control of the Valley came to be of major importance to both sides during the Civil War. However, the mountains were left relatively unmolested during the Civil War. Stonewall Jackson and his troops crossed the mountains three times, probably at Brown's and Fisher's gaps, and Jubal Early's troops retreated over Brown's Gap in 1864. Col. Thomas Munford of the Virginia Cavalry was quartered at Swift Run Gap for a time. No further war action within what is now the park has been documented.

During the Reconstruction era, the rural industries revived. The Valley and Piedmont were used for farming, orchards, tanning, and support for the logging industry. The mountain culture traditionally had been one of economic insecurity on marginal land and life for the mountain people continued largely on a subsistence basis. Forest resources became the major source of income in the mountains and the logging of oak, chestnut, tulip tree, and pine brought sawmills to the heads of the hollows. The 1880s saw the high point of lumbering with the invention of the portable, steam-powered rotary sawmill.

The tenuous economic security that the mountain people experienced began to topple when the railroad was constructed in the Valley--sawmills at the base of the mountains were abandoned in favor of those closer to rail transportation. This resulted in a loss of jobs in the mountains and hollows. By the beginning of the 20th century, virtually every piece of land that could produce anything was used. Grazing pastures and subsistence gardens had replaced the forest. The soil eroded rapidly with the loss of proper groundcover, and soil depleted by constant farming produced less each year. Wild game was depleted, and large game such as deer were vanishing. Chemical processing for leather tanning cut the demand for tanbark. In the meantime the economy of rural America was changing, with a new emphasis on commercial crops and products. Cash was replacing the barter system. The mountain economy was tottering. The death blow happened about 1915, when the chestnut blight swept through Virginia at the rate of 24 miles (39 km) per year. The tree had been a mainstay of the mountain economy, harvested for timber, bark, and nutmeats. The exodus from the mountains had begun by 1900, and by 1925 nearly half the mountain people had left the area.

At the time the Blue Ridge was being depleted of its resources, summer mountain resorts were becoming popular with more prosperous city dwellers. The Black Rock Springs Hotel and Stony Man Camp were places where people could stay overnight and enjoy the cool mountain air. Stony Man Camp, founded in 1894 by George Freeman Pollock, was a place

of retreat for many people who enjoyed the outdoors, the views from the mountain, and the special events such as cake walks and carnivals. People remained "for periods of five to ten weeks, and some for the whole season" (Pollock 1960). Pollock was a colorful personality who not only got along with his mountain neighbors, but was an avid supporter for the creation of Shenandoah National Park. Stony Man Camp (now known as Skyland) became a park facility in the mid 1930s.

Interest in preserving lands in the southern Appalachian Mountains began in the late 19th century. Shortly after the creation of the National Park Service in 1916, Director Stephen T. Mather began studying and advocating the creation of national parks in the east, and in 1923 he proposed that a typical section of the Appalachian Range be established as a national park. A commission was established and commented thus:

> The Blue Ridge of Virginia, one of the sections which had your committee's careful study, while secondary to the Great Smokies in altitude and some other features, constitute (sic), in our judgement, the outstanding and logical place for the creation of the first national park in the southern Appalachians.
>
> It will surprise the American people to learn that a national park site with fine scenic and recreational qualities can be found within a three-hour ride of our National Capitol and within a day's ride of 40,000,000 of our inhabitants. It has many canyons and gorges, with beautiful cascading streams. It has some splendid primeval forests, and the opportunity is there to develop an animal refuge of national importance. Along with the whole southern Appalachians, this area is full of historic interest, the mountains looking down on valleys with their... battle fields...and the birthplace of many...Presidents....
>
> The greatest single feature, however, is a possible skyline drive along the mountain top following a continuous ridge and looking down westerly on the Shenandoah Valley...commanding a view of the Piedmont Plain.... Few scenic drives in the world could surpass it.

Based on the commission's report, the Congress authorized and directed the Secretary of the Interior to determine the boundaries and area of a portion of the Blue Ridge Mountains to be recommended "as a national park, to be known as Shenandoah National Park." Similar instructions were given for the Great Smoky Mountains area and Mammoth Cave. Fieldwork was accomplished, including the use of innovative--aerial photographs taken by the Army Air Service. The act of May 22, 1926 (44 Stat. 616), authorized the establishment of the park (see appendix A).

The creation of Shenandoah National Park began. The remaining mountain people who had not moved out in hard times then moved or resettled as their land was purchased parcel by parcel by the state of Virginia over a number of years. Construction of the Skyline Drive began in 1931 with funding from the Federal Drought Relief Administration. In 1933, the

newly established Civilian Conservation Corps began work on reforestation and erosion control, as well as construction on the Skyline Drive. Hundreds of local people were given jobs building a national park out of rugged, overused farmlands and meadows. In 1936, Franklin D. Roosevelt dedicated Shenandoah National Park.

By the advent of World War II, the lodges of Big Meadows, Dickey Ridge, and Lewis Mountain had been constructed, and the Skyline Drive had been completed. Park development was halted due to the war effort but was revived in the mid 1950s for Mission 66 (a program to provide needed facilities in national parks). During the time it has taken to establish and build the park known today, the land has been regenerating, bringing a lush surge of flora and fauna covering the tracks of man, except at Big Meadows which is being maintained as a forest opening reminiscent of prehistoric and historic cultural patterns.

Each civilization leaves behind physical remnants of its culture in the form of lithic flake scatters, firepits, burial sites, foundations, roads, field systems, and buildings. These are the threads that are left to piece together the fabric of those civilizations. In Shenandoah National Park more than 100 archeological sites have been discovered. Most of the historic remnants such as ruins of farmsteads and homesites, commercial and industrial enterprises, roads, and missions predate the park. Mountain retreats, the most famous of which is Camp Hoover, date from a slightly later period of time. Other mountain resorts include Skyland, Big Meadows, and Lewis Mountain, which are all coming into a historic significance of their own. Even the early federal structures in the park--the Headquarters building and Skyline Drive--are highly representative of the period in which they were produced.

An inventory undertaken in 1978 and subsequent consultation with the Virginia Historic Landmarks Commission, the Virginia Research Center for Archeology, and the federal Advisory Council on Historic Preservation resulted in the collation of past and present professional studies and the initial determination of particular culture resources eligible for the National Register of Historic Places. The Cultural Resources Survey map indicates the resources by two major themes: (1) prepark settlement and cultural patterns and (2) federal development subsequent to park establishment.

Scenic Resources

Outstanding scenery is a key to the identity of Shenandoah, as the views from the ridge were a primary consideration in the creation of the park and the Skyline Drive. The inspiring perspectives and delightful details are comprised of a complex tapestry of landforms, vegetation, natural features, and human elements seen at varying distances under different times and weather conditions.

Four general categories of long views or vistas are gained from the Skyline Drive and its overlooks. One type of vista is a broad, sweeping panorama of the Shenandoah Valley, where the eye is attracted to distant

views of patchwork fields, rural buildings, intricate patterns of hedgerows and forest edges, serpentine meanders in the Shenandoah River, successive blue ridges fading into the hazy horizon, and miniaturized towns, cities, and factories. A second type is a broad panorama of the Piedmont, where the eye is also drawn far into the distance over orchards, woodlands, farms, roads, and clusters of houses rolling east as far as the atmospheric conditions allow. Enclosed hollows is the third type of vista where many overlooks and ridges encircle a bowl around the viewer and hold attention to the more immediate surroundings of the color and texture of trees, a clearing at the bottom, and perhaps a settlement. The fourth type is a series of ridges which, when close to the viewer, appear as rolling carpets of thick trees, and with distance, transform into flat planes fading into the haze. There are, of course, many combinations of these vista categories.

Long views from the ridgetop are not the only perspective for scenery. From points in the surrounding vicinity, the ridge of the park commands attention as a dramatic backdrop to the surrounding countryside and communities. Series of fading ridges embody the special character of the rural Blue Ridge landscape.

Scenery is constantly changing. The daily sweep of the sun alters illumination and light patterns on the ridges, hollows, and valleys. The weather of the moment, perhaps wind, rain, fog, snow, or clouds, projects a mood upon the landscape. The seasonal cycle is accompanied by the transformation of soft winter grays to lush green growth and eventual firey fall color.

Scenery continuously evolves as years pass. Since the establishment of the park, land that had been grazed, logged, burned, and farmed was protected, and vegetation grew into a heavy, dense forest. This not only altered the original scene but nearly blocked viewpoints from the drive. Also, changes are occurring in areas seen outside the park as regional land uses change. Subtle changes occur as towns grow and the network of highways and utilities expand, while more noticeable are mines, gravel pits, new industry, and nearby second home developments. The latter often cause dramatic changes to the scenic quality of the park. Attracted to the edge of the park for the forest, hills, and views, they bring along roads, powerlines, and clearings that are often highly visible and tarnish the character of the rural scenery and destroy the visual integrity and unity of the massive mountains. Two examples of this are visible from Naked Creek Overlook onto Long Ridge and from Bacon Hollow Overlook onto Flattop Mountain.

Scenery can be inventoried, analyzed, evaluated, and classified despite its subjective nature. A wide variety of procedures are available, and in 1978, a visual survey was conducted, combining computer programs and onsite investigations. The Visibility map shows the computer composite of land seen from 85 points along the Skyline Drive. As can be readily noted, most of the composite viewshed covers areas outside the existing landholdings of Shenandoah. While vegetation can be managed by the National Park Service to direct views at overlooks, most aesthetic elements of views depend primarily upon adjacent land use and development on private land.

Lastly, the beauty of Shenandoah is also expressed in the many intimate and changing scenes within the park. The viewer becomes a part of the mood of the mountains through appreciation of such natural dioramas as a waterfall in its icy winter setting, an open meadow in springtime bloom, a deep and silent ravine in the lushness of summer, or the blaze of autumn glory. The eye moves easily from the great variety of vegetation to the great variety of wildlife which can be smaller than a butterfly or as large as a bear. While exploring, one also finds occasional evidences of past human activity. Looking into the park, the viewer gains an appreciation of the life of the Blue Ridge Mountains and a tranquillity from the quiet timelessness of the rocks and the total life continuum.

Existing Facilities

Shenandoah's natural, scenic, and cultural resources were intended to be used and enjoyed by great numbers of visitors each year, as well as protected for future generations. Over the years facilities have been provided to accomplish the purposes of both resource protection and visitor use. The total area of development occupies less than 2 percent of the park.

Today the most notable facility in Shenandoah is the Skyline Drive. To some it has more fame than the park itself. It is 105 miles (169 km) long with 71 overlooks, is the only vehicular access within the park, and is reached at four entrance stations: Front Royal, Thornton Gap, Swift Run Gap, and Rockfish Gap. Built between 1931 and 1939, the alignment has had few changes, and most stonewalls from its original construction are still maintained. The winding curves, abundant wildlife, leisurely driving sightseers, and grand scenery are all factors contributing to the 35 mph (56 kph) speed limit. The road has a maximum capacity for 1,500 automobiles/hour, but for scenic driving purposes a capacity of 700 vehicles/hour is more desirable.

Other numerous dirt and gravel roads in the park are maintained as fire, patrol, and maintenance roads and trails. They are closed to private vehicles except in a few cases where access roads to private property cross park lands.

Trails vary in length, difficulty, access, and destination for a total of 516 miles (830 km). The longest single trail in the park is a 95-mile (155 km) portion of the Appalachian National Scenic Trail, which stretches from near Compton Gap to Jarman Gap. This segment was first built between 1926 and 1936 along the ridge by the Potomac Appalachian Trail Club (PATC) prior to dedication of the park or construction of the Skyline Drive. In 1968 the entire Appalachian Trail was designated as a national scenic trail. Four enclosed cabins and seven huts with bunks provide overnight accommodations along the trail. Many of these structures are constructed of native stone and chestnut.

Most other park trails were developed by the Civilian Conservation Corp between 1935 and 1940, many following established mountain footpaths. Many park trails are graded and lead to significant features, connect developed areas, and follow interesting routes. Along these other trails are five open shelters and two enclosed cabins.

Six self-guided nature trails that provide a circuit or loop of less than two miles (3 km) are located throughout the park.

Approximately 200 miles (320 km) of designated horse trails and fire roads are also available for horseback riding, some crossing the ridge.

Parking for trails is primarily at the top of the ridge along the Skyline Drive. Facilities range from large paved lots, such as White Oak Canyon, to small unmarked spaces for one or two cars along the road. Trailhead parking at the edge of the park is limited.

Shenandoah National Park also contains many other facilities for day and overnight visitor uses and park operations as shown on the Summary of Facilities chart. These are provided and operated by not only the National Park Service but also the ARA Virginia Sky-Line Company, the Potomac Appalchian Trail Club, the Shenandoah Natural History Association, and several power and telephone companies, as shown on the Summary of Facilities chart.

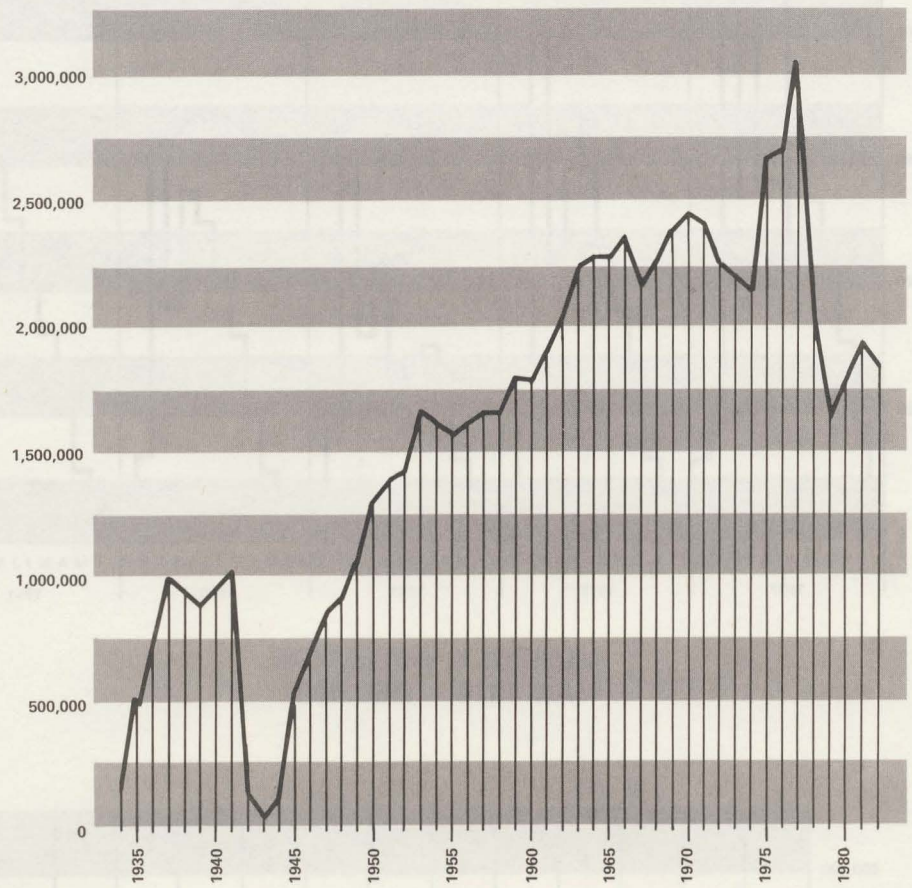
Some facilities are fully accessible to handicapped persons in wheelchairs, although there is need for improvements concerning door widths, washroom modifications, trail surfaces, picnic tables, etc. to assure more opportunities for visitors and employees. There are as yet no special provisions for visitors with visual or hearing impairments, or mental retardation.

Most facilities were constructed during two periods--the 1930s when the park was established and the CCC was active, and during the National Park Service's Mission 66 program begun in the late 1950s and completed by 1966. The only major development since then has been the construction of five modern sewage treatment plants. With the passage of time, facilities have aged and deteriorated in varying degrees. Unmet past, present, and new or increased requirements for health and safety standards; energy efficiency and future use, have made some of the existing park facilities inadequate and in need of improvement.

Visitor Use and Interpretation

As one might expect, Shenandoah National Park with its natural and cultural features, scenic views, and array of facilities attracts many visitors. In over four decades, visitation has exceeded 75 million people. Since 1962, visitation has generally been about 2 million annually. Recent fluctuations in visitation are indicative of the country's overall economic milieu, cost and availability of gasoline, and regional weather conditions.

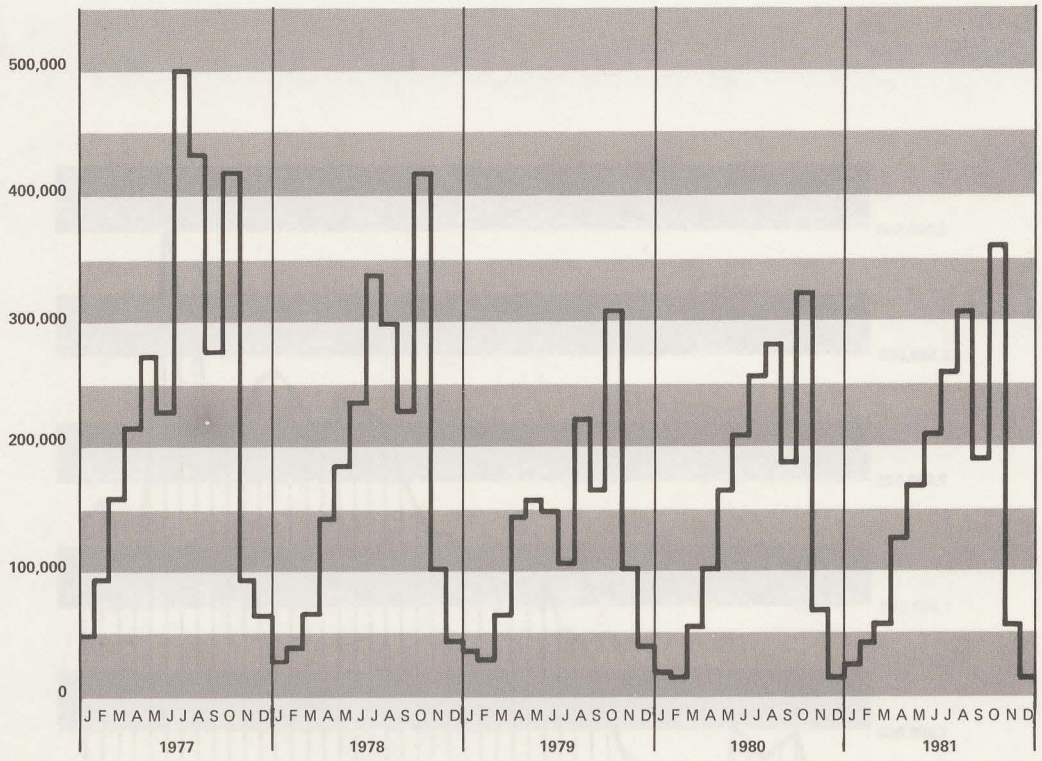
Visitor use of the park is not a constant throughout the year--there are times of heavy and light visitation that produce a cyclic effect. November through February are consistently low-use periods while July, August, and October are high-use months. The latter three months constitute nearly 50 percent of a year's visitation. While high visitation in July and August is not unusual, the intensity of use in October is surprising and indicates the drawing power of the spectacular autumn color display.



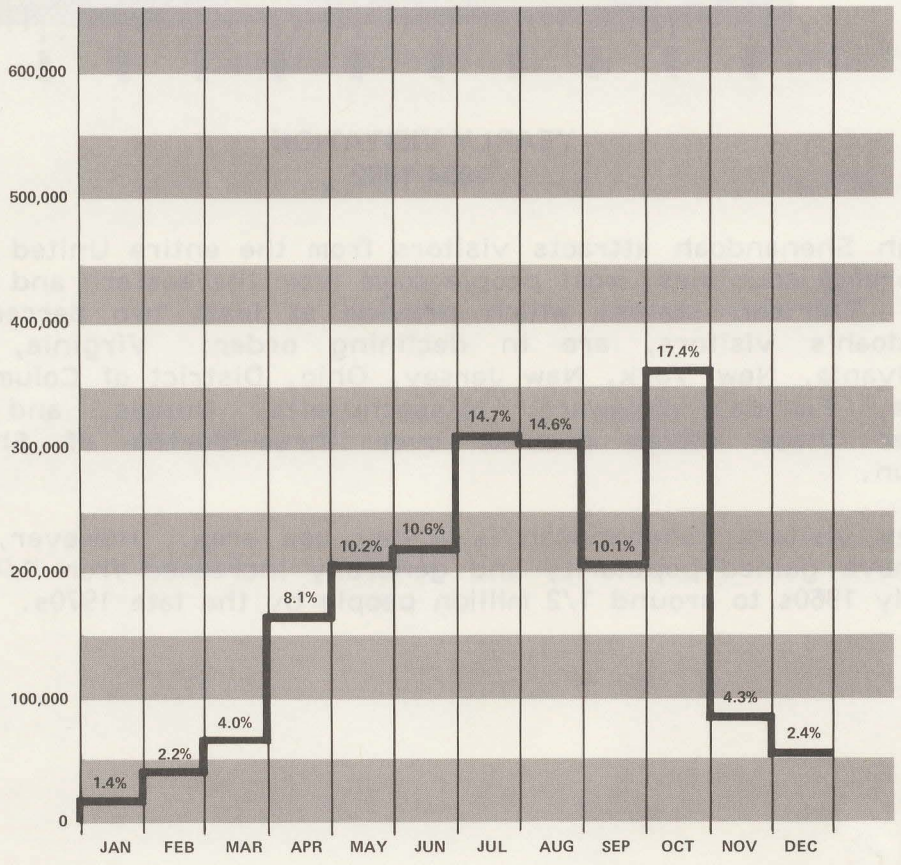
YEARLY VISITATION
1934-1982

Although Shenandoah attracts visitors from the entire United States and even foreign countries, most people come from the eastern and midwestern states. Thirteen states, which provide at least two percent each of Shenandoah's visitors, are in declining order: Virginia, Maryland, Pennsylvania, New York, New Jersey, Ohio, District of Columbia, North Carolina, Florida, Delaware, Massachusetts, Illinois, and Michigan. Together these states provide over three-fourths of Shenandoah's visitation.

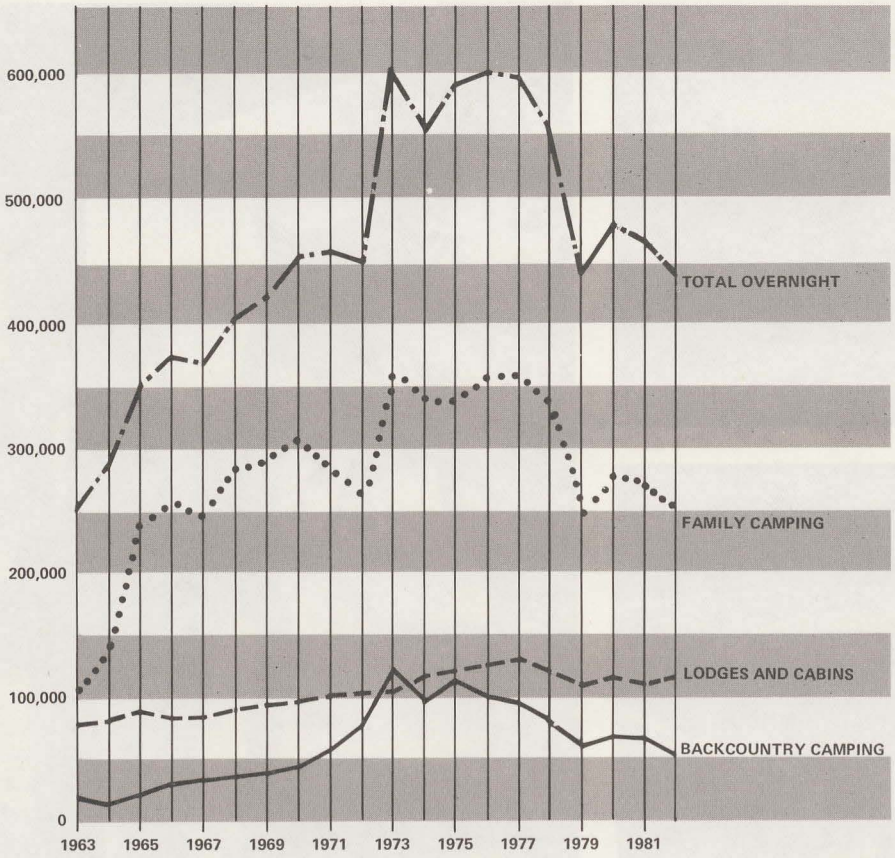
To many visitors, Shenandoah is a day use area. However, overnight stays have gained popularity and generally increased from 1/4 million in the early 1960s to around 1/2 million people by the late 1970s.



MONTHLY VISITATION
JAN 1976 – DEC 1981



5-YEAR AVERAGE MONTHLY VISITATION (1977-1981)
(1% = PERCENT OF YEARLY VISITATION)



OVERNIGHT STAYS
1963-1982

Activities within the park include both active and passive pursuits. Appendix E lists 32 general categories of activities, as well as a discussion about resource dependency, i.e., activities occurring because of Shenandoah's special experience and those occurring because of the park's attractive setting.

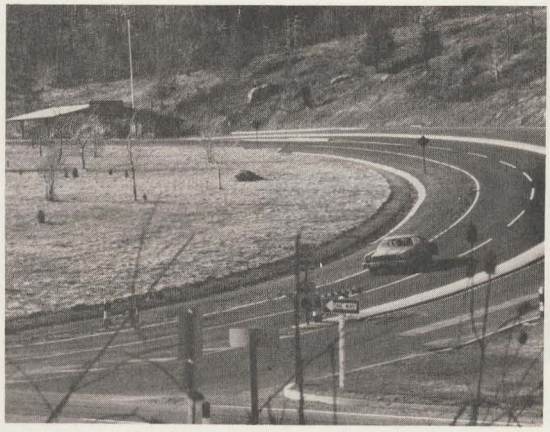
The one activity in which almost every visitor participates is driving--for the pleasure of the views, the easy pace, and/or to get to where another activity will be undertaken. Use of the Skyline Drive varies according to the section of the park, time of day, and day of the week during the summer and during the fall color season. On heavy-use days in the summer and fall, there are sporadic occurrences of spot congestion. These are caused by slow moving vehicles when a visitor's attention is drawn to scenic views, sightings of wildlife, and traffic crossings at overlooks. Fortunately this only happens occasionally, but it does cause some park users to remark that their visit was spoiled.

Using visitor centers, attending campfire talks, and joining ranger guided hikes are very popular activities that are part of a broad program of information, orientation, and interpretation shared by the National Park Service, Shenandoah Natural History Association, Potomac Appalachian Trail Club, and the ARA Virginia Sky-Line Company.

A full summer program of activities, including short strolls, longer hikes, afternoon programs, and evening campfire talks, is geared to overnight visitors (campgrounds and lodges), day users (home based and through drivers), backcountry users (hikers and campers), children (including



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INFORMATION

(a)(b)(c) Park information for visitors before they arrive at the park will be improved through media, travel information stations, and direct telephone lines. The permit issuing systems at entrance stations will be improved.

(d) Twelve new information kiosks will be provided throughout the park.

school groups), and special populations (handicapped, non-English speaking, and minorities). During the spring and fall the program is less inclusive and varied, and in the winter services are only available at the Byrd Visitor Center. In 1981, over 53,000 people participated in evening programs; over 20,000 participated in conducted activities, such as hikes, demonstrations, and talks; and over 488,000 used the visitor centers.

For the last six years, two days a year have been established as Hoover Days. With shuttle buses running between the Byrd Visitor Center and Camp Hoover, visitors are offered easy access and interpretation of the camp and the man who established it as his retreat and some of the events that occurred there. While the camp can be visited by hikers, the Hoover Days give an opportunity for other people who would not otherwise have a chance to visit the camp. In 1981, 3,000 visitors participated in this event.

Shenandoah offers three types of environmental education services: staff-led teacher workshops, national environmental study areas (NESA), and a loan library operated by the Shenandoah Natural History Association. The three NESAs were used by over 10,000 people during 1981, led by park staff or self-guided.

Other self-guided interpretation occurs within the park through the use of the interpretive waysides along the Skyline Drive and in picnic areas and campgrounds, as well as the six nature trails and Camp Hoover. It is estimated that these facilities served over 100,000 visitors in 1981.

The park's fundamental emphasis is that of a recycled wilderness--a place that 50 years ago had suffered much use but was allowed to regenerate. Today millions of visitors are enjoying the end result of that foresight which established the park. Excepting that traffic is an occasional problem on peak use days and a small percent of backcountry visitors observe overcrowding, the quantity of visitation has not adversely affected the physical condition of the resources nor the quality of the overall park experience.

Current Management

The resources, facilities, and visitors of Shenandoah National Park all warrant protection and management. This requires a staff of about 90 full-time, 75 part-time, and 85 seasonal employees. The top park managers are the superintendent and assistant superintendent, who coordinate the four divisions of park staff--resource management and visitor protection, interpretation, maintenance, and administration.

Park regulations that have been enforced to protect the park's resources and visitors include protection of plants and wildlife from vandalism, proper use of motor vehicles, control of firearms, and back-country camping conduct. Shenandoah National Park has exclusive jurisdiction and thereby may also enforce the laws of Virginia within the park through the Assimilative Crimes Act, 18 U.S.C. 13 (1969). Those committing minor violations may forfeit a collateral directly to the clerk of

the U.S. District Court. For more serious violations and for those violators of petty crime who desire to plead not guilty, a U.S. Magistrate is available in Charlottesville and Harrisonburg to hold trial on a given monthly schedule. Major crimes and jury trials are handled by the U.S. District Court.

The task of managing and operating a park as large and popular as Shenandoah has required the assistance of others in addition to the park staff. The following table indicates the range of assistance received.

Table 3: Summary of Assisting Agencies, Businesses, Groups, and Individuals

Name	Form and Date of Agreement	Purpose
ARA Virginia Sky-Line Company	Concession Contract (1959-1988)	Operate visitor lodging and other service facilities
Potomac Appalachian Trail Club	Memorandum of Understanding (1980)	Appalachian Trail management and park-wide trail maintenance
Potomac Appalachian Trail Club	Concessioner Permit (1982-1986)	Operate trailside rental cabins and Appalachian Trail huts
Shenandoah Natural History Association	Memorandum of Agreement (1978-1983)	Provide interpretive/ educational visitor services
U.S. Customs Service, Canine Enforcement Training Center	Memorandum of Agreement (1982-1987)	Provide mutual law enforcement assistance
U.S. Forest Service Region 8	Cooperative Agreement (1975)	Provide cooperative fire control
George Washington National Forest	Cooperative Agreement (1978-1983)	Provide cooperative fire control
Virginia Division of Forestry	Cooperative Agreement (1978-1983)	Provide cooperative fire control
Private Individuals, Special Interest Groups, etc.	(a) Individual Voluntary Service Agreement, (b) Memorandum of Understanding/Cooperative Agreement on project or short-term basis, or (c) Letter of Consent	Volunteered time and expertise

Old Dominion 100-Mile Ride, Inc.	Memorandum of Understanding (1981-82)	Horse trail maintenance

Also, management monitors those special uses of Shenandoah which are not directed to park purposes. While a long-term objective calls for the elimination of all such uses, many are destined to continue beyond the foreseeable future. A number of these special uses predate the establishment of Shenandoah National Park and occur on deeded rights-of-way. These uses include, for example, maintenance and operation of electric power lines, an across-park natural gas line, and water intakes for the towns of Luray and Front Royal. Special use permits cover road access to private land, utilities, aviation radar, radio transmission facilities, weather and scientific equipment, pay telephones, and a trail. Over 80 permits are in the park.

In addition to protecting and managing the resources and facilities within the park boundaries, Shenandoah National Park has been identified as the designated government agency to provide backup support to the PATC for certain portions of the Appalachian National Scenic Trail outside the park. These portions are between Rockfish Gap and the southern park boundary, and between the northern park boundary and I-66. Through a five-year cooperative agreement signed in 1982, support includes cooperation in corridor planning and ensuring the adequacy of arrangements for resource management, visitor use monitoring, and possible emergencies.



GENERAL MANAGEMENT PLAN

The Congress, in authorizing Shenandoah National Park in 1926, provided that administration, protection, and development be in accordance with the following National Park Service legislation:

> The Service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations, hereinafter specified, by such means and measures as conform to the fundamental purpose of said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife theirin and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.
>
> --National Park Service Act, 1916

The mission is clear--to care for the park, to help the public enjoy the park, and to do both in ways that ensure the integrity of the park for future use.

This plan will provide the management direction to continue the ongoing mission of Shenandoah for the next ten years or so. As an overall plan, it provides the goals to be achieved with a certain amount of flexibility to accommodate changing needs, budgetary limitations, and operational experience. While as much detail as possible has been included, it must be recognized that actual implementation will occur after appropriate detail planning and specific scheduling are realized.

For ease in understanding the many facets of park management, this plan consists of the following major components.

> "The Planning Perspective" identifies the park's significance and the objectives to be achieved; "Land Protection" indicates the status of the park's land base and possibilities for future change; "Resource Management" states the policies and methods involved in conserving the natural and cultural resources; "Visitor Use and Interpretation" outlines appropriate visitor activities, availability of information (including safety considerations), and interpretation of resources; "General Development" details the facilities necessary to accomplish the visitor use and resource management previously described; and "Management" presents an overview of management considerations. A management zoning plan indicates (on an area basis) the allowable uses of the land, and an implementation schedule prioritizes the programs and developments described.

THE PLANNING PERSPECTIVE

Shenandoah National Park is the combination of its situation, resources and facilities, opportunities, and visitors. Located near large concentrations of population in the eastern United States and easily accessible by vehicle, Shenandoah's mountains contain varied natural, cultural, and recreational features offering opportunities for pleasure auto driving, hiking, camping, scenic viewing, learning of nature and human endeavors, change-of-pace retreat, and solitude. Once in a lifetime, once a year, or many times--for one day or several--visitors of diverse social and economic backgrounds come for the recreation and re-creation they find here, as President Roosevelt declared it should be during his dedication of the park in 1936.

Shenandoah National Park is publicly owned and protected--an accessible 'island' in the midst of a changing rural environment. As more land is developed for residential, commercial, and industrial uses, the park will become increasingly valuable as a place to rediscover the beauty and peace of a natural mountain landscape as well as a setting for outdoor activities. As population density increases and urban 'technological' lifestyles become more prevalent, it will recall our earlier rural culture. At the same time the park can provide perception and appreciation of the roots of our contemporary values.

The overall concept for management of Shenandoah National Park for the next 10 to 15 years is to continue providing diverse recreational and re-creational opportunities that are compatible and commensurate with the resources extant, so that the use and enjoyment experienced by over 75 million visitors between 1936 and 1981 is perpetuated. In so doing, the integrity of the park's resources and the existing capital investment in real estate and facilities (over $320 million in 1981 dollars) must be safeguarded so that generations in future decades will have this foundation for their efforts to protect resources and provide appropriate public use.

MANAGEMENT OBJECTIVES

Management of the park will be guided by the legislation, the overall concept, and the following objectives.

Cooperation

The National Park Service will participate with other federal, state, and local agencies; private organizations and interests; and members of the public in (1) helping ensure that land uses in the park's vicinity are compatible with long-term perpetuation of park values; (2) helping ensure that recreational opportunities, visitor services, and public facilities in the park and its vicinity are complementary and that they efficiently serve the needs of park visitors and regional residents; (3) helping preserve and interpret structures and sites of cultural significance.

Visitor Use	Safe, year-round use of the park's natural, scenic, cultural, recreational, and wilderness resources will occur in a manner that minimizes conflicts between visitor groups and adverse effects on park resources.
	The public will be aware of available recreational opportunities, interpretive programs, visitor services, and necessary safety considerations.
Interpretation	The public will understand and appreciate the historic and present role of man and natural processes in shaping the changing environment of the Blue Ridge Mountains.
Resource Management	Native, rare, endangered, and relic species, habitats, and communities will be protected and perpetuated.
	Native park wildlife will occupy its proper environmental niche.
	Consistent with preservation laws, management policies, and park purposes, cultural resources will be identified, protected, and preserved.
	Vistas from the Skyline Drive, developed areas, and trails will provide clear views of natural and cultural environments.
	The resources and solitude of wilderness areas will be protected and managed in accordance with the requirements of the Wilderness Act of 1964 and management policies.
Research	Adequate information on natural resources, cultural resources, and visitors will be secured to accomplish the best possible park management.
Land Base	An adequate land base will be secured to ensure long-term perpetuation of public use, park resources, and efficient management.
Development	Only those facilities necessary for visitor services, resource protection, and park administration will be developed. Existing needed facilities will be maintained to a high standard, and replacement and additional facilities will be constructed on a timely basis.
Operations	Park administration will ensure efficient and effective use of available staff and funds, conform to legal and policy requirements,

Operations (cont'd)

encourage employee development, ensure a safe environment, and promote energy conservation.

The Shenandoah Natural History Association, Potomac Appalachian Trail Club, and other cooperating associations will be encouraged in the creation, production, and distribution of educational, informational, and interpretive material to supplement park programs.

Park administration will cooperate with groups interested in the Appalachian Trail regarding the management of the national scenic trail.

LAND PROTECTION

As stated earlier, Shenandoah's land base includes only 37.5 percent of the acreage originally authorized by Congress. Since the current boundary is long, irregular, and unrelated to topographc features, problems have developed and are expected to continue.

The park does not have authority to address these issues by purchasing private land. This plan, based on public response, focuses on continuing use of existing voluntary tools of donation and equal-value exchange within the authorized donation boundary. This approach is not expected to increase the amount of land in federal ownership to any significant extent. The emphasis will be on improving situations around the current perimeter of NPS ownership. Shenandoah's land base will continue to consist of lands owned in fee, reserved rights-of-way, and scenic and access easements on adjacent private land as shown on the Land Protection map. The boundary within which donations may be accepted will remain at 521,000 acres (210,800 ha), as authorized by the Congress in 1926.

Because donation and exchange programs depend on voluntary action by landowners, it is not possible to predict when and where transactions will occur. However, the purpose of accepting donations and arranging exchanges of land would be, to the greatest extent possible, to

- protect water quality, vegetation, and wildlife
- provide the land base needed for direct visitor use, recreation, administrative facilities, and resource protection
- maintain or relocate trails, trail accesses, and trail resources
- avoid where possible degradation of scenic vistas within the authorized boundary of the park and contribute to scenic values in the region
- improve the relationship of the land base to topographic features and public roads
- improve ability to maintain and manage perimeter public facilities

While donation and exchange can help solve problems anywhere within the authorized boundary, the following map indicates those points around the current perimeter where special efforts will be directed to accomplish the objectives of this plan. The National Park Service will consult with local governments on proposed donations/exchanges of private land. Land or specific interests in land can be donated to the United States. Donations are gifts and may be considered as charitable contributions providing significant tax benefits for property owners. On donations of land in fee simple the National Park Service may permit landowners to continue their use and occupancy of the land and facilities for a specific period of years, or possibly their lifetimes. Provisions will be drawn concerning the appropriate reserved use and any permissible alteration to existing improvements on the property. In this way the quality of the property may be assured until it comes into complete federal custody.

Although donations may be accepted anywhere within the authorized boundary, emphasis will be placed on tracts adjacent to land now under NPS jurisdiction. Such transactions will be primarily to improve efficiency in management, provide for public recreational use, or generally improve protection of park resources. Nonadjacent tracts within the authorized boundary also may be accepted to protect important resources or to be used in future exchanges. Proposed donations will not be accepted if they would place unreasonable burdens on administration, management, and enforcement.

Exchanges will involve the equal-value trade of properties in fee. Where possible and appropriate, restrictions on development and use will be placed in the deed conveying land out of federal ownership. Such restrictions will be designed to protect historic, natural, and scenic values and protect adjacent landowners from incompatible uses.

Equal-value exchange will be undertaken to complete and/or improve resources currently protected and to improve the relationship of the perimeter to existing features and nearby private use. Proposed exchanges that could place undue administrative and protection burdens upon park management will not be undertaken.

It is remotely possible that easements may be exchanged; this will occur only on single-owner property. As land uses and development patterns continue to change within the Blue Ridge Mountains, either the National Park Service or a property owner may desire to change the actual configuration of easement coverage, providing protection to a different area or relocating an existing or future access.

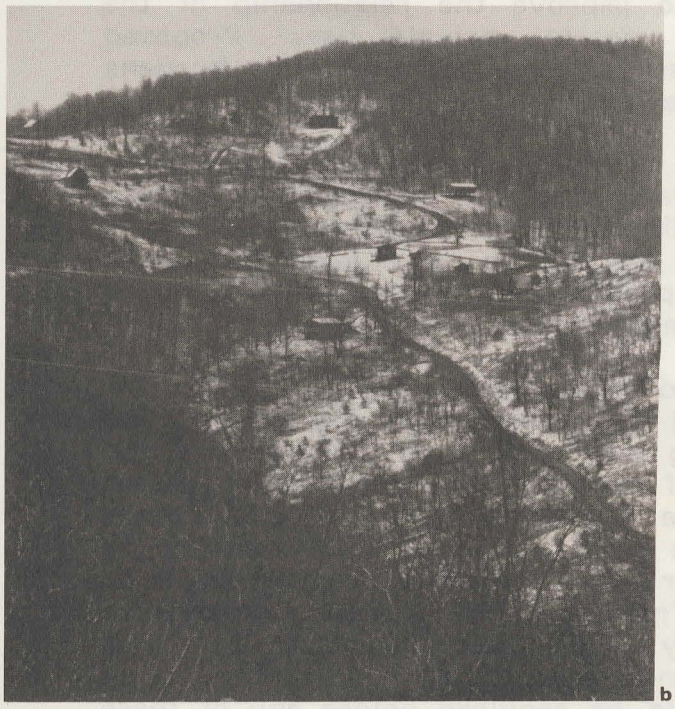
In order to simplify administration and reduce operational difficulties for the National Park Service and local governments in the area, three situations may be resolved by deleting some park lands. The first action would be the trade of small parcels of land with the Virginia Department of Highways to improve maintenance and jurisdiction of state roads through or at the perimeter of the park. The second would be to reassign approximately 10 acres of park land currently used by the U.S. Custom Service, Canine Enforcement Training Center (under a special use permit) to the Department of Treasury, U.S. Custom Service. The third would be the transfer of land along and under Criser Road to the city of Front Royal. Federal legislation would be required before any of these transactions can be undertaken.

Shenandoah National Park currently leases 2 acres (0.81 ha) of land for visitor parking in Weakly Hollow. The policy of extremely limited leasing will continue wherever and whenever it is advantageous but only as a temporary measure for small amounts of land and for limited periods of time.

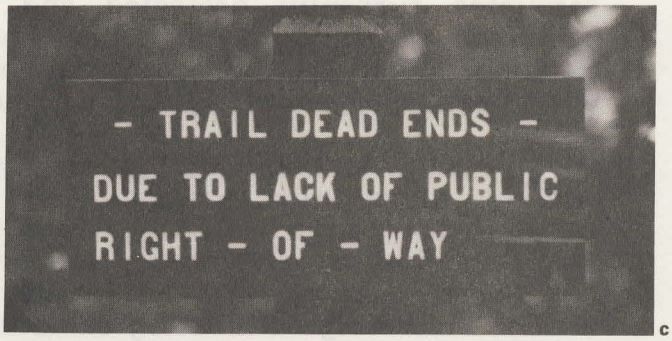
Donations of land and easements will require many separate, voluntary, private actions. As a form of encouragement, a general informational program will be undertaken to let adjacent landowners, park neighbors, conservation organizations, corporations, philanthropic foundations, and any other interested individuals and groups know of Shenandoah's mission and needs. Such a program will describe how donors can assist the



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LAND PROTECTION

(a) Shenandoah is well known for its spectacular views from Skyline Drive. Much of what is seen is beyond the park boundary.

(b) Nearby development of second homes threatens to encroach upon views. The plan identifies the most urgent problem points where views need to be protected and encourages existing voluntary tools of donation and land exchange.

(c)(d) Public trail access from the perimeter of the park is not guaranteed at many popular trailheads. The plan identifies these problem points and encourages voluntary cooperation or donation of access easements from park neighbors.

park's long-range conservation of the Blue Ridge Mountains and improve visitor use. Reserved use and occupancy and possible tax advantages for donors will also be outlined (see appendix H).

While emphasis will continue to focus on problem points, cooperation with the local surrounding communities will continue. The National Park Service will encourage the consideration of scenic, natural, cultural, and public use values and opportunities through comment on specific community proposals and general regional concerns.

Payments in lieu of taxes, depending on appropriations, will continue to be provided to local counties for Shenandoah's existing land base and will be extended to cover any new lands acquired by donation or exchange. The amount of payment will be in accordance with public laws 94-565 and 95-469.

Surveys for endangered or threatened plant or wildlife species will be conducted on all deleted lands. Similarly, surveys and other actions will be taken to comply with historic preservation policies and laws.

Relocation of people whose land is donated or exchanged is governed by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, PL 91-646.

Summarily, the program established for Shenandoah's land base over 50 years ago will continue. Expansion and modification within the donation boundary and the protection of the Blue Ridge Mountains will depend heavily upon the concern and goodwill of citizens, groups, and public agencies of the local area, state, and outside Virginia. The National Park Service will protect its existing land, easements, and new donations. Most of the land between the existing perimeter and the authorized donation boundary will remain outside federal ownership or easement protection, and the National Park Service will work cooperatively with local communities to help maintain the values shared by all.

RESOURCE MANAGEMENT

Shenandoah was envisioned as a natural park, an example of primitive forests in the southern Appalachian Mountains. However, the land acquired was a patchwork of farmed and eroding fields and cutover forests with only remnants of the extensive hardwood forests of oak, hickory, and chestnut described by European explorers 200 years before. Following dedication of the park in 1936, protection policies of the National Park Service allowed the forest to revegetate and cover the evidence of human presence prior to establishment of Shenandoah National Park.

NATURAL RESOURCES

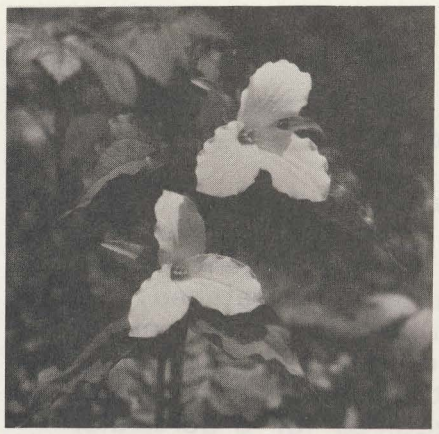
Natural succession continues to be the dominant force in determining the patterns of the park. The objectives of Shenandoah are to continue to provide the opportunity for natural processes to occur, to prevent human activity detrimental to plants and animals, and to protect and perpetuate endangered or threatened species.

The first priority in management will be the protection of endangered and threatened species to comply with provisions of the Endangered Species Act of 1973. Specific surveys to determine the presence of endangered and threatened flora and fauna species will be completed during consideration of sites for development, alteration, or deletion of park areas.

The existing fire management program will continue, and all wildfires in the park will be controlled. Suppression efforts will vary in intensity, with maximum efforts to suppress fire when it threatens human life and property both inside and outside the park, or when extreme burning conditions are present or imminent. A fire management plan has been developed to ensure visitor safety, to provide protection for developed areas and outstanding natural and cultural features, and to lessen the anxiety of coterminous landowners. Since most wildfires in the park are man-caused, fire prevention will continue to receive emphasis.

The fire management plan also includes procedures for use of prescribed fire in maintaining historic open space at Big Meadows. Depending upon further research, prescribed fire may be used to maintain roadside vistas. The fire management program of the park will seek to minimize adverse environmental effects and comply with the provisions of the Virginia Regulations for the Control and Abatement of Air Pollution, applicable provisions of the Clean Air Act (42 USC, sec. 7401), and related federal regulations.

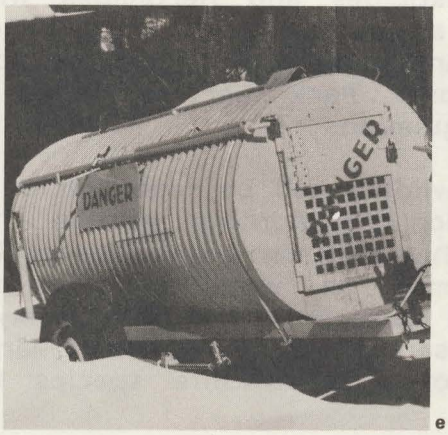
Vegetation will continue to revert to native species through natural succession. Since few exotic plants have the ability to successfully compete with native successional species, introduced plants should be naturally replaced. If exotic plant species do persist, active efforts to reduce or eliminate them will be initiated only when they threaten public health or recreation enjoyment or when they affect the perpetuation of


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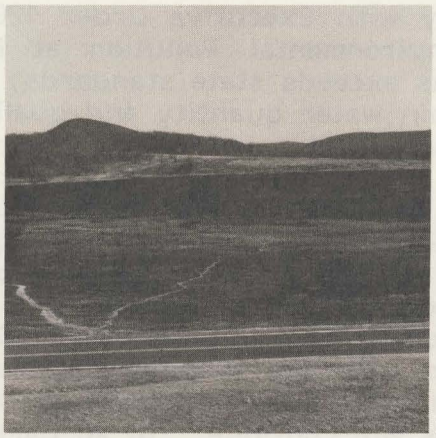

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NATURAL RESOURCE MANAGEMENT

(a)(b)(c) Native plants will be protected and perpetuated.
(d)(e)(f) People/bear conflicts will be reduced with bear-proof trash containers and relocation of problem bears.
(g) Native wildlife will be protected and perpetuated.
(h) While wildfires will generally be suppressed, prescribed fires will be used to maintain Big Meadows (a cultural landscape) and selected overlooks.
(i) Streams will be managed as native brook trout fisheries.

significant park features or native plant species. Exotic plants may be retained or encouraged within designated historic zones.

Programs to control forest pathogens in Shenandoah National Park, including native and exotic insects and diseases, will be applied only when necessary to prevent loss of native host or host-dependent species from the ecosystem; to protect rare, endangered, threatened, or scientifically valuable plant specimens or communities; to ensure public health and safety; to protect important aesthetic values in developed areas; and to prevent the spread of forest pathogens to noninfected coterminous lands. Where control measures are required for a particular species, chemical pesticides and herbicides will be used only where feasible or prudent alternatives (including biological controls) are not available. The use and application of any pesticide will be in accordance with approved National Park Service policy and the Environmental Protection Agency regulations.

Insofar as possible, wildlife will be regulated by natural processes. They will be given protection from hunting, removal, harassment, or harm from feral animals and/or human action within the park. Control or removal of individual animals may be considered to maintain healthy animal populations, to avoid damage to the park ecosystem, or to provide for human health and safety. The National Park Service will continue cooperative studies of those wildlife species that range beyond park boundaries.

Management will comply with Executive Order 12088 (Prevention, Control, and Abatement of Environmental Pollution at Federal Facilities). The quality of park streams exceeds state standards, and monitoring programs will continue to maintain water quantity and quality. No impoundments of park streams will be permitted.

Traditionally, fishing has been allowed in the National Park System. In Shenandoah National Park, objectives of fishery management will be to maintain and manage streams as wild native brook trout fisheries, while providing quality angling opportunities in a naturally regulated ecosystem. In so doing, the National Park Service has entered into cooperative agreements with the Virginia Commission of Game and Inland Fisheries to provide fish-for-fun programs on the Rapidan and Staunton rivers; these programs will continue. In all park streams, fishing will be allowed in accordance with appropriate park and state regulations.

Air quality in Shenandoah National Park is of special concern since much of the character of its scenic values are found in the broad, sweeping panoramas of the surrounding lowlands and valleys and the distant mountains. Visibility is impaired by natural causes (the clouds, fog, or haze for which the Blue Ridge Mountains were named) and anthropogenic causes originating outside the park. In recent years, increasing levels of man-caused pollutants have reduced visibility and is damaging forest vegetation and affecting water quality of park streams.

Under the 1977 amendments to the Clean Air Act, Shenandoah is designated as a class I air quality area. Emphasis will be to establish

baseline air quality data to determine levels and origin of pollutants and to determine their effect on the air quality related values of the park. In addition, park management will cooperate with the Environmental Protection Agency and the Virginia State Air Pollution Control Board to ensure that class I air quality increments are not exceeded, to mitigate damage to the park's air quality and to remedy any visibility impairment.

Research programs will be used to achieve the park's management objectives. The park will continue to encourage cooperative studies by other agencies and private organizations; however, the following priority research programs will be directed and funded by the National Park Service.

Air quality - baseline air pollution data; determination of effects of various air pollution components and acid rain on visual, flora, fauna, aquatic, and geologic resources

Vegetation - identification of communities and factors affecting dynamics; evaluation of visitor use on natural resources, especially in high-use areas

Fire ecology

Wildlife - evaluation and inventory of populations, especially aquatic life, amphibians, reptiles, and invertebrates

Deer - habitat and population study

Black bear - habitat and population study

Water resources - inventory

In order to accomplish these programs, a natural resources research center will be established.

CULTURAL RESOURCES

When Shenandoah National Park was pieced together out of hundreds of parcels of land, the guiding philosophy for the new park management was to heal the scars of previous human habitation. Cabins, mills, and split-rail fences were demolished or left to melt into the landscape. Over the years, the forest grew prolifically, and the scars of overuse healed. In the process, however, much evidence of human habitation also disappeared. What remains today are the last vestiges of the mountain culture (see Cultural Resource Survey map on page 31). Protection of these cultural resources has been negligible for the most part, because of a continuation of the primitive forest philosophy. Part of the cultural heritage of the area has been lost because of the philosophy.

The National Park Service is mandated to preserve and protect its cultural resources, through the act of August 25, 1916, and through specific legislation such as the Antiquities Act of 1906, the National Historic Preservation Act of 1966 as amended, and the National

Environmental Policy Act of 1969. Cultural resources are managed in accordance with chapter V of the NPS "Management Policies," "Cultural Resources Management Guideline" (NPS-28), and other relevant policy directives.

In compliance with section 106 of the National Historic Preservation Act of 1966, as amended, a programmatic memorandum of agreement was executed by the National Park Service, the Advisory Council, and the National Conference of State Historic Preservation Officers (September 11, 1981). This eliminated the requirement for reviews of individual undertakings originating in planning documents such as this one, where there was consultation among the three parties when the plan was being developed. All undertakings included in this "Cultural Resources" section, in the development concept plans, and in appendix D have been developed in consultation with the Advisory Council, Virginia state historic preservation officer, and National Park Service.

As part of its cultural resource management responsibilities, the National Park Service surveys and evaluates all cultural resources on lands under its jurisdiction. Cultural resources are evaluated by applying the criteria for the National Register of Historic Places. (The National Register is the official listing of the nation's cultural resources that are of local, state, or national significance in terms of American history, architecture, archeology, or culture.) In addition to this evaluation, the National Park Service maintains an inventory of all above-grade historic and prehistoric structures within the National Park System, called the List of Classified Structures (LCS). All cultural resources eligible for the National Register will be recorded and/or measured according to the highest professional standards.

To preserve and protect the cultural resources in Shenandoah National Park, the possible levels for treatment of the resources will include the following:

Restoration - Recovering the general historic appearance of a structure and its setting by removing incompatible accretions and replacing missing elements. Restoration may be for exteriors and/or interiors and may be partial or complete

Preservation - Applying measures to sustain existing terrain or vegetation of a site and/or the existing form, integrity, and material of a structure (does not include reconstruction or restoration of lost features or removal of accretions)

Stabilization - Reestablishing and/or ongoing maintenance of structural stability by arresting material deterioration, protecting essential form, and providing weather resistant conditions

Modification - Adapting a structure to accommodate new uses other than those for which it was originally designed

Benign Neglect - Undertaking no treatment to preserve or stabilize a structure beyond that necessary to ensure public safety

Removal - Disassembling the existing structure and/or ruins, usually leaving foundations to mark the site

All implementing actions will be reviewed, using the assessment of effect form (xxx Form) and certified by regional office cultural resource specialists specified in NPS-28.

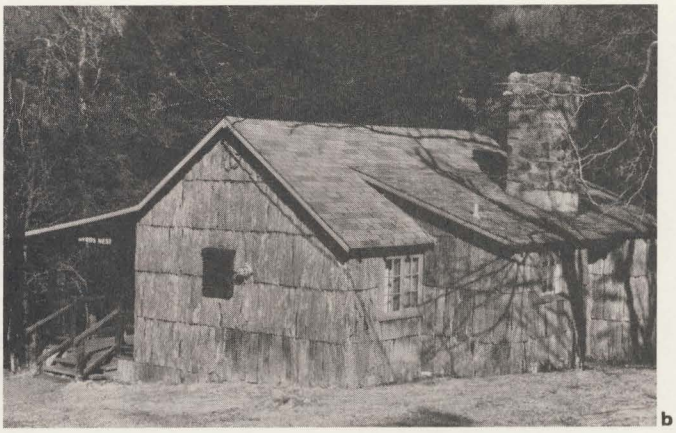
Archeological Resources

In recent years many studies of archeological resources have been undertaken. Results have revealed that the park contains a great number of prehistoric sites. The density of sites is unknown, but studies show a great potential for important data about prehistoric transportation and settlement/subsistence patterns between the Piedmont and Valley. In order to expand the knowledge of prehistoric occupation and use within the park, additional surveys and research will be undertaken. General surveys will be undertaken to complete compliance with the NHPA as amended. Intensive surveys and testing will proceed at sites appearing to be more significant, in order to define the boundaries and to better determine their cultural components.

A great quantity of subsurface remains and ruins of cabins and outbuildings exist from settlement during recent times. These sites can provide information on lifestyles and settlement of the area now occupied by the park. Archeological investigations of selected sites (e.g., Corbin Cabin and Simmons Gap Mission), combined with recordation of site locations and compilation of existing data as part of a historic resource study, will be undertaken to expand knowledge on settlement patterns and culture. Such study will assist in the development of background information that may reveal significant sites that should be nominated to the National Register of Historic Places.

All archeological sites (prehistoric and historic) will be protected, as will those yet to be discovered by future study and research. Potential problems, such as vandalism and visitor activities, will be prevented through frequent patrols and adjustments in use of affected areas. Inasmuch as archeological research, involving excavation and collection, is a destructive process representing an irreversible and irretrievable commitment of the resource, research will proceed from methods not involving excavation except when necessary as the sole source of information.


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CULTURAL RESOURCE MANAGEMENT

(a)(b)(c) Some cultural resources are eligible for nomination to the National Register of Historic Places, including Camp Hoover, some Skyland cabins, and Corbin Cabin.

(d) Other resources such as the Dickey Ridge Visitor Center will be studied for nomination to the National Register.

(e)(f) Remains that convey important cultural heritage but are not significant enough for nomination to the National Register will be left undisturbed for discovery.

Any proposed ground-disturbing activities, including vegetation clearance, will require surface surveying and testing by an archeologist. Due to shallow soil depth in many areas, even slight disturbance, such as grading, will need to be checked onsite. If known sites exist in an area to be disturbed or testing reveals the presence of previous occupation, excavation may be necessary. By a change or shift in activities or facilities, some sites may be able to be avoided. Any development at Mathews Arm and Loft Mountain campgrounds and Compton Gap will need special attention since known sites exist in these areas. Similarly, due to the high density of known sites at Big Meadows, any activities in or near the entire meadow and developed area will need to be checked carefully prior to completion of design documents.

Ten prehistoric sites have been nominated to the National Register of Historic Places (see appendix D). These sites will be monitored periodically to observe any changes that may occur due to erosion, vandalism, or visitor activities. If impacts are observed or anticipated, appropriate protection measures will be undertaken to avoid or halt such changes. Additional sites will be nominated to the National Register if future research and study reveals significance of known sites or results in the discovery of new, significant sites. Archeological sites of lesser significance will be afforded protection according to National Park Service regulations, policies, and guidelines, with optimum protection being avoidance of the site.

Historic Resources

Surveys of historic structures have been undertaken and early park records provide an account of the status of structures when the park was established. A detailed administrative history and books on various topics about the park have been written by Darwin Lambert as well as other authors. In recent years, studies on a variety of historic resources have been written to gain specific information about existing conditions of park resources.

An ongoing research program will include a historic resource study covering use and development of the land prior to establishment of the park. The study will compile and further expand knowledge of historic structures, sites, and objects as well as complete requirements for compliance with the NHPA, as amended. Specific evaluation, through this study or an additional special study, is needed to determine significance, location, and remnants of cross-mountain routes in the park. The ability to cross the Blue Ridge Mountains and resultant activities often had tremendous results in subsequent activities in the region during historic as well as prehistoric times.

Historic structure reports, historic site reports, and historic structure preservation guides will be completed as required (see table 4 on page 72). Historic settings around or adjacent to structures will be included in these reports in order to construct adequate data for ongoing maintenance of the historic scene. Specific structure evaluation and preservation actions will be applied to each building to protect and/or enhance existing cultural remains for future generations of park visitors.

Camp Hoover, Massanutten Lodge, Corbin Cabin, Old Skyland Cabins, Simmons Gap Mission, and Skyline Drive will be nominated to the National Register of Historic Places. The Headquarters complex, Big Meadows Lodge, Lewis Mountain Lodge, and Dickey Ridge Visitor Center are good examples of structures built as the result of park establishment. These latter structures may be eligible for the National Register, but additional research as to their significance is needed before they can be nominated. Until this determination is made, these structures will be managed as if they were on the National Register so they will retain their existing integrity.

Structures and sites that have been identified as important cultural resources in the park are listed in appendix D. Specific levels of treatment for the exterior and interior of structures and planned use(s) for the buildings are listed in table 4. Exterior and interior treatments will range from partial restoration to removal. Most structures will require more extensive work, while most sites and existing ruins will only be identified, recorded, and allowed to melt into the natural environment.

The exteriors of the three cabins at Camp Hoover will be preserved in their present state. Restoration of some minor features original to the structures will be made based on recommendations of the historic structure report. Future repair of the interior of the Prime Minister's Cabin will use materials similar to that used in original construction. The interior of the President's Cabin and The Creel will be preserved in their present state. The extant foundations and structures (including steps, utilities, paths, roads, and the artificial stream) will be stabilized, and a plan will be developed for interpreting the historic grounds. The camp will be evaluated for designation as a national historic landmark. It will continue to be used as summertime lodging for the president, White House staff, cabinet officers and members of their staffs, and congressional leaders.

Massanutten Lodge will be used as a visitor contact station and for park administrative offices. Until this occurs, it may be continued in use as quarters for park employees. The exterior will be preserved. The interior will require partial restoration and repair or replacement of existing fabric. Some modification of interior spaces may occur due to installation of free-standing partitions. The craftsman-style nook with fireplace will be restored.

Corbin Cabin will continue to be maintained by the Potomac Appalachian Trail Club and be used as a backcountry cabin on an intermittent rental basis. Maintenance will be in accordance with standards established in a historic structure preservation guide and will continue to be monitored by the National Park Service. Adaptive use with possible interior changes will continue, and the exterior will be preserved. Self-guided interpretation will be provided for the structure's exterior and for the 1-acre (0.4 ha) historic zone surrounding the structure. Ruins in the historic zone will be stabilized and maintained as described in the maintenance guide prepared for the cabin. Trees may be "deadened" by traditional girdling in a portion of the zone to improve the semblance of a period scene. Materials from other ruins in Nicholson Hollow will not be allowed to be used for maintenance of Corbin Cabin, as this constitutes a disturbance of other cultural resources that may contain viable historic or

prehistoric information. The area around the cabin is a rich prehistoric site and will be protected like any other archeological area. All other ruins in Nicholson Hollow will be allowed to deteriorate without disturbance or clearance of vegetation.

While the Simmons Gap Mission exterior will be preserved, the interior will continue to be adaptively used as National Park Service employee housing.

The five historic cabins at Skyland will be preserved and maintained in their existing condition on the exterior and continue to be used as concession-operated lodging with necessary modifications on the interior. Competing native plants will be removed from the historic Judd Garden. Based on information from a historic site report, some man-made features may be restored to aid in the interpretation of the garden as it existed at the early Skyland Resort.

Skyline Drive will continue in its present use and be rehabilitated as necessary. Deteriorated chestnut cribbing, crushed drainage structures, and crumbling guardwalls will be totally repaired and rehabilitated. Drainage structures and the road base will be replaced along existing vertical and horizontal alignments. The stone retaining walls and guardwalls will be reconstructed, relocated, and added as feasible; their design will be of similar stone character. At the most high-frequency accident curves, other materials and designs may be required for guardwalls for safety reasons. The architectural and engineering qualities of the drive, which make it eligible for the National Register, will be maintained. The existing character of the road--road width and alignment, cuts, fills, drainages, walls, parkings, and overlooks--will remain as they are now unless minor modifications are necessary for safety reasons.

The present vegetation management activities at Big Meadows will continue, keeping the existing historical landscape open. Prescribed burning will be done when weather conditions permit so as to reduce air pollution and susceptibility of fire spreading to the forested area.

To the degree possible, the setting and grounds near historic buildings will complement the character of the buildings based on information provided by a historic structure report or a historic structure preservation guide.

Sites not eligible for the National Register, which now exist as only ruins, will remain as undisturbed discovery sites. Current conditions will be inventoried and recorded, and sites will remain in their deteriorated states. If hazardous conditions for visitor safety result, those conditions will be changed with the least impacts on the resources.

Replacement or construction of new structures in the vicinity of historic structures (e.g., Simmons Gap Mission and Skyland, Big Meadows, and Lewis Mountain lodges) will be complementary in design and compatible in scale to existing buildings. Interior features, character, and integrity of structures will be retained to the greatest extent possible when proposed changes occur inside these structures (e.g., Headquarters building and Big Meadows Lodge). If remodeling occurs, the excess, usable fabric will be kept for future use.

Table 4. Cultural Resource Management For Shenandoah National Park

Site	Levels of Treatment										Uses										Studies Needed	
	Exterior						Interior															
	Restoration	Preservation	Stabilization	Modification (Adaptive Use)	Benign Neglect	Removal	Restoration	Preservation	Stabilization	Modification (Adaptive Use)	Interpretation	Discovery Site	Visitor Contact -NPS-	Food Services	Guest Lodging ARA, PATC, VIP	NPS Administration	NPS Housing	NPS Maintenance	Recreation	Historic Structure/ Site Report	Historic Structure Preservation Guide
Camp Hoover																						
President's Cabin*	X	X	X					X		X	X				X					X	X	
Prime Minister's Cabin*	X	X	X						X	X	X				X					X	X	
The Creel*	X	X	X						X	X	X				X	X	X			X	X	
Historic Grounds	X	X	X							N/A	X									X	X	
Skyline Drive*			X							N/A	X								X	X	X	
Massanutten Lodge*	X	X					X	X		X	X		X			X	T				X	
Corbin Cabin*		X	X						X	X	X				X					X	X	
Old Skyland Cabins.* Trout, Peak View, Byrd's Nest, Pine Grove, Fell		X								X	X				X					X	X	
Simmons Gap Mission*		X								X	X		X			X	X			X	X	
Big Meadows Lodge**		X		X				X		X	X			X	X						X	
Headquarters Complex																						
Headquarters Building**		X						X		X	X					X					X	
Headquarters Residences (3)**		X								X							X				X	
Headquarters Maintenance**		X								X								X				X	
Lewis Mountain Lodge**		X		X						X	X			X							X	
Dickey Ridge Visitor Center**		X		X					X	X	X		X			X					X	
Big Meadows Landscape		X								N/A	X								X			
Judd Garden			X							N/A	X									X	X	
Residence HQ (Farmhouse)			X	X					X	X						X	X					
Superintendent's House			X	X					X	X						X	X					
Big Meadows Cabins (5)		X		X						X		X			X							
Lewis Mountain Cabins (5)		X		X						X		X			X							
Miller's Iron Works					X							X	X									
Up-and-Down Sawmill					X							X	X									
The Bower (3 buildings)					X							X	X									
Mountain Inn					X							X	X									
Nicholson Hollow																						
Aaron Nicholson Farmsite					X							X	X									
John R. Nicholson Homesite					X							X	X									
Nicholson Cemetery					X							X	X									
Unidentified (unnamed) Cemetery					X							X	X									
John T. Nicholson Cabin					X							X	X									
Woody Corbin Farmsite					X							X	X									
Gore Farm Site					X								X									
Herbert Atkins House Site					X								X									
Kleiser House Site					X								X									
John P. Shenk House Site					X								X									
Robert Sours Cabin Site					X								X									
Simpson House Site					X								X									
Thomas Sanford House Site					X								X									
Tom Shenk (Annie Shenk) House						X							X									
Copper Mine					X							X	X									
Grist Mill					X							X	X									
Dark Hollow Church Site					X								X									
Pocosin Mission Ruins					X							X	X									
Black Rock Springs Hotel Site					X							X	X									
CCC Barracks (Piney River)						X							X					T				
CCC Barracks (Pinnacles)			T	T		X				T			X			T	T					
Belmont Site					X								X									

* Will be nominated to the National Register of Historic Places
** Will be studied for possible nomination to the National Register of Historic Places
T Temporary

Note: This list was compiled from information in numerous studies and reports, through field surveys, and through consultation with the Virginia Historic Landmarks Commission and the Advisory Council on Historic Preservation (see appendix D).
Specific details on protection of archeological sites can be found in text.

Before proposed removal of structures at the Beef Cattle Research Area, the stone building will be evaluated for its historical significance. Any ground disturbance anticipated may need to be checked by an archeologist.

The CCC buildings at Pinnacles and Piney River have been found to be sufficiently modified and deteriorated so as to be ineligible for the National Register. Buildings at Piney River will be replaced by new operations buildings, and the one at Pinnacles will be removed when its use as a natural resources research center and temporary employee residence is transferred elsewhere. The National Association of Civilian Conservation Corps Alumni will be offered the opportunity to move these buildings out of the park prior to any action taken by the National Park Service.

The active program of oral history interviews will be continued to obtain information about the history and early activities in the area that are now part of the park. Especially valuable information on little-known aspects of local history and lifestyles/customs will enhance existing knowledge of local people and provide data for interpretation of local cultures.

Collections and archives will continue to be managed under standards and guidelines for protecting the resources and information. They will be exhibited or stored in appropriately controlled environments with adequate protection against accidents, theft, and vandalism; they will be examined periodically to ensure protection.

VISITOR USE AND INTERPRETATION

Shenandoah National Park provides for safe public enjoyment, appreciation, and understanding of the scenic, natural, cultural, and recreational resources through a variety of activities (see appendix E). Obviously a popular park, the annual visitation has grown from 42,000 in 1943 to over 3 million in 1977. However, visitation in 1978 and 1979 suffered noticeable declines as a result of external factors such as gasoline shortages, higher fuel prices, and rising costs for all goods and services, combined with some unusually poor weather for outdoor activities. From 1980 through 1982, visitation recovered to approach 2 million.

It is hard to know what the effects or repercussions of energy shortages and national economic conditions will be over the next decade. It seems that variations in yearly visitation will occur in relation to cost and availability of gasoline and personal economic situations. Repercussions may include change in the types of visitors and how they use the park, at least temporarily. Fewer long-distance and more nearby residents may use the park. Visitors may stay longer, making Shenandoah more of a destination rather than a drive-through park. Other results may be less use of recreation vehicles for overnight camping, more bus tours, shortened visitor seasons, and differing needs for some facilities and activities. While this discussion highlights some possible uncertainties about the future, visitor use in Shenandoah will probably continue to be around 2 million per year in the next decade.

The plan will adjust and improve the experience for these 2 million visitors. One action is to give people more information about resources and opportunities to help them plan and enjoy their visit before they get to the park. Another action is to expand unique services that are often presently filled as long as such expansion does not impair the resources of Shenandoah. (Examples are dining, lodging, and camping on the cool mountain ridgetops of Shenandoah.) Another action is to direct use from presently crowded areas of Skyline Drive to other nonwilderness features of the park through improved information, increased perimeter access, improved trail access, and a transportation system. These actions will be carried out as discussed in information and orientation, visitor use, and interpretation.

INFORMATION AND ORIENTATION

To help visitors better enjoy Shenandoah--what the park offers, regulations, and understanding the resources--a program to inform visitors before they reach the park will be undertaken through several methods.

The first will be to furnish weekly (or semi-monthly) periodic bulletins, spot announcements, and other items to the radio, television, and newspaper media. Topics will include dates of spring flowers, fall color season, and synopsis of day and evening interpretive programs regularly provided during the summer season. This material will be distributed to the media in the metropolitan Washington, Richmond, and Baltimore areas,

as well as in the smaller surrounding communities and along the major highways leading to the park.

The second method will be to initiate radio traveler information stations (TIS) on the interstate and major highways around the park. The TIS will provide, within a 2-mile (3.2 km) radius of a transmitter, information on car radios about traffic and weather conditions in the park, backcountry permits, the dangers of feeding and harming park wildlife, areas of high visitor use and possible alternate places within the park, and other matters relating to safety, use, and enjoyment.

Direct telephone connections to the park installed at several locations along interstate highways around the park will be the third method. Possible locations will be the Virginia Travel Service rest area information stations on I-66 at Manassas, I-64 at Charlottesville, and I-81 at Staunton, New Market, and Clearbrook (north of Winchester). The information furnished on direct telephone connections will be longer and more detailed than that provided on the TIS.

The fourth method will be to initiate another TIS system at the four park entrances--Front Royal, Thornton Gap, Swift Run Gap, and Rockfish Gap. These will provide up-to-the-minute information about traffic, weather, visitor densities, and also other news to help visitors get to their destinations and to adjust their plans as appropriate.

The final method to aid visitors prior to their arrival in the park will be to provide previsit literature to requesting individuals, bus tours, and school groups going to national environmental study areas.

Before this plan is implemented, a study will be undertaken to determine the final locations for the TIS and direct telephone connections. It will also include the necessary cooperation and agreements with the Virginia Department of Transportation, Virginia Travel Service, and other appropriate agencies concerning the sharing of facilities, coordinating services, and necessary signs. In addition, the study will determine message content at each location and will develop an implementation schedule.

Information and orientation will continue to be available at the Dickey Ridge and Byrd visitor centers and at park entrance stations. In addition, new staffed visitor services will be provided at Skyland, Thornton Gap, and Rockfish Gap. The services at Skyland will be a modest operation primarily for overnight stays, while the services at Thornton Gap will be sufficient to handle visitors at this heavily used park entry and supercede the services provided currently at Headquarters.

At Rockfish Gap, information and orientation will be a joint effort between the Blue Ridge Parkway, the George Washington National Forest, and other tourism-oriented groups such as neighboring chambers of commerce, the Shenandoah Valley Travel Association, and the Virginia Travel Service. With a combined effort, visitors should receive the total picture of recreational opportunities in the entire region. Obtaining facilities through donation or leasing, or possibly constructing new buildings on donated/leased land, and then arranging for coordination of staffs will

require considerable effort. Therefore, consultations and discussions to establish the Rockfish Gap services will be started shortly after the approval of this plan but will probably require more than a few years before full effectuation.

With the services described, the three most heavily used entry points will be covered by personal information and orientation. Such services will not be provided at Swift Run Gap within the next ten years unless a dramatic change occurs in the number of visitors entering at this point. Similarily, in order to improve visitor entry and receipt of initial information and backcountry permits, the southern park entrance operation will be improved.

A major thrust of the expanded information/orientation programs and services will be to advise visitors that access to opportunities in the park need not depend solely on using the Skyline Drive. For hikers, horseback riders, backcountry campers, cross-country skiers, and local residents, park access from the perimeter will often be preferable because less time will be spent getting to the desired location. Other advantages include less contact with other visitors, and during the winter when storms temporarily close the Skyline Drive, perimeter access for various activities will be more feasible.

Cooperative information/orientation services with the ARA Virginia Sky-Line Company and the Potomac Appalachian Trail Club will continue. Training programs will be offered by the park to these cooperating groups to assist the public in enjoying the park.

VISITOR USE

Visitor activities described in appendix E will continue, except for illegal and destructive ones. Specifically, efforts will continue to greatly limit or eliminate illegal activities of commercial ginseng collecting, hunting, poaching, and vandalism within Shenandoah. Similarly, efforts will restrict and redirect the seemingly thoughtless activities of visitors who damage and destroy park resources and facilities and create unsafe conditions for other visitors.

To encourage more winter use, provisions for cross-country skiing will be improved through the availability of better information on marked trails and other areas that provide good experiences.

Existing bicycling on the Skyline Drive is a hazardous activity because of the narrowness of the road and shoulder and the amount of traffic. A program of bike days will be initiated by restricting Skyline Drive automobile traffic in the north or south section of the park for a full day each spring or fall and allowing only cycling pedestrian use of the drive on that day. These events will be broadly publicized and coordinated with cycling organizations. This system will be tried on an experimental basis for two years.

Pleasure driving on the Skyline Drive is a very popular activity but when traffic becomes heavy, some of the joy is lost. Sightseeing transportation

services will be initiated to provide visitors a choice in viewing scenery along the drive. In addition, providing transportation will allow hikers longer one-way distances and a flag-stopped vehicle to return to cars, campgrounds, or lodges. On-board interpretation will offer visitors an appreciation and understanding of what they are viewing. Another means to reduce traffic on the Skyline Drive will be the encouragement of park perimeter access for hikers, horseback riders, and others, as discussed earlier under "Information and Orientation".

Hiking is currently a popular activity and one that deserves more encouragement as a way to see and learn about Shenandoah and the natural environment. Hiking will receive increased emphasis to encourage sedentary spectators to stretch their legs and become active participants, especially through strolling and short-loop hiking.

Hiking on the Appalachian Trail is a personal challenge for long-distance hikers and an opportunity to get away from the busier aspects of everyday life. Efforts will be continued to protect this experience and to minimize possible intrusions.

Wilderness was set aside in Shenandoah to provide opportunities for solitude and primitive type recreation. Inasmuch as wilderness areas are within a very short distance of the Skyline Drive and other access points, visitors often unknowingly use the areas for nonwilderness purposes. While not necessarily detrimental to the resource, it does impinge upon those visitors looking for a wilderness experience. Those visitors who enjoy nature, hiking, and backcountry camping without the adventure, self-reliance, and solitude that is inherent in a wilderness experience will be directed to other backcountry areas so as to improve the "wildness" experience for those so inclined.

Similarly, horseback riding opportunities will be increased throughout the park by improved access (along the Skyline Drive and park perimeter), circuit rides, cross-mountain rides, and the opportunity to reach more park features. In order to protect the wilderness experience, greater emphasis will be put on group horse camping at Big Meadows and along nonwilderness trails. Horse rentals at Skyland will continue; however, rentals at Big Meadows will be discontinued because of minimal use and stable drainage into a natural wet meadow.

During the summer months, existing facilities for overnight lodging and tent/ trailer camping are often filled to capacity. To stay in Shenandoah is one of the most pleasant experiences, unlike any overnight opportunities down in the valley or in the region. This use will be expanded modestly at Big Meadows, Skyland, and Lewis Mountain for overnight lodgers and at Mathews Arm for tent campers. The existing family camping reservation system used for Big Meadows will be expanded to cover camping at Mathews Arm and Loft Mountain.

Because tent campers and trailer/RV campers do not always share the same enthusiasms and because the noise of vehicles and electric generators may be offensive, arrangements will be offered to allow campers to choose sites best for the experience sought.



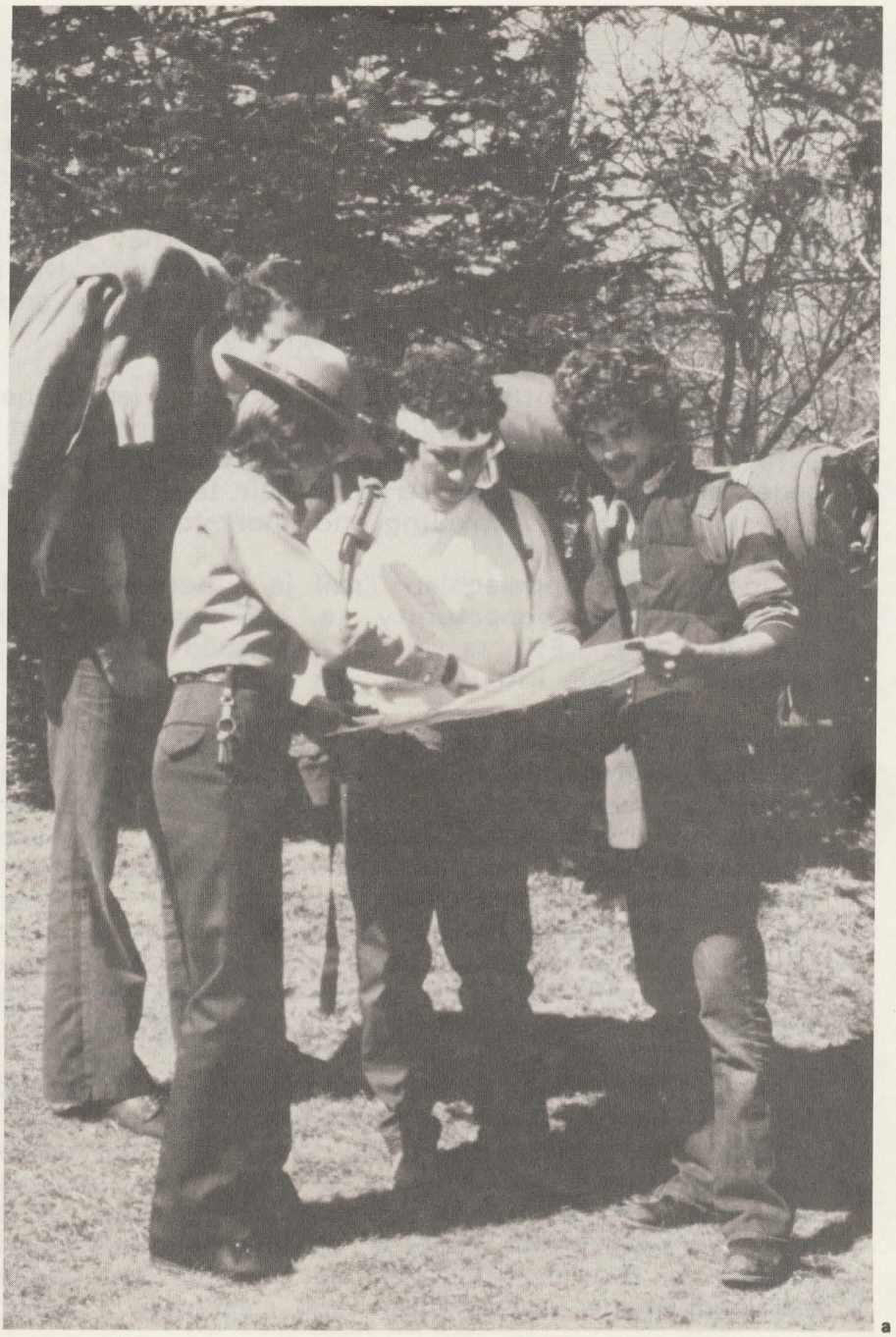
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HIKING AND HORSEBACK RIDING

(a)(b) Hiking and horseback riding in Shenandoah will be improved through better trailheads, more trail connections, and providing some new trails.

(c) 95 miles of the Appalachian Trail pass through Shenandoah National Park. Several short reroutes will enhance the natural atmosphere of the trail.

(d) Nine new short trails (less than 2 miles) will be created near Skyline Drive along with nine existing such trails. These "stroller trails" will be available about every 6 miles along the drive.

Group camping provides the opportunities for organized youth groups to share a common outdoor experience. This opportunity will be continued at Dundo and initiated at Mathews Arm.

Eating and dining services, souvenirs shops, and camping supply and service facilities are necessary components of other activities. When these components cannot be accomplished pleasantly and efficiently, they can lead to a poor experience in the park. Therefore, dining and eating services will be expanded at Big Meadows and Elkwallow. Camping supplies and services will be moved from Elkwallow to Mathews Arm. This move will reduce congestion at Elkwallow and improve the camping experience at Mathews Arms.

Access for handicapped visitors to all park programs, services, resources, and experiences will be available in conformance with the Rehabilitation Act of 1973 (PL 93-112). These efforts will include reserving rooms and sites for handicapped visitors until all others are full, making some remote experiences available and removing barriers to unassisted access to facilities.

From time-to-time, the question of how visitors are or should be using the park arise. These occasions include requests by individuals or groups to permit a new activity or eliminate an existing one. In accordance with National Park Service policies, visitor use in Shenandoah is directed to those activities that draw their meaning from resources and values extant; the more direct the relationship with a resource, the more appropriate the use. With this in mind, the following priorities will be used in determining the acceptability of any change.

1. Maintain existing, established uses that derive their meaning from association with, and do not impair, park resources and values (type A, see appendix E)

2. Allow and encourage new and/or nontraditional uses that are similar to 1 (type A)

3. Maintain existing, established uses that do not impair park resources and values (type B)

4. Allow new and/or nontraditional uses similar to 3 (type B)

5. Deny uses that impair park resources and values

Shenandoah will continue to be open year-round when safe use can be ensured. The level of visitor use and information, orientation, and interpretive programs and facilities will be responsive to the normal yearly distribution of visitors. In the summer, available staff and facilities for services and conducted activities will be high, while in the winter the level will be minimal. The spring and fall months will have transitional quantities of staff and facilities.

While the overall level of park visitation will depend on park-external factors, expanded information and orientation programs (especially previsit information) should encourage more visitation. Some adjustment

of existing visitor distribution will occur as use is guided to the park perimeter and other less crowded areas, and as nonwilderness use of wilderness use areas is directed elsewhere. All activity will be kept within the capacity of resources and facilities to withstand use without impairment.

INTERPRETATION

Shenandoah offers more than a pleasant playground for enjoyable outdoor activities. It also offers natural and human stories about people and their environment--yesterday, today, and tomorrow. The interpretive program will continue to be directed to helping visitors understand and appreciate not only what is very visible, but also how it came to be, and what the future may hold. The program will be directed to the following broad themes:

The Changing Natural Scene--seasons, cycles, energy, natural history

The Park Story--creation, continuing evolvement, contemporary relevance, and stature

A Recycled Wilderness--effect of the park on area ecology

The Cultural History--Indians, European explorers, settlers, mountain people, early recreationists

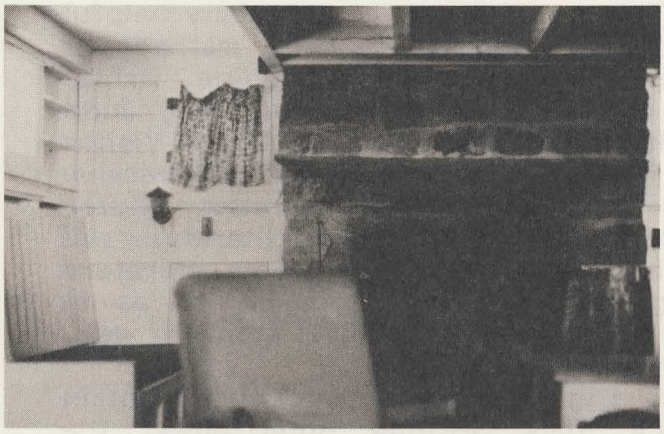
Park Management Concerns--wildlife, fire ecology, air quality, wilderness, appropriate use, etc.

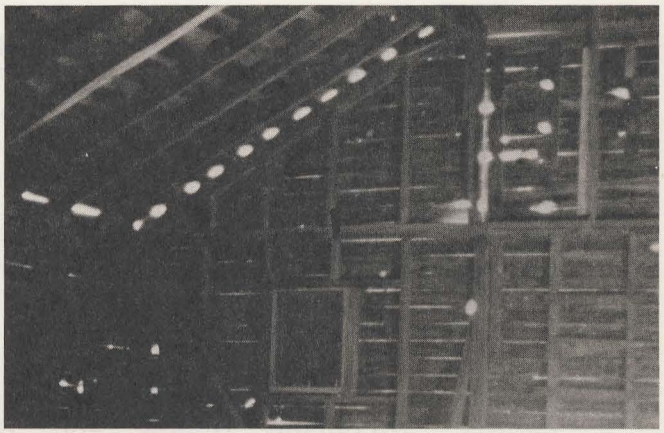
The services and materials of the interpretive program will be appropriate to a broad variety of visitors--overnight visitors (campers and lodgers), day users (home-based and drive-through visitors), backcountry users (hikers and campers), children (including school groups), and special populations (handicapped, non-English speaking, and minorities).

Existing interpretive materials and programs will continue, except that they will be updated as necessary to keep them current, interesting, and helpful to visitors. These updatings will cover interpretive topics related to geology, flora, fauna, natural history, resource management, ecology, historical areas, and the Appalachian Trail; all will address the above themes and will be presented at the visitor centers, in day and evening programs, and along overlooks on the Skyline Drive. Additionally, interpretation at the Big Meadows wastewater treatment facility will be improved.


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NEW VISITOR OPPORTUNITIES

(a)(b)(c) Historic Massanutten Lodge will be opened to provide visitors at Skyland with information.

(d)(e)(f) The Snead Farm Barn near Dickey Ridge will be slightly improved for an environmental education classroom.

At Skyland, Rockfish Gap, and Thornton Gap, new staff, media, and programs will focus on the ecology and history of the park. Also, efforts will be directed to provide interpretive services to organized groups camping within the park, as well as individuals using the backcountry (not in wilderness areas).

A major emphasis will be placed on the environmental education program. Programs inside and outside the park that are directed to school groups will improve awareness of all aspects of ecology and specific environments within the park.

Interpretation of cultural resources in the park will be expanded to cover more sites, structures, and ruins. These resources are especially helpful for the park story and cultural history themes. Three methods of interpretation will be used. First, Camp Hoover, Skyline Drive, Massanutten Lodge, Corbin Cabin, Old Skyland cabins (including Judd Garden), Big Meadows and Lewis Mountain lodges, Dickey Ridge Visitor Center, the Headquarters building, and the Big Meadows will receive signs, waysides, or other markers to identify these sites and/or structures as to their historical significance. Additionally, literature will be available for further understanding and perspective. This literature will allow visitors to make walking tours at each location so as to appreciate not only the history of a structure but the site story as well.

Simmons Gap and Pocosin missions, Big Meadows and Lewis Mountain cabins, Nicholson Hollow and Black Rock Springs Hotel sites, the Headquarters complex, Copper Mine, Grist Mill, Miller's Iron Works, Up-and-Down Sawmill, the Bower, and the Mountain Inn will be interpreted by literature only. Self-guided walking tours will be possible based on the materials that will be available to visitors.

The remaining resources, as described under the "Cultural Resources" section, will be interpreted as "discovery sites", whereby adventuresome visitors will make their own discovery and interpretation of what is found. Visitors may be given general directions to a place, and/or after their discovery of a site, receive the story from a knowledgeable interpreter.

Another emphasis of interpretation will be to increase visitors' appreciation of their senses in enjoying the world around them. A variety of means will be used to make all visitors more aware.

Existing conducted activities will be broadened by adding hikes and walks to reduce visitor group sizes, wilderness interpretive living demonstrations, and capacities for evening programs at Mathews Arm, Big Meadows, and Skyland.

Cooperative efforts in interpretation, including publishing materials and pictures, will continue in cooperation with the Shenandoah Natural History Association. Additional literature will be oriented to the national environmental study areas and bus tours. The association will be encouraged to join the National Park Service in providing additional foreign language editions of some of the more popular literature. This

will not only benefit foreign language speaking Americans, but it also will enhance the experience for foreign dignitaries and representatives who are directed to the park as a change from the formal proceedings that occur in the nation's capitol. Audio cassettes of more popular publications will also be made available for visitors.

GENERAL DEVELOPMENT

Development within Shenandoah National Park is limited to those facilities necessary for resource protection, visitor enjoyment, and management of the park. Facilities provide access to sections of the park, different types of accommodations for visitors, and the base for park operations and administration. As mentioned earlier, changing uses, general deterioration, old temporary structures, and increasing health, safety, accessibility, and energy standards have made many existing facilities inadequate. This plan offers enhancement and slight expansion of visitor use and management operations through the improvement, replacement, or construction of existing or new facilities.

All proposed facilities will be constructed with universal, barrier-free designs, making facilities accessible to all people in accordance with the existing General Services Administration Accessibility Standard, which requires making buildings and facilities accessible and usable by the physically handicapped. Up-to-date guides and codes will be incorporated as they are established.

All actions comply with the regulations of the Advisory Council on Historic Preservation and the National Historic Preservation Act of 1966, as amended. Preliminary archeological overviews have been conducted for proposed development sites.

Sites have also been surveyed for possible endangered plant and animal habitats and wetlands so that damage to habitats will be minimized or avoided, in accordance with the Endangered Species Act and Protection of Wetlands. Normal construction disturbance will be minimized and disturbed areas will be restored by revegetation with native species. Similarly all actions proposed will comply with the National Trail Systems Act of 1968 and Executive Order 12088, "Federal Compliance with Pollution Control Standards."

The design of new facilities will be of high aesthetic and functional quality. New facilities of contemporary design will be in harmony with the landscape and other existing structures through the studied use of proportion, color, and texture. New and replacement electric and telephone utility lines will be installed underground. Energy conservation will be applied through use of state-of-the-art technology and maximum site orientation possibilities.

The remainder of this section is an overview of proposed development. (Greater details can be found in the development concept plan portion of this document.) In addition to normal routine maintenance, existing facilities will be improved and replaced, and certain new facilities will be constructed. The overall amount of development will increase, resulting in improved visitor services and park operations. The parkwide trail system will be expanded by about 5 percent, and the total number of overnight lodging units at Skyland, Big Meadows, and Lewis Mountain will be increased by over 20 percent. New facilities outside existing developed

areas include trailhead parking areas or comfort stations and visitor information and operational facilities at McCormick and Rockfish gaps. Some of the developments will depend on the donation of nonpark land in fee or easement before effectuation (see "Land Protection" section).

ROADS AND TRAILS

Skyline Drive's deteriorated chestnut cribbing, crushed drainage structures, and crumbling guardwalls will be totally rehabilitated. The base and drainage structures will be replaced along the same vertical and horizontal road alignment. Stone guardwalls will be reconstructed or relocated and added as required; in selected high-accident locations other materials and designs may be required. Directional and safety signs will be improved. To reduce disruptions to visitors, actual work will be scheduled for nonpeak visitation periods to the greatest extent possible.

If congestion at the north entrance to the drive or within Front Royal were to become a problem, a new entrance road will be constructed from Dickey Ridge to Virginia 55 on the reserved right-of-way; however, this problem will probably not occur within the next ten years.

Most of the Appalachian Trail will be maintained in its present alignment except that the points where the trail crosses the Skyline Drive will be reduced from 29 to 23 as short segments of the trail are rerouted. In addition, the trail will be rerouted at Compton Gap to avoid an administrative road and horse trail. The trail will be rerouted at Skyland to avoid visitor development, and the trail at Simmons Gap will be rerouted to avoid the maintenance area. New trail construction and rerouting will be about 7 miles (11 km), and the total length of the Appalachian Trail will remain the same.

Circulation and access of other trails in the park will be improved with a total increase in trail length of approximately 28 miles (45 km). Some perimeter accesses will depend on the donations or exchanges of easements and land.

In addition to designating nine existing short trails that are under 2 miles each (3 km) as strollers, nine new stroller trails will be created from overlooks and other points along the Skyline Drive. This will provide a short, easy hiking facility approximately every 5 miles (8 km). A few trails will be paved and be relatively level for handicapped access as at Crescent Rocks. One stroller, perhaps Kemp Hollow, will be designated as a five senses trail.

New short loops, consisting of 13 trails ranging from 2 to 5 miles (3 to 5 km) each, will be created near Skyline Drive outside designated wilderness areas, such as at Compton Gap. A few new hiking systems with perimeter and Skyline Drive accesses will be developed in areas like Dean Mountain and Naked Creek.

Better connections and new trails will provide better horseback riding opportunities and more features in areas such as Old Rag, Kemp Hollow,







SKYLINE DRIVE

Skyline Drive and its overlooks are a prominent feature of Shenandoah. As such a notable parkway, it will be nominated to the National Register of Historic Places. The drive, built in the late 1930s, has become deteriorated with age and will be totally rehabilitated.

and Compton Gap. Fourteen miles (24 km) of hiking and horse trails will be rehabilitated or relocated to correct deterioration or take visitors closer to features of the park. Horse and hiking trails will be slightly adjusted in wilderness areas, such as the Hazel Mountain area, resulting in a reduction of 8 miles (13 km) of trails in wilderness areas.

Perimeter trail access at existing guaranteed points will continue. Public access at 23 perimeter points that are not guaranteed will be actively sought through donation or land exchange as described in land protection strategies; those that cannot be obtained will result in discontinuation of existing trail maintenance or no new trail construction when access is permanently terminated.

Trailhead parking is proposed at 14 perimeter access points, ranging from 4-20 cars in most areas to 100 cars at Weakly Hollow. Parking proposed at any access point that is not guaranteed also depends on land protection strategies. Exact locations will vary with each donation or exchange. Trailhead parking is also proposed at 15 new locations on Skyline Drive, and 14 existing areas are proposed for slight expansion. Vault toilets will be provided at trailheads in Weakly Hollow and Upper Berry Hollow; trailhead toilets at Lower Berry Hollow and Big Devil Stairs will be provided if lands become available.

About 70 miles (110 km) of cross-country skiing trails will be designated on certain existing and proposed trails and along administrative and fire roads that have appropriate width and grade. These will be cleared of treefalls and other impediments before each snow season, signed for easy identification, and indicated in park literature.

Summarily, the total length of park trails will increase to about 544 miles (870 km), or by approximately 5 percent. From Skyline Drive there will be many facilities for short hikes and strolling. New circuits will be opened outside wilderness areas for hikers and horseback riders, and many perimeter accesses will include parking areas.

Maps of the trail system are in the "Development Concept" section.

INFORMATION, ORIENTATION, AND INTERPRETATION FACILITIES

A new visitor contact facility will be constructed at Thornton Gap, accessible before and after visitors arrive at the entrance station. Located at this heavily used park entrance, the facility will provide information, literature sales, backcountry permits, and campground reservations--expanding and replacing all visitor functions at Headquarters.

About ten additional parking spaces will be provided at the Front Royal and Swift Run entrance stations for employees and visitors obtaining permits.

The Rockfish entrance station will be replaced with a new facility at McCormick Gap, which will function similarly to the three other entrance stations. It will have a building for fee collection, remitting space, and a

visitor counter for backcountry permits, campground reservations, and long-distance hiker information. There will be three inbound lanes and ten visitor and employee parking spaces.

A complete visitor information/contact facility at Rockfish Gap will depend on donated or exchanged lands (and possibly a structure) and cooperation with other agencies and organizations for information and staff. This will require consultations, and so it is not possible at this time to describe the full contents of such a facility, except to say that appropriate parking and administrative space will be needed in addition to an information counter, literature sales, and the like.

The Snead Farm Barn will be converted into an environmental education classroom (with a vault toilet) for use by school groups and others during warm seasons.

The lobby of the Byrd Visitor Center will be remodeled. Also, a new permanent year-round comfort station will be constructed at Dickey Ridge to replace the existing portable facilities. The Headquarters lobby and adjacent restrooms will be made accessible to the handicapped.

Massanutten Lodge at Skyland will be improved and remodeled for a visitor contact lobby and interpreter's office. A total of 12 orientation shelters will be located near entry points, 30 new overlook exhibits will replace existing signs on the Skyline Drive, and 30 new trailhead exhibits will be installed. New onsite exhibits will also interpret cultural resources of Camp Hoover, Skyline Drive, Massanutten Lodge, Corbin Cabin, Big Meadows and Lewis Mountain lodges, Skyland cabins (including Judd Garden), Dickey Ridge Visitor Center, the Headquarters building, and Big Meadows. Interpretive exhibits at the Big Meadows wastewater treatment plant will be improved.

Relocation of the amphitheater at Mathews Arm will include expansion to accommodate additional campers and regrading and surfacing to accommodate handicapped visitors. At Skyland, a new amphitheater with audiovisual capabilities for 200 people will be constructed. The existing Big Meadows amphitheater will be reconstructed, providing for a capacity of 400 people with improved stage, lighting, circulation, and access.

Travel information stations (TIS) will be established along interstates or major highways leading to the park to provide short, taped AM radio messages to people approaching the park. Each installation will consist of an antenna or buried cable, message player, a power source, and at least one roadside sign to advise motorists of the facility and its frequency.

Several direct telephones will be installed at existing tourist facilities along interstates or major highways leading to the park, such as on I-66 near Manassas to provide longer and more detailed taped messages directly from the park. Further study and coordination with the Virginia Travel Service, Virginia Department of Transportation, and other appropriate agencies will finalize locations of TIS and telephones.

Similar TIS facilities will also be provided at each park entrance.

CAMPGROUNDS AND PICNIC SITES

Campground and picnic sites will continue to be routinely maintained, additional tent pads built, deteriorated stone fireplaces replaced, several accessible sites for the handicapped designated at each area, and isolated picnic tables located at some overlooks.

One covered picnic shelter, with four to six somewhat separated picnic tables, will be constructed at each picnic area, except for Pinnacles, which already has a shelter.

Two comfort stations in each family campground, one in each picnic area, and the Dundo vault toilet will be made accessible to wheelchairs. Dundo campsites will be made fully accessible (for wheelchairs), a trailer sewage dump station will be installed at Lewis Mountain campground, and the Mathews Arm campground entrance road grade will be lessened at the bottom of the hill.

At Mathews Arm campground, 50 additional individual campsites will be developed on a new loop, a separate area will be designated for seven group campsites, and two new comfort stations will be added--one for the individual sites and one for groups.

At Big Meadows, the existing undeveloped group campground for horseback riders will be replaced with a new facility with hitchracks, running water, and a comfort station. The trailer sewage dump station will be moved closer to the campground.

New campground registration buildings and other facilities will be constructed at Mathews Arm, Big Meadows, and Loft Mountain campgrounds.

CONCESSIONER OPERATIONS

The backcountry cabins and Appalachian Trail huts operated by the Potomac Appalachian Trail Club will continue to be maintained in place.

The campstore and wood and major ice sales will be moved from Elkwallow into a new building incorporating showers and a laundry at Mathews Arm campground. The extra space in the Elkwallow wayside building will then be converted to a more efficient and fully accessible food service facility with counterspace and limited seating that may possibly be extended to a patio.

A comfort station at Panorama wayside will be made fully accessible, gasoline service will be removed, and additional parking for the new visitor contact facility will be provided.

At Skyland, one new 18-unit motel-type building (standard units with room and bath) and one 6-unit building will be built with parking for an additional 24 vehicles. Aging cottages in Skyland, such as Maple and Wildwood (but not the historic cabins listed in appendix D), will be replaced with new units of the same number and approximate location if



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LODGING

(a)(b)(c) Skyland, Big Meadows, and Lewis Mountain are often filled and visitors are turned away. Within these areas, lodging will be increased by about 20 percent.

necessary. The dining room may be slightly expanded under the existing roofline if demand increases. A fully accessible washroom will be provided.

The horse stable at Big Meadows will be removed so runoff will not drain into a natural wet meadow. This facility may be replaced with a new stable at a more desirable location. At Big Meadows, two motel-type buildings (10 units and 20 units each) will be constructed, and existing parking and utilities will be modified to accommodate the extra lodging. Also, the terrace at the Big Meadows Lodge may be enclosed to provide an additional dining area for the extra guests. The five older single cabins will be relocated to more appropriate site(s) within the existing loop road.

At Lewis Mountain, five new housekeeping cabins (10 units) will be constructed. These will be lower priced accommodations with outside sheltered cooking grills.

Handicapped people will have access to the Elkwallow, Panorama, and Loft Mountain waysides, Big Meadows and Skyland lodges, and some lodging units at Skyland, Big Meadows, and Lewis Mountain.

NPS OPERATIONS AND EMPLOYEE HOUSING

Many temporary and deteriorated facilities will be replaced and new facilities added to improve operations. A garage (with provision to install chains) will be constructed in the Front Royal residential area to protect a snowplow and patrol car.

At Piney River, a new operations building will replace existing structures and house a district ranger office, an information counter for the public, a naturalist's office and workspace, a rescue and fire cache with a workshop, an ambulance garage, a district maintenance office, a shared rally room, and provide storage for maintenance tools, supplies, materials, oil, and paint. Eight stalls will be equipped for minor auto repair; plumbing, electric, and welding repair; and vehicle washing. Locker rooms and restrooms will also be included.

In conjunction with the new visitor contact facility at Thornton Gap, a garage for a patrol car (with provision to install chains) will be provided.

Temporary, substandard shops in the Headquarters maintenance area will be replaced with a permanent building without increasing the overall size of the maintenance yard. The new building will house paint, plumbing, sign, machine, and equipment repair shops; a rally room; foremen offices; locker rooms; and restrooms. The fuel house at Headquarters will receive a stone veneer that was not completed at the time of original construction. Surplus houses in the Headquarters residential area will be converted to other uses such as bulk paper storage and curatorial storage.

In the Pinnacles operations area, the CCC barracks will be slightly modified for use as a temporary natural resources research center,

pending establishment of a permanent facility at Headquarters (which will probably not occur within the timeframe of the plan). All other existing structures will be removed, and the site will be rehabilitated and allowed to return to natural conditions.

At Skyland, a ranger office will be combined with proposed residences.

At Big Meadows, a small new building will include a district ranger office, ambulance storage, and a shared rally room. A controlled environment storage room for collections will be installed in the Byrd Visitor Center.

Temporary structures at Simmons Gap will be replaced with a new building containing all the functions described for Piney River, except there will be no district naturalist's office and workspace.

At Loft Mountain a naturalist's office will be included in a new campground registration/reservation building. An air quality monitoring station will be established in the former campground registration building.

When donated or exchanged land and facilities become available at Rockfish Gap, the proposed visitor information facility may also serve many operational functions for Shenandoah, as well as for the Blue Ridge Parkway, George Washington National Forest, and the Virginia Department of Highways. For the park, this will include a ranger office, fire and rescue cache with workshop, a first-aid room, covered vehicle parking for snowplows and patrol car, a naturalist's office, bulk paper storage, and a sand and chemical storage bin. These will be either new facilities or rehabilitated existing structures; however, the exact arrangement to meet these needs will depend on the donation(s) actually received.

The need for adequate employee quarters is described in appendix F. As shown in table 5, structurally sound and energy-efficient quarters will be maintained and/or constructed for required and permitted full-time, subject-to-furlough, and temporary employees. Unneeded quarters will be converted to other uses or removed. Quarters for full-time employees will consist of two- or three-bedroom units suitable for families such as single family houses, duplexes, or four-unit family complexes (quadraplex). Quarters for temporary employees will consist of efficiency/one-bedroom apartments or combined apartments. For half the subject-to-furlough employees, quarters will be the same as for full-time employees, with the other half in apartment-type facilities. Because of these substantial costs, the Park Service is investigating, nationwide, other possibilities for providing necessary onsite and offsite housing for employees.

MISCELLANEOUS BUILDINGS

The USDA Beef Cattle Research Station structures will be removed and the site restored.

Table 5. Employee Quarters

Area	Needed Units		Existing Units (no. of bedrooms)			Proposed Units		Remarks
	Family	Apt.	Family	Apt.	Trailer	Family	Apt.	
Front Royal	1	7	2 (6)	-	-	1	3	
Dickey Ridge			-	-	4 (11)	-	4	Remove trailers
Piney River	3	7	-	-	6 (15)	3	7	Remove trailers
Headquarters	5	10	11 (34)	-	-	5	10	Convert 3 houses to other uses
Pinnacles	1	7	1 (2)	-	3 (6)	-	-	Remove house; remove 3 trailers
Skyland			-	2 (2)	-	1	5	Massanutten quarters used for visitor contact facility; remove Boulder Cabin
White Oak			1 (2)	1 (1)	-	-	-	Remove all structures
Old Rag			-	-	-	-	2[a]	
Big Meadows	5	17	1 (2)	8 (8)	3 (6)	5	17	Remove trailers
Lewis Mountain	-	1	-	-	-	-	1	
Simmons Gap	3	1	1 (3)	-	2 (6)	3	1	Remove trailers
Loft Mountain	1	15	-	-	5 (12)	1	15	Remove trailers
Sawmill Run	1	8	-	-	1 (3)	-	-	Remove trailer if facilities become available at Rockfish Gap
Rockfish Gap			-	-	-	1a	8[a]	
TOTALS	20	73	17 (49)	11 (11)	24 (59)	20	73	

[a]Dependent on availability of donated/exchanged lands.

SITE IMPROVEMENTS

With almost every area and facility mentioned, certain site improvements will be required. First, existing paths and walks will be improved for safe, straightforward access through widening, resurfacing, rebuilding, and in some cases, removing existing paths and constructing new, more efficient practical layouts.

Second, plantings of native species will improve the harmonious relationship of existing and new facilities with the landscape. These new plantings will not only enhance the setting of new facilities but will also enhance existing structures where planting was omitted during original construction. In many cases, plantings will also help define accesses to facilities, thus reducing the damage to adjacent ground surfaces caused by random access. Screen and buffer plantings (sometimes with fences) will reduce the visual intrusion of service and housing areas that are needed to serve the park and its visitors but are preferably not an obvious component of the overall setting.

UTILITIES

The septic systems at Dickey Ridge and Simmons Gap will be upgraded. A new septic system will serve the proposed Piney River maintenance area and residences. New campground and concession facilities at Mathews Arm will be connected to the existing wastewater treatment facility. Provisions will be made for treating wastewater from year-round residents in the winter at Skyland. The Lewis Mountain septic system will be improved to accommodate the trailer dump station and expanded lodging facilities. All other new proposed facilities will be connected to existing systems.

Water systems will be continually improved to meet health and fire protection standards by modifying intakes, repairing pipes, using disinfectants, and relocating hydrants. Existing water sources will be extended to new facilities.

A continuing effort will be made to improve telephone service to the developed areas. Swift Run Gap is currently without service but it is needed. Standby emergency power is also needed for each of Chesapeake and Potomac's microwave stations so that telephone service can continue during commercial outages.

Additional radio frequencies will be added to the FM radio system. Portable repeaters will be provided for coverage of dead areas during emergency operations such as fire or search. The park will comply with the restrictions of the U.S. Navy Radio Quiet Zone.

Borrow pits, or sites used to obtain fill-dirt, will be phased out over the next five years, and no new sites or pits will be initiated. Future needs for fill will be met from sources outside the park.

ADMINISTRATION

General management of Shenandoah is provided by the director of the National Park Service and the regional director of the Mid-Atlantic Region. Onsite, day-to-day management is provided by the superintendent and the assistant superintendent, who administer direct and indirect operational programs of the four divisions of the park staff--Resource Management and Visitor Protection, Interpretation, Maintenance, and Administration.

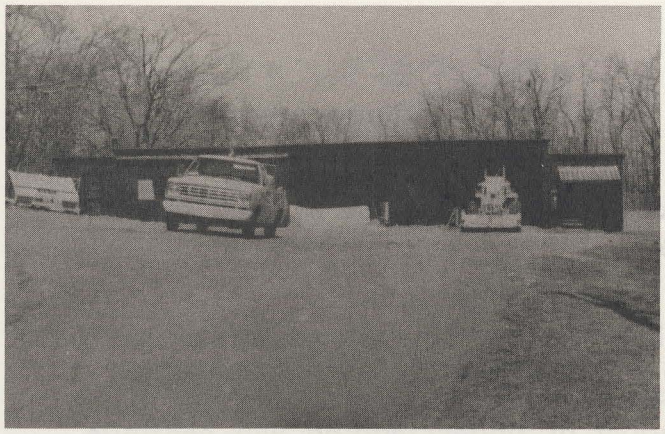
Competent management is required to ensure the continuation of resources, developments, and visitor satisfaction. Management of Shenandoah will be a continuing process of guiding, fostering, and refining the interrelationships and processes of people, their history, and this environment.

As stated in the management objectives, cooperation in land use, historic preservation, and recreation will not only benefit the region but will also contribute to the effectiveness of the park. The park also affects the plans of communities in the region. The National Park Service will participate in informal cooperative planning or formal coordinated planning, as appropriate, to resolve regional problems such as access to the park and compatible zoning or other land use controls in the immediate park vicinity.

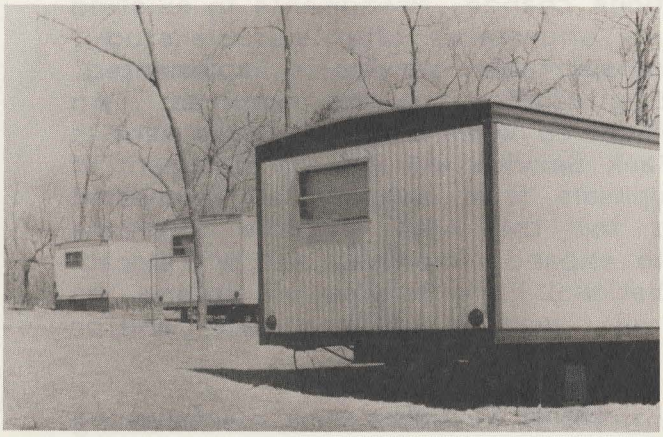
Internal management will be directed toward protecting resources and facilities by providing recreational opportunities and interpretive programs for visitors and by appropriately monitoring and regulating all visitor uses.

Improvement of overall park protection may be enhanced by replacing existing exclusive federal law enforcement jurisdiction with concurrent federal/state law enforcement jurisdiction. Discussions were undertaken in 1973 between the National Park Service and the commonwealth of Virginia to develop concurrent jurisdiction for all areas of the National Park System within the state. In 1975, the governor of the commonwealth was given discretionary authority to accept the relinquishment of a portion of jurisdiction from the United States by the General Assembly's act to amend section 7.1-25.1 of the Code of Virginia. In accordance with the 1976 amendments to the National Park Service Organic Act, 16 U.S.C., secs. 1a-3, the practicability of adopting concurrent jurisdiction will be examined.

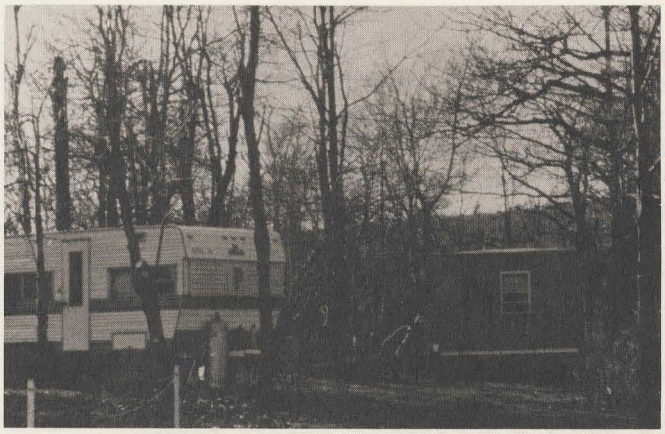
The management and operation of this large and complex park will continue to require a diverse staff with specialized talents and skills. While technical assistance will be available from other NPS offices, a modest increase in staffing is foreseen. Continuing attention will be given to increased operational efficiency, with emphasis placed upon cost beneficial contractural services, additional involvement by concessioners in operational activities, provision of opportunities for private and public sector support of the park, and further encouragement of volunteerism. In addition cooperation with other national, state, and local agencies and organizations will continue to be required to provide mutual benefits


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OPERATIONS

(a)(b) Existing operations areas, such as Piney River and Simmons Gap, consist largely of temporary, deteriorating structures and trailers. They will be replaced and upgraded with adequate facilities for safe, efficient working conditions.

(c)(d)(e)(f) A few NPS employees need to live in the park to protect people, park resources, and public property. Most park housing consists of deteriorated, energy-inefficient trailers, which will be replaced.

affecting protection of the park and surrounding resources and recreational opportunities for visitors.

The Shenandoah Natural History Association will continue to be a valuable supplement to park staff, especially in the area of interpretation and information.

Services provided by the ARA Virginia Sky-Line Company under a concessions contract, the Shenandoah National History Association under a memorandum of agreement, and the Potomac Appalachain Trail Club under a concessions permit and a memorandum of understanding will continue. When the contract expires and conditions change, amendments to existing or new agreements or contracts will be undertaken after suitable study. For example, before a sightseeing transportation service is implemented, visitor use, demand, and/or marketing studies may be required. An economic feasibility study is always required when a capital investment is to be considered, and the National Park Service will issue a statement of requirements prospectus seeking proposals from any and all interested parties, including (but not limited to) the ARA Virginia Sky-Line Company. Similarly, for proposals to expand, improve, and/or relocate existing concessioner services, the National Park Service will inform the concessioner, and both parties will perform independent and/or cooperative financial analyses.

Other assistance to park staff will continue as available from the following programs (or successors):

College student programs operating under training/work agreements between colleges and universities and the National Park Service. The program includes the Cooperative Education Program (COOP), where students with a career interest in the National Park Service work for either salaries or the College Practicum Program as part of their school curriculum.

Volunteers-in-Parks (VIP), where volunteers of all ages donate their services and skills.

Student Conservation Association (SCA), where students studying conservation provide services and receive certain living expenses from the park and small subsistence grants from the SCA.

Deputy Park Rangers (DPR), where law enforcement officers from other agencies, such as state game wardens, provide special limited protection services.

In addition to staff responsibilities within the park, Shenandoah management has been designated by the Appalachian Trail Project Office as the government agency to provide backup support to the Potomac Appalachian Trail Club for portions of the Appalachian National Scenic Trail between Rockfish Gap and the southern park boundary and between the northern boundary and I-66. This support will consist primarily of consultation on planning, resource protection, visitor use, and maintenance.

The above discussion indicates some of the activities that will occur in the next decade as presidential/congressional management programs are carried out and changes are made according to National Park Service planning documents, such as this general management plan. Park management and other offices of the National Park Service (Mid-Atlantic Regional Office, Harpers Ferry Center, and Denver Service Center) will be involved in maintaining the continuing viability of the park.

MANAGEMENT ZONING

To ensure that uses and developments within the park are properly situated in relation to one another and existing resources, a Management Zoning Plan map has been developed based on the inherent nature of the resources and the suitability of the land for various designated uses and developments. By providing adequate space and facilities to appropriate areas, density of use will be controlled and resources will be preserved for future generations.

As can be readily noted, the zoning plan provides, on an area basis, the fusion of the "Resource Management," "Visitor Use and Interpretation," and "General Development" sections of this General Management Plan. The following list of appropriate uses and permitted developments, though not all-inclusive, is quite complete and indicates intensity and type of use so that additions in-kind can be made without defeating the spirit of the plan; i.e., a balance of resource protection and visitor use. Any nonconforming uses and developments will be phased out as soon as possible.

Natural Zone

This zone includes most of the land surface of the park. Natural processes and resources will remain relatively unaltered, and any developments will be minor. Around 110,200 acres (44,585 ha), or 56.4 percent of the park are classified in this zone.

Appropriate Uses	Permitted Development
Hiking	Appalachian Trail
Rock Climbing	Stroller Trails
Horseback Riding	Foot Trails
Lunching	Backcountry Trails
Dispersed Backcountry Camping	Horse Trails
Cross-Country Skiing	Trailside Huts, Cabins, and Shelters
Limited Auto Traffic	
Limited Parking	Lunching Areas (10 tables or less)
Fishing	
Interpretation	Administrative Roads
Research	Trailhead Access Roads
Environmental Education	Parking Areas (10 cars or less)
Restoration of Native Vegetation	Small Onsite Maintenance Facilities
Limited Habitat Management	

Permitted Development (cont'd.)

Limited Park Utility Systems
Utility Lines Serving NPS Facilities
Interpretive Waysides and Markers
Fire Caches
Research Monitoring Devices
Limited Research Facilities
Environmental Education Classroom(s)
Pit Privies/Vault Comfort Stations

Outstanding Natural Feature Subzone. Geological and biological features, such as rare flora, possessing high intrinsic and/or unique values are included in this subzone. Because of the fragility of some of the resources, activity and development within areas of this subzone may be restricted or prohibited, although the emphasis will be on public interpretation. Approximately 725 acres (295 ha), or 0.4 percent of the park are included in this subzone.

Appropriate Uses	Permitted Development
Hiking	Foot Trails
Limited Horseback Riding	Limited Horse Trails
Cross-Country Skiing	Interpretive Markers (unless also within wilderness subzone)
Interpretation	Temporary Research Monitoring Devices
Research	

Wilderness Subzone. These park lands were designated by PL 94-567 for addition to the National Wilderness Preservation System and are managed so that the imprint of man's work is substantially unnoticed, and degrees of solitude are provided the more adventurous visitor. Consisting of 11 areas, this subzone consists of 79,579 acres (32,198 ha), or 40.7% of the park.

Appropriate Uses	Permitted Development
Limited Hiking	Primitive Trails
Limited Horseback Riding	Primitive Horse Trails
Cross-Country Skiing	Temporary Research Monitoring Devices
Research	
Dispersed Backcountry Camping	
Fishing	

Environmental Protection Subzone. These park lands possess exceptional value for habitat and research. The lands include rockslides on the upper north sides of Hawksbill, Stony Man, and the Pinnacles, where the total known population of the Shenandoah Salamander exists. This subzone consists of 400 acres (160 ha), or 0.2 percent of the park.

Appropriate Uses	Permitted Development
Limited Hiking	Foot Trails
Research	Temporary Research Monitoring Devices
Habitat Management	Interpretive Markers (unless also within wilderness subzone)

Historic Zone

This zone includes lands containing resources eligible for the National Register of Historic Places, as well as other known and important sites and structures. Intensity of use will vary from virtually none at archeological areas to low levels at Camp Hoover, Corbin Cabin, and Judd Garden and to moderate/high on the Skyline Drive and in the cabins, lodges, residences, and visitor and administrative spaces such as Big Meadows, Lewis Mountain, Dickey Ridge, and Headquarters.

The purpose of this zone is to protect the existing qualities and fabric of the resources that warrant cultural resource recognition. Permitted adaptive uses and development alterations are only those that are necessary for continuing existing use or appropriate service. This zone includes about 2,100 acres (850 ha), or 1.1 percent of the park.

Development Zone

This zone includes all land, exclusive of the historic zone, where intensive development and use occur. Managed to provide and maintain development for relatively large numbers of visitors and park infrastructure, the zone includes aggregations of buildings, parking areas, roads, utilities, etc.

The smallest area has been designated for this zone, commensurate with the space necessary for acceptable visitor density, good design, and buffer. Approximately 2,000 acres (850 ha), or 1.0 percent of the park will be in this zone.

Appropriate Uses	Permitted Development
Auto Traffic	Roads
Parking	Overlooks
Sightseeing Transportation Service	Parking Areas
Picnicking	Picnic Areas
Family Camping (tent or RV)	Auto Campgrounds
Group Camping	Lodges
Lodging	Cabins
Food Service (by concessioner)	Youth Hostels
Shopping	Gasoline Stations
Park Administration	Restaurants
	Gift Shops

Park and Concessioner Housing
Park Maintenance
Information
Orientation
Interpretation
Hiking
Bicycling
Horseback Riding
Cross-Country Skiing
Campstores
Park and District Headquarters
Residences
Ranger Stations
Fire Caches
Maintenance Yards (area, district, subdistrict)
Park Utility Systems
Travel Information (radio) Stations
Visitor Centers
Visitor Contact Stations
Fee Collection Stations
Amphitheaters
Foot Trails and Walks
Horse Trails
Cross-Country Skiing Trails
Information/Interpretive Waysides and Markers

Special Use Zone

This zone includes lands used by other interests or agencies for nonpark purposes. While the long-term objective is to eliminate these uses, some predate the establishment of the park and occur on deeded rights-of-way. This zone, comprised of four subzones, contains around 400 acres (160 ha), or 0.2 percent of the park.

Miscellaneous Uses Subzone. This subzone covers such items as use of springs for a water source by park neighbors and scientific measurements by the U.S. Naval Research Laboratory.

Private Access Subzone. This subzone consists of mostly unpaved roads that are used by adajacent landowners for access to their property. Some are limited to agricultural and recreational purposes only.

Utilities Subzone. This subzone contains various regional underground or overhead gas, telephone, or electrical power lines. The only activities allowed are maintenance access and control of vegetation along the respective rights-of-ways.

Weather, Navigation, Radio Equipment Subzone. Several federal and state agencies and private businesses have been allowed to maintain region-serving equipment respective to their needs, and some equipment improvement will be allowed.

MANAGEMENT OF CAPACITIES AND VISITOR USE

It is difficult to specifically predict and control use by visitors. While resources and facilities must be protected from misuse and overuse, so too must the visitor experience. Too much regulation can be

counterproductive--stifling visitor enjoyment and inducing willful violation. Management responsibility thus becomes the art of balancing visitor enjoyment opportunities with the necessary protection of resources and facilities for future visitors. This can be accomplished through the understanding and use of a carrying capacity concept for individual and combined facilities or resources.

The formulation of a carrying capacity is complex, drawing expertise from the fields of physical science, sociology/psychology, and management (economic and personnel). Carrying capacity is concerned with a resource's or facility's inherent tolerance for use, its maintenance, and the quantity and quality of use it engenders. These may be defined as follows:

> Physical Capacity (Size)--the amount of use that a resource or facility can withstand without degradation.
>
> Maintenance--development and activities that either hold or extend the physical capacity of a facility or resource.
>
> Qualitative Density--the amount of area or space necessary for an individual to ensure his enjoyment of a resource or facility. This involves consideration of both personal space (the amount of unoccupied space immediately surrounding a person required to put him at ease) and psychological density (the perception of what constitutes crowding or isolation for a particular activity).
>
> Straining Point--the threshold beyond which the physical capacity is exceeded and degradation occurs, or where maintenance cost (in dollars or manpower) has become unrealistic for the maintainer (Willard 1971).

From these factors a general formula for capacity can be expressed:

$$\frac{\text{Physical Capacity (Size)}}{\text{Qualitative Density}} = \text{Carrying Capacity} < \text{Straining Point}$$

The carrying capacity may be increased by adjusting all three factors in the formula, whereas the physical capacity can be expanded to allow for more visitor use. In the case of finite natural or historic resources, such as a geologic phenomenon or a structure, size expansion is not possible. The straining point can, however, be raised by additional maintenance, such as paving a trail or installing expendable carpeting on the floor of a historic structure so as to preserve the original material. Certain maintenance techniques change the visitor experience of the resource--the carpeting would be an intrusion on the authenticity of the historic room.

The qualitative density can be changed by reducing the amount of area available to an individual. This can lead to crowding and congestion, which detract from the visitor experience. The density factor is subject to judgment within three possible levels--ideal, acceptable, and undesirable--for a particular use. For example, ideal density on a backcountry trail may mean that a hiker should not see another individual

at all, but it would be acceptable if the hiker met others no more than every half mile or every 15 minutes. Undesirable density for a backcountry experience would be a constant stream of hikers on the trail. When density becomes too great, self-regulation can occur; i.e., some visitors voluntarily refrain from a use by going to another location or staying away from a park entirely.

In 1975 and 1978, traffic conditions were examined on the Skyline Drive. While the physical capacity permits around 1,500 vehicles per hour, this volume is undesirable for the visitor's scenic enjoyment (qualitative density). Perceived from the latter, it was found that a volume of 700 vehicles per hour was a more enjoyable density, which was exceeded only on one or two days during the fall color season in 1975 and 1978. It is considered that 700 and less cars per hour on the Skyline Drive is in the acceptable to ideal range of density during a calendar year except for fall color season, when up to 1,500 cars per hour is considered acceptable.

Similar data collection and analyses are possible on every resource and facility--individually or in combination. To date this has not been done because general observation has not indicated any substantial capacity problems. However, park management will continue its vigilance to detect any possible problems concerning visitor use and resource/facility protection, and when necessary undertake the required data collection and analyses to head off any degradation of the visitor experience or resource.

Correcting capacity problems may involve a range of solutions from educating visitors to close allocation of use by visitors to improvement of resource or facility durability to closing a resource or facility (entirely or in part) from use. Within the life of this plan, it is expected that closure of an entire facility or resource will not be necessary. Temporary closure of a portion may be necessary, such as when a spot in the backcountry receives vegetation damage from overuse. This spot is closed (say 1 to 3 growing seasons) to allow the area to revegetate and then reopened.

The expanded information/orientation program described in the "Visitor Use and Interpretation" section is the best means to ensure enjoyable visitor use compatible with resources and facilities. By encouraging visitors to use other parts of the park, congestion of visitors is reduced, and damage to individual resources/facilities is mitigated.

A total park capacity may be determined by summing the carrying capacities of all individual resources and facilities. It will not be the object of park management to discard lower carrying capacity activities and convert available space to higher carrying capacity activities for the sake of increasing the total park capacity. Rather, management will maintain the array of existing visitor opportunities so that Shenandoah will be able to provide experiences ranging from hiking in the wilderness and mountain stream fishing to campfire programs and lodging activities.

Summarily, management of visitor use will be done foremost through staff vigilance to ensure that capacity of resources and facilities is not exceeded. Most times the density of use permitted will be at an acceptable

level, while during winter and shoulder months density may achieve an ideal level. The primary means of regulating capacity will be through directing visitors to similar areas other than the most popular and heavily used.

COSTS ESTIMATES

Budgeting for programs, facilities, and staff will need to be scheduled over the years to effectuate this General Management Plan. Table 6 indicates a priority of the many components necessary to improve the park.

The table itemizes the actions described in this document over two 6-year phases from 1983 to 1995. As is readily noticeable, the major categories are shown in both phases because resource management, interpretation, and the like are ongoing and will be continually refined and adjusted. Meanwhile, many individual items will be implemented completely in only one phase.

Phase I may be viewed as furnishing selected improvements for visitor use and park management. Increased information, safety, basic resource data, as well as repair and replacement of key elements of the park infrastructure, provide near-future upgrading of the use and operation of the park. Phase II completes this plan by rounding-out and filling-in existing opportunities for visitor use and management needs for park protection. A phase III is shown for only the Skyline Drive, indicating the enormity of the undertaking and the need for long-term funding.

While the schedule indicates a priority listing, if some phase I items are not accomplished, then certain phase II items may not be feasible. For example, if any land for a trailhead facility to be developed is not donated, then the parking area and comfort station will have to be delayed.

Appendix G contains the estimated costs, in 1982 dollars, for the development and operation of Shenandoah as envisioned in this plan. In summary, the development funding needed by the National Park Service is estimated as follows:

	Phase I		Phase II	Phase III
	1983		1989 1995	2000
Rehabilitate, replace, relocate existing facilities[a]	5,797,000		4,107,000	--
Upgrade, improve, slightly expand existing facilities[b]	4,900,000		3,113,000	113,000
New facilities[c]	4,317,000		3,351,000	--

Skyline Drive rehabilitation	21,039,000	22,334,000	25,037,000
Total Costs by Phase	36,053,000	32,905,000	25,150,000

[a] Modifications to substandard facilities, or provision of new facilities, necessary to conduct existing park programs/functions at safe and sufficient activity levels

[b] Modifications to existing facilities, or provision of new facilities, necessary to accommodate a modest expansion of activity levels for improved existing park programs/functions

[c] Provision of facilities to support new park programs/functions or existing programs/functions at new locations

Also, it is estimated that the ARA Virginia Sky-Line Company will need to fund $2,805,000 in phase I, and $2,514,000 in phase II.

In order to provide the staffing, equipment, etc. to operate Shenandoah according to this plan, it is estimated the operations will cost $5,863,000 annually.

DEVELOPMENT CONCEPT PLAN

This development concept plan (DCP) portion of the document refines proposals of the general management plan portion into on-the-ground schematic drawings and written descriptions that explain sizes, locations, and functions. These plans will be the basis for comprehensive designs, working drawings, and eventual construction of proposals.

The term "full accessibility" is used throughout the DCPs. It refers specifically to making facilities negotiable by persons with sensory or physical limitations as well as by able-bodied persons. All new structures and their grounds, including operational and housing facilities, will be built so that they are fully accessible, and existing facilities will continue to be improved as specifically discussed in each DCP. Existing and new parking areas will contain the percentage of fully accessible parking spaces specified in the Access Information Bulletin (National Center for a Barrier Free Environment 1981). Spaces will conform to location and size requirements, and necessary curb cuts or ramps will be provided.

With almost every area and facility mentioned, certain site improvements will be required. First, existing paths and walks will be improved for safe, straightforward access through widening, resurfacing, and rebuilding. In some cases, existing paths will be removed, and new, more efficient, practical layouts will be built.

Second, plantings of native species will improve the harmonious relationship of existing and new facilities with the landscape. These new plantings will not only enhance the setting of new facilities but will also enhance existing structures where planting was omitted during original construction. In many cases, plantings will also help define walk and path access to facilities, and therefore reduce damage to adjacent ground surfaces caused by random access. Screen and buffer plantings (sometimes with fences) will reduce the visual intrusion of service and housing areas that are needed to serve the park and its visitors but are preferably not an obvious component of the overall setting.

Electrical service to new facilities will be installed underground. In existing areas, segments of overhead utilities will be placed underground for safety and visual improvements.

As noted in individual DCPs, the visibility of new construction from Skyline Drive vistas and other public areas is extremely important to minimize. All new designs must be screened from vistas through siting, amount of vegetation removal, and choice of materials. Especially where noted, sensitive sites should be field checked from related vistas. Brightly colored flags or balloons simulating the location and size of proposed construction and clearing should be photographed from affected viewpoints.

The safety of visitors and protection of property from fire is a parkwide concern. Deteriorated structures, distance from local fire protection, and availability of water, equipment, and trained personnel are current safety issues.

The safety of people in the park is the first priority. Lodges, dining rooms, visitor centers, operations buildings, employee housing, and any

other structures that people use will have state-of-the-art, foolproof fire alarm systems. This is the most effective way to protect lives in case of fire. Given the relatively small size of buildings (one to two-story) and ample egress (most lodge units open directly outdoors), suppression systems would not significantly improve the time a person has to escape from fire; these systems would only contribute to protecting property.

The protection of property with improved fire suppression systems would be evaluated in terms of the system's cost versus the value of structures. Fire suppression techniques include hydrants, fire trucks, trained personnel, sprinklers, and halon devices. In some developed areas existing water systems may not support sprinklers and improved hydrants, and therefore new water systems would be required, a significant cost to consider. The cost of trained personnel would include equipment, salaries, training, housing, and a staff to work around the clock and throughout the year, also a significant cost. Consideration of the value of structures must include their individual replacement cost, the collective value of structures if an unattended fire could spread to other buildings, and the "priceless" value of structures identified as cultural resources. Each developed area will be evaluated for these factors to determine the most cost-effective fire suppression system.

An archeological overview has been made for each proposed site for action to determine its potential for containing archeological artifacts based on existing studies and surveys. While all areas will be tested on the ground prior to final design, certain areas are known to be sensitive, and designers will work closely with archeologists to mitigate possible impacts. These areas are Compton Gap (proposed trailhead parking), Mathews Arm (proposed campground expansion), and Big Meadows (an area rich with artifacts).

Similarly, all sites proposed for development have been surveyed for endangered and threatened species. While no such species were discovered at the time of the survey, a few sites need to be rechecked at a date when herbaceous flora is fully conspicuous. These sites include Snead Farm (look for Carex spp. in wet area by spring), Mathews Arm (check for herbaceous plants), Skyland (check for herbaceous plants in housing and amphitheater area), Weakly Hollow (check for rattlesnake plantain), and Big Meadows (check hardwood forest in ARA housing expansion, group horse campground for herbaceous plants). These areas will be examined during the proper season before final design.

While most of the written description of the road and trail plan is presented in the general management plan portion of this document, there are some design criteria that will guide implementation. Trail proposals shown on the following maps indicate ideas and general locations. Exact locations will be finalized on the ground and will consider many factors, such as topography, potential erosion problems, drainage, vegetation, special features, and viewpoints. Location will also help avoid conflicts between adjacent such users as hikers and fishermen.

The development concept plans are arranged with the trail plan first, followed by north, centrol, and south district plans.

NORTH DISTRICT

FRONT ROYAL

Visitor Parking at Entrance Station

Traffic lanes at the entrance station will be modified to accommodate ten visitor or NPS vehicles. Parking spaces will be in the center of the inbound and outbound lanes south of the entrance station so that visitors can walk to the station without crossing lanes of traffic. Most spaces will serve inbound traffic, while one or two will serve outbound traffic. At least one space in each direction will be fully accessible. Turnarounds will be provided on both sides of the entrance station. To accommodate these parking spaces, the outbound traffic lane will be realigned. Design, materials, and signs will guide users. No modifications to the existing building are necessary. The waterline and underground power will be relocated.

Operations Garage

An operations garage will be constructed in the residential area to protect a car and snowplow; it will also serve as a storage area for jack and chains for chain-up and travel information station gear. The garage will be constructed of light or metal frame with wood siding and an asphalt shingle roof that will be compatible with adjacent houses. Two side-by-side overhead doors will open directly to the street, and one door will provide access for park personnel. Power will be brought in from an adjacent power pole. Since the building will not be heated or plumbed, no other utilities will be needed.

Travel Information Station

The travel information station, with antenna, transmitter, and message player will serve the north district. This location is roughly midway between Front Royal and the entrance station. Signs immediately inside the park and in Front Royal (within a 1-mile radius of transmitter) will advise visitors to tune in their radio.

HAPPY CREEK

Barns and outbuildings acquired with the transfer of U.S. Department of Agriculture lands to the park will be demolished. Structures will include four concrete buildings, a stone building, a silo, a concrete cistern, and a concrete bridge. More information on the origin of the stone building will be sought before demolition. Temporary shoring of the bridge or construction of a stream ford will be required to get heavy equipment to the site. Once demolished, most debris will be hauled away to clean up the site, but some may be buried to restore original grade.

DICKEY RIDGE

Comfort Station

A standard size comfort station will be constructed near the visitor center. It will be located on the lower side of the parking lot close to the main concentration of visitors but not within the impressive view. It will require a foundation on sloping land, insulation and heat, and materials compatible with the adjacent rustic visitor center. Water and power will be brought in from adjacent sources and an individual septic system will be provided. The existing septic system will be replaced with a larger septic tank and leachfield to compensate for additional visitors.

Picnic Area

A picnic shelter will be constructed in the picnic area to accommodate four small groups. It will be constructed of heavy timber and designed to give a sense of separation for groups. Four charcoal-type fireplaces will be included. A water spigot will be provided from the nearby waterline. The existing comfort station will be made fully accessible.

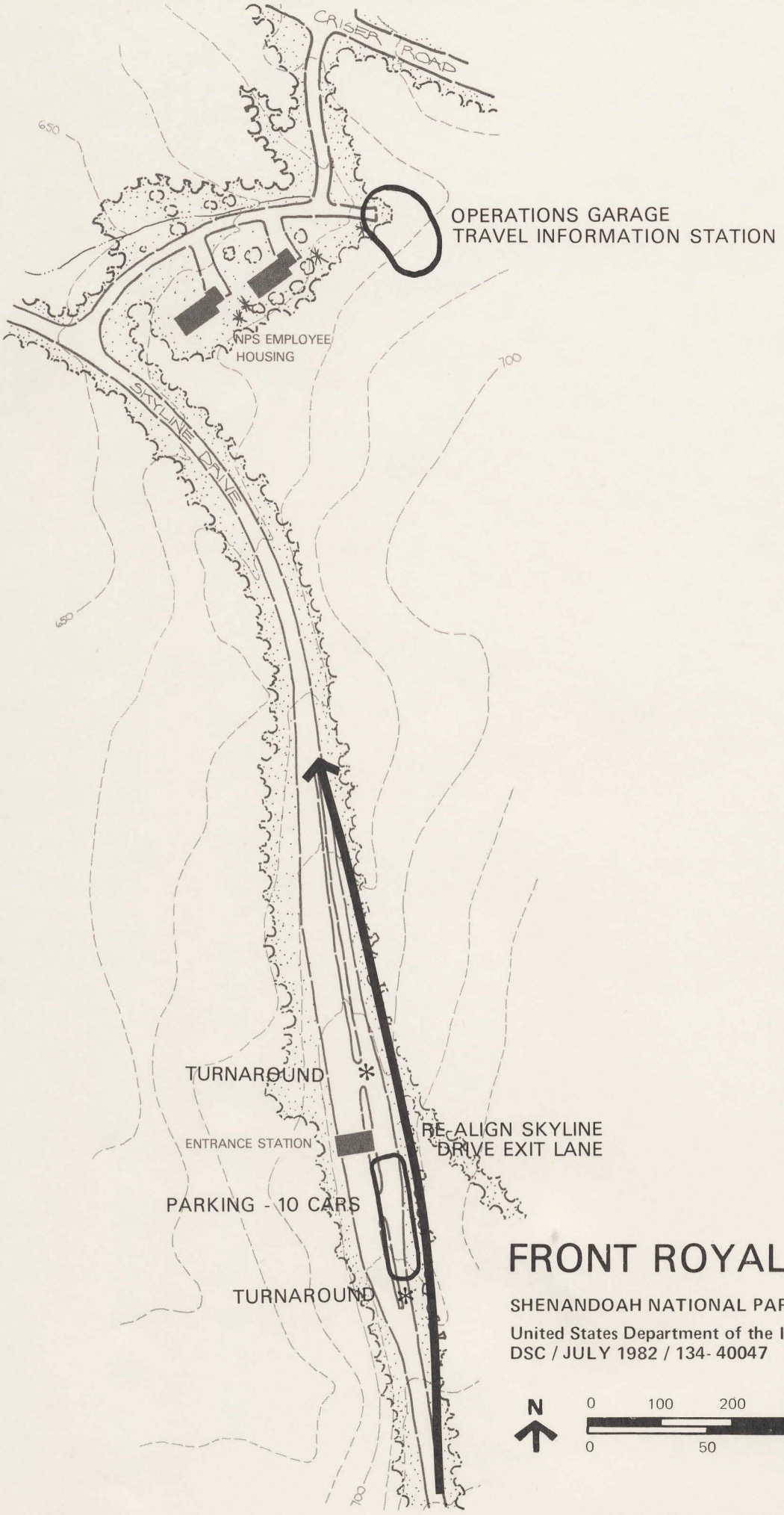
NPS Employee Housing

Four seasonal employee housing units will be constructed to replace existing trailers. Two of the units will have one bedroom, and the other two will have two bedrooms. All units will be well insulated for possible year-round use and should be designed to maximize passive solar heating in the spring and fall. The two-bedroom units should be designed with interchangeable bedrooms for maximum flexibility to meet changing demands. The location and design of the buildings will minimize visibility from Skyline Drive and from the visitor center. The existing lower pavement may be salvaged and adapted for parking six cars and for storing mowers temporarily; unneeded or unusable pavement will be removed. Vegetation will be modified through planting or changing mowing patterns to screen and enhance the area. Nearby water, sewer, and power will be used.

Snead Farm

The existing barn at the Snead Farm will receive minor cleanup and repair to be used for an environmental education classroom for school groups. Three posts will be added to further support the second floor, and lights will be installed.

A vault toilet will be constructed nearby, which will be accessible by the existing administrative road for periodic maintenance. Drinking water will be provided at a water spigot from a low pressure, gravity-feed water chlorinator at the spring, and excess water will be piped around the site. Power will be brought to the barn from a nearby source.



FRONT ROYAL

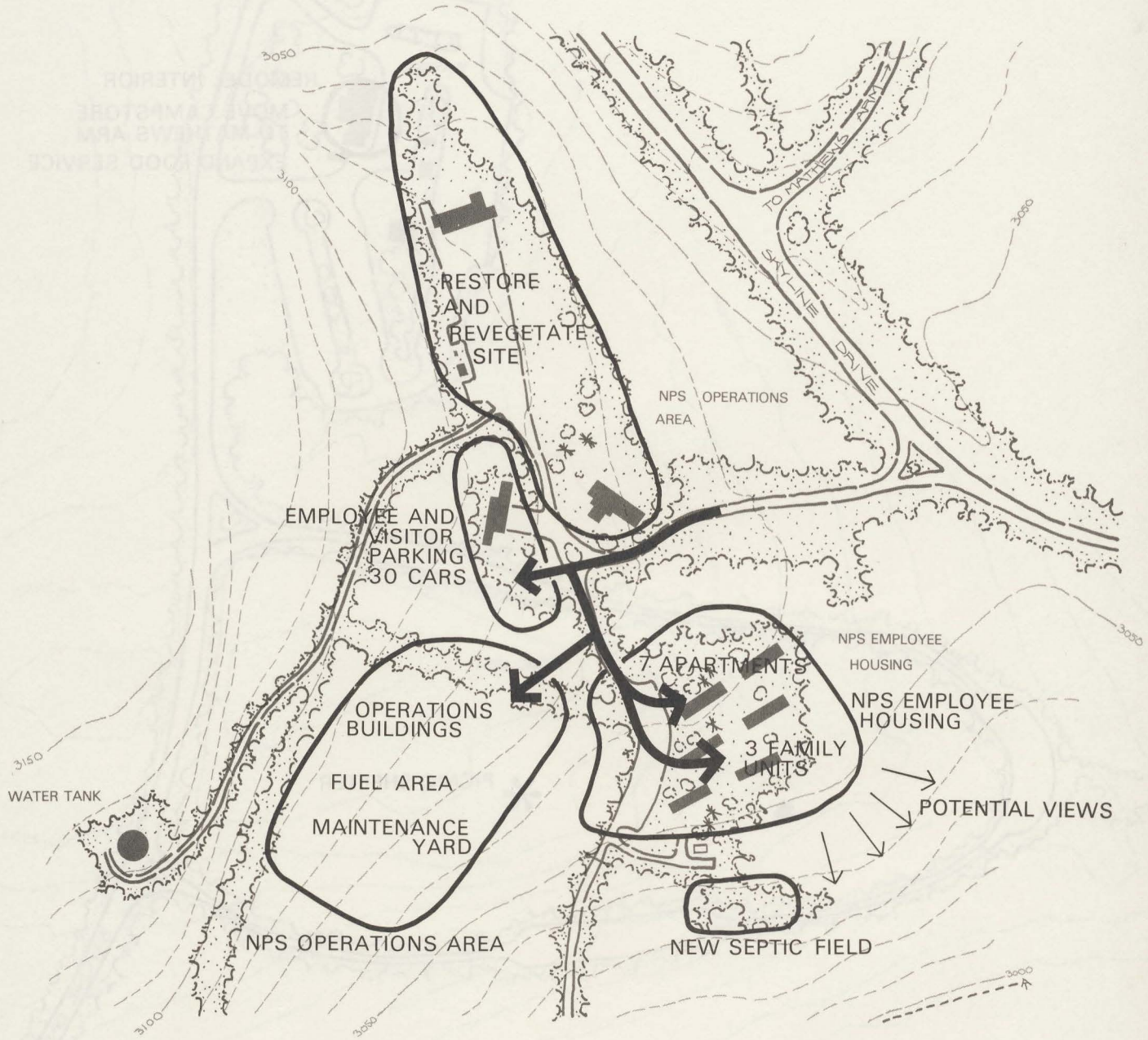
SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134-40047

N

0 100 200 300 400 feet

0 50 100 meters



PINEY RIVER

SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134-40044

N

0 100 200 300 400 feet

0 50 100 meters



ELKWALLOW

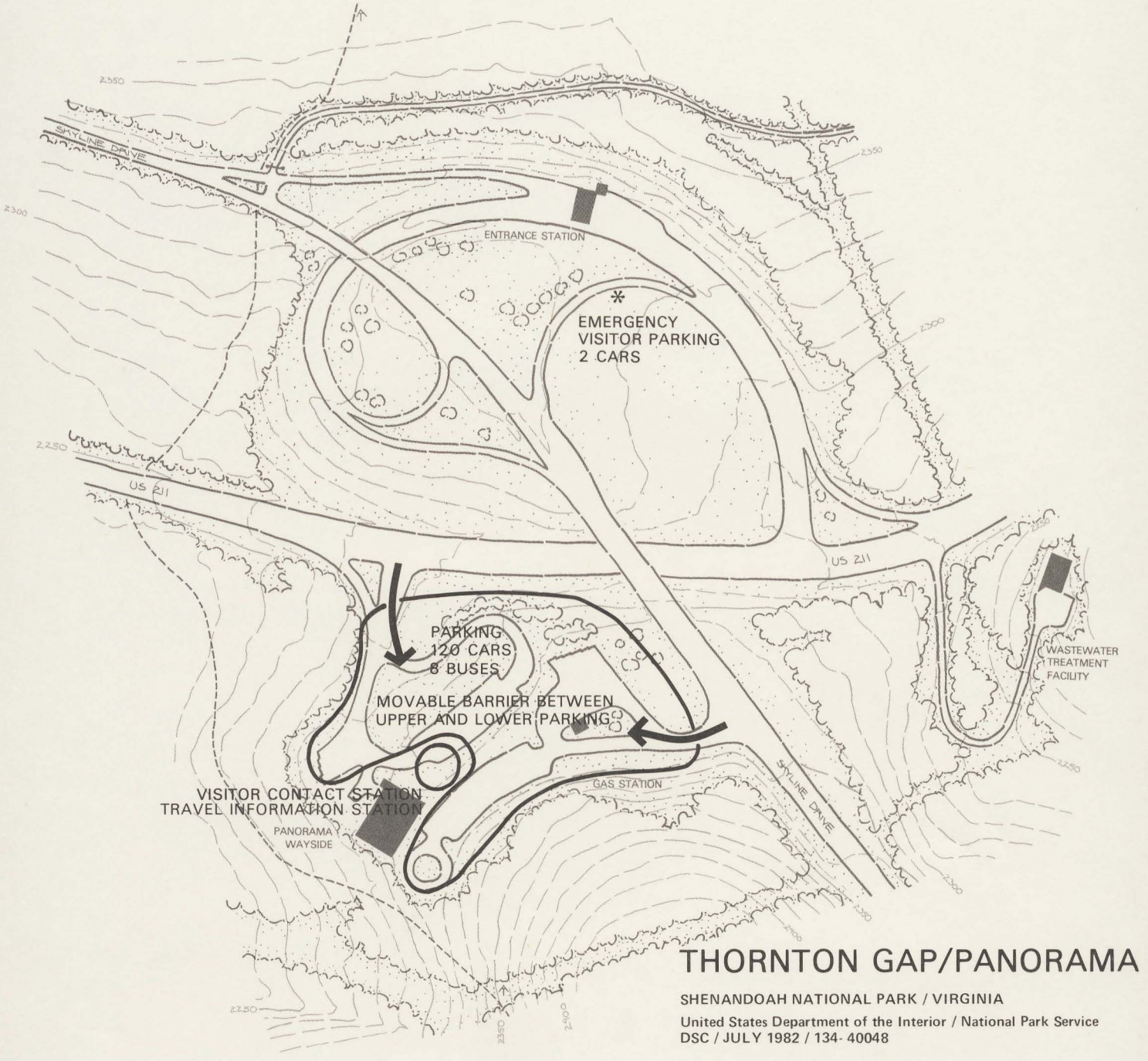
SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134- 40049

N

0 100 200 300 400 feet

0 50 100 meters



THORNTON GAP/PANORAMA

SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134-40048

0 100 200 300 400 feet

0 50 100 meters

MATHEWS ARM

Entrance Road Realignment

The existing entrance road has an overall grade of 9 percent, with some segments as high as 12 percent. The last segment before the campground reservation building is 11 percent with a slight curve, making it hazardous for vehicles and for stability of the building. The lower segment will be realigned to achieve a grade of 5 to 7 percent and to enhance visitor circulation through proposed facilities. Two entrance lanes that will alleviate congestion will be provided. Access to the existing parking area will be changed to provide an entrance from the new road before reaching the campground registration building. Thus visitors coming to the amphitheater, campstore, or to hike can park without passing the campground entrance. The parking area will also contain at least two fully accessible spaces.

Campground Registration Building

A new, wood frame campground registration building will be constructed along the new road at a point to control all exit and entry into the campground and to provide reservation services. It will contain a small staff office, counter area, small lobby, first-aid area, and restroom. Adjacent parking for ten cars will be provided, including at least one fully accessible space. A small kiosk between the inbound and outbound lanes will facilitate management of the campground. A turnaround will be needed when the campground is full. The entrance lane will be two lanes wide for stacking and through-traffic. Existing water, power, and sewage systems will be connected, and two phone lines will be needed.

Campstore

A new campstore will be constructed by the concessioner to replace that function at Elkwallow and serve campers at Mathews Arm. It will contain camping equipment, wood and ice sales, showers, a laundry, and restrooms. In addition to the nearby parking outside of the campground registration building, 25 spaces (at least two fully accessible) will be provided inside the campground. The new facility may be phased with restrooms, showers, laundry, wood, and ice sales first. Restrooms may be reached from outside the building for use by nearby amphitheater visitors. Water, power, and sewer will be connected from the existing systems.

Amphitheater

The amphitheater will be relocated because of the road realignment. The new one will contain 230 seats (wood benches), an area for projecting slides, equipment storage, and a fire ring. Underground power will be required for operation of equipment.

Additional Campsites

Fifty individual campsites and seven group campsites will be added to Mathews Arm. The individual sites will be similar to existing sites, each with parking, a fire ring, a picnic table, and a tent pad. The group sites will be separated from other campground areas to accommodate groups such as Boy Scouts or university classes. Each group site will accommodate up to ten people (larger groups will reserve more than one site) and will have a central fire ring, several cooking grills, and picnic tables. Parking will accommodate 30 cars. All group and at least two individual sites will be fully accessible .

Two standard comfort stations will be constructed; one among the individual sites and one among the group sites. The group campsite comfort station will have an outdoor shelf and long sink with multiple faucets, with a dump station for food scraps and portatoilets. Water, power, and sewer will be connected from the existing systems.

PINEY RIVER

Operations Building

Existing structures and trailers will be replaced with energy-efficient buildings for maintenance, ranger, and naturalist operations in the North District. The building (or several buildings) will contain several functions--a district ranger office, supervisory ranger office, three field ranger offices, three naturalists' offices, and a storage area. An open work area and public information counter with adjacent visitor parking will be near these areas. Structure(s) will also contain two district maintenance offices, a shared rally room for all divisions (25 people), restrooms, lockers, showers, eight stalls for vehicles and/or shops, a firetruck garage, fire cache, ambulance garage, storage, tools, and paint and oil storage. One stall will have a hydraulic lift and another a wash rack. The design of some vehicle bays into shops for specific functions could allow some bays to be left unheated and therefore improve energy efficiency. The existing fuel area will also be relocated with three large tanks and pumps and a small tank and hand pump.

A paved maintenance yard will be adjacent to the structure(s), surrounded by a fence to secure stored materials. A parking area with 30 spaces will be provided nearby for employees and visitors; at least two of these spaces will be fully accessible. Old structures will be removed, and the site will be restored when the new site becomes operational.

The new locations of buildings will be sheltered from the prevailing winter winds by the land, and the buildings will then shelter the maintenance yard from winds. Passive solar energy can provide a large portion of heating requirements, and natural lighting and ventilation can improve the workplace and save energy. Buildings will be made of metal, concrete block, or other durable material and should be screened in a manner that is not intrusive to Buck Hollow Overlook. Existing water and power can be connected, but a new septic tank and leachfield will be needed.

NPS Employee Housing

Trailers will be replaced with three family units and seven apartment units for employee housing. Each family unit will be a three-bedroom house, and the units may be clustered or attached. The apartment units will accommodate single or married seasonal employees--five units will have one bedroom, and two units will have two bedrooms, which will be designed for flexibility similar to that described under Dickey Ridge. All units may be utilized year-round.

New housing will be located on the existing site, with consideration for winter wind, passive solar heating, separation from the operations area, possible views, visual screening from Buck Hollow Overlook, and a mixture of private and common space for the residents. Units will be connected to existing water and power and to the new septic system. Parking will be provided for 20 cars.

ELKWALLOW

Wayside Building

The interior of the wayside building will be remodeled to improve visitor services, and full access will be provided. The campstore function will be removed and relocated to Mathews Arm, and food service will be expanded into this space. More seating will be provided, which may extend to an outdoor patio. The gift shop and sales of ice and some picnic items will remain; charcoal sales may replace wood sales.

Picnic Area

A picnic shelter will be constructed in the picnic area for four small groups similar to that described under Dickey Ridge. A water spigot will be provided from the nearby waterline. The existing comfort station will be made fully accessible.

THORNTON GAP

Visitor Contact Station

As one of the busiest entrance stations in the park, Thornton Gap will receive a visitor contact station to provide information, campground reservations, backcountry permits, and restrooms. It will include a visitor lobby, reservation counter, ranger office, a naturalist's office, a utility room, and restrooms. An operations garage for a park vehicle and a chain-up jack will be associated with this building.

The visitor contact station will be constructed in the vicinity of the Panorama Wayside, thus offering full visitor services at one stop. The gas station will be removed. Much of the upper parking area will be retained, while the lower area and gas station area will be totally

reworked to accommodate additional parking. Parking will be designed for access from U.S. 211 or Skyline Drive, with the ability to gate the lot at different points. This will allow the size of lots accessible from either point to be changed with seasonal demands, yet prevent visitors from driving through the lot to avoid an entrance fee. Total parking will accommodate 120 cars and 8 buses, with at least five spaces made fully accessible.

The building will be on two levels because of the steep terrain, with visitor areas on one level and operational functions on the other. Full access will be provided to both levels. It will be compatible in design and materials with the existing wood and brick wayside. All utilities are available at the site.

Panorama Wayside

Fully accessible restrooms will be made available at the wayside. The gas station, unneeded because of nearby service outside the park, will be discontinued. All pumps and tanks will be removed. The service building will be utilized in the interim by the National Park Service for campground reservations and backcountry permits, then the building will be removed to provide space for a new parking area. The utility area of the wayside will be screened from this parking area.

Entrance Station

Two parking spaces will be provided on the outbound exit lane for emergency stopping.

Travel Information Station

The transmitter, antenna, and message player for the travel information station will be located in the new visitor contact station. Signs immediately inside the park and along U.S. 211 will advise visitors to tune in their radio for a message.

HEADQUARTERS

Operations Buildings

Deteriorated wood buildings in the maintenance area will be replaced with new, energy-efficient structures to house similar functions. New building(s) will contain three auto repair bays (two with lifts and one pull through), eight equipment stalls for vehicles and shops, a paint shop, a sign shop, equipment and paint storage, four offices, a rally room, tool storage, restrooms, lockers, and showers.

The new building(s) will be located within the confines of the existing maintenance quadrangle. They will be of durable materials, preferably stone-faced to complement the existing historic yard buildings. The

existing fuel house will be completed with a stone veneer. All utilities are available onsite.

Headquarters Building

Campground reservations will be removed from the Headquarters building and relocated to Thornton Gap. The visitor lobby and adjacent restrooms will be made fully accessible. A fireproof record storage room will be added to the maintenance wing.

Natural Resources Research Center

Although a research center is not envisioned to occur within the timeframe of this plan, it will be established to include offices, a work space, and storage.

NPS Employee Housing

Excess employee housing at Headquarters will be used for operations. One will be humidity controlled for storage of cultural artifacts. Others may be used for research lab space or bulk paper storage.

CENTRAL DISTRICT

PINNACLES

Operations

The former Civilian Conservation Corps barracks will be temporarily retained for use as a natural resources research center. The interior of the building will be slightly modified to accommodate a work area, office space, and storage. The garage and three NPS employee housing trailers will be removed. When the research center is relocated to Headquarters, subsurface footings may be left, but all other materials will be hauled from the site. Vegetation will be allowed to reclaim the site.

Picinic Area

The comfort station in the picnic area will be made fully accessible.

SKYLAND

Lodge and Lodging Units

A total of 24 new lodging units will be constructed at Skyland. One 18-unit motel-type building with 18 parking spaces will be located along the rim between Birmingham and Winship lodges. Another six-unit motel-type building with six parking spaces will be located between Hazeltop and Fell lodges. They will be sited to take advantage of the views, yet not obstruct views from other lodges. Four older cottages--Hemlock, Wildwood, Dogwood, and Maple--may be replaced in the future with a modern ten-unit motel-type building and ten parking spaces. Structures will blend in scale, color, and materials with existing buildings.

All new units will be connected to existing utilities. Water-saving devices for toilets and showers may be installed throughout Skyland to conserve water and to accommodate the expansion. The fire alarm system for all units will be improved.

A fully accessible restroom will be located adjacent to the dining area. It may be constructed with a slight expansion of the upper dining area under the existing roofline.

Visitor Contact Station

A visitor contact station will be established in Massanutten. Identified as a cultural resource, the exterior has been historically repaired and stabilized. The interior will not require changes other than modest refinishing and repair. Movable partitions may be utilized to enhance the visitor area, publications sales, information desk, NPS employee work space, and storage. Full access will be provided with a ramp and deck that will extend from the road shoulder to the side porch. It will be

compatible in materials and design to the historic structure and will not physically alter the structure. Parking for four vehicles will be available across the road at Ash cottage, although most visitors will probably walk from the nearby lodging units. One fully accessible parking space will be developed near the ramp.

Amphitheater

A new amphitheater will be constructed at the north end of Skyland. It will have a stage, screen, fire ring, electricity, and 200 seats. No additional parking will be provided because some is available near the lower lodges, and most visitors will probably walk from their accommodations.

NPS Employee Housing

One family unit and five one-bedroom apartments of NPS employee housing will be constructed near the wastewater treatment facility. A ranger office and rescue cache will be included in this complex, with access maintained year-round for at least one employee. While existing power and water will be connected, this area will have its own septic tank and leachfield because the treatment plant will be closed all winter.

Housing units will be well screened from visitor areas to allow for employee privacy and to reduce development intrusions on visitors. The ranger office will be easily identifiable for visitors during emergencies or off-season needs (the visitor contact station in Massanutten will provide inormation durng scheduled operation hours). Seven parking spaces will be provided for housing and two for the ranger office.

Utilities

A new waterline will be constructed from Comers Deadening to Skyland. Pipe and associated powerline will be placed underground along the Old Rag administrative road.

OLD RAG VICINITY

Weakly Hollow Parking Area

Adequate trailhead parking is important in this very popular hiking spot. During phase one of this plan, the National Park Service will seek to acquire, through donation or exchange, a parcel in Weakly Hollow and construct a parking area for 100 cars. If this is unsuccessful, a parking area will be constructed on the rugged terrain inside the NPS boundary. When one is constructed, the leased parking area will be discontinued.

Ranger Station/Residence

If a residence or cabin in Weakly or Berry hollows is exchanged or donated to the National Park Service, a ranger station and employee residence will be established to assist visitors in this heavily used area.

BIG MEADOWS

Lodge and Lodging Units

Thirty new lodging units will be constructed at Big Meadows. One 20-unit, two-story building will be built between the lodge and the Rapidan building, with rooms that have impressive views of the Valley. Another ten-unit, one-story building will be built adjacent to the Hawksbill building. Thirty new parking spaces will be constructed near the new units. The five older cabins (Petersburg, Bridesburg, Lynchburg, Blacksburg, and Mountain View) will be relocated to the outer road loop where parking is currently available; this will alleviate some congestion in the Doubletop area and provide a quieter setting for these cabins. Unneeded parking will be obliterated on the outer loop. To replace the wintertime function of some cabins, a registration desk and tap room will be included in the new 20-unit building, which can be utilized as a recreation room in the summer when the lodge is open. Special care will be taken when siting all structures to ensure that they will not intrude on the view from Tanners Ridge Overlook or other overlooks. New structures will blend in scale, colors, and materials with existing buildings. All utilities are available at the site.

If needed in the future, the terrace at Big Meadows Lodge will be enclosed to enlarge the dining room. Windows will be moved out and the existing roofline extended. Any new materials will be compatible with the historic structure.

ARA Employee Housing

With the proposed lodging unit adjacent to Hawksbill, the five small ARA cabins will need to be removed and relocated or replaced adjacent to the other employee housing.

Horse Stables

The stable operation at Big Meadows will be discontinued, and the corral area rehabilitated. Concrete block buildings will be utilized for storage, and wooden sheds may be removed. The Park Service will purchase any possessory interest of ARA for these buildings. The existing horse trail will be routed away from the operations area. If demand remains, a modern stable of similar capacity will be constructed near the group horse campground.

Group Horse Campground

A group horse campground will be constructed opposite the road to the operations area. It will contain hitching racks for 50 horses, constructed with ample room to safely separate skittish horses. Adjacent to this area will be five group campsites that will accommodate up to ten campers. Each campsite will have several cooking grills and one fire ring. A standard size comfort station will be constructed for campers, and water spigots will be provided near the hitching racks for horses. A parking area for 30 cars and horse trailers will be provided, with ample room for maneuvering and unloading. Water, sewer, and power lines are available near the site.

Visitor Center

One room in the basement of the Byrd Visitor Center will receive temperature and humidity control for the storage of naturalist collections. The visitor lobby and exhibits will be improved.

Amphitheater

The Big Meadows amphitheater will be redesigned with seating for 400 visitors. Access and seating areas will be provided for wheelchair-bound visitors. A new stage screen and projection booth will be constructed of wood and incorporate a fire ring.

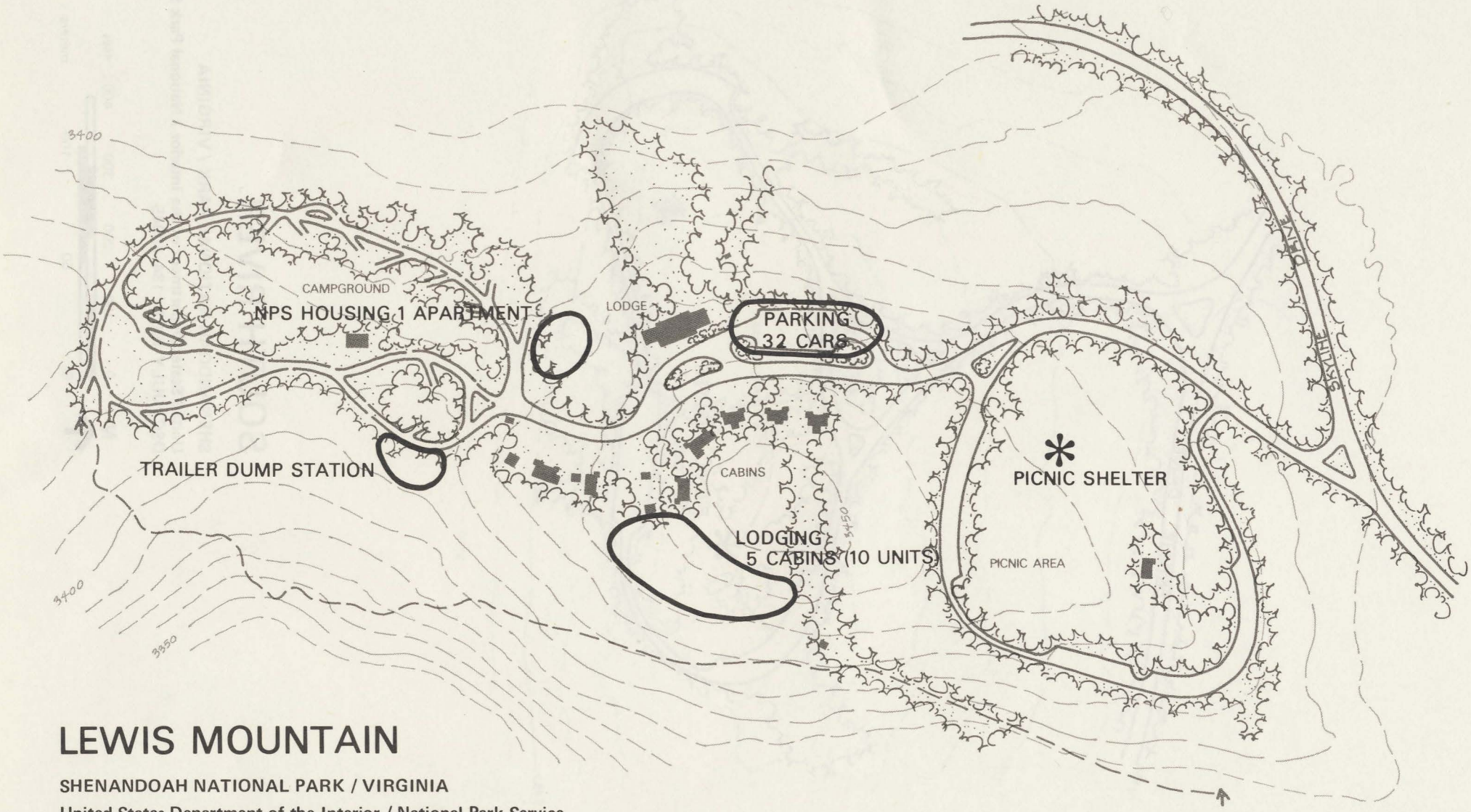
Picnic Area

A picnic shelter will be constructed in the picnic area for four small groups. It will be heavy timber and provide a sense of separation for the groups. Four charcoal-type fireplaces will be included and a water spigot will be provided from the nearby waterline. The existing comfort station will be made fully accessible.

Campground

A new campground registration/reservation building will be constructed at the entrance to the campground. This new structure will provide space for reservation services, a small staff office, a visitor reception and first-aid area, and a staff restroom. A small kiosk will be constructed between the two inbound and one outbound driving lanes to provide positive control of all egress from the campground. Parking will be provided for five cars adjacent to the reservation building. Both buildings will be constructed of wood frame on a concrete slab and be energy efficient. Existing water, power, and sewer lines will be connected, and two phone lines will be required.

The trailer dump station will be relocated to the campground from the NPS housing and maintenance area. The old dump site will be recovered, and the new site will provide better access for visitors needing this service.



LEWIS MOUNTAIN

SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134-40038

N

0 100 200 300 400 feet

0 50 100 meters



SOUTH RIVER

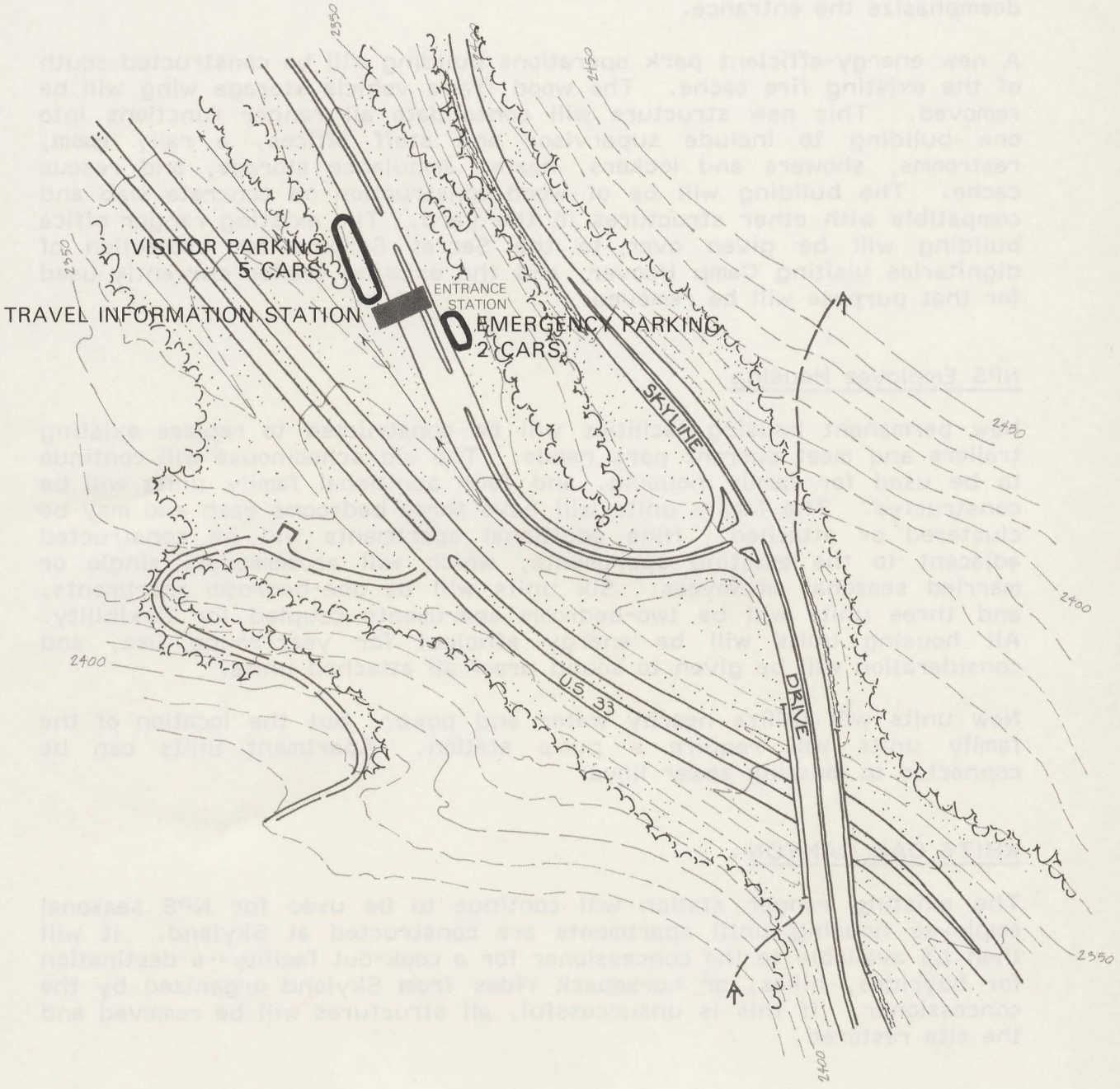
SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134-40045

N

0 100 200 300 400 feet

0 50 100 meters



SWIFT RUN GAP

SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134-40046

N

0 100 200 300 400 feet

0 50 100 meters

NPS Operations Area

All visitor use facilities will be removed from the NPS operations area, and the Y intersection at the entrance road will be realigned to deemphasize the entrance.

A new energy-efficient park operations building will be constructed south of the existing fire cache. The wood frame vehicle storage wing will be removed. This new structure will consolidate all ranger functions into one building to include supervisor and staff offices, a rally room, restrooms, showers and lockers, heated ambulance storage, and rescue cache. The building will be of wood construction on concrete slab and compatible with other structures in the yard. The existing ranger office building will be given over to the Secret Service for protection of dignitaries visiting Camp Hoover, and the existing trailer currently used for that purpose will be removed.

NPS Employee Housing

New permanent housing facilities will be constructed to replace existing trailers and meet current park needs. The old schoolhouse will continue to be used for family housing, and four additional family units will be constructed. The family units will have three bedrooms each and may be clustered or attached. Nine additional apartments will be constructed adjacent to the existing apartments, which will accommodate single or married seasonal employees. Six units will be one-bedroom apartments, and three units will be two-bedroom apartments coupled for flexibility. All housing units will be energy efficient for year-round use, and consideration will be given to sound proof all attached units.

New units will utilize nearby water and power, but the location of the family units will require a pump station. Apartment units can be connected to existing sewer lines.

WHITE OAK CANYON.

The existing ranger station will continue to be used for NPS seasonal employee housing until apartments are constructed at Skyland. It will then be available to the concessioner for a cook-out facility--a destination for hayrides, hikes, or horseback rides from Skyland organized by the concessioner. If this is unsuccessful, all structures will be removed and the site restored.

LEWIS MOUNTAIN

Lodge and Lodging Units

Five new tent-type cabins (10 units) similar to existing units will be constructed at Lewis Mountain. A sheltered picnic table and charcoal grill will be near each. They should be located to maximize privacy and to ensure that they do not intrude on vistas from Bearfence Mountain.

The interior of the lodge will be remodeled to make the building fully accessible; however, no exterior changes will be made.

Parking for additional cabin visitors will be provided by a slight expansion of the existing parking area from 24 to 32 cars.

Picnic Area

A picnic shelter will be constructed in the picnic area for four small groups; it will be of heavy timber and provide a sense of separation for the groups. Four separate charcoal-type fireplaces will be included with a water spigot provided from the nearby waterline. The existing comfort station will be made fully accessible.

Campground

A trailer dump station will be installed in the campground. The existing septic tank and leachfield will have to be increased to handle this additional flow.

NPS Employee Housing

A one-bedroom housing unit with a small visitor contact office will be located between the lodge and campground, which will be used seasonally. It will be connected to the enlarged septic field and to existing water and power. Parking for two vehicles will be provided.

SOUTH RIVER

A picnic shelter will be constructed in the picnic area to accommodate one large group or occasionally several small groups. It will be a heavy timber structure with a central fireplace and three charcoal grills. A water spigot will be provided from the nearby waterline, and the existing comfort station will be made fully accessible.

SWIFT RUN GAP

Visitor Parking

Visitor parking for five cars will be provided for people obtaining backcountry permits. At least one will be made fully accessible. Two spaces will be provided on the outbound lane for emergency stopping.

Travel Information Station

The antenna, transmitter, and message player for the travel information station will be located in the Swift Run entrance station. Signs immediately inside the park and along U.S. 33 will advise visitors to tune in their radio.

SOUTH DISTRICT

SIMMONS GAP

Operations Building

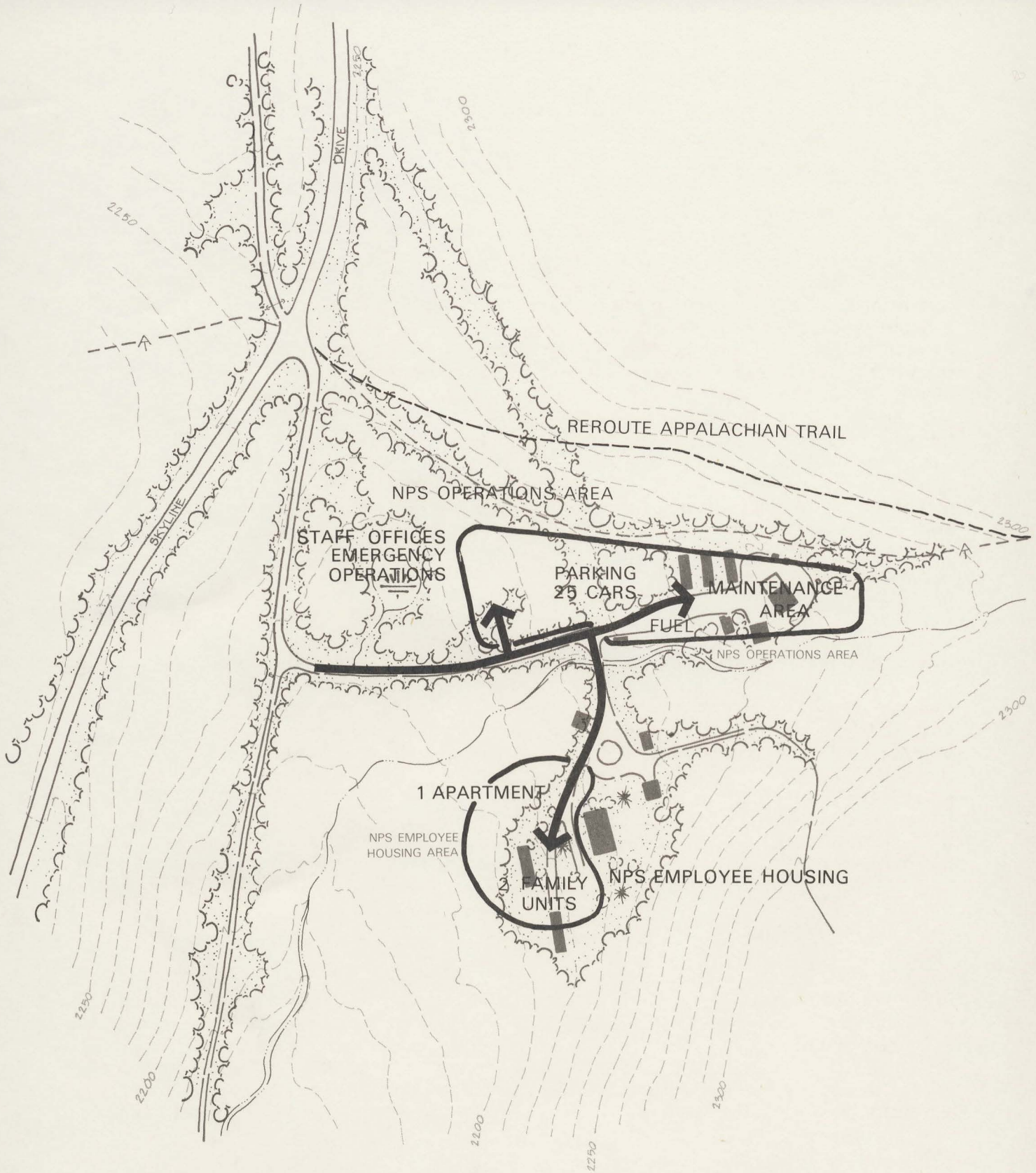
New construction at Simmons Gap will replace existing structures and trailers with energy-efficient buildings for maintenance and ranger operations in the South District. The building (or several buildings) will contain a district ranger office, supervisory ranger office, and two field ranger offices. A public information counter with storage will be adjacent to visitor parking. Structures will also contain a district maintenance office, a shared rally room for all divisions (for 25 people), lockers, showers, eight stalls for vehicles and/or shops, fire cache, ambulance garage, storage, tools, paint and oil storage, and a backup generator for the area. The design of some vehicle bays into shops for specific functions could allow some bays to be left unheated and improve energy efficiency. A fuel area will also be constructed with three large tanks and pumps and a small tank and hand pump.

A paved maintenance yard will be adjacent to the structure(s), surrounded by a fence to secure stored materials. Parking for 25 cars (at least two fully accessible) will be provided nearby for employees and visitors. Old structures will be retained as possible during construction until completion of the new building(s) to keep the site operational.

Passive solar energy can provide a large portion of heating requirements, and natural lighting and ventilation can improve the workplace and save energy. Buildings will be made of metal, concrete block, or other durable material. They will be screened from view from Skyline Drive, and the Appalachian Trail will be rerouted away from the yard. Existing water and power can be connected. The water supply will be improved by adding a 50,000-gallon water storage tank, and necessary improvements will be made to the sewer system.

NPS Employee Housing

In addition to the existing stone house (mission), two family units and one apartment will be constructed at Simmons Gap, and residential trailers will be removed. The family units will contain three bedrooms each, and the apartment will contain one bedroom. Most housing will be used year-round. Southern orientation and some clearing of trees will provide solar exposure. A mixture of private and common space with seven parking spaces will be provided for the residents. All utilities are currently available.



SIMMONS GAP

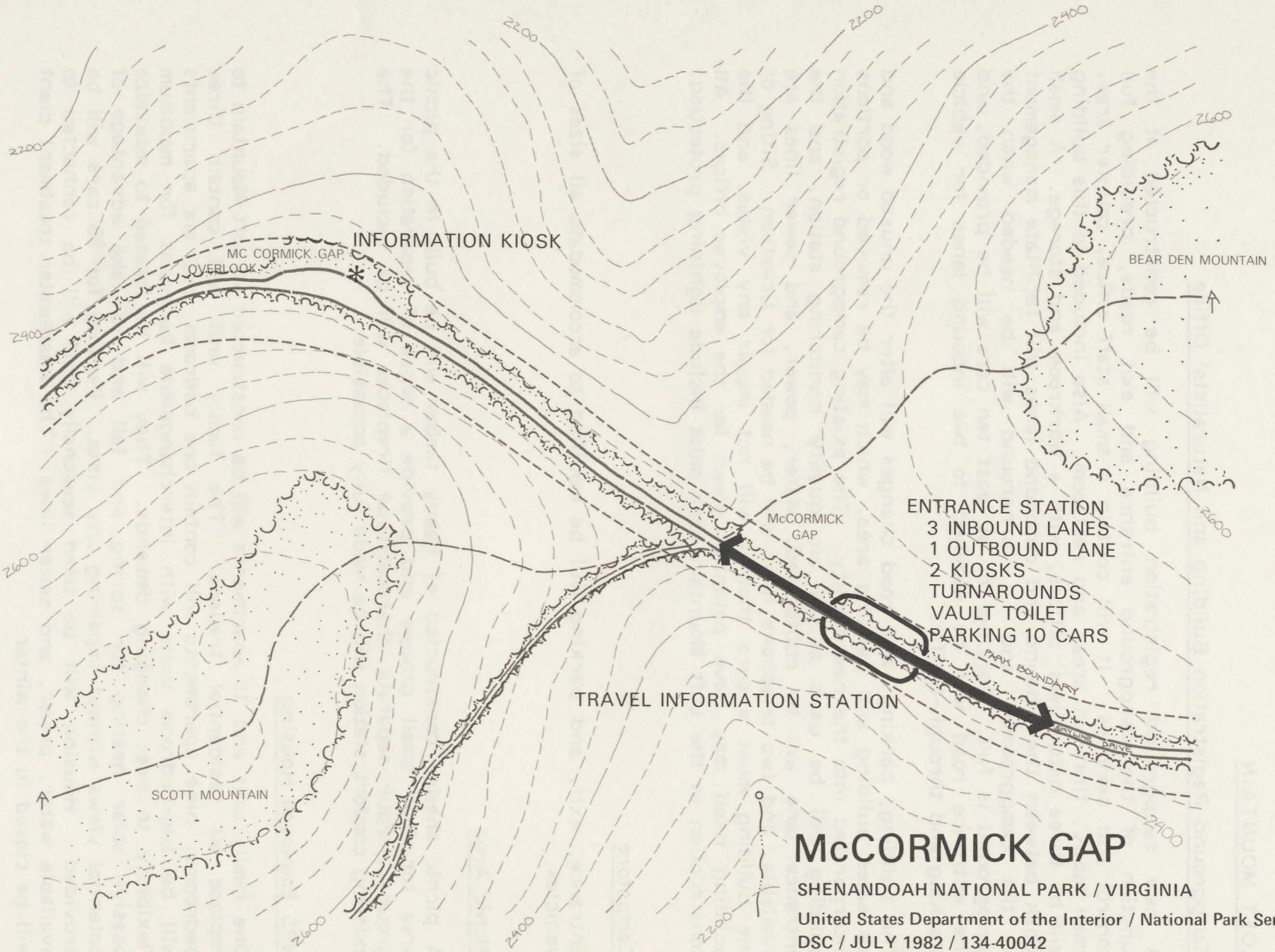
SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134-40043

N

0 100 200 300 400 feet

0 50 100 meters



McCORMICK GAP

SHENANDOAH NATIONAL PARK / VIRGINIA

United States Department of the Interior / National Park Service
DSC / JULY 1982 / 134-40042

N

0 200 400 600 800 feet

0 50 100 200 meters

LOFT MOUNTAIN

Campground Registration Building and Naturalists' Office

A new campground registration building will be constructed at the junction of the campground entrance and exit roads, providing full control and services. It will contain a small staff office, counter area, small lobby, first-aid area, and restroom. Also included in this building will be three naturalists' offices, with a workroom and storage. A small kiosk between the inbound and outbound lanes will facilitate management of the campground, and a turnaround will be needed when the campground is full. Parking for at least ten cars will be provided, and the entrance road will be widened to two inbound lanes for vehicle stacking and through-traffic.

The building, parking, and road changes will alter the unused wood and ice sales building and parking area, which may be removed or portions incorporated into the new facility. The existing campground registration building will be used as an air quality monitoring station, and the entrance lane will be obliterated. Water, power, and sewer lines are available, and two telephone lines will be needed for ticketron. Siting of the building must ensure that it will not impair any vistas, and the building itself may have potential views for the employee offices. All construction in the Loft Mountain area must include lightning protection.

Campstore

Entrance, exit, and parking will be modified to accommodate all sizes of vehicles.

Picnic Area

A picnic shelter constructed of heavy timber will be built in the picnic area for four small groups and provide a sense of separation for the groups. Four separate charcoal-type fireplaces will be included. The existing comfort station will be made fully accessible.

NPS Employee Housing

One family unit and 15 apartments will be constructed at Loft Mountain to replace all residential trailers. The family unit will contain three bedrooms, nine apartments will contain one bedroom, and six apartments will be two-bedroom units with interchangeable bedrooms for maximum flexibility to meet changing demands. They will be located to maximize passive solar heating for spring and fall and to take advantage of potential views without impairing any vista. Parking for 25 cars will be provided. Housing will be used seasonally and will be connected to available water, power, and sewer lines. The wastewater treatment plant will be closed in the winter.

DUNDO

The seven group campsites will be made fully accessible as will the vault toilet.

SAWMILL RUN

The existing NPS employee residence and ranger station trailer will be hauled out and the site restored.

ROCKFISH GAP/McCORMICK GAP

Entrance Station

The existing Rockfish entrance station will be replaced by a new facility at McCormick Gap, where there is more suitable land for an adequate entrance station. A small building will contain a desk, counter, and small lobby for visitors to obtain backcountry permits, a private staff office for remittance, and storage. One or two kiosks will be constructed as needed to contact the three entrance lanes and one exit lane. Ten visitor and employee parking spaces will be provided.

Utilities are not available at the site, so power will be brought down underground from Bear Den Mountain. A nearby vault toilet will be constructed for employees, with contents pumped and carried to NPS wastewater treatment plants. Bottled water will be provided to employees. The building and kiosks will be constructed to minimize automobile exhaust infiltration. The entrance will be sited to minimize exposure to wind at the gap and to take advantage of passive solar heating opportunities for the colder months. Construction will blend in scale and finish materials into the open land to minimize possible visual intrusion to the nearby Appalachian Trail. The facility will provide information and necessary backcountry permits to hikers on this trail.

Visitor Contact Station

A complete visitor information and contact station is needed at Rockfish Gap, but no site is currently available. An island between roads owned by the state and Blue Ridge Parkway was studied for such a facility and considered infeasible. A cooperative effort with other agencies and organizations such as Blue Ridge Parkway, Virginia State Travel Service, George Washington National Forest, or local Chambers of Commerce is needed to establish an information facility. It needs to be a site or structure easily identifiable at the gap to best serve visitors at this busy crossroads and to provide adequate parking. The site or structure could be leased, donated, or exchanged. Adequate room for a lobby, information counters, publications sales, exhibits, public restrooms, and administrative space will be required.

Operations Area

As discussed in the GMP, a cooperatively established operations area will be sought on donated, exchanged, or leased land or existing facilities. NPS needs will include a fire cache, rescue cache, ambulance storage, operations garage, storage, and NPS employee housing. Agencies and organizations such as the Blue Ridge Parkway, George Washington National Forest, and Virginia Department of Highways will be sought as partners in such an endeavor.

Travel Information Station

The installation of a travel information station is particularly important at Rockfish Gap because of the uncertainty of establishing a visitor contact station and the location of the entrance station 3 miles inside the boundary. Space may be leased at the gap for the antenna, transmitter, and message player. Signs immediately inside the park, on Blue Ridge Parkway, along U.S. 250, and on I-64 will advise visitors to tune in their radio.

EPILOGUE

The concepts and proposals presented in the Draft General Management Plan provide a vision of protection and use of Shenandoah for the next decade. Various subsequent plans and programs will be the vehicles for implementation. Prepared and carried out in detail, these plans and programs are integrated with one another and unified by this plan. The following discussions cover the several implementary plans and programs that will be required.

LEGISLATION

The "Land Protection" section indicates three actions that require federal legislation in order to eliminate certain park holdings. These actions are a trade (resulting in a net deletion of acreage) with the Virginia Department of Highways; transfer of jurisdiction and administration of 10 acres to the U.S. Customs Service; and deletion of land under and along Criser Road to the city of Front Royal. It is expected that all minor actions will be incorporated into an omnibus bill of other actions for the National Park System.

LAND DONATION AND EXCHANGE PLANS

These plans will be prepared for each transaction and will include endangered plant/animal and cultural resources studies; boundary surveys; deed descriptions and recordings; and appraisals in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, PL 91-646.

NATURAL RESOURCE MANAGEMENT

The concepts provided in this document will be used to prepare a natural resource management plan and site and/or subject-specific implementation plans. These plans will focus on several surveys, as well as on fire management, vegetation management, and pollution abatement.

CULTURAL RESOURCE MANAGEMENT

Parkwide and site-specific implementation surveys and plans will be required for a more complete inventory and for protection and use of archeological and historic resources. For example, historic structure reports will be prepared for most structures and used to make definitive decisions as to the most appropriate level of protection. All actions will comply with the Advisory Council on Historic Preservation regulations (36 CFR 800), National Park Service "Management Policies," and other National Park Service historic preservation policies and procedures.

DEVELOPMENT CONCEPT PLANS

These plans are described in this combined document.

INTERPRETIVE PROSPECTUS

A parkwide interpretive prospectus or three district interpretive prospectuses will be prepared from the interpretive concepts provided. These documents will articulate the presentation and content of interpretation at each site in the park. Media and exhibit plans will be prepared after the prospectuses are completed and can be incorporated into comprehensive design plans.

DESIGN AND CONSTRUCTION DOCUMENTS

Before facilities are actually built, drawings, specifications, and contracting documents are prepared to ensure compatible and proficient design and construction. Projects may vary from a small single facility to a large multiple facility project.

CONCESSIONS MANAGEMENT PLAN

Park staff will prepare and maintain a current concessions management plan to govern the services and facilities of the ARA Virginia Sky-Line Company and the Potomac Appalachian Trail Club currently being operated under a contract that expires in 1988 and a permit that expires in 1986, respectively. Renewals will depend on past level of performance and economic viability and future expectations. Appropriate studies will be undertaken to ensure good visitor services by these parties or successors, in accordance with National Park Service policies and procedures.

TRANSPORTATION STUDIES

Before formalized visitor sightseeing service(s) can be effectuated, a thorough study must be undertaken in cognizance of the Department of the Interior and Office of Management and Budget criteria. Close attention must be paid to alternatives, cost-effectiveness, and user fees, as well as equipment and capacities. The National Park Service will not finance or subsidize any transportation system operating outside the boundaries of the park.

STAFFING

As visitation and facilities expand, an increase in protection, maintenance, and visitor service staff will be required. Some of these staffing requirements could be met with VIPs (Volunteers in Parks), college work-study students, and other similar programs using volunteers. Cooperating associations, such as the Shenandoah Natural

History Association, may be able to handle interpretation at some of the sites in the park, and interest groups such as riding and hiking clubs may be able to assist in trail maintenance.

FUNDING

Monies for development, staffing, research, and further detail planning and studies will need to be sought and obtained. Normal budgetary efforts will include the use of forms 10-238 and 10-237 for development and staffing. Special emphasis funds will be sought for concessions management, cyclic maintenance, research, interpretation, and the like, as available and needed.

While the above indicates the normal National Park Service funding methods, occasional donations from private individuals, cooperating associations, and others will be used as available.

APPENDIXES

An Act To provide for the securing of lands in the southern Appalachian Mountains and in the Mammoth Cave regions of Kentucky for perpetual preservation as national parks, approved February 21, 1925 (43 Stat. 958)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is hereby authorized and directed to determine the boundaries and area of such portion of the Blue Ridge Mountains of Virginia lying east of the South Fork of the Shenandoah River and between Front Royal on the north and Waynesboro on the south as may be recommended by him to be acquired and administered as a national park, to be known as the Shenandoah National Park, and such portion of the Smoky Mountains lying in Tennessee and North Carolina as may be recommended by him to be acquired and administered as a national park, to be known as the Smoky Mountains National Park, and in the Mammoth Cave regions of Kentucky and also such other lands in the southern Appalachian Mountains as in his judgment should be acquired and administered as national parks, and to receive definite offers of donations of lands and moneys, and to secure such options as in his judgment may be considered reasonable and just for the purchase of lands within said boundaries, and to report to Congress thereon: *Provided*, That the Secretary of the Interior may, for the purpose of carrying out the provisions of this Act, appoint a commission of five members, composed of a representative of the Interior Department and four national park experts, said four members to serve without compensation. (U.S.C., 6th supp., title 16, sec. 403c.)

National Parks. Determination of areas to be acquired for Shenandoah, Va., and Smoky Mountains, Tenn. and N.C.

Lands in Mammoth Cave regions of Kentucky, etc.

Securing options, etc.

Proviso.

Commission to be appointed. (Referred to in sec. 4, vol. 44, p. 616. See p. 285.)

SEC. 2. A sum sufficient to secure options and to pay the necessary expenses of the commission in carrying out the provisions of this Act, including the salary of one clerk to the commission at a rate not to exceed $2,000 per annum, necessary traveling expenses of the members of the commission, and $10 per diem in lieu of actual cost of subsistence, in all, not to exceed $20,000 is hereby authorized to be appropriated.

Amount authorized for expenses.

An Act To provide for the establishment of the Shenandoah National Park in the State of Virginia and the Great Smoky Mountain National Park in the States of North Carolina and Tennessee, and for other purposes, approved May 22, 1926 (44 Stat. 616)

National Parks. Shenandoah, Va., and Great Smoky Mountains, N.C., and Tenn., set apart as, when lands therefor vested in United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when title to lands within the areas hereinafter referred to shall have been vested in the United States in fee simple there shall be, and are hereby, established, dedicated, and set apart as public parks for the benefit and enjoyment of the people, the tract of land in the Blue Ridge, in the State of Virginia, being approximately five hundred and twenty-one thousand acres recommended by the Secretary of the Interior in his report of April 14, 1926, which area, or any part or parts thereof as may be accepted on behalf of the United States in accordance with the provisions hereof, shall be known as the Shenandoah National Park; and the tract of land in the Great Smoky Mountains in the States of North Carolina and Tennessee being approximately seven hundred and four thousand acres, recommended by the Secretary of the Interior in his report of April 14, 1926, which area, or any part or parts thereof as may be accepted on behalf of the United States in accordance with the provisions hereof, shall be known as the Great Smoky Mountains National Park: *Provided*, That the United States shall not purchase by appropriation of public moneys any land within the aforesaid areas, but that such lands shall be secured by the United States only by public or private donation. (U.S.C., 6th supp., title 16, sec. 403.)

Tract in the Blue Ridge, Va. See p. 283.

In the Great Smoky Mountains, N.C. and Tenn.

Proviso. Lands to be secured only by donation.

SEC. 2. The Secretary of the Interior is hereby authorized, in his discretion, to accept as hereinafter provided on behalf of the United States title to the lands referred to in the previous section hereof and to be purchased with the $1,200,000 which has been subscribed by the State of Virginia and the Shenandoah National Park Association of Virginia and with other contributions for the purchase of lands in the Shenandoah National Park area, and with the $1,066,693 which has been subscribed by the State of Tennessee and the Great Smoky Mountains Conservation Association and by the Great Smoky Mountains (Incorporated) (North Carolina) and with other contributions for the purchase of lands in the Great Smoky Mountains National Park area. (U.S.C., 6th supp., title 16, sec. 403a.)

Acceptance of title of lands in Shenandoah Park area in Virginia.

In Smoky Mountain Park area in Tennessee and North Carolina.

SEC. 3. That the administration, protection, and development of the aforesaid parks shall be exercised under the direction of the Secretary of the Interior by the National Park Service, subject to the provisions of the Act of August 25, 1916, entitled "An Act to establish a National Park Service, and for other purposes," as amended: *Provided*, That the provisions of the Act approved June 10, 1920, known as the Federal Water Power Act, shall not apply to these parks: *And provided further*, That the minimum area to be administered and protected by the National Park Service shall be for the Shenandoah National Park area two hundred and fifty thousand acres[1] and for the Great Smoky Mountains National Park area one hundred and fifty thousand acres: *Provided further*, That no general development of either of these areas shall be undertaken until a major portion of the remainder in such area shall have been accepted by said Secretary. (U.S.C., 6th supp., title 16, sec. 403b.)

National Park Service to administer, etc. Vol. 39, p. 535. See p. 9.

Proviso. Water Power Act not applicable. Vol. 41, p. 1063.

Minimum area specified.

Area to be accepted before any development made.

SEC. 4. The Secretary of the Interior may for the purpose of carrying out the provisions of this Act employ the commission authorized by the Act approved February 21, 1925. (U.S.C., 6th supp., title 16, sec. 403c.)

Commission employed. Vol. 43, p. 968. See p. 253.

An Act To establish a minimum area for a Shenandoah National Park, for administration, protection, and general development by the National Park Service, and for other purposes, approved February 16, 1929 (45 Stat. 1209)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the minimum area for administration, protection, and general development by the National Park Service in the Shenandoah National Park, the establishment of which is provided for by the Act of Congress approved May 22, 1926 (Forty-fourth Statutes, page 616), be, and the same is hereby, established as three hundred and twenty-seven thousand acres, and so much of the said Act of May 22, 1926, as is inconsistent herewith is hereby repealed. (U.S.C., 6th supp., title 16, sec. 403d.)

Shenandoah National Park, Va. Minimum area of, established.[1] Vol. 44, p. 616, amended. See p. 284.

SEC. 2. That the Secretary of the Interior is hereby authorized to lease lands within the Shenandoah National Park and Great Smoky Mountains National Park for periods not exceeding two years, upon such conditions as he may in his discretion deem proper, to persons and educational or religious institutions occupying same or who had or claim to have had some interest in the title to the same prior to the establishment of the park. (U.S.C., 6th supp., title 16, sec. 403e.)

Leases authorized to prior occupants of lands in Shenandoah and Great Smoky Mountains Parks.

An Act To establish a minimum area for a Shenandoah National Park, for administration, protection, and general development by the National Park Service, and for other purposes, approved February 4, 1932 (47 Stat. 37)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the minimum area for administration, protection, and general development by the National Park Service in the Shenandoah National Park, the establishment of which is provided for by the Act of Congress approved May 22, 1926 (44 Stat. 616), be, and the same is hereby, established as one hundred and sixty thousand acres, and so much of the said Act of May 22, 1926, and of the Act of February 16, 1928 (45 Stat. 109), as is inconsistent herewith is hereby repealed. (U.S.C., 6th supp., title 16, sec. 403d.)

Shenandoah National Park. Area for development by National Park Service, established. Vol. 44, p. 616. See p. 284. Vol. 45, p. 109. See p. 285.

SEC. 2. That the Secretary of the Interior be, and he is hereby, authorized in his discretion to accept title to lands tendered without cost to the United States within the areas of the Shenandoah National Park, the Great Smoky Mountains National Park, Mammoth Cave National Park, and the Isle Royale National Park, subject to leases entered into and granted as part consideration in connection with the purchase of said land for tender to the United States for park purposes, but not exceeding in length of term the life of the particular grantor or grantors: *Provided*, That said leases and the terms and conditions thereof shall have previously been submitted to and approved by said Secretary: *And provided further*, That he may lease upon such terms and conditions as he deems proper any lands within the aforesaid areas when such use shall not be deemed by him inconsistent with the purposes for which the lands were acquired on behalf of the United States, to persons, educational or religious institutions, private corporations, associations, and partnerships previously occupying such land for terms not exceeding the particular lifetime in the case of natural persons, and not exceeding twenty years in all other cases, which latter leases may be renewed in the discretion of said Secretary: *And provided further*, That the Secretary of the Interior may accept lands for these parks subject to reservations of rights of way and easements. (U.S.C., 6th supp., title 16, sec. 403f.)

Acceptance of title to land, subject to leases.

Provisos.
Approval of Secretary of the Interior, required.

Authority to lease lands.

Acceptance of lands subject to easements, etc.

An Act To direct the Secretary of the Interior to notify the State of Virginia that the United States assumes police jurisdiction over the lands embraced within the Shenandoah National Park, and for other purposes, approved August 19, 1937 (50 Stat. 700)[1]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior be, and is hereby, directed to give notice to the State of Virginia through its Governor, as contemplated by the Act of the General Assembly of the State of Virginia approved March 28, 1928, that the United States assumes police jurisdiction over lands lying in the State of Virginia and included within the Shenandoah National Park, title to and exclusive jurisdiction over said lands having been conveyed and ceded under and by authority of said Act and accepted by the Secretary of the Interior, saving, however, to the State of Virginia the right to serve civil or criminal process within the limits of the aforesaid park in suits or prosecutions for or on account of rights acquired, obligations incurred, or crimes committed in said State outside of said park; and saving further to the said State the right to tax persons and corporations, their franchises and property on the lands included in said park; and saving also to the persons residing in said park now, or hereafter, the right to vote at all elections held within the county or counties in which said park is situated; and saving further to the said State the right to tax sales of gasoline and other motor vehicle fuels and oil for use in motor vehicles. The Secretary is further directed to give like notice as to lands hereafter conveyed to the United States under like authority at such time or times as he shall determine to be consistent with the interests of the United States. All the laws applicable to places under sole and exclusive jurisdiction of the United States shall have force and effect in said park. All fugitives from justice taking refuge in said park shall be subject to the same laws as refugees from justice found in the State of Virginia. (16 U.S.C. 403c-1.)

Shenandoah National Park, Va.

Police jurisdiction assumed by United States.

Exceptions.

Service of process, suits, etc., arising outside.

State tax powers.

Franchise.

Gasoline, etc., tax.

Provisions applicable to future conveyances.

Application of laws.

Fugitives from justice.

SEC. 2. That said park shall constitute a part of the United States judicial district for the western district of Virginia, and the district court of the United States in and for said district shall have jurisdiction of all offenses committed within the boundaries of the said park. (16 U.S.C. sec. 403c-2.)

District court for western district of Virginia, jurisdiction of.

SEC. 3. That all hunting or the killing, wounding, or capturing at any time of any wild bird or animal, except dangerous animals when it is necessary to prevent them from destroying human lives or inflicting personal injury, is prohibited within the limits of said park; nor shall any fish be taken out of any of the waters of the said park, in any other way than by hook and line, and then only at such seasons and at such times and in such manner as may be directed by the Secretary of the Interior. That the Secretary of the Interior shall make and publish such general rules and regulations as he may deem necessary and proper for the management and care of the park and for the protection of the property therein, especially for the preservation from injury or spoliation of all timber, mineral deposits, natural curiosities, or wonderful objects within said park, and for the protection of the animals and birds in the park from capture or destruction, and to prevent their being frightened or driven from the said park; and he shall make rules and regulations governing the taking of fish from the streams or lakes in the said park. Possession within said park of the dead bodies or any part thereof of any wild

Protection of birds and animals.

Unlawful fishing.

Administrative rules, etc.

Unlawful acts, evidence of violations.

bird or animal shall be prima-facie evidence that the person or persons having same are guilty of violating this Act. Any person or persons, or stage or express company, or railway company, who knows or has reason to believe that they were taken or killed contrary to the provisions of this Act, and who receives for transportation any of said animals, birds, or fish so killed, caught, or taken, or who shall violate any of the other provisions of this Act, or any rule or regulation that may be promulgated by the Secretary of the Interior, with reference to the management and care of the said park, or for the protection of the property therein for the preservation from injury or spoliation of timber, mineral deposits, natural curiosities, or wonderful objects within said park, or for the protection of the animals, birds, or fish in the said park, or who shall within said park commit any damage, injury or spoliation to or upon any building, fence, sign, hedge, gate, guide post, tree, wood, underwood, timber, garden, crops, vegetables, plants, land, springs, mineral deposits, natural curiosities, or other matter or thing growing or being thereon, or situated therein, shall be deemed guilty of a misdemeanor and shall be subject to a fine of not more than $500 or imprisonment not exceeding six months, or both, and be adjudged to pay all the costs of the proceedings. (16 U.S.C. sec. 403c-3.)

Penalty provisions.

SEC. 4. That all guns, traps, nets, seines, teams, horses, or means of transportation of every nature or description, used by any person or persons within the limits of said park when engaged in killing, trapping, ensnaring, taking, or capturing such wild beasts, birds, fish, or animals, shall be forfeited to the United States and may be seized by the officers in said park and held pending prosecution of any person or persons arrested under the charge of violating the provisions of this Act, and upon conviction under this Act of such person or persons using said guns, traps, nets, seines, teams, horses, or other means of transportation, such forfeiture shall be adjudicated as a penalty in addition to the other punishment prescribed in this Act. Such forfeited property shall be disposed of and accounted for by and under the authority of the Secretary of the Interior. (16 U.S.C. sec. 403c-4.)

Guns, traps, teams, etc., forfeiture or seizure for violations.

Disposition of.

SEC. 5. That upon the recommendation and approval of the Secretary of the Interior of a qualified candidate the United States District Court for the Western District of Virginia shall appoint a commissioner who shall have jurisdiction to hear and act upon all complaints made of any violations of law or of the rules and regulations made by the Secretary of the Interior for the government of the park and for the protection of the animals, birds, and fish, and objects of interest therein, and for other purposes, authorized by this Act. Such commissioner shall have power, upon sworn information, to issue process in the name of the United States for the arrest of any person charged with the commission of any misdemeanor, or charged with a violation of the rules and regulations, or with a violation of any of the provisions of this Act prescribed for the government of said park and for the protection of the animals, birds, and fish in said park, and to try the person so charged, and, if found guilty, to impose punishment and to adjudge the forfeiture prescribed. In all cases of conviction an appeal shall lie from the judgment of said commissioner to the United States District Court for the Western District of Virginia and the United States District Court in the aforementioned district shall prescribe the rules of procedure and practice for said commissioner in the trial of cases and for appeal to said United States District Court. (16 U.S.C. sec. 403c-5.)

United States commissioner. Appointment, jurisdiction.

Judicial powers in violation of rules, etc.

Appeals.

Duties, powers, etc.

SEC. 6. That any and all United States commissioners now or hereafter authorized to act within the western district of Virginia and any and all persons who shall hereafter succeed to the duties, powers, and authority of United States commissioners in and for said district shall have full power, authority, and jurisdiction to act, with respect to offenses or violations of law occurring within the limits of the Shenandoah National Park, as the United States commissioner for the Shenandoah National Park may act with respect to offenses or violations of law occurring within the limits of said park. (16 U.S.C. sec. 403c-6.)

Arrest and confinement of persons charged with crime.

SEC. 7. That such commissioner shall also have power to issue process as hereinbefore provided for the arrest of any person charged with the commission within said park of any criminal offense not covered by the provisions of section 3 of this Act, to hear the evidence introduced, and, if he is of the opinion that probable cause is shown for holding the person so charged for trial, shall cause such person to be safely conveyed to a secure place of confinement within the jurisdiction of the United States District Court for the Western District of Virginia, and certify a transcript of the record of his proceedings and the testimony in such case to court, which court shall have jurisdiction of the case: *Provided,* That the said commissioner shall grant bail in all cases bailable under the laws of the United States or of said State. (16 U.S.C. sec. 403c-7.)

Proviso.

Bail.

Processes directed to marshal.

SEC. 8. That processes issued by the commissioner shall be directed to the marshal of the United States for the western district of Virginia but nothing herein contained shall be so construed as to prevent the arrest by any officer or employee of the Government or any person employed by the United States, without process of any person taken in the act of violating the law or this Act or the regulations prescribed by the said Secretary as aforesaid. (16 U.S.C. sec. 403c-8.)

Salary.

SEC. 9. That the commissioner provided for in this Act shall be paid an annual salary, as appropriated for by Congress: *Provided,* That the said commissioner shall reside within the exterior boundaries of the Shenandoah National Park or at a place reasonably adjacent to the park, the place of residence to be designated by the Secretary of the Interior: *And provided further,* That all fees, costs, and expenses collected by the commissioner shall be disposed of as provided in section 11 of this Act. (16 U.S.C. sec. 403c-9.)

Provisos.

Residence.

Disposal of fees, etc.

Fees chargeable to United States, payment of.

SEC. 10. That all fees, costs, and expenses arising in cases under this Act and properly chargeable to the United States shall be certified, approved, and paid as are like fees, costs, and expenses in the courts of the United States. (16 U.S.C. sec. 403c-10.)

Deposit of fines and costs.

SEC. 11. That all fines and costs imposed and collected shall be deposited by said commissioner of the United States, or the marshal of the United States collecting the same, with the clerk of the United States District Court for the Western District of Virginia. (16 U.S.C. sec. 403c-11.)

An Act To add certain lands of the Front Royal Quartermaster Depot Military Reservation, Virginia, to the Shenandoah National Park, and for other purposes, approved June 13, 1939 (53 Stat. 815)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following-described lands of the Front Royal Quartermaster Depot Military Reservation, Virginia, are hereby made a part of the Shenandoah National Park, subject to all laws and regulations applicable thereto: Beginning at concrete monument numbered 10 in the boundary line of the Front Royal Remount Depot, and running thence along said boundary line, north 70 degrees 00 minutes west 3,465.0 feet to monument numbered 11, thence north 40 degrees 30 minutes west 1,881.0 feet to monument numbered 12, thence north 2 degrees 00 minutes west 792.0 feet to monument numbered 13, thence north 78 degrees 00 minutes west 693.0 feet to monument numbered 14, thence south 1 degree 30 minutes west 379.5 feet to monument numbered 15, thence south 61 degrees 15 minutes west 2,244.0 feet to monument numbered 16, thence south 16 degrees 00 minutes east 2,640.0 feet to monument numbered 17, thence south 61 degrees 15 minutes west 3,333.0 feet to monument numbered 18, thence south 15 degrees 00 minutes east 646.8 feet to monument numbered 19, thence south 63 degrees 00 minutes west 627.0 feet to monument numbered 20, thence south 15 degrees 00 minutes west 1,254.0 feet to monument numbered 21, thence south 48 degrees 00 minutes east 3,267.0 feet to monument numbered 22, thence north 34 degrees 00 minutes east 297.0 feet to monument numbered 23, thence north 25 degrees 00 minutes west 1,551.0 feet to monument numbered 24, thence north 67 degrees 00 minutes east 1,716.0 feet to monument numbered 25, thence north 58 degrees 00 minutes east 2,862.75 feet to monument numbered 26, thence north 79 degrees 00 minutes east 2,377.15 feet to monument numbered 27, thence south 28 degrees 30 minutes west 338.25 feet to monument numbered 28 (offset 4 feet west), thence south 30 degrees 00 minutes west 462.0 feet to monument numbered 29 (offset 14 feet east), thence south 40 degrees 00 minutes west 396.0 feet to monument numbered 30 (offset 9.0 feet east), thence south 54 degrees 00 minutes west 132.0 feet to monument numbered 31 (offset 10.0 feet east), thence south 75 degrees 00 minutes west 429.0 feet to monument numbered 32, thence south 62 degrees 00 minutes west 297.0 feet to monument numbered 33 (offset 3.0 feet southeast), thence south 41 degrees 00 minutes west 462.0 feet to monument numbered 34 (offset 5.0 feet south), thence south 53 degrees 00 minutes west 264.0 feet to monument numbered 35 (offset 4 feet south), thence south 80 degrees 00 minutes west 165.0 feet to monument numbered 36 (offset 8.0 feet south), thence north 85 degrees 00 minutes west 396.0 feet to monument numbered 37 (offset 9.0 feet

Shenandoah National Park, Va.

Certain lands of Front Royal Quartermaster Depot Military Reservation added to.

Description.

north), south 40 degrees 00 minutes west 354.75 feet to monument numbered 38, thence south 27 degrees 00 minutes east 1,023.0 feet to monument numbered 39, thence north 73 degrees 30 minutes east, 1,518.0 feet to monument numbered 40, thence north 52 degrees 00 minutes east 330.0 feet to monument numbered 41, thence along a proposed boundary line north 19 degrees 51 minutes east 1,684.5 feet to point A.1, thence north 52 degrees 20 minutes east 1,107.0 feet to point A.2, thence north 39 degrees 26 minutes east 717.5 feet to a point A.3, thence north 26 degrees 11 minutes east 1,978.0 feet to concrete monument numbered 10, the point of beginning, it being the intent of this Act to add to the Shenandoah National Park all that portion of the Front Royal Quartermaster Depot Military Reservation lying west of a line between monuments numbered 41 and 10, as described by the last four courses of the above description. The tract as described contains an area 977½ acres, more or less. (16 U.S.C. sec. 403-1.)

An Act To amend section 1 of the Act approved August 19, 1937 (50 Stat. 700), entitled "An Act to direct the Secretary of the Interior to notify the State of Virginia that the United States assumes police jurisdiction over the lands embraced within the Shenandoah National Park, and for other purposes," approved June 5, 1942 (56 Stat. 321)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 1 of the Act of August 19, 1937 (50 Stat. 700), entitled "An Act to direct the Secretary of the Interior to notify the State of Virginia that the United States assumes police jurisdiction over the lands embraced within the Shenandoah National Park, and for other purposes", is hereby amended to read as follows:

Shenandoah National Park, Va.

16 U.S.C. secs. 403c-1.

"That in order to provide for uniform Fereral jurisdiction over all of the lands now or hereafter embraced within the Shenandoah National Park, the provisions of the Act of the General Assembly of the Commonwealth of Virginia, approved April 1, 1940 (Acts of 1940, ch. 402, p. 725), fixing and defining the respective jurisdiction and powers of the Commonwealth of Virginia and the United States and ceding to the United States exclusive police jurisdiction over all lands now or hereafter included within the park are hereby accepted and such exclusive jurisdiction is assumed by the United States over such lands. From the effective date of this Act the respective jurisdiction and powers of the Commonwealth of Virginia and the United States over all lands within the Shenandoah National Park as it is now constituted or may hereafter be extended shall be as follows:

Assumption by U. S. of exclusive police jurisdiction.

State and Federal powers defined.

"(a) The United States shall have exclusive jurisdiction, legislative, executive, and judicial, with respect to the commission of crimes, and the arrest, trial, and punishment therefor, and exclusive general police jurisdiction thereover. U. S. jurisdiction and powers. Commission of crimes.

"(b) The United States shall have the power to regulate or prohibit the sale of alcoholic beverages on said lands: *Provided, however,* That, if the sale of alcoholic beverages is prohibited by general law in the Commonwealth of Virginia outside of said lands, no such alcoholic beverages shall be sold on said lands contained in said park area: *And provided further,* That, if the general laws of the Commonwealth of Virginia permit the sale of alcoholic beverages, then the regulations of the United States relating to such sales on said lands shall conform as nearly as possible to the regulatory provisions in accordance with which such sales are permitted in the Commonwealth of Virginia outside of said park lands. Nothing in this subsection shall be construed as reserving in the Commonwealth power to require licenses of persons engaged in the sale of intoxicating beverages on said lands, nor the power to require that any sales be made through official liquor stores. Sale of alcoholic beverages. *Provisos.* Effect of general laws of Virginia.

"(c) The Commonwealth of Virginia shall have jurisdiction to serve civil process within the limits of said park in any suits properly instituted in any of the courts of the Commonwealth of Virginia, and to serve criminal process within said limits in any suits or prosecutions for or on account of crimes committed in said Commonwealth but outside of said park. Jurisdiction and powers of Virginia. Service of process.

"(d) The Commonwealth of Virginia shall have the jurisdiction and power to levy a nondiscriminatory tax on all alcoholic beverages possessed or sold on said lands. Beverage tax.

"(e) The Commonwealth of Virginia shall have jurisdiction and power to tax the sales of oil and gasoline, and other motor-vehicle fuels and lubricants for use in motor vehicles. This subsection shall not be construed as a consent by the United States to the taxation by the Commonwealth of such sales for the exclusive use of the United States. Motor-vehicle fuel, etc., taxes.

"(f) The Commonwealth of Virginia shall have the jurisdiction and power to levy nondiscriminatory taxes on private individuals, associations, and corporations, their franchises and properties, on said lands, and on their businesses conducted thereon. Taxes on individuals, corporations, etc.

"(g) The courts of the Commonwealth of Virginia shall have concurrent jurisdiction with the courts of the United States of all civil causes of action arising on said lands to the same extent as if the cause of action has arisen in the county or city in which the land lies outside the park area, and the State officers shall have jurisdiction to enforce on said lands the judgments of said State courts and the collection of taxes by appropriate process. Concurrent jurisdiction in civil actions. Enforcement of judgments; collection of taxes.

"(h) Persons residing in or on any of the said lands embraced in said Shenandoah National Park shall have the right to establish a voting residence in Virginia by reason thereof, and the consequent right to vote at all elections within the county or city in which said land or lands upon which they reside are located upon like terms and conditions, and to the same extent, as they would be entitled to vote in such county or city if the said lands on which they reside had not been deeded or conveyed to the United States of America. All fugitives from justice taking refuge in the park shall be subject to the same laws as refugees from justice found in the Commonwealth of Virginia." (16 U.S.C. sec. 403c-1.) Right to vote. Fugitives from justice.

Excerpt from "An Act To authorize the disposition of recreational demonstration projects, and for other purposes," approved June 6, 1942 (56 Stat. 327)

SEC. 2. From and after the date of this Act, the lands acquired for the Acadia, French Creek, Shenandoah, and White Sands recreational demonstration projects shall be added to and become a part of Acadia National Park, Hopewell Village National Historic Site, Shenandoah National Park, and White Sands National Monument, in the order named above, subject to all laws, rules, and regulations applicable to the respective areas to which such recreational demonstration projects are added: *Provided,* That within six months after the date of this Act the Secretary of the Interior shall file with The National Archives a map of each recreational demonstration project enumerated in this section. (16 U.S.C. sec. 459s.)

An Act To provide that the United States District Court for the Western District of Virginia shall alone appoint the United States commissioner for the Shenandoah National Park, approved May 15, 1947 (61 Stat. 92)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the first sentence of section 5 of the Act entitled "An Act to direct the Secretary of the Interior to notify the State of Virginia that the United States assumes police jurisdiction over the lands embraced within the Shenandoah National Park, and for other purposes", approved August 19, 1937 (U.S.C., 1940 edition, title 16, sec. 403c–5), is amended by striking out "upon the recommendation and approval of the Secretary of the Interior of a qualified candidate". (See 28 U.S.C. § 631 note.)

Shenandoah National Park. Appointment of commissioner.

50 Stat. 702.

An Act To authorize the exchange of certain property within Shenandoah National Park, in the State of Virginia, and for other purposes, approved September 13, 1960 (74 Stat. 915)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior may accept title to approximately 37.44 acres of land within the authorized boundaries of the Shenandoah National Park, said land fronting on United States Highway Numbered 211 and being more particularly described as follows:

Shenandoah National Park, Va. Land exchange.

Beginning at park monument H–8, thence with the park boundary line the following courses and distances: north 51 degrees 57 minutes, east 2,242.0 feet to park monument H–9; south 26 degrees 40 minutes, east 51.0 feet to park monument H–10; south 32 degrees 40 minutes, east 340.0 feet to park monument H–11; south 11 degrees 35 minutes, east 190.0 feet to park monument H–12; south 41 degrees 26 minutes, east 329.0 feet to park monument H–13; thence crossing Pass Run south 57 degrees 00 minutes 36 seconds, west 1,871.32 feet to a marked white oak tree near the northeast edge of the fire road on top of Piney Mountain, thence north 58 degrees 36 minutes, west 771.16 feet to the point of beginning.

In exchange for the aforesaid land the Secretary is authorized to convey on the basis of approximately equal values a parcel of park land containing approximately 38.58 acres, being more particularly described as follows:

Beginning at park monument P–153, a point in the center of Route 666, Virginia Department of Highways, thence with the park boundary line the following courses and distances: north 66 degrees 27 minutes, west 345.0 feet to park monument P–152; north 41 degrees 08 minutes, east 705.0 feet to park monument P–151; north 63 degrees 01 minutes, west 302.0 feet to park monument P–150; north 30 degrees 38 minutes, east 1,110.0 feet to park monument P–149; south 74 degrees 36 minutes, east 443.0 feet to park monument P–148; north 41 degrees 33 minutes, east 109.0 feet to park monument P–147; south 69 degrees 50 minutes, east 668.0 feet to the center of the said Route 666; thence leaving the courses of the park boundary line and following the alinement of said Route 666 for the following courses and distances; south 36 degrees 26 minutes, west 436.0 feet; south 33 degrees 45 minutes, west 398.0 feet; south 29 degrees 39 minutes, west 388.0 feet; south 13 degrees 55 minutes, west 100.0 feet; south 04 degrees 16 minutes, west 70.0 feet; south 32 degrees 37 minutes, west 49.0 feet; north 89 degrees 45 minutes, west 43.0 feet; north 66 degrees 43 minutes, west 50.0 feet; north 89 degrees 26 minutes, west 100.0 feet; north 73 degrees 39 minutes, west 78.0 feet; north 84 degrees 11 minutes, west 45.0 feet; south 72 degrees 08 minutes, west 100.0 feet; south 43 degrees 17 minutes, west 50.0 feet; south 30 degrees 57 minutes, west 73.0 feet; south 47 degrees 22 minutes, west 70.0 feet; south 65 degrees 32 minutes, west 68.0 feet; south 80 degrees 05 minutes, west 130.0 feet; south 51 degrees 40 minutes, west 118.0 feet; south 66 degrees 51 minutes, west 36.0 feet; to the point of beginning. (16 U.S.C. § 403–2, [Supp. II].)

An Act To transfer a section of Blue Ridge Parkway to the Shenandoah National Park, in the State of Virginia, and for other purposes, approved June 30, 1961 (75 Stat. 192)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That subject to valid existing rights, the lands and interests in lands which comprise section 1–A of the Blue Ridge Parkway and lie between the southern boundary of the Shenandoah National Park at Jarman Gap and parkway centerline station 448+00 at Rockfish Gap are excluded from the parkway, made a part of the Shenandoah National Park, and shall be administered in accordance with the Act of August 25, 1916 (39 Stat. 535; 16 U.S.C. 1–4), as amended and supplemented. (16 U.S.C. § 403–3.)

Public Law 94–565
94th Congress

An Act

Oct. 20, 1976
[H.R. 9719]

To provide for certain payments to be made to local governments by the Secretary of the Interior based upon the amount of certain public lands within the boundaries of such locality.

Local government units.
Public lands, payments.
31 USC 1601.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That effective for fiscal years beginning on and after October 1, 1976, the Secretary is authorized and directed to make payments on a fiscal year basis to each unit of local government in which entitlement lands (as defined in section 6) are located. Such payments may be used by such unit for any governmental purpose. The amount of such payments shall be computed as provided in section 2.

Amounts, determination.
31USC 1602.

SEC. 2. (a) The amount of any payment made for any fiscal year to a unit of local government under section 1 shall be equal to the greater of the following amounts—

(1) 75 cents for each acre of entitlement land located within the boundaries of such unit of local government (but not in excess of the population limitation determined under subsection (b)), reduced (but not below 0) by the aggregate amount of payments, if any, received by such unit of local government during the preceding fiscal year under all of the provisions specified in section 4, or

(2) 10 cents for each acre of entitlement land located within the boundaries of such unit of local government (but not in excess of the population limitation determined under subsection(b)).

In the case of any payment under a provision specified in section 4 which is received by a State, the Governor (or his delegate) shall submit to the Secretary a statement respecting the amount of such payment which is transferred to each unit of local government within the State.

(b)(1) In the case of any unit of local government having a population of less than five thousand, the population limitation applicable to such unit of local government shall not exceed an amount equal to $50 multiplied by the population within the jurisdiction of such unit of local government.

(2) In the case of any unit of local government having a population of five thousand or more, the population limitation applicable to such unit of local government shall not exceed the amount computed under the following table (using a population figure rounded off to the nearest thousand):

If population equals—	Payment shall not exceed the amount computed by multiplying such population by—
5,000	$50.00
6,000	47.00
7,000	44.00
8,000	41.00
9,000	38.00
10,000	35.00
11,000	34.00
12,000	33.00
13,000	32.00

If population equals—	Payment shall not exceed the amount computed by multiplying such population by—
14,000	31.00
15,000	30.00
16,000	29.50
17,000	29.00
18,000	28.50
19,000	28.00
20,000	27.50
21,000	27.20
22,000	26.90
23,000	26.60
24,000	26.30
25,000	26.00
26,000	25.80
27,000	25.60
28,000	25.40
29,000	25.20
30,000	25.00
31,000	24.75
32,000	24.50
33,000	24.25
34,000	24.00
35,000	23.75
36,000	23.50
37,000	23.25
38,000	23.00
39,000	22.75
40,000	22.50
41,000	22.25
42,000	22.00
43,000	21.75
44,000	21.50
45,000	21.25
46,000	21.00
47,000	20.75
48,000	20.50
49,000	20.25
50,000	20.00

For the purpose of this computation no unit of local government shall be credited with a population greater than fifty thousand.

(c) For purposes of this section, "population" shall be determined on the same basis as resident population is determined by the Bureau of the Census for general statistical purposes.

(d) In the case of a smaller unit of local government all or part of which is located within another unit of local government, entitlement lands which are within the jurisdiction of both such units shall be treated for purposes of this section as only within the jurisdiction of such smaller unit.

Payments to counties.
31 USC 1603.

SEC. 3. (a) In the case of any land or interest therein, acquired by the United States (i) for the Redwood National Park pursuant to the Act of October 2, 1968 (82 Stat. 931) or (ii) acquired for addition to the National Park System or National Forest Wilderness Areas after December 31, 1970, which was subject to local real property taxes within the five years preceding such acquisition, the Secretary is authorized and directed to make payments to counties within the jurisdiction of which such lands or interests therein are located, in addition to payments under section 1. The counties, under guidelines established by the Secretary, shall distribute the payments on a proportional basis to those units of local government and affected school districts which have incurred losses of real property taxes due to the acquisition of lands or interests therein for addition to either such system. In those cases in which another unit of local government other

Distribution guidelines.

than the county acts as the collecting and distributing agency for real property taxes, the payments shall be made to such unit of local government, which shall distribute such payments as provided in this subsection. The Secretary may prescribe regulations under which payments may be made to units of local government in any case in which the preceding provisions will not carry out the purposes of this subsection.

Regulations.

(b) Payments authorized under this section shall be made on a fiscal year basis beginning with the later of—

(1) the fiscal year beginning October 1, 1976, or

(2) the first full fiscal year beginning after the fiscal year in which such lands or interests therein are acquired by the United States.

Such payments may be used by the affected local governmental unit for any governmental purpose.

(c) (1) The amount of any payment made for any fiscal year to any unit of local government and affected school districts under subsection (a) shall be an amount equal to 1 per centum of the fair market value of such lands and interests therein on the date on which acquired by the United States. If, after the date of enactment of legislation authorizing any unit of the National Park System or National Forest Wilderness Areas as to which a payment is authorized under subsection (a), rezoning increases the value of the land or any interest therein, the fair market value for the purpose of such payments shall be computed as if such land had not been rezoned.

Rezoned land.

(2) Notwithstanding paragraph (1), the payment made for any fiscal year to a unit of local government under subsection (a) shall not exceed the amount of real property taxes assessed and levied on such property during the last full fiscal year before the fiscal year in which such land or interest was acquired for addition to the National Park System or National Forest Wilderness Areas.

Payment limitation.

(d) No payment shall be made under this section with respect to any land or interest therein after the fifth full fiscal year beginning after the first fiscal year in which such a payment was made with respect to such land or interest therein.

31 USC 1604.

SEC. 4. The provisions of law referred to in section 2 are as follows:

(1) the Act of May 23, 1908, entitled "An Act making appropriations for the Department of Agriculture for the fiscal year ending June thirtieth, nineteen hundred and nine" (35 Stat. 251; 16 U.S.C. 500);

(2) the Act of June 20, 1910, entitled "An Act to enable the people of New Mexico to form a constitution and State government and be admitted into the Union on an equal footing with the original States, and to enable the people of Arizona to form a constitution and State government and be admitted into the Union on an equal footing with the original States" (36 Stat. 557);

(3) section 35 of the Act of February 25, 1920, entitled "An Act to promote the mining of coal, phosphate, oil, oil shale, gas, and sodium on the public domain", commonly known as the "Mineral Lands Leasing Act" (41 Stat. 450; 30 U.S.C. 191);

(4) section 17 of the Federal Power Act (41 Stat. 1072; 16 U.S.C. 810);

(5) section 10 of the Taylor Grazing Act (48 Stat. 1273; 43 U.S.C. 315i);

(6) section 33 of the Bankhead-Jones Farm Tenant Act (50 Stat. 526; 7 U.S.C. 1012);

(7) section 5 of the Act entitled "To safeguard and consolidate certain areas of exceptional public value within the Superior National Forest, State of Minnesota, and for other purposes", approved June 22, 1948 (62 Stat. 570; 16 U.S.C. 577g);

(8) section 5 of the Act entitled "An Act to amend the Act of June 22, 1948 (62 Stat. 568) and for other purposes" approved June 22, 1956 (70 Stat. 366; 16 U.S.C. 577g–1);

(9) section 6 of the Mineral Leasing Act for Acquired Lands (61 Stat. 915; 30 U.S.C. 355); and

(10) section 3 of the Materials Disposal Act (61 Stat. 681; 30 U.S.C. 603).

Eligibility.
31 USC 1605.

SEC. 5. (a) No unit of local government which receives any payment with respect to any land under the Act of August 28, 1937 (50 Stat. 875), or the Act of May 24, 1939 (53 Stat. 753), during any fiscal year shall be eligible to receive any payment under this Act for such fiscal year with respect to such land. Nothing in this Act shall be construed to apply to the Act of August 28, 1937 (50 Stat. 875), or the Act of May 24, 1939 (53 Stat. 753).

(b) If the total payment by the Secretary to any county or unit of local government under this Act would be less than $100, such payment shall not be made.

Definitions.
31 USC 1606.

SEC. 6. As used in this Act, the term—

(a) "entitlement lands" means lands owned by the United States that are—

(1) within the National Park System, the National Forest System, including wilderness areas within each, or any combination thereof, including, but not limited to, lands described in section 2 of the Act referred to in paragraph (7) of section 4 of this Act (16 U.S.C. 577d) and the first section of the Act referred to in paragraph (8) of this Act (16 U.S.C. 577d–1);

(2) administered by the Secretary of the Interior through the Bureau of Land Management;

(3) dedicated to the use of water resource development projects of the United States;

(4) nothing in this section shall authorize any payments to any unit of local government for any lands otherwise entitled to receive payments pursuant to subsection (a) of this section if such lands were owned and/or administered by a State or local unit of government and exempt from the payment of real estate taxes at the time title to such lands is conveyed to the United States; or

(5) dredge disposal areas owned by the United States under the jurisdiction of the Army Corps of Engineers;

(b) "Secretary" means the Secretary of the Interior; and

(c) "unit of local government" means a county, parish, township, municipality, borough existing in the State of Alaska on the date of enactment of this Act, or other unit of government below the State which is a unit of general government as determined by the Secretary (on the basis of the same principles as are used by the Bureau of the Census for general statistical purposes). Such term also includes the Commonwealth of Puerto Rico, Guam, and the Virgin Islands.

Appropriation authorization.
31 USC 1607

SEC. 7. There are authorized to be appropriated for carrying out the provisions of this Act such sums as may be necessary: *Provided*, That, notwithstanding any other provision of this Act no funds may be made available except to the extent provided in advance in appropriation Acts.

Approved October 20, 1976.

Public Law 94-567
94th Congress

An Act

To designate certain lands within units of the National Park System as wilderness; to revise the boundaries of certain of those units; and for other purposes.

Oct. 20, 1976
[H.R. 13160]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in accordance with section 3(c) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132(c)), the following lands are hereby designated as wilderness, and shall be administered by the Secretary of the Interior in accordance with the applicable provisions of the Wilderness Act:

Wilderness areas Designation. 16 USC 1132 note.

(m) Shenandoah National Park, Virginia, wilderness comprising seventy-nine thousand and nineteen acres, and potential wilderness additions comprising five hundred and sixty acres, depicted on a map entitled "Wilderness Plan, Shenandoah National Park, Virginia", numbered 134-90,001 and dated June 1975, to be known as the Shenandoah Wilderness.

Shenandoah National Park, Va.

SEC. 2. A map and description of the boundaries of the areas designated in this Act shall be on file and available for public inspection in the office of the Director of the National Park Service, Department of the Interior, and in the office of the Superintendent of each area designated in the Act. As soon as practicable after this Act takes effect, maps of the wilderness areas and descriptions of their boundaries shall be filed with the Interior and Insular Affairs Committees of the United States Senate and House of Representatives, and such maps and descriptions shall have the same force and effect as if included in this Act: *Provided*, That correction of clerical and typographical errors in such maps and descriptions may be made.

Map and description, public inspection.

SEC. 3. All lands which represent potential wilderness additions, upon publication in the Federal Register of a notice by the Secretary of the Interior that all uses thereon prohibited by the Wilderness Act have ceased, shall thereby be designated wilderness.

Publication in Federal Register. 16 USC 1131 note.

SEC. 6. The areas designated by this Act as wilderness shall be administered by the Secretary of the Interior in accordance with the applicable provisions of the Wilderness Act governing areas designated by that Act as wilderness areas, except that any reference in such provisions to the effective date of the Wilderness Act shall be deemed to be a reference to the effective date of this Act, and, where appropriate, any reference to the Secretary of Agriculture shall be deemed to be a reference to the Secretary of the Interior.

Administration.

Approved October 20, 1976.

LEGISLATIVE HISTORY:

HOUSE REPORT No. 94-1427 (Comm. on Interior and Insular Affairs).
SENATE REPORT No. 94-1357 (Comm. on Interior and Insular Affairs).
CONGRESSIONAL RECORD, Vol. 122 (1976):
Sept. 22, considered and passed House.
Oct. 1, considered and passed Senate, amended; House agreed to Senate amendments.

SEC. 3. The Act entitled "An Act to provide for certain payments to be made to local governments by the Secretary of the Interior based upon the amount of certain public lands within the boundaries of such locality", approved October 20, 1976 (90 Stat. 2662; 31 U.S.C. 1601) is amended as follows:

(1) in subsection (a) of section 6 delete clause (4) and insert in lieu thereof the following new clause: 31 USC 1606.

"(4) effective October 1, 1978, lands on which are located semi-active or inactive installations, not including industrial installations, retained by the Army for mobilization purposes and for support of reserve component training; or".

(2) at the end of section 5 insert the following new subsection: 31 USC 1605.

"(c) Nothing in this Act shall authorize any payments to any unit of local government for any lands otherwise entitled to receive payments pursuant to subsection (a) of section 6 if such lands were owned 31 USC 1606. and/or administered by a State or unit of local government and exempt from payment of real estate taxes at the time title to such lands is conveyed to the United States, except that, beginning in fiscal year 1979, this subsection shall cease to be applicable to payments for any land which is or was acquired by a State or unit of local government from private parties for the purpose of donation of such land to the Federal Government and which is or was so donated within eight years of the date of acquisition thereof by the State or unit of local government."; and

(3) at the end of section 3 insert the following new subsection: 31 USC 1603.

"(e) Notwithstanding the provisions of subsection (c) of section 6 of this Act as it applies to the State of Alaska, for purposes of this section, beginning in fiscal year 1979 a unit of local government in Alaska located outside the boundaries of an organized borough which acts as the collecting and distributing agency for real property taxes shall be eligible to receive payments under the foregoing provisions of this section.".

Approved October 17, 1978.

Public Law 90-543
90th Congress, S. 827
October 2, 1968

An Act

82 STAT. 919

To establish a national trails system, and for other purposes.

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

National Trails System Act.

SHORT TITLE

SECTION 1. This Act may be cited as the "National Trails System Act".

STATEMENT OF POLICY

SEC. 2. (a) In order to provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas of the Nation, trails should be established (i) primarily, near the urban areas of the Nation, and (ii) secondarily, within established scenic areas more remotely located.

(b) the purpose of this Act is to provide the means for attaining these objectives by instituting a national system of recreation and scenic trails, by designating the Appalachian Trail and the Pacific Crest Trail as the initial components of that system, and by prescribing the methods by which, and standards according to which, additional components may be added to the system.

NATIONAL TRAILS SYSTEM

SEC. 3. The national system of trails shall be composed of—

(a) National recreation trails, established as provided in section 4 of this Act, which will provide a variety of outdoor recreation uses in or reasonably accessible to urban areas.

(b) National scenic trails, established as provided in section 5 of this Act, which will be extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.

(c) Connecting or side trails, established as provided in section 6 of this Act, which will provide additional points of public access to national recreation or national scenic trails or which will provide connections between such trails.

The Secretary of the Interior and the Secretary of Agriculture, in consultation with appropriate governmental agencies and public and private organizations, shall establish a uniform marker for the national trails system.

NATIONAL RECREATION TRAILS

SEC. 4. (a) The Secretary of the Interior, or the Secretary of Agriculture where lands administered by him are involved, may establish and designate national recreation trails, with the consent of the Federal agency, State, or political subdivision having jurisdiction over the lands involved, upon finding that—

(i) such trails are reasonably accessible to urban areas, and, or

(ii) such trails meet the criteria established in this Act and such supplementary criteria as he may prescribe.

(b) As provided in this section, trails within park, forest, and other recreation areas administered by the Secretary of the Interior or the Secretary of Agriculture or in other federally administered areas may be established and designated as "National Recreation Trails" by the

appropriate Secretary and, when no Federal land acquisition is involved—

(i) trails in or reasonably accessible to urban areas may be designated as "National Recreation Trails" by the Secretary of the Interior with the consent of the States, their political subdivisions, or other appropriate administering agencies, and

(ii) trails within park, forest, and other recreation areas owned or administered by States may be designated as "National Recreation Trails" by the Secretary of the Interior with the consent of the State.

NATIONAL SCENIC TRAILS

SEC. 5. (a) National scenic trails shall be authorized and designated only by Act of Congress. There are hereby established as the initial National Scenic Trails:

(1) The Appalachian Trail, a trail of approximately two thousand miles extending generally along the Appalachian Mountains from Mount Katahdin, Maine, to Springer Mountain, Georgia. Insofar as practicable, the right-of-way for such trail shall comprise the trail depicted on the maps identified as "Nationwide System of Trails, Proposed Appalachian Trail, NST-AT-101-May 1967", which shall be on file and available for public inspection in the office of the Director of the National Park Service. Where practicable, such rights-of-way shall include lands protected for it under agreements in effect as of the date of enactment of this Act, to which Federal agencies and States were parties. The Appalachian Trail shall be administered primarily as a footpath by the Secretary of the Interior, in consultation with the Secretary of Agriculture.

Rights-of-way.

(2) The Pacific Crest Trail, a trail of approximately two thousand three hundred fifty miles, extending from the Mexican-California border northward generally along the mountain ranges of the west coast States to the Canadian-Washington border near Lake Ross, following the route as generally depicted on the map, identified as "Nationwide System of Trails, Proposed Pacific Crest Trail, NST-PC-103-May 1967" which shall be on file and available for public inspection in the office of the Chief of the Forest Service. The Pacific Crest Trail shall be administered by the Secretary of Agriculture, in consultation with the Secretary of the Interior.

Administration.

(3) The Secretary of the Interior shall establish an advisory council for the Appalachian National Scenic Trail, and the Secretary of Agriculture shall establish an advisory council for the Pacific Crest National Scenic Trail. The appropriate Secretary shall consult with such council from time to time with respect to matters relating to the trail, including the selection of rights-of-way, standards of the erection and maintenance of markers along the trail, and the administration of the trail. The members of each advisory council, which shall not exceed thirty-five in number, shall serve without compensation or expense to the Federal Government for a term of five years and shall be appointed by the appropriate Secretary as follows:

Advisory councils.

Members; term of office.

(i) A member appointed to represent each Federal department or independent agency administering lands through which the trail route passes and each appointee shall be the person designated by the head of such department or agency;

(ii) A member appointed to represent each State through which the trail passes and such appointments shall be made from recommendations of the Governors of such States;

(iii) One or more members appointed to represent private organizations, including landowners and land users, that, in the opinion of the Secretary, have an established and recognized interest in the trail and such appointments shall be made from recommendations

of the heads of such organizations: *Provided*, That the Appalachian Trail Conference shall be represented by a sufficient number of persons to represent the various sections of the country through which the Appalachian Trail passes; and

(iv) The Secretary shall designate one member to be chairman and shall fill vacancies in the same manner as the original appointment.

Additional studies.

(b) The Secretary of the Interior, and the Secretary of Agriculture where lands administered by him are involved, shall make such additional studies as are herein or may hereafter be authorized by the Congress for the purpose of determining the feasibility and desirability of designating other trails as national scenic trails. Such studies shall be made in consultation with the heads of other Federal agencies administering lands through which such additional proposed trails would pass and in cooperation with interested interstate, State, and local governmental agencies, public and private organizations, and landowners and land users concerned. When completed, such studies shall be the basis of appropriate proposals for additional national scenic trails which shall be submitted from time to time to the President and to the Congress. Such proposals shall be accompanied by a report, which shall be printed as a House or Senate document, showing among other things—

Report to President and Congress.

(1) the proposed route of such trail (including maps and illustrations);

(2) the areas adjacent to such trails, to be utilized for scenic, historic, natural, cultural, or developmental, purposes;

(3) the characteristics which, in the judgment of the appropriate Secretary, make the proposed trail worthy of designation as a national scenic trail;

(4) the current status of land ownership and current and potential use along the designated route;

(5) the estimated cost of acquisition of lands or interest in lands, if any;

(6) the plans for developing and maintaining the trail and the cost thereof;

(7) the proposed Federal administering agency (which, in the case of a national scenic trail wholly or substantially within a national forest, shall be the Department of Agriculture);

(8) the extent to which a State or its political subdivisions and public and private organizations might reasonably be expected to participate in acquiring the necessary lands and in the administration thereof; and

(9) the relative uses of the lands involved, including: the number of anticipated visitor-days for the entire length of, as well as for segments of, such trail; the number of months which such trail, or segments thereof, will be open for recreation purposes; the economic and social benefits which might accrue from alternate land uses; and the estimated man-years of civilian employment and expenditures expected for the purposes of maintenance, supervision, and regulation of such trail.

(c) The following routes shall be studied in accordance with the objectives outlined in subsection (b) of this section:

(1) Continental Divide Trail, a three-thousand-one-hundred-mile trail extending from near the Mexican border in southwestern New Mexico northward generally along the Continental Divide to the Canadian border in Glacier National Park.

(2) Potomac Heritage Trail, an eight-hundred-and-twenty-five-mile trail extending generally from the mouth of the Potomac River to its sources in Pennsylvania and West Virginia, including the one-hundred-and-seventy-mile Chesapeake and Ohio Canal towpath.

(3) Old Cattle Trails of the Southwest from the vicinity of San Antonio, Texas, approximately eight hundred miles through Oklahoma via Baxter Springs and Chetopa, Kansas, to Fort Scott, Kansas, including the Chisholm Trail, from the vicinity of San Antonio or Cuero, Texas, approximately eight hundred miles north through Oklahoma to Abilene, Kansas.

(4) Lewis and Clark Trail, from Wood River, Illinois, to the Pacific Ocean in Oregon, following both the outbound and inbound routes of the Lewis and Clark Expedition.

(5) Natchez Trace, from Nashville, Tennessee, approximately six hundred miles to Natchez, Mississippi.

(6) North Country Trail, from the Appalachian Trail in Vermont, approximately three thousand two hundred miles through the States of New York, Pennsylvania, Ohio, Michigan, Wisconsin, and Minnesota, to the Lewis and Clark Trail in North Dakota.

(7) Kittanning Trail from Shirleysburg in Huntingdon County to Kittanning, Armstrong County, Pennsylvania.

(8) Oregon Trail, from Independence, Missouri, approximately two thousand miles to near Fort Vancouver, Washington.

(9) Santa Fe Trail, from Independence, Missouri, approximately eight hundred miles to Sante Fe, New Mexico.

(10) Long Trail, extending two hundred and fifty-five miles from the Massachusetts border northward through Vermont to the Canadian border.

(11) Mormon Trail, extending from Nauvoo, Illinois, to Salt Lake City, Utah, through the States of Iowa, Nebraska, and Wyoming.

(12) Gold Rush Trails in Alaska.

(13) Mormon Battalion Trail, extending two thousand miles from Mount Pisgah, Iowa, through Kansas, Colorado, New Mexico, and Arizona to Los Angeles, California.

(14) El Camino Real from St. Augustine to San Mateo, Florida, approximately 20 miles along the southern boundary of the St. Johns River from Fort Caroline National Memorial to the St. Augustine National Park Monument.

CONNECTING AND SIDE TRAILS

SEC. 6. Connecting or side trails within park, forest, and other recreation areas administered by the Secretary of the Interior or Secretary of Agriculture may be established, designated, and marked as components of a national recreation or national scenic trail. When no Federal land acquisition is involved, connecting or side trails may be located across lands administered by interstate, State, or local governmental agencies with their consent: *Provided*, That such trails provide additional points of public access to national recreation or scenic trails.

ADMINISTRATION AND DEVELOPMENT

SEC. 7. (a) Pursuant to section 5(a), the appropriate Secretary shall select the rights-of-way for National Scenic Trails and shall publish notice thereof in the Federal Register, together with appropriate maps and descriptions: *Provided*, That in selecting the rights-of-way full consideration shall be given to minimizing the adverse effects upon the adjacent landowner or user and his operation. Development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for that specific area in order to insure continued maximum benefits from the land. The location and width of such rights-of-way across Federal lands under the jurisdiction of another Federal agency shall be by agreement between the head of that agency and the appro-

Publication in Federal Register.

priate Secretary. In selecting rights-of-way for trail purposes, the Secretary shall obtain the advice and assistance of the States, local governments, private organizations, and landowners and land users concerned.

Relocation of right-of-way, determination.

(b) After publication of notice in the Federal Register, together with appropriate maps and descriptions, the Secretary charged with the administration of a national scenic trail may relocate segments of a national scenic trail right-of-way, with the concurrence of the head of the Federal agency having jurisdiction over the lands involved, upon a determination that: (i) such a relocation is necessary to preserve the purposes for which the trail was established, or (ii) the relocation is necessary to promote a sound land management program in accordance with established multiple-use principles: *Provided*, That a substantial relocation of the rights-of-way for such trail shall be by Act of Congress.

Facilities on trails.

(c) National scenic trails may contain campsites, shelters, and related-public-use facilities. Other uses along the trail, which will not substantially interfere with the nature and purposes of the trail, may be permitted by the Secretary charged with the administration of the trail. Reasonable efforts shall be made to provide sufficient access opportunities to such trails and, to the extent practicable, efforts shall be made to avoid activities incompatible with the purposes for which such trails were established. The use of motorized vehicles by the general public along any national scenic trail shall be prohibited and nothing in this Act shall be construed as authorizing the use of motorized vehicles within the natural and historical areas of the national park system, the national wildlife refuge system, the national wilderness preservation system where they are presently prohibited or on other Federal lands where trails are designated as being closed to such use by the appropriate Secretary: *Provided*, That the Secretary charged with the administration of such trail shall establish regulations which shall authorize the use of motorized vehicles when, in his judgment, such vehicles are necessary to meet emergencies or to enable adjacent landowners or land users to have reasonable access to their lands or timber rights: *Provided further*, That private lands included in the national recreation or scenic trails by cooperative agreement of a landowner shall not preclude such owner from using motorized vehicles on or across such trails or adjacent lands from time to time in accordance with regulations to be established by the appropriate Secretary. The Secretary of the Interior and the Secretary of Agriculture, in consultation with appropriate governmental agencies and public and private organizations, shall establish a uniform marker, including thereon an appropriate and distinctive symbol for each national recreation and scenic trail. Where the trails cross lands administered by Federal agencies such markers shall be erected at appropriate points along the trails and maintained by the Federal agency administering the trail in accordance with standards established by the appropriate Secretary and where the trails cross non-Federal lands, in accordance with written cooperative agreements, the appropriate Secretary shall provide such uniform markers to cooperating agencies and shall require such agencies to erect and maintain them in accordance with the standards established.

Motorized vehicles, prohibition, exceptions.

Uniform markers.

Use, acquisition of lands.

(d) Within the exterior boundaries of areas under their administration that are included in the right-of-way selected for a national recreation or scenic trail, the heads of Federal agencies may use lands for trail purposes and may acquire lands or interests in lands by written cooperative agreement, donation, purchase with donated or appropriated funds or exchange: *Provided*, That not more than twenty-five acres in any one mile may be acquired without the consent of the owner.

Acreage limitation.

(e) Where the lands included in a national scenic trail right-of-way are outside of the exterior boundaries of federally administered areas, the Secretary charged with the administration of such trail shall encourage the States or local governments involved (1) to enter into written cooperative agreements with landowners, private organizations, and individuals to provide the necessary trail right-of-way, or (2) to acquire such lands or interests therein to be utilized as segments of the national scenic trail: *Provided*, That if the State or local governments fail to enter into such written cooperative agreements or to acquire such lands or interests therein within two years after notice of the selection of the right-of-way is published, the appropriate Secretary may (i) enter into such agreements with landowners, States, local governments, private organizations, and individuals for the use of lands for trail purposes, or (ii) acquire private lands or interests therein by donation, purchase with donated or appropriated funds or exchange in accordance with the provisions of subsection (g) of this section. The lands involved in such rights-of-way should be acquired in fee, if other methods of public control are not sufficient to assure their use for the purpose for which they are acquired: *Provided*, That if the Secretary charged with the administration of such trail permanently relocates the right-of-way and disposes of all title or interest in the land, the original owner, or his heirs or assigns, shall be offered, by notice given at the former owner's last known address, the right of first refusal at the fair market price.

Right-of-way lands outside exterior boundries.

(f) The Secretary of the Interior, in the exercise of his exchange authority, may accept title to any non-Federal property within the right-of-way and in exchange therefor he may convey to the grantor of such property any federally owned property under his jurisdiction which is located in the State wherein such property is located and which he classifies as suitable for exchange or other disposal. The values of the properties so exchanged either shall be approximately equal, or if they are not approximately equal the values shall be equalized by the payment of cash to the grantor or to the Secretary as the circumstances require. The Secretary of Agriculture, in the exercise of his exchange authority, may utilize authorities and procedures available to him in connection with exchanges of national forest lands.

Property suitable for exchange.

(g) The appropriate Secretary may utilize condemnation proceedings without the consent of the owner to acquire private lands or interests therein pursuant to this section only in cases where, in his judgment, all reasonable efforts to acquire such lands or interests therein by negotiation have failed, and in such cases he shall acquire only such title as, in his judgment, is reasonably necessary to provide passage across such lands: *Provided*, That condemnation proceedings may not be utilized to acquire fee title or lesser interests to more than twenty-five acres in any one mile and when used such authority shall be limited to the most direct or practicable connecting trail right-of-way: *Provided further*, That condemnation is prohibited with respect to all acquisition of lands or interest in lands for the purposes of the Pacific Crest Trail. Money appropriated for Federal purposes from the land and water conservation fund shall, without prejudice to appropriations from other sources, be available to Federal departments for the acquisition of lands or interests in lands for the purposes of this Act.

Use of condemnation proceedings to acquire private lands.

Limitation.

Pacific Crest Trail.

(h) The Secretary charged with the administration of a national recreation or scenic trail shall provide for the development and maintenance of such trails within federally administered areas and shall cooperate with and encourage the States to operate, develop, and maintain portions of such trails which are located outside the boundaries of federally administered areas. When deemed to be in the public interest, such Secretary may enter written cooperative agreements with the States or their political subdivisions, landowners, private organi-

Lands within federally administered areas.

zations, or individuals to operate, develop, and maintain any portion of a national scenic trail either within or outside a federally administered area.

Whenever the Secretary of the Interior makes any conveyance of land under any of the public land laws, he may reserve a right-of-way for trails to the extent he deems necessary to carry out the purposes of this Act. Right-of-way reservation.

(i) The appropriate Secretary, with the concurrence of the heads of any other Federal agencies administering lands through which a national recreation or scenic trail passes, and after consultation with the States, local governments, and organizations concerned, may issue regulations, which may be revised from time to time, governing the use, protection, management, development, and administration of trails of the national trails system. In order to maintain good conduct on and along the trails located within federally administered areas and to provide for the proper government and protection of such trails, the Secretary of the Interior and the Secretary of Agriculture shall prescribe and publish such uniform regulations as they deem necessary and any person who violates such regulations shall be guilty of a misdemeanor, and may be punished by a fine of not more than $500, or by imprisonment not exceeding six months, or by both such fine and imprisonment. Regulations. Publication. Penalty.

STATE AND METROPOLITAN AREA TRAILS

SEC. 8. (a) The Secretary of the Interior is directed to encourage States to consider, in their comprehensive statewide outdoor recreation plans and proposals for financial assistance for State and local projects submitted pursuant to the Land and Water Conservation Fund Act, needs and opportunities for establishing park, forest, and other recreation trails on lands owned or administered by States, and recreation trails on lands in or near urban areas. He is further directed, in accordance with the authority contained in the Act of May 28, 1963 (77 Stat. 49), to encourage States, political subdivisions, and private interests, including nonprofit organizations, to establish such trails. 78 Stat. 897. 16 USC 4601-4 note. 16 USC 4601-4601-3.

(b) The Secretary of Housing and Urban Development is directed, in administering the program of comprehensive urban planning and assistance under section 701 of the Housing Act of 1954, to encourage the planning of recreation trails in connection with the recreation and transportation planning for metropolitan and other urban areas. He is further directed, in administering the urban open-space program under title VII of the Housing Act of 1961, to encourage such recreation trails. 73 Stat. 678; 78 Stat. 792; 81 Stat. 262. 40 USC 461. 75 Stat. 183. 42 USC 1500 et seq.

(c) The Secretary of Agriculture is directed, in accordance with authority vested in him, to encourage States and local agencies and private interests to establish such trails.

(d) Such trails may be designated and suitably marked as parts of the nationwide system of trails by the States, their political subdivisions, or other appropriate administering agencies with the approval of the Secretary of the Interior. Suitable markings.

RIGHTS-OF-WAY AND OTHER PROPERTIES

SEC. 9. (a) The Secretary of the Interior or the Secretary of Agriculture as the case may be, may grant easements and rights-of-way upon, over, under, across, or along any component of the national trails system in accordance with the laws applicable to the national park system and the national forest system, respectively: *Provided*, That any conditions contained in such easements and rights-of-way shall be related to the policy and purposes of this Act. Easements and rights-of-way.

(b) The Department of Defense, the Department of Transportation, the Interstate Commerce Commission, the Federal Communications Commission, the Federal Power Commission, and other Federal agencies having jurisdiction or control over or information concerning the use, abandonment, or disposition of roadways, utility rights-of-way, or other properties which may be suitable for the purpose of improving or expanding the national trails system shall cooperate with the Secretary of the Interior and the Secretary of Agriculture in order to assure, to the extent practicable, that any such properties having values suitable for trail purposes may be made available for such use. Cooperation of Federal agencies.

AUTHORIZATION OF APPROPRIATIONS

SEC. 10. There are hereby authorized to be appropriated for the acquisition of lands or interests in lands not more than $5,000,000 for the Appalachian National Scenic Trail and not more than $500,000 for the Pacific Crest National Scenic Trail.

Approved October 2, 1968.

APPENDIX B

SELECTION OF ALTERNATIVES

AND

FINDING OF NO SIGNIFICANT IMPACTS

For

General Management Plan

February 1982

Shenandoah National Park

Virginia

SELECTION OF ALTERNATIVES

The Environmental Assessment for the General Management Plan, June 1981 and its Summary were prepared for public review and National Park Service consideration of various courses of action or alternatives in the management of Shenandoah National Park for the next 10-15 years. Different aspects of park management were addressed topically and include:

LAND BASE

Alternative L1 - Continued Random Expansion & Modification: no land would be purchased and existing voluntary programs of donation and exchange would be maintained to improve and adjust park lands.

Alternative L2 - No Expansion or Modification: existing programs would be terminated and the park's landholdings would be frozen.

Option - Zone of Cooperative Protection(ZCP): local and state cooperation and protection would be added to one of the above alternatives.

NATURAL RESOURCES

Alternative N1 - Continued Protection: existing park management programs would be maintained.

Alternative N2 - Continued Protection & Expanded Research: existing programs would be supplemented by federally directed and funded research.

CULTURAL RESOURCES

Alternative C1 - Continued Minimal Preservation: existing programs would provide the minimal management required by law.

Alternative C2 - Preservation: where additional selected resources and scenes would be retained.

VISITOR USE AND INTERPRETATION

Alternative V1 - Continued Use & Interpretation: existing programs with only minor improvements would be maintained.

Alternative V2 - Expanded Use & Interpretation: selected changes and expansion would be initiated.

DEVELOPMENT

Alternative D1 - Continued Repair & Adaptation: existing facilities would be maintained to meet visitor use and management needs.

Alternative D2 - Improve & Replace: in addition to D1, selected improvements and replacements would be made.

Alternative D3 - Construct New Facilities: in addition to D2, more selected replacements would be made and certain new facilities would be developed for visitor use and park management needs.

The Environmental Assessment and Summary were made widely available in August, September, and October 1981 through extensive mailing, deposit at local libraries and county clerk offices, and distribution at 10 public open houses and park entrance stations and visitor facilities. Altogether over 3000 of the Summary of the Environmental Assessment and 320 full documents reached a diverse and widespread audience of local, state, and federal agencies; newspaper, radio, and television media; citizen and business groups; and the general public from over 20 states and Canada.

Nearly 300 response forms or other written comments were received for a return rate of over 9 percent. A Summary of Public Response was prepared in December 1981 and distributed to everyone on the official park planning mailing list in January 1982.

This selection of planning alternatives is based upon careful consideration of public response, National Park Service management policies, the unique mission of Shenandoah National Park, and need to maintain management viability for the next 10-15 years. L1, N2, C2, V2, D2 for roads and trails, and D3 for other development have been selected as the primary alternatives to serve as the basis for the preparation of a draft general management plan.

These selections have been designated "primary" because some refinements and modifications are necessary to provide a unified overall general management plan. Also, some of the original alternatives were distinctly formulated to dramatize choices for consideration and were presented with the knowledge and understanding that adjustments could be made to accommodate public response and management considerations.

New information received since the assessment was prepared will be taken into account as a draft plan is prepared. It is not the intention of this document to present all of the details of the final plan. Rather, in the following section the general reasons for selections as well as some of the more prominent and currently identified modifications are listed and explained.

While the general management plan and accompanying development concept plans will provide the direction for, and some changes in, the management of the park, actual realization will be guided by National Park Service budgets and priorities. Full effectuation of the directions and/or changes for Shenandoah therefore may not be achieved.

Rationale and Refinements

Land Base. The basic L2 Alternative would severely restrict the opportunities to solve protection and use problems. In some situations the acquisition/exchange of land or easements is virtually the only solution to undertake mutually advantageous cooperation with adjoining landowners and this would be prohibited. Alternative L2 with ZCP offers a slight improvement; however local citizen dislike of zoning and planning, especially by local governments and agencies in conjunction with a federal government agency, would severely limit any assistance that could be expected.

Alternative L1 With ZCP is an attractive choice in that it offers the opportunity to continue the donation of lands and easements to the park while allowing for the cooperation of adjacent communities in a to-be-established process for mutual benefit. Unfortunately, the idea of designated zones of cooperation and a formal or semi-formal mechanism for cooperation was unpopular with the governments and citizenry in the counties surrounding the park. Without the support of those residing and governing in the general area where the cooperation would occur, this alternative would not be successful and could be counter-productive.

The basic Alternative L1 avoids the problems of the other choices. Continuation of the voluntary program of donation/exchange of land and easement with neighboring owners, and appropriate public notice, would not introduce any new concerns in the surrounding communities. No lands or easements would be purchased and only voluntary donations/exchanges within the authorized donation boundary would be accepted. An expanded information effort concerning the voluntary program would describe public and personal benefits, foster an understanding of park problems, and encourage a climate of cooperation. Emphasis under this selected alternative will continue to focus on problem points at the immediate park periphery. The points described in the Environmental Assessment will be reviewed in light of newer information and coordination with selections under the other topics, and modifications may result.

Cooperation with the local surrounding communities will continue on an informal basis. The National Park Service will encourage the consideration of scenic, natural, cultural, and public use values and opportunities through comment on specific community proposals and general regional concerns.

While not offering major and/or instant solutions to park problems, the basic Alternative L1 offers the best promise for the next decade to improve Shenandoah's land base in a climate of cooperation and understanding.

Natural Resources. Both alternatives continue the successful existing overall programs to protect the vegetation, wildlife, water, air, scenic, and other natural resources and values which are a vital part of Shenandoah National Park. The advantage of Alternative N2 is that through National Park Service direction and funding of research better (1) inventories, (2) evaluations of populations and habitats, (3) data on effects of various influences, and (4) similar information will be obtained so that management and protection will be more attuned toward each individual resource and its requirements, as well as toward natural resources as a whole.

Cultural Resources. While Alternative C1 would meet the minimum requirements of various laws and executive orders, C2 is more responsive to public interest in the preservation of Shenandoah's cultural heritage. Also, with the retention of additional resources and scenes, and more architecturally conscious maintenance of other structures, a more balanced presentation of the park's values, i.e. natural, cultural, and recreational, will be afforded.

Some modification of alternative C2 may occur as a result of one or more of the following: (1) research and studies previously undertaken at the park will be examined and evaluated in greater detail in order to clarify the extent of information available on cultural resources, (2) the classification or status

of cultural resources will be analyzed in order to explore their significance and importance in relation to National Register of Historic Places criteria, and (3) additional consultation with the Virginia State Historic Preservation Officer and the Advisory Council on Historic Preservation will occur to discuss their concerns. As a consequence of the above-mentioned activities levels of treatment of buildings and types of uses may be adjusted.

Visitor Use and Interpretation. Although Alternative V1 was found by a small margin to be preferrable, an analysis of the public responses revealed that a great number of people were against the expansion of a single program or activity. For example, about one quarter of the responses disliked snowmobiling. It was concluded that the dislike of snowmobiling, a fear of overcrowding, and desire to remove rental horse stables at Big Meadows were the reasons why V1 was preferred by the public.

On the other hand, over 1/3 of the written comments received wanted an expansion of specific uses and programs. Alternative V2, as modified below, is selected because it will not introduce or encourage any new uses. Rather, the expanded programs will be aimed at increasing the quality of the park visitor experience instead of increasing use. In addition, as park visitation increases normally, expanded programs will be necessary to provide for the use, understanding, and appreciation of the park.

Basic modifications to V2 are that horse rental at Big Meadows will be terminated and snowmobiling will not be permitted. As some of the programs are routinely checked in plan preparation, they may not be expanded to the scale originally described in the environmental assessment.

Development. Alternative D1 received considerable public support. However, considering visitor use and resource protection requirements, the age and deteriorated condition of the existing physical facilities, the need of adequate support facilities, and the continuing deterioration of the Skyline Drive and subsequent impairment of visitor safety and enjoyment, D1 is clearly not preferrable.

Although the public response indicated a preference for Alternative D2, and the written comments indicated an overall opposition to new development, a large number of respondents advocated new facilities to support specific interests. Requests included more campsites, trails, concession facilities, and visitor services that would require additional facilities.

It is believed therefore that the present day economy, rather than the desire for selected new facilities, influenced the lack of enthusiastic support by the public for Alternative D3. Except for the increase in trails, D3 proposed only a modest increase in basic information, orientation, overnight accommodation, and support facilities; all of which would occur in existing developed areas of the park.

While Alternative D2 represents a viable short term plan responsive to the present economic milieu, it does not as a whole contain sufficient latitude to provide facilities to support normal increases in visitation and longer stays in the park anticipated in the next 10-15 years. Also it does not provide for an adequate infrastructure, such as maintenance facilities and employee housing, to support the present and future protection and management of resources, visitors, and activities.

For roads and trails, Alternative D2 was selected to provide necessary improvements and facilities to respond to visitor use patterns and needs without an appreciable increase in the total mileage of the entire trail system. Modification of the trail system shown in the assessment will be necessary to coordinate with Alternative L1, Land Base. This will primarily involve continued use of trails while guaranteed access is sought, or as long as access is permitted by adjacent landowners. Lastly, this selection will provide for the rehabilitation of the Skyline Drive, which is beyond the scope of routine maintenance. It would be unconscionable to not allow this most valuable and vital facility to receive the major structural repairs necessary.

Alternative D3 was selected for all other development. This will provide an adequate infrastructure for all the ongoing and future programs previously described under the other topics. All improvements would be in existing developed areas. In many cases, support facilities, e.g. utilities, are already in place to accommodate the proposals. Sensitive architecture and site planning will prevent an atmosphere of over development or commercialism, while providing for improved visitor enjoyment and better guardianship of the park. The only modifications envisioned at this time will be the removal of the rental horse stables at Big Meadows and the ARA Virginia SkyLine Company's retention of their employee housing units at Loft Mountain.

FINDING OF NO SIGNIFICANT IMPACT

The proposal as defined in the Selection of Alternatives with further detail included in the Environmental Assessment for the General Management Plan, Shenandoah National Park, Virginia - June 1981 does not constitute a major federal action which will significantly affect the quality of the human environment as defined in Section 102(2)(c) of the National Environmental Policy Act of 1969 (PL 91-190, 83 stat 853). Therefore the National Park Service will not prepare an environmental impact statement for the Draft General Management Plan and accompanying Draft Development Concept Plans.

Compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, will be initiated in accordance with the Programmatic Memorandum of Agreement (PMOA) of September 1981 between the National Park Service, the National Conference of State Historic Preservation Officers, and the Advisory Council on Historic Preservation, pursuant to 36 CFR Part 800. At the beginning of the Draft General Management Plan preparation, the Council and the Virginia State Historic Preservation Officer will be invited to participate per the PMOA.

James W. Coleman, Jr., Regional Director
Mid-Atlantic Region, National Park Service

2/10/82
Date

APPENDIX C: APPALACHIAN NATIONAL SCENIC TRAIL SYNTHESIS

The Appalachian Trail has been an integral part of Shenandoah National Park since the latter's origin. To many, the trail has been part of the park for so long that the mention of Shenandoah automatically includes the trail. Yet to others, Shenandoah is a coincidental 95-mile (155 km) occurrence, surrounding only 4-1/2 percent of the total trail from Maine to Georgia. Both are reasonable perspectives indicating acceptable but different viewpoints.

Inasmuch as this is a general management plan for Shenandoah National Park, the former perspective is more prominent and thus mention of the Appalachian Trail is usually made in the context of the wide range of recreational opportunities afforded by the park. The purpose of this appendix is to provide readers with the other perspective, a compilation of important excerpts from this document for their easy understanding of the continuing general management of the Appalachian Trail, the role of the PATC, and related items within the park. The parenthetical entry following each excerpt indicates its location within this document.

> Construction of the Appalachian Trail also started before the park was established. The 95-mile (155 km) portion within Shenandoah National Park was constructed between 1926 and 1936. The entire 2,100-mile (3380 km) trail from Maine to Georgia was designated as the Appalachian National Scenic Trail in 1968. (Introduction)
>
> Trails vary in length, difficulty, access, and destination for a total of 516 miles (830 km). The longest single trail in the park is a 95-mile (155 km) portion of the Appalachian National Scenic Trail, which stretches from Compton Gap to Jarman Gap. This segment was first built between 1926 and 1936 along the ridge by the Potomac Appalachian Trail Club (PATC) prior to dedication of the park or construction of the Skyline Drive. In 1968 the entire Appalachian Trail was designated as a national scenic trail. Four enclosed cabins and seven huts with bunks provide overnight accommodations along the trail. Many of these structures are constructed of native stone and chestnut. (The Park-Existing Facilities)
>
> In addition to protecting and managing the resources and facilities within the park boundaries, Shenandoah National Park has been identified as the designated government agency to provide backup support to the PATC for certain portions of the Appalachian National Scenic Trail outside the park. These portions are between Rockfish Gap and the southern park boundary, and between the northern park boundary and I-66. Through a five-year Cooperative Agreement signed in 1982, support includes cooperation in corridor planning and ensuring the adequacy of arrangements for resource management, visitor use monitoring, and possible emergencies. (The Park-Current Management)

Operations

Park administration will ensure efficient and effective use of available staff and funds, conform to legal and policy requirements, encourage employee development, ensure a safe environment, and promote energy conservation.

The Shenandoah Natural History Association, Potomac Appalachian Trail Club, and other cooperating associations will be encouraged in the creation, production, and distribution of educational, informational, and interpretive material to supplement park programs.

Park administration will cooperate with groups interested in the Appalachian Trail regarding the management of the national scenic trail. (Management Objectives)

Existing interpretive materials and programs will continue, except that they will be updated as necessary to keep them current, interesting, and helpful to visitors. These updatings will cover interpretive topics related to geology, flora, fauna, natural history, resource management, ecology, historical areas, and the Appalachian Trail; all will address the above themes and will be presented at the visitor centers, day and evening programs, and along overlooks on the Skyline Drive. (Visitor Use and Interpretation, Interpretation)

Hiking on the Appalachian Trail is a personal challenge for long-distance hikers and an opportunity to get away from the busier aspects of everyday life. Efforts will be continued to protect this experience and to minimize possible intrusions. (Visitor Use and Interpretation, Visitor Use)

Most of the Appalachian Trail will be maintained in its present alignment except that the points where the trail crosses the Skyline Drive will be reduced from 29 to 23 as short segments of the trail are rerouted. In addition, the trail will be rerouted at Compton Gap to avoid an administrative road and horse trail; at Skyland the trail will be rerouted to avoid visitor development; and at Simmons Gap the trail will be rerouted to avoid the maintenance area. New trail construction and reroute will be about 7 miles (11 km), and the total length of the Appalachian Trail will remain the same. (General Development, Roads and Trails)

The backcountry cabins and Appalachian Trail huts operated by the Potomac Appalachian Trail Club will continue to be maintained in place. (General Development, Concessioner Operations)

Services provided by the ARA Virginia Sky-Line Company under a concessions contract, the Shenandoah National History Association, Inc., under a memorandum of agreement, and the Potomac Appalachain Trail Club under a concessions permit and a memorandum of understanding will continue. As conditions change, amendments to existing, or new, agreements or contracts will be undertaken as appropriate, after suitable study. (Administration)

In addition to staff reponsibilities within the park, Shenandoah management has been designated by the Appalachian Trail Project Office as the government agency to provide backup support to the Potomac Appalachian Trail Club for the portions of the Appalachian National Scenic Trail between Rockfish Gap and the southern park boundary, and the northern boundary and I-66. This support will consist primarily of consultation on planning, resource protection, visitor use, and maintenance. (Administration)

Natural Zone

The natural zone includes most of the land surface of the park. Natural processes and resources will remain relatively unaltered, and any developments will be small.

Appropriate Use	Permitted Development
Hiking	Appalachian Trail (Administration: Management Zoning)

Rockfish Gap/McCormick Gap

The existing Rockfish entrance station will be replaced by a new facilitiy at McCormick Gap, where there is more suitable land for an adequate entrance station. Construction will blend in scale and finish materials into the open land to minimize visual intrusion to the nearby Appalachian Trail. The facility will provide information and necessary backcountry permits to hikers on this trail. (South District, Development Concept Plan)

	Phases			
	I	II	III	
	1983	1989	1995	2000
General Development	X	X	X	
Trails	X	X		
Appalachian Trail Improvements	X			

(Management, Implementation Schedule)

Concessions Management Plan

Park staff will prepare and maintain a current concessions management plan to govern the services and facilities of the ARA Virginia Sky-Line Company and the Potomac Appalachian Trail Club currently being operated under a contract expiring in 1988 and a permit expiring in 1986, respectively. Renewals of these will depend upon past level of performance and economic viability, and future expectations. Appropriate studies will be undertaken to ensure good visitor services by these parties or successors, in accordance with National Park Service policies and procedures. (Epilogue)

See also Roads and Trails map and Skyland and Simmons Gap development concept plans.

APPENDIX D: CULTURAL RESOURCES

Cultural resource surveys of varying emphasis have been conducted from 1936 through the present. Results of these surveys have been collated, refined, and evaluated, becoming a base for this listing. Additional evaluation of cultural resources has been made subsequent to the completion of the Shenandoah National Park Environment Assessment, June 1981. Meetings and discussions with staff members of the Virginia Historic Landmarks Commission (State Historic Preservation Office), Virginia Research Center for Archeology, the Advisory Council on Historic Preservation, as well as the NPS Mid-Atlantic Region Planning and Resource Preservation personnel have resulted in an update of information and the initial determination of particular cultural resources which meet criteria for the National Register of Historic Places. Structures/sites listed here are not all eligible for the National Register.

Determinations in this listing are the basis for management decisions expressed elsewhere in this document. Adjustments or additions to this final listing of cultural resources in Shenandoah National Park will only be made if research reveals new information. All above-grade cultural structures should be placed on the List of Classified Structures, as a means of inventory and as a guide for management decisions developed in this GMP/DCP.

This listing contains adjustments and new information that updates appendix D: Inventory of Cultural Resources, in the Shenandoah Environmental Assessment. Additional details on background and significant aspects of structures and sites if not included here can be found in the previous document.

The following listing and the Cultural Resources Survey map identify the resources by two major themes--settlement and cultural patterns prior to the establishment of the park, and subsequent federal development. The letters at the end of each structure/site description indicate the following:

(NR) - To be nominated to the National Register of Historic Places

(NR-P) - Potentially eligible for the National Register of Historic Places--needs study.

(N) - National level of significance

(S) - State level of significance

(L) - Local level of significance (includes cultural resources not eligible for the National Register)

ARCHEOLOGY

The following ten sites are considered eligible for the National Register. Nomination forms and final determination of levels of significance are being completed.

Big Meadows Site (MD-143). Early Archaic through the Early Woodlands periods. (NR) (N)

Black Rock Springs Site (AU-167). Middle to Late Archaic. (NR) (S)

Compton Gap Site (WR-103). Late Archaic period. (NR) (S)

Gentle Site (MD-112). Middle to Late Woodland periods. (NR) (N)

Rock Shelter (AU-158). Late Archaic, Early Woodland, and Late Woodland periods. (NR) (N)

Quarry Site (RM-130). Early to Late Archaic. (NR) (S)

Site Near Rock Shelter (AU-154). Late Archaic period. (NR) (S)

Cliff Kill Site (MD-138). Middle Archaic through Late Woodland occupations. (NR) (N)

Robertson Mountain Site (MD-172). Early Archaic through Late Woodland. (NR) (S)

Jeremy's Run Site (PA-116). Middle Archaic to Late Woodland. (NR) (S)

Other sites within the park are currently classified as (L).

SETTLEMENT/CULTURAL PATTERNS

Farmsteads/Homesites

The farmsteads and homesites varied from manor houses to small hollow settlements with modest cabins. Very little remains of the more than 2,000 homesites, other than a few ruins.

Belmont Site. The site of this house is southeast of the north entrance station and was built in 1845. The house is no longer extant, although foundations are evident. (L)

Bower Site. Remains of this farm site are evident, including chimneys of the main house, and ruins of the springhouse and toolhouse. The farm was built in 1775 near one of the early roads crossing the Blue Ridge. (L)

Corbin Cabin. This building was probably constructed circa 1910 and is a small cabin of hewn logs on a stone foundation. It is the only cabin remaining in the park which is representative of the extensive hollow culture. Corbin Cabin is the only standing structure out of those set aside in the 1930s, and it is extant due to the efforts of the Potomac Appalachian Trail Club which renovated the building in 1954 with National Park Service concurrence. (NR) (L)

Gore Farm Site. Constructed circa 1785 with an addition circa 1860. Traces of an old road, stone and split-rail fences, and piles of field stone are extant. No house foundation is evident. (L)

Herbert Atkins House Site. The house is now located outside Sperryville, Virginia. The original house site was also the location of the toll gate which served the Thornton Gap turnpike. (L)

Kleiser House Site. The site contains piles of stone from the building foundation, as well as some bricks from the chimney. (L)

John P. Shenk House Site. The house and a tenant's cabin on the property were razed in the 1930s, and only foundations remain evident. (L)

Nicholson Hollow. Nicholson Hollow is thought to have been permanently settled in the late 18th century, although evidence of prehistoric occupation is extant. The hollow was occupied by mountain people through the time that the park was established. The buildings in Nicholson Hollow were never demolished like most others in the park because they had been set aside in the 1930s as the park's exhibit of the hollow culture, which never transpired. The buildings fell into disrepair and most collapsed.

Aaron Nicholson Farmsite. Portions of the chimneys are standing, with collapsed sections of hewn log walls in between. (L)

John R. Nicholson Homesite. All that remains of a cabin is the standing stone chimney and an L-shaped depression. (L)

John T. Nicholson Cabin. Ruins of this log cabin are extant, although it has deteriorated. (L)

Nicholson Cemetery. This 60-foot by 60-foot cemetery is partially enclosed by a wire fence. The number of headstones and footstones indicates that approximately 25 persons are buried here. (L)

Unidentified (Unnamed) Cemetery, Nicholson Hollow. Located near the Hughes River, the area enclosed is an oval, approximately 70 feet by 35 feet. The 10 to 12 burials are marked with uncut stones. (L)

Woody Corbin Cabin. Most of the cabin has collapsed, although sections of a wall and a 20-foot stone chimney are extant. (L)

Residence, Headquarters Area. The building has a traditional design--a wood-frame structure with chimneys in the gable end walls. Additions have been made to the front and rear of the building. (L)

Robert Sours Cabin Site. Structural remains include logs covered with shingles and weatherboarding, as well as two chimneys and sections of walls. (L)

Simpson House Site. Built in 1790, portions of the house foundations are supposed to be extant. (L)

Superintendent's House. This building is of typical Virginia farm house construction and is approximately 90 years old. (L)

Thomas Sanford House Site. The site is located in Pass Run. Ruins of foundations exist. (L)

Tom Shenk (Annie Shenk) House. This house was the last residential inholding in the park. It is to be removed because of hazardous physical condition. Foundations will mark the location of the structure. (L)

Commercial/Industrial Enterprises

Historic background and physical evidence from the enterprises remains in only a handful of cases, although many similar undertakings existed.

Copper Mine. The mine entrance, which has caved in, is a visible depression at the top of the slope above the tailings. According to one source, the mine was in operation from about 1845 until 1850. (L)

Grist Mill Site. The mill was located between Swift Run Gap and Lydia and was probably constructed circa 1830. No buildings are extant. (L)

Miller's Iron Works. The iron furnace is a massive stone structure in deteriorated condition, surrounded by processing debris. This furnace was constructed circa 1830. (L)

Up-and-Down Sawmill. The sawmill was constructed circa 1800 and was dismantled after World War II. The foundation ruins of the sawmill are extant. Portions of the dismantled saw and gear mechanisms are in storage in the park. (L)

Missions/Churches

The first settlers brought their traditional religions with them, and missions for those and others developed during the mid and late 19th century. Scant documentation and remains of structures exists.

Dark Hollow Church Site. The site of this former log church is down the Dark Hollow fire road from Skyline Drive. The cemetery for the independent church is extant. (L)

Pocosin Mission Ruins. The mission consists of the ruins of two buildings and a cemetery of approximately 40 graves marked with stones and cemetery markers. This Episcopal mission probably dates from the turn of the century. (L)

Simmons Gap Mission. An Episcopal Mission was constructed at Simmons Gap in 1908-1909. Other buildings associated with the mission have been destroyed. (NR) (L)

Resorts, Hostelries, and Retreats

During the 19th and early 20th centuries, people began coming to the mountains. The only evidence remaining of early hostelries are stone and brick foundations. A few buildings from the old Skyland Resort and the most significant buildings of Camp Hoover are extant.

Black Rock Springs Hotel Site. This hotel was popular in the 1840s and 1850s as a resort. Some foundations and building debris are extant. (L)

Camp Hoover Complex. This retreat was used by President Hoover during his term of office. The camp figured prominently in Hoover's life during his administration and provided the setting for meetings with notables, including British Prime Minister Ramsay McDonald. Camp Hoover, constructed on land owned by the president, was given to the National Park Service after his presidency for use by successive presidents. Twenty-four buildings, including those constructed by the Boy Scouts from 1948 to 1958, have been torn down. Original furnishings for the three remaining structures were replicated in the late 1950s and are currently used. The President's, the Prime Minister's, and The Creel cabins are simple buildings. The architecture is not particularly distinctive, nor was it meant to be. All three buildings have undergone some alteration, and the grounds have changed considerably. (NR) (N)

Mountain Inn Ruins. All that remains of this 19th century brick building is a dry-laid stone foundation and several stacks of red brick. The Shipp family cemetery is located nearby. (L)

Old Skyland Cabins. Several cabins are extant at Skyland, dating to a time prior to the establishment of the park. These include the Byrd's Nest, Pine Grove, Peak View, Trout, and Fell cottages. The Fell Cottage was probably constructed in 1912. The Trout Cottage could date from 1916. The other cottages possibly date from 1923. (NR) (L)

Massanutten Lodge. This was the former residence of George Freeman Pollock and his wife Addie. Constructed in 1913, the L-shaped structure is built into a steep slope with on-site materials, including stone, milled lumber, and bark siding. (NR) (S)

Judd Garden. Located at the northernmost end of the Skyland complex, this garden was planted as an arboretum by George H. Judd, a visitor at Skyland from about the turn of the century until 1928. The Judd Garden contains two trees which are recognized by the American Forestry Association on their "National Register of Big Trees" as the largest of their species. (L)

Landscapes

Landscapes of an area are changed and affected by human activities. Hollows and mountainsides in the park have been allowed to let nature take its course, except in a few locations.

Big Meadows Landscape. A continuum of use and manipulation of the meadow from prehistoric and historic periods through current use has resulted in this open area. (L)

FEDERAL DEVELOPMENT

When the federal government began developing Shenandoah as a national park, visitor needs and park needs were addressed. Skyline Drive was constructed along the ridge. Resorts were planned and constructed at Big Meadows, Lewis Mountain, and Dickey Ridge. Facilities at Skyland were expanded to serve park visitors. The administrative core, including the headquarters, several residences, and the maintenance area, was constructed on the west side of the park. Some of these properties are achieving a significance of their own as being representive of the period when many materials were available on the site, and when labor was supplied through Emergency Conservation Work programs of the Depression era.

Big Meadows Lodge. The main lodge building, designed by Marcellus Wright of Richmond, follows closely along the contours of the earth, hugging the ground. The lodge reflects the early architectural theme of the park in a more general sense than other park structures. The building is constructed with massive chestnut timbers and local stone masonry, and the roof is covered with concrete shingles, a development unique to Shenandoah. (NR-P) (L)

Big Meadows Cabins. The five small cottages (Lynchburg, Mountain View, Bridesburg, Blacksburg, and Petersburg) near Big Meadows Lodge were among the first cabins constructed. They were designed with rough-sawn chestnut siding in an uncomplicated style. (L)

CCC Barracks. These two buildings at Pinnacles and Piney River remain from the numerous Civilian Conservation Corps camps which were constructed in Shenandoah National Park. Several changes have been made to the structures. (L)

Dickey Ridge Visitor Center. Originally constructed in 1938 as a dining hall for a resort complex for the north district of the park, the building was converted to a visitor center in 1958. The rustic-looking wood and stone building is well-weathered and contains two large fireplaces. The roof is covered with cement tile, tooled to resemble wood shakes. A large stone porch on the west side of the building is used for interpretive programs. A view of Browntown Valley is also an important aspect of its setting on the ridge. Information, publications, slide programs and exhibits are available from park rangers who staff the center during the summer season. (NR-P) (L)

Headquarters Complex. The buildings were constructed during the late 1930s and early 1940s and are prime examples of the eastern application of the principals of early National Park Service architecture. The complex was designed using a theme of middle Virginia Colonial architecture. Local building techniques and materials were chosen to reemphasize that theme. The Headquarters building, designed by a local architect named Parris as part of a PWA project, exemplifies the fineness of the materials, quality craftmanship, and design. The interior is finished with chestnut paneling. The residences and maintenance yard reflect the same concern with materials and tradition. (NR-P) (L)

Lewis Mountain Lodge. Constructed on a much smaller scale than the resorts at Big Meadows, the area was designed as the segregated section of the park, where black visitors were accommodated because they were not allowed to stay in other resort areas or campgrounds until the 1950s. The buildings were designed by Marcellus Wright, who also designed those at Big Meadows Lodge. However the structures at Lewis Mountain are of a simpler design and a smaller scale. The quality of materials is equal to that chosen for use at Big Meadows Lodge - chestnut timbers and siding and local stone masonry. (NR-P) (L)

Lewis Mountain Cabins. These five buildings were built to be compatible with the lodge. (L)

Skyline Drive. This road, which stretches 105 miles from Front Royal to Rockfish Gap, is the backbone of park facilities. The drive was designed along the top of the Blue Ridge Mountains, with sensitivity to the topography along the ridge and to the expansive vistas. The drive provides scenic views of the peaks along the ridge, as well as the rural scenery across the valley and the Piedmont. The identifiable stonework along the road edges was designed with an understated harmony with its surroundings, through the use of simple stone masonry with weathered sides exposed to blend carefully with bedrock. This Emergency Conservation Work program had a major impact on the local economy and put hundreds of local persons to work. The Federal Highway Administration has recently completed a study of needs to rehabilitate the surface, replace worn-out cribbing and culverts, reinforce stonewalls, and make minor safety changes without significantly altering the present horizontal and vertical alignment. The roadway and all related appurtenances are significant features that contribute to the integrity of the resource. (NR) (N)

The following sites can not be located and written information does not provide data that reveals their locations. All reports indicate that no above ground remains exist and field checks have not resulted in the identification of any ruins. These sites are included here to record previous mention of their consideration for the preceeding list.

1. Hawsberry Inn
2. Remains of Four Cabins
3. Rorson House Site
4. William Brown Homesite and Old Rag Post Office Site
5. Willis House Site

Turnpikes and roads were constructed through the mountains as early as the latter part of the 18th century to tie the piedmont with the valley. More exact data about these routes and all known crossings of the mountains, will be revealed in the historic resource study or a special study called for in this plan. Sections of historic road traces may still exist and may be considered for inclusion in this list or the National Register if their significance is revealed as a result of further study.

APPENDIX E: EXISTING VISITOR USE AT SHENANDOAH

Thirty general categories of existing visitor activities have been identified within Shenandoah National Park. In table E-1, some of the categories have been subdivided to indicate different aspects. With the exception of those that are illegal, existing visitor use of Shenandoah conforms to the generally accepted range of appropriate uses of the National Park System.

Activities vary in their dependence upon resources and facilities extant, which are defined under the following two types:

> Type A -- The Shenandoah Experience - where activities occur because of the unique or special resources, or character of the park. Under this type, the visitor undertakes an activity in Shenandoah. Emphasis is on enjoying the park and its values.
>
> Type B - The Shenandoah Place - where activities occur because the park offers an attractive, conducive, setting. Under this type, the visitor undertakes an activity at Shenandoah. Emphasis is on the activity and its values.

Consider an activity such as hiking under type A, it is an activity involving enjoyment of views along the trail and on top of Old Rag Mountain, seeing close-at-hand the hemlocks and experiencing the deep shade in Limberlost, enjoying the cooler mountain air, and perhaps "conquering" Old Rag. Under type B, hiking is for the purpose of getting exercise, obtaining a Boy Scout merit badge, or satisfying a personal sense of strength and accomplishment of covering many miles. Under type B, it would not be necessary to hike in Shenandoah to accomplish these ends, but the park is an extremely attractive place to undertake this activity.

As shown, some activities occur in only one type, while most activities occur in both. The types are not mutually exclusive; in fact type B can lead into type A. For example, a visitor has intended to take a "Sunday drive" and by chance chose the Skyline Drive; whereupon the scenic views, interpretation, and exhibits at the Dickey Ridge Visitor Center and at the overlooks become more compelling so that the visitor's interest changed to enjoyment and concern for Shenandoah National Park.

It is the current policy of park management to allow visitor activities of both types, subject only to consideration of the capacity of resources and facilities and the compatible interplay of different categories of use. Indications of excessive visitor use are infrequent and localized. Densities do vary in the park, with greater populations occurring at the several developed areas and on a few trails. More maintenance and protection are required in such areas. Illegal activities continue to be a nagging concern, and efforts are constantly underway to alleviate these situations.

Table E-1. Existing Visitor Use

Activities (alphabetically)	Type A	Type B
Auto Driving	X	X
Bicycling - individual	X	X
- club		X
- long distance		X
Bus Touring	X	X
Camping - established tent, trailer, and RV use	X	X
- backcountry, wilderness	X	X
- long distance trail	X	X
- group		X
- group horse		X
Collecting - berries, mushrooms, etc		X
- ginseng (illegal)		X
Conferences, Business Meetings		X
Cross-country Skiing	X	X
Dining/Eating/Drinking		X
Environmental Education		
- interpretive program	X	X
- NESA program		X
- personal exploration, search	X	X
Filming (Movies & TV commercials)		X
Fishing - for fun	X	X
- for keeps	X	X
Hang Gliding		X
Hiking - walking, strolling	X	X
- overnight, night	X	X
- long distance		X
- bush whacking, wilderness	X	X
- guided	X	
Horseback Riding	X	X
Hunting, Poaching (illegal)		X
Informal Games and Play		X
Lodging - rooms	X	X
- housekeeping cottages	X	X
- backcountry cabins	X	X
Military Maneuvers		X
Motorcycling	X	X
Painting, Photography	X	X
Picnicking - lunching	X	X
- family	X	X
- group		X
Puberty Rites/Adolescent Maturation		X
Relaxation - sitting, sunning, basking	X	X
- reading		X
- escape, solitude, wilderness	X	X
- incidentals, such as card playing		X
Religious Activities	X	X
Research - environmental	X	X
- sociological		X

Activities (alphabetically)	Type A	Type B
Rock Climbing		
- technical		X
- nontechnical	X	X
- ice		X
Sightseeing	X	X
Shopping - souvenirs	X	X
- native crafts	X	X
- interpretive materials	X	
- camping equipment/supplies		X
Special Population, e.g., therapeutic, "outward bound"		X
Swimming	X	X
Vandalism, Car Clouting		X
Volunteer Public Work	X	

APPENDIX F: RESIDENCIES WITHIN SHENANDOAH

Most of the required activities in the operation of Shenandoah can be performed during a regularly scheduled workday by National Park Service employees who reside outside the park. However, there is a need for a limited number of employees to live within the park in areas that have concentrations of buildings, equipment, and other facilities, and that have high volumes of overnight use. This 24-hour presence is essential for the protection of park resources and public property from fire, theft, and vandalism, and for ready access and availability to visitors of emergency services such as search, rescue, and medical assistance. A minimum level of onsite, round-the-clock protection capability is necessary during low visitation seasons and storms, while an increased level is required during the peak visitation season when a large number of overnight visitors are present.

Over the years, permanent and seasonal employees' residences were permitted and/or required within the park. However, within-park residencies, in strict accordance with PL 88-459 (an act authorizing government agencies to provide quarters and facilities to civilian officers and employees of the government) and Office of Management and Budget Circular A-18, "Policies on Construction of Family Housing", will be limited to those shown in the following tables. While all of the park staff have obligations to protect park resources and provide visitor services, these tables indicate additional specific purposes of residencies at each site.

In addition to required residencies, it will be necessary to continue to provide permitted residencies available to some employees because of the insufficient supply of suitable purchase and rental quarters that are within a reasonable commuting distance and a price range commensurate with salaries. This is especially important in the successful recruitment of highly qualified seasonal employees as well as highly mobile National Park Service career employees.

Table F-1: Required Employee Residencies

Sites and Purposes	Full-time Employees	Seasonal Employees Furlough	Seasonal Employees Temporary	
Front Royal/Dickey Ridge: provide road patrol, back-country management, entrance station operations	0	2	0	
Piney River: provide road patrol, backcountry management, campground operations	2	1	3	
Headquarters: provide road patrol, entrance station operations, resource and backcountry management	1a	2	2	
Pinnacles/Skyland/White Oak/ Old Rag: provide road patrol, resource and backcountry management	1	0	3	
Big Meadows: provide road patrol, resource and backcountry management, campground and Camp Hoover operations	2	2	2	
Lewis Mountain: provide campground and Camp Hoover operations	0	0	1	
Simmons Gap: provide road patrol, backcountry management, entrance station operations	2	1	1	
Loft Mountain: provide road patrol, backcountry management, campground operations	0	1	3	
Rockfish Vicinity: provide for road patrol, entrance station operations	0	2	0	
Totals	8	11	15	Total 34
Typical Annual Workforce	90	75	85	Total 250
Percent of Required Residences Compared to Typical Annual Workforce	9%	11%	18%	14%

[a]This requirements would be terminated after accomplishment of concurrent legislative jurisdiction.

Table F-2: Permitted Employee Residencies

Sites and Purposes	Full-time Employees	Seasonal Employees Furlough	Seasonal Employees Temporary	
Front Royal/Dickey Ridge: provide road patrol, entrance station and visitor center operations, interpretation	0	0	6	
Piney River: provide back-country management, campground operations	0	0	4	
Headquarters: provide entrance station (Thornton Gap) operations, resource management, and parkwide administration	3	0	7	
Pinnacles/Skyland/White Oak/ Old Rag: provide interpretation, backcountry management	0	0	4	
Big Meadows: provide campground and visitor information operation, interpretation, backcountry management	1	1	14	
Loft Mountain: campground operation, resource and backcountry management, interpretation	0	0	12	
Rockfish Vicinity: entrance station operation, visitor information operation	0	0	7	
Totals	4	1	54	Total 59
Typical Annual Workforce	90	75	85	Total 250
Percent of Permitted Residences of Typical Annual Workforce	4%	1%	62%	24%

APPENDIX G: COST ESTIMATES

The following estimates for development and annual operations indicate costs for implementing the General Management Plan/Development Concept Plan. The National Park Service uses a conceptual type estimate (Class C) for developments described in this document, which is based on similar type facilities and operations according to the size envisioned and past experience of cost. For example, if a new visitor information facility is proposed for construction, the various functions are translated into an approximate square footage and multiplied by the typical cost per square foot, to which is then added typical costs for customary furnishings, exhibits, and other features. Indirect costs are then added for the necessary design services, contract supervision, etc.

Annual operating costs are estimated from existing known operations, then costs are added for additional staffing, equipment, and miscellaneous materials.

It cannot be assumed that the funds required for implementation of this plan will be made available. Shenandoah National Park will have to compete for funding with the more than 300 other units of the National Park System. In turn, the needs of the National Park Service will be weighed against the needs of other federal agencies and programs.

The following costs are given on a 1982 base. No attempt has been made to anticipate future inflation or other conditions that would affect the final actual costs.

Table G-1. Estimated Annual Operating Costs
(National Park Service only)

LAND PROTECTION	
Donation/Exchange Program	$ 40,000
Easement and Special Use/Permit Operation	6,000
Boundary Maintenance and Patrol	88,000
Equipment	5,000
Subtotal	$ 139,000
NATURAL RESOURCES	
Backcountry Management	$ 92,000
Wildlife Management	42,000
Fisheries and Water Quality Management	11,000
Air Quality Management	37,000
Fire Management	52,000
Vegetation Management	8,000
Research	120,000
Equipment	9,000
Subtotal	$ 371,000
CULTURAL RESOURCES	
Maintenance and Stabilization	$ 76,000
Protection and Site Management	49,000
Museum Management, Oral History, Research, etc.	13,000
Equipment	3,000
Subtotal	$ 141,000
VISITOR USE AND INTERPRETATION	
Interpretive Programs	$ 157,000
Preparation of Publications, Exhibits, Study Collections, etc.	64,000
Visitor Center Operations	150,000
Environmental Education Programs	39,000
Direct Telephone Service Leasing	17,000
Visitor Protection, Law Enforcement, Road Patrol, Health/Safety Inspections, Search/ Rescue, etc.	536,000
Entrance Station and Campground Operations, Related Information Services	593,000
Equipment	47,000
Subtotal	$1,603,000
MANAGEMENT	
Personnel and Property Management, Budget and Finance Administration, Interagency Cooperations, Mail and Files, Overall Management and Direction, etc.	$ 303,000
Equipment	4,000
Subtotal	$ 307,000

DEVELOPMENT	
Property and Fire Protection	$ 75,000
Maintenance	
Roads and Trails	1,438,000
Buildings and Utilities	1,077,000
Grounds	274,000
Shop Operations	228,000
Quarters	73,000
Equipment	137,000
Subtotal	$3,302,000
Total Estimated Annual Operating Costs	$5,863,000

Table G-2. Total NPS Development Costs

	Phases		
	I	II	III
	1983	1989	1995	2000
LAND PROTECTION	$ 258,000	$ 258,000		
NATURAL RESOURCES	---	---		
CULTURAL RESOURCES	1,102,000	258,000	113,000	
VISITOR USE AND INTERPRETATION	---	---		
MANAGEMENT	---	---		
SKYLINE DRIVE	21,039,000	22,334,000	$25,037,000	
TRAILS	1,837,000	1,675,000		
DEVELOPED AREAS	$11,817,000	$8,380,000		
Total by Phase	$36,053,000	$32,905,000	$25,150,000	
TOTAL		94,108,000		

Table G-3. Estimated Development Costs

	Phases I 1983	II 1989	III 1995	III 2000
LAND PROTECTION				
Donations and Exchanges[a]	0	0		
Indirect Costs[b]	$258,000	$258,000		
Total	$258,000	$258,000		
NATURAL RESOURCES	0[c]	0[c]		
CULTURAL RESOURCES				
Camp Hoover Burglar Alarm System	$ 50,000			
Fire Detection and Suppression Systems				
Camp Hoover	75,000			
Massanutten Lodge/Skyland Cabins	5,000			
Simmons Gap Mission	1,000			
Big Meadows Lodge	1,000			
Lewis Mountain Lodge	25,000			
Dickey Ridge Visitor Center	25,000			
Headquarters Complex	5,000			
Various Grounds Restorations and Miscellaneous[d]				
Indirect Costs				
Historic Structure/Site Reports				
-Camp Hoover, Corbin Cabin, Old Skyland Cabins/Judd Garden, Simmons Gap Mission	355,000			
-Skyline Drive	300,000	$120,000	$100,000	
Historic Structures Preservation Guides				
-Camp Hoover, Corbin Cabin, Old Skyland Cabins/Judd Garden, Massanutten Lodge, Simmons Gap Mission	30,000	120,000		
-Big Meadows Lodge, Dickey Ridge Visitor Center, Lewis Mountain Lodge, Headquarters Complex	60,000			
-Skyline Drive	30,000	18,000	13,000	
National Register Nominations	23,000			
Potential National Register Sites Study	12,000			
Parkwide Historic Resource Study	75,000			
Archeological Surveys (EO 11593)	30,000			
Total	$1,102,000	$258,000	$113,000	

[a] No direct costs to NPS because of donation or equal-value exchange

[b] Covers costs for an assumed 15 exchanges or donations per year; costs include removal of unneeded buildings, roads and other structures, site restoration, grading, seeding; and mapping, surveying, appraisals, title work, etc.

[c] Costs are covered under Land Protection and Development.

[d] Restorations cannot be estimated until historic structure/site and/or historic structure preservation guides are prepared

	Phases I 1983	II 1989	III 1995	III 2000
VISITOR USE AND INTERPRETATION	0[e]	0[e]		
MANAGEMENT	0[e]	0[e]		
NPS DEVELOPMENT				
Roads				
Skyline Drive Rehabilitation[a]				
Signing	$ 110,000			
Pavement, Shoulders, and Slopes	9,504,000	$7,128,000		$7,128,000
Drainage	1,716,000	858,000		286,000
Guardwalls	2,420,000	3,630,000		6,050,000
Overlook Areas	-	3,685,000		3,685,000
Bridge/Tunnel Repairs	660,000	-		-
Indirect Costs[f]	6,629,000	7,033,000		7,888,000
Total (by phase) for Skyline Drive	$21,039,000	$22,334,000		$25,037,000
Trails				
Stroller Trails (8 mi. new, signs)	585,000			
Foot Trail Improvements (25 mi. new)	100,000	225,000		
Appalachian Trail Reroutes (5 mi. new)	125,000			
Horse Trail Improvements (14 mi. new)	100,000	240,000		
Trail Rehabilitation (14 mi.)	70,000	70,000		
Trailhead Parking, Skyline Drive, paved, 29 areas (3-24 cars)	200,000	263,000		
Trailhead Parking, perimeter, gravel, 13 areas (4-20 cars)	48,000	49,000		
Trailhead Parking at Weakly Hollow (100 cars), paved		300,000		
Trailhead Vault Toilets (2)	30,000			
Subtotal by Phase	1,258,000	$1,147,000		
Indirect Costs[f]	579,000	528,000		
Total (by phase) for Trails	$1,837,000	1,675,000		
Total for Trails	$3,512,000			

[e] Costs are covered under Development

[f] These costs cover surveys, planning, design services, preparation of construction documents, contract award and administration, construction supervision, etc.

	Phases			
	I	II		III
	1983	1989	1995	2000
Development by Area				
Front Royal				
Visitor parking (10 cars) at entrance station, realign outbound lane, relocate utilities	$114,000			
Operations area: Garage for snowplow, and patrol car, utilities		$ 49,000		
Travel Information Station	4,000			
Happy Creek				
Remove existing beef cattle research station buildings (5) and bridge, restore site		16,000		
Dickey Ridge				
Comfort station, utilities	142,000			
NPS housing: 4 apartment units with utilities and furnishings, remove 4 trailers		235,000		
Picnic Shelter		34,000		
Snead Farm Barn remodeled for environmental education classroom furnishings, water, electricity, vault toilet		40,000		
Handicapped access to existing picnic area comfort station	9,000			
Overall site improvements	21,000			
Piney River				
Operations building for ranger, naturalist and maintenance offices with furnishings, workshops, storage; new septic system, parking (30 cars); fuel area; remove existing maintenance buildings and office trailers	$1,344,000			
NPS housing: 3 family units, 7 apartment units, utility connections, furnishings; remove 6 trailers, site development	354,000 333,000			
Mathews Arm				
Campground registration/reservation building, parking (10 cars), remove old building	139,000			
Realign part of entrance road	139,000			
Replace amphitheater, 230 seats	140,000			
Enlarge campground: 50 individual sites, 7 group sites, 2 comfort stations, utilities, and roads		$519,000		
Utilities, increased parking (25 cars), site development for concessioner building	76,000			
Overall site improvements	$ 53,000			

	Phases I 1983	II 1989	III 1995	III 2000
Elkwallow				
Handicapped access to comfort station	$ 9,000			
Picnic Shelter		$ 38,000		
Overall site improvements	34,000			
Thornton Gap/Panorama				
Visitor contact facility, revise parking (120 cars, 8 buses), utilities, site development, furnishings, exhibits, operations garage	634,000			
Entrance station emergency parking (2 cars)	4,000			
Travel Information Station	4,000			
Headquarters				
Remodel visitor lobby, improve handicap accessibility	12,000			
Addition for fire-safe record storage		108,000		
Operations building for maintenance shops, offices, utility connections; remove old structures	1,065,000			
Veneer fuel house		11,000		
Convert houses to other uses	4,000			
Overall site improvements	34,000			
Pinnacles				
Temporary research center	28,000			
Handicapped access to comfort station	10,000			
Overall site improvements	15,000			
Operations area: remove structures, restore site	12,000			
Skyland				
Remodel Massanutten Lodge for visitor contact station/interpreter office; exhibits	19,000			
Amphitheater with audiovisual equipment, 200 seats	124,000			
Utility connections and site development for 4 replaced concessioner cottages		36,000		
Utility connections, site development, and parking (24 cars) for 2 new concessioner lodges		77,000		
NPS housing and operations: 1 family unit, 5 apartment units, ranger office, utility connections, furnishings	337,000			
Overall site improvements	$ 89,000	89,000		
New waterline		$240,000		

	Phases I 1983	II 1989	III 1995	2000
White Oak				
Remove 2 buildings, restore site		$4,000		
Big Meadows				
Remove stable, parking, and septic system, rehabilitate site	$ 9,000			
Campground registration/reservation building, parking (10 cars); remove old building and trailer		99,000		
Overall campground site improvements	34,000			
Relocate trailer dump station	45,000			
Group horse campground: comfort station, hitch racks, water system, utilities, and parking		151,000		
Replace amphitheater	241,000			
Picnic Shelter		37,000		
Handicapped access to picnic area, pit toilet	10,000			
Overall site improvements in picnic area	6,000			
Remodel visitor center lobby, improve exhibits	50,000			
Environmentally controlled storage in visitor center	2,000			
Utility connections and site development for 30 new concessioner lodge units	92,000			
Utility connections and site rehabilitation for replaced ARA dorms	88,000			
Utility connections and site rehabilitation for 5 relocated cabins	51,000			
Overall site improvements in lodge area	25,000			
NPS operations building offices, fire cache, remove wood building		206,000		
NPS housing: 5 family units, utilities, pump station parking, site work	608,000			
NPS housing: 9 apartment units, utilities, parking, site work, remove trailers		$450,000		
Overall site improvements in operations area, realign intersection road	$ 35,000			

	Phases I 1983	II 1989	III 1995	2000
Camp Hoover				
See Cultural Resources estimates				
Lewis Mountain				
Handicapped access to comfort station in picnic area	$ 10,000			
Picnic Shelter		$ 39,000		
Overall site improvements in picnic area	8,000			
Increase parking, site improvements, and utilities for 10 cabins	64,000			
Overall site improvements in lodge and cabin area	3,000			
Trailer sewage dump station	40,000			
New septic system	95,000			
Overall site improvements in campground	10,000			
NPS housing: 1 apartment unit, utility connections	66,000			
South River				
Handicapped access to comfort station	10,000			
Picnic Shelter	51,000			
Overall site improvements	8,000			
Swift Run Gap				
Visitor parking (7 cars) at entrance station	11,000			
Travel Information Station	4,000			
Simmons Gap				
Operations building for ranger and maintenance offices, workshops, storage, parking (25 cars), utilities, new septic, fuel area, site development, remove old and temporary structures		1,561,000		
NPS housing: 2 family units, 1 apartment unit, utility connections, furnishings, remove trailers	278,000			
Water storage-50,000 gallons	70,000			
Overall site improvements	10,000			
Loft Mountain				
Picnic shelter			38,000	
Handicapped access to comfort station in picnic area		$ 10,000		
Overall site improvements in picnic area	5,000			
Improve campstore parking	$ 48,000			

	Phases I 1983	II 1989	III 1995	2000
Campground reservation/registration building, offices for naturalists, parking (10 cars), utilities, remove trailer	$270,000			
Convert old registration building to air quality monitoring station	27,000			
Overall site improvements in campground		$ 20,000		
NPS housing: 1 family unit, 15 apartment units, utility connections, site work, parking, remove 5 trailers		882,000		
Dundo				
Handicapped access to campsites, replace vault toilet	55,000			
Overall site improvements	10,000			
Sawmill Run				
NPS housing: remove trailer and road, restore site			2,000	
McCormick Gap				
Entrance station: offices, kiosks, visitor parking, widen entrance lanes, vault toilet, electricity, site work	246,000			
Rockfish				
Remove entrance station	2,000			
Rockfish Gap				
Visitor contact facility, parking (30 cars, 2 buses) utilities, site development, exhibits	g			
Operations area: fire cache, ambulance storage, garage, utilities, storage, site development		g		
NPS housing (a family unit, 8 apartment units), utilities, site development	g	g		
Travel Information Station	$ 4,000			

[g] dependent on donated or leased land or facilities, no estimate possible at this time

	Phases I 1983	II 1989	III 1995	2000
Parkwide				
Interpretation: orientation shelters (12), overlook exhibits (30), other exhibits (30), trailhead exhibits (30)	$ 124,000			
Travel Information stations outside park (4)		$ 16,000		
Utilities: Replace sewer lines	300,000	300,000		
Radio system improvements		100,000		
Subtotal by Phase	8,094,000	5,740,000		
Indirect Costs	3,723,000	2,640,000		
Total (by phase) for NPS Areas	$11,817,000	$8,380,000		
Total for NPS Areas		$20,197,000		

Table G-4. Estimated ARA Virginia Skyline Company Development Costs

	Phases I 1983	Phases II 1989	Phases III 1995	Phases III 2000
Mathews Arm				
New building for campstore, wood/ice sales, showers, and laundry	$ 450,000			
Elkwallow				
Remodal and expand food service within existing building	144,000			
Thornton Gap/Panorama				
Handicapped access to washrooms	7,000			
Screen utility area	3,000			
Skyland				
Handicapped access to restaurant and its washrooms, slight expansion of dining room	32,000			
Replace 4 guest cottages		$ 421,000		
Construct 2 new lodges (6 unit, 18 unit)		995,000		
Water saving devices	4,000			
White Oak				
Remodel 2 existing buildings for cookouts/walk-in accommodations			3,000	
Big Meadows				
Enclose lodge terrace, increase restaurant seating		113,000		
Two new lodges, 30 units total	981,000			
Relocate 5 cabins	23,000			
Relocate employee cabins	17,000			
Replace stable, parking, corral and utility connects		190,000		
Lewis Mountain				
Ten new cabins	245,000			
Remodel lodge for full accessibility	15,000			
Subtotal by Phase	1,921,000	1,722,000		
Indirect Costs[a]	884,000	792,000		
Total (by phase) for ARA Areas	2,805,000	2,514,000		
Total for ARA Areas		5,319,000		

[a] These costs cover surveys, planning and design services, preparation of construction documents, contract award and administration, construction supervision, etc.

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COMMONWEALTH of VIRGINIA

Virginia Historic Landmarks Commission

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December 23, 1982

Mr. James W. Coleman
Regional Director
National Park Service
Mid-Atlantic Region
143 South Third Street
Philadelphia, PA. 19106

RE: DRAFT GENERAL MANAGEMENT PLAN FOR THE SHENANDOAH NATIONAL PARK

Dear Mr. Coleman:

For almost a year this office has been in touch with members of the Denver Service Center who have been soliciting our comments regarding structures within the Shenandoah Park. These consultations have been in compliance with the programatic memorandum of agreement between the Park Service and the State Historic Preservation Office.

We concur with the determinations of significance, proposed levels of treatment, uses of structures, and protective measures for historic structures and archaeological sites as long as National Park Service guidelines are carried out when affecting historic resources.

Sincerely,

C. Vernon March, III
Environmental Officer

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