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INTRODUCTION

“Peaks and valleys of delicately banded colors - colors that shift in the sunshine,... and a thousand tints that color charts do not show. In the early morning and evening, when shadows are cast upon the infinite peaks or on a bright moonlit night when the whole region seems a part of another world, the Badlands will be an experience not easily forgotten.”

-- Freeman Tilden, conservation writer.

Travelers visit the Badlands for many reasons. Some are lured by the magnificent scenery, colors, and rock formations to which Freeman Tilden alluded. Others want to experience wilderness, photograph wildlife, or search for birds or flowers. More than a few are professional or amateur paleontologists who come to study the fossil remains of Badlands' ancient life. Others happen across the Badlands as they travel through the state of South Dakota on a family vacation.

At first impression, the stories and resources of the Badlands seem too big, too scientific, or too intangible to grasp. The scenery is expansive, the geologic time frame unfathomable, the fossils of ancient life forms unimaginable, and the prairie bleak and barren to the untrained eye. Wrapping one's mind around concepts and terms like "Millions of years ago this was a vast inland sea..." and "Subhyracodon" and "big bluestem" is often hard work for people who are, after all, on vacation. But the Badlands resources can provide us with insight into the fundamental processes and properties of life, from the amazing biodensity of the prairie ecosystem to the stories of global change and evolution written in the fossil record. Bringing the Badlands story to visitors in a form that they can enjoy, understand, and feel is the challenge of this plan.

THE PLANNING PROCESS

This Long Range Interpretive Plan (LRIP) recommends actions that should occur over the next 8-10 years. It describes interpretation, resource stewardship and visitor experience goals, and recommends ways to achieve these goals through facilities, interpretive media and programs, and access to resources. It will join a park-produced annual interpretive plan and interpretive database to make up a comprehensive interpretive plan for Badlands National Park.

The goal of the interpretive planning process is NOT the creation of a plan. The ultimate goal is the development of a cost-effective, tightly-focused, high-quality park interpretive program that effectively addresses all audiences and achieves management goals.

Work on this plan began in February 1998 when the Harpers Ferry Center Team Captain traveled to Badlands National Park for a scoping trip, gathered information, and met with park staff to discuss what interpretive issues needed to be addressed through the planning process. The Park Superintendent, Chief of Resource Education and the Team Captain then selected the planning team to include members from park staff, Harpers Ferry Center media experts, Support Office staff, and representatives from stakeholder groups. This plan is the result of a three-day planning workshop that took place in April 1998.

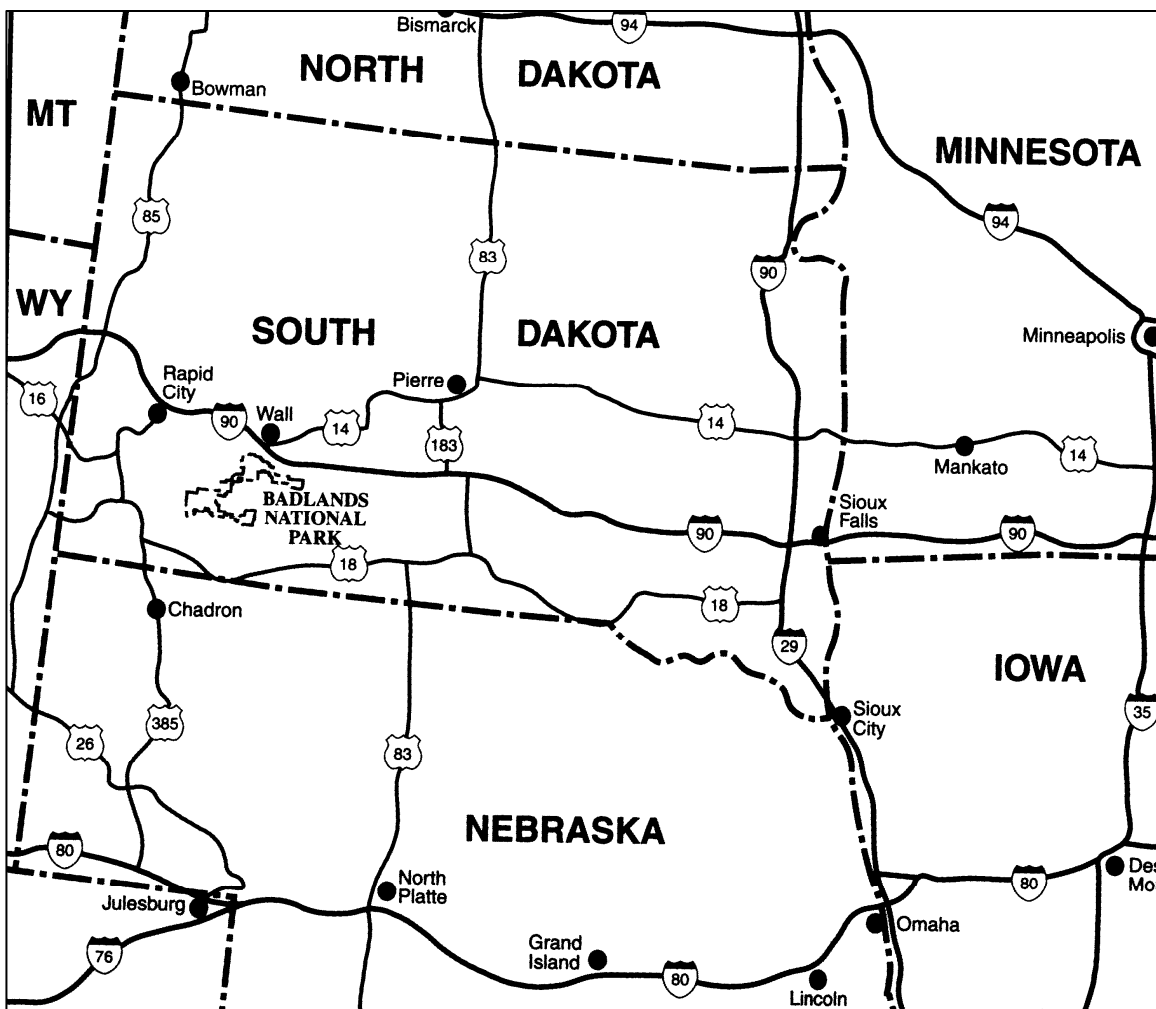
While this LRIP sets the course for the park's interpretive program into the next century, specific recommendations may need to be updated as staffing, funding, or resource conditions change. Further design documents will need to be prepared to implement some of the goals and recommendations in this plan.

BACKGROUND

Badlands National Park is located in Southwestern South Dakota, 70 miles east of Rapid City. The park consists of three units totaling nearly 244,000 acres. The North Unit, which is the best known and most accessible, includes the 64,144 acre Sage Creek Wilderness Area, a loop road with scenic overlooks, the Ben Reifel Visitor Center, park headquarters, and Cedar Pass Lodge.

"The formation of the Mauvaises Terres... bursts into view, disclosing...one of the most extraordinary and picturesque sights that can be found in the whole Missouri country."
- Dr. John Evans, 1849 expedition to the Badlands.

The Stronghold and Palmer Creek Units are located within the Pine Ridge Indian Reservation and are managed by the National Park Service under a Memorandum of Agreement with the Oglala Sioux Tribe. In the Stronghold Unit, the White River Visitor Center is open seasonally. There is no public access into Palmer Creek Unit, and limited access into the Stronghold Unit.



LEGISLATIVE BACKGROUND

- Badlands National Monument was established in 1929, “for the benefit and enjoyment of the people.” An accompanying report reveals Congress’ intent “to preserve the scenic and scientific values of a portion of the White River Badlands and to make them accessible for public enjoyment and inspiration.” Additional language describes the scenic features of the park and the “vast beds of vertebrate fossil remains. The whole area is a storehouse of the biological past, and since 1847 it has been the scene for scientific expeditions from all parts of the world.”
- Certain conditions having been met by the State of South Dakota, Badlands National Monument was formally established by Presidential Proclamation on January 25, 1939.
- Public Law 90-468 (1968) added 133,300 acres of Pine Ridge Indian Reservation, most of them part of the U.S. Air Force former Badlands Gunnery Range, to the monument “to include lands of outstanding scenic and scientific character.” A Memorandum of Agreement with the Oglala Sioux Tribe grants the right of administration to the National Park Service “for the purpose of providing public recreation and for the development and administration ... of public use facilities.”
- In 1976, Public Law 94-567 designated 64,144 acres of Badlands National Park as the Sage Badlands Wilderness.
- The Monument was redesignated Badlands National Park by the National Parks and Recreation Act of November 10, 1978.

PURPOSE

The legislated **purposes** of Badlands National Park are to:

- Protect the unique landforms and scenery of the White River Badlands for the benefit, enjoyment and inspiration of the public.
- Preserve for science and interpret for the public the massive vertebrate fossil beds and other paleontological, zoological and geological resources of the White River Badlands so as to foster an understanding of their larger significance.
- Interpret the history and development of the science of paleontology that has taken place at the White River Badlands.

Planning focuses first on why a park was established and what conditions should exist there before delving into details about specific actions.

SIGNIFICANCE

Badlands National Park has national **significance** for the following reasons:

- Badlands National Park contains spectacular vistas and scenery that inspired the first description of the “badlands” land form.
- The geological and paleontological resources of the Badlands provide insight into climatic history, biological diversity and evolution, and geological processes, particularly of the Eocene/Oligocene boundary.
- The White River Badlands was the birthplace of the science of vertebrate paleontology in United States.
- Badlands National Park has the finest remnant of mixed grass prairie in the U. S. and the largest protected by the National Park Service.
- The fossil and geological records provide a glimpse of what the ancient prairie looked like, which can be juxtaposed with the modern-day short-grass prairie and provide insight into the evolution of that ecosystem.
- The area in and around Badlands National Park contains places of spiritual and historical significance such as the site of one of the last Ghost Dances, and sites significant to Wounded Knee, located just south of the park.

PRIMARY THEMES

Primary interpretive themes are those ideas or concepts that every visitor should understand. These themes provide the foundation for interpretive programs and media at the park. The themes do not include everything we may wish to interpret, but they do cover those ideas that are critical to a visitor's understanding of the park's significance. All interpretive efforts should relate to one or more of the themes, and each theme should be addressed in the overall interpretive program.

Wisdom is not a knowledge of many things, but the perception of the underlying unity of seemingly unrelated facts.

- John Burnet, on Herakleitos of Ephesos.

- 1. The Badlands fossil and geological record reflects changing climates and the diversity, abundance and evolution of life; its study provides insight into the survival of species.**
- 2. Different cultural groups have had and continue to have spiritual and physical relationships to the resources at the Badlands.**
- 3. Studying and restoring the mixed grass prairie ecosystem and humans' relationship to it will help us understand the changing grassland ecology of the Midwest, and ensure the protection of this fragile and remarkably diverse ecosystem.**
- 4. Badlands is an evolving landscape formed by the processes of deposition and erosion and the forces of wind and water.**
- 5. Badlands offers excellent opportunities for solitude and contemplation, and to experience both wilderness and wildness.**
- 6. The science of modern paleontology was born in the Badlands region; paleontology and other forms of science continue to evolve and play an important role in the management of resources at Badlands National Park.**

VISITOR EXPERIENCE GOALS

Visitor experience goals describe what physical, intellectual and emotional experiences should be available for visitors to Badlands National Park.

“Visitor experience” is what visitors take from a park. It is everything that visitors do, sense, feel, think and learn; it includes knowledge, attitudes, behaviors, and values; it is affected by experiences prior to the visit and affects behavior after the visit. Interpretive planning describes desired experiences, and recommends ways to facilitate those experiences.

Visitors will have opportunities to:

- easily navigate the park and locate facilities.
- experience quiet and solitude.
- understand how the visual landscape evolved.
- learn together as a family or learn individually.
- understand why the paleontological, geological and natural resources of the Badlands need protection and can not be collected.
- appreciate that natural processes affected and continue to affect the people of area.
- have contact with a uniformed representative of the National Park Service year-round, and attend an interpretive program during the summer season.
- learn about Badlands National Park without physically visiting the park.
- see paleontological work (research, excavation, or fossil preparation) happening and participate in some aspect of paleontology, either real or simulated.
- physically and mentally explore and discover the prairie and the badlands.
- view the park’s scenery, outstanding vistas and wildlife in its natural setting.
- understand that many cultures are associated with the Badlands, with different values and traditions.
- enjoy a safe, comfortable, and fun experience at Badlands National Park.
- learn from the interpretive programs or media regardless of their length of stay.
- be exposed to current scientific research about Badlands resources.

INTERPRETIVE PROGRAM GOALS

The following statements describe what the National Park Service intends to accomplish through the interpretation and education programs at Badlands National Park.

- Programs and facilities will be available for different learning styles.
- The overall interpretive menu will include programs and/ or media, both curriculum based and non-curriculum based, designed for children.
- Interpretive programs and facilities will try to reach non-traditional National Park Service audiences and visitors.
- Interpretive programs and facilities will incorporate multiple perspectives.
- The perspectives of the Lakota will be incorporated into interpretive programs and media. Relationships with the Lakota government and its designated representatives and subject matter experts will be strengthened and consultation will occur.
- Interpretive programs will aim to help foster resource stewardship in visitors and local populations.

PARK VISITORS

Badlands National Park had approximately 990,000 visitors in 1997, with the majority of visitors during June, July and August. However, the average attendance over the past five years has been 1.1 million with the highest number at 1.35 million.

The last visitor survey was conducted in 1978. Badlands National Park will be subject of a formal visitor survey in 1999. The following generalizations about park visitors are based on the observations of park staff:

Most visitors are from the upper Midwest or the eastern part of the United States. Sunday and Monday are the busiest visitor days at the Badlands, most likely because vacationers leave their upper Midwest homes on Friday night or Saturday and are therefore arriving at the Badlands on Sunday or Monday. For many park visitors, Badlands National Park is the first of several National Parks they will visit during their trip. This is reflected in the disproportionately large number of Golden Age and Golden Eagle Passes sold at Badlands.

International visitors make up a small percentage of park visitors, with German speaking visitors the predominant sub-group. Most foreign visitors speak and read English.

The majority of visitors are in family groups, stay less than one day, and are visiting the Badlands as part of a longer trip. For many, it is either their first visit to the Badlands, or their first visit as an adult. While most visitors planned to visit Badlands, a significant number saw the sign on the interstate and decided to visit on the spur of the moment.

Badlands National Park is a destination park for members of the scientific community who come to study, research, or see the paleontological resources or geologic formations. Additionally, Badlands is a destination for an increasing number of backpackers who come to experience the Badlands Wilderness.

Badlands National Park is receiving an increasing amount of bus traffic, with a maximum of about 8 buses per day, and up to 3 or 4 buses at one time. Most of the buses are senior citizen tour groups, or tour groups for whom English is not their first language. The bus groups tend to be on tightly managed schedules. Badlands receives a moderate number of school groups, mostly from Pine Ridge Indian Reservation or from the greater region. The cost of the trip and the bus limits school visits for most local schools.

VISITOR EXPECTATIONS

Understanding visitor expectations is important to providing a quality visitor experience at any National Park. While the National Park Service will not necessarily try to meet all visitor expectations (some are unrealistic), understanding these expectations will allow the National Park Service to help correct misconceived ones and meet others.

Understanding the values that people hold in relation to park resources and visitor experiences is often the key to success in coming to decisions that can be effectively implemented.

Although many visitors have planned to visit Badlands National Park, most do not know what to expect from their visit. While most visitors know Badlands is a protected area, many confuse national and state parks.

In terms of facilities or programs, visitors expect to receive an orientation to the park, and most expect interpretive programs. They expect information about the region and about other National Parks they plan to visit. Visitors expect there will be bathrooms and trash cans. Some visitors expect backcountry and hiking opportunities. Some expect “more” because the fees have been increased. A few have negative conceptions of government.

In terms of park resources, visitors expect to see and learn about wildlife. Many associate Badlands with the movie “Dances with Wolves.” While most visitors know that Badlands has something to do with fossils, geology and the American West, many expect to see dinosaur fossils, the stereotypical “Indian”, and “the wild west.” Some mistakenly think Wounded Knee is in the park. Many expect the staff will be experts in geology. Geology students mistakenly expect they will be able to collect samples.

Some visitors are surprised to find the park open in the winter. Many visitors don’t know about the weather extremes (both hot and cold) and are unprepared to deal with them.

EXISTING CONDITIONS AND VISITOR EXPERIENCE

The following provides a description of the visitor experience and conditions as they existed at the time of the planning process. This section provides a baseline which helps to justify many of the actions described in this plan.

SUMMARY

For the majority of park visitors, a visit to Badlands is a several-hour stop on a longer driving vacation to the Dakotas, Montana and Wyoming. Severe weather (heat in the summer, cold in the winter, and year-round wind), lack of trees, and tight schedules are factors that keep the average visit to a short, drive-through experience. Most visitors drive the loop road, enjoy the scenery, and stop occasionally for a wayside exhibit at an overlook or to take photos. Some walk one of the park's short trails. Few visitors stay overnight in the park. For most, the Loop Road IS their experience of Badlands National Park.

"As we rode, or seemed to be floating, upon a splendid winding road that seemed to understand it all and just where to go we rose and fell between its delicate parallels of rose and cream and sublime shapes, chalk white, fretted against a blue sky with high floating clouds."
--Frank Lloyd Wright, 1935.

PREVISIT

Information on Badlands National Park is available at state tourism offices, through the park's web site, and by phone or mail from the park.

THE PARK

Northeast Entrance

The majority of park visitors (65%) experience Badlands National Park from East to West, leaving Interstate 90 at Cactus Flat, entering the park through the Northeast Entrance, following the Badlands Loop Road, exiting through the Pinnacles Entrance, and rejoining Interstate 90 in Wall. At the Northeast entrance station, visitors receive a park brochure and a park newspaper. While the brochure is well written and contains a map, many visitors do not read the park brochure until after they've left the park. Next to the entrance station is a building that was built to be a visitor contact station but is currently being used as a fee office.

Within the park, a variety of styles of signs direct visitors to the facilities and routes of travel. In some cases the letters on the signs are too small to read for the distance and speeds at which the vehicles are traveling, and some facilities are misnamed (calling an area an "overlook" rather than a picnic area). Some pullouts or facilities are not signed at all, and therefore visitors pass them by.

As visitors drive the Loop Road the first orientation to the park they encounter is at the Big Badlands Overlook, where approximately 30-35% of visitors stop. This overlook is a pullout with a view “from above” of the Badlands with a wayside that introduces visitors to the park. A short path leads to a second wayside that describes the Badlands Wall formation.

The next stop for visitors on the Loop Road is an enormous parking area with the trailheads for three short trails: the Door Trail, a 3/4 mile round-trip self-guided trail that interprets the geology of the Badlands; the Window Trail; and the Notch Trail. In the parking lot are waysides with maps and descriptions of these short trails. These are the only three trails in the park that allow visitors access into the Badlands formations. Yet because the trailheads are ineffectively marked, and because of the strange layout of the parking area, many visitors roam around off-trail in the formations next to the parking area and leave without walking any designated trails. Visitors are not adequately warned about the steep ladder they will encounter on the Notch Trail - as a result falling injuries have occurred. The Door Trail is very poorly marked, leading to a significant number of search and rescue operations when visitors become stranded at the base of rain-slickened buttes, unable to return to the Trail.

Another mile down the road is the parking area for the Cliff Shelf Nature Trail, a half mile loop trail that circles and interprets a perched wetland area. While the trail is described in park literature as meeting accessibility standards, this has not been formally determined.

One mile further south on the Loop Road is Cedar Pass, the focus of visitor services.

Cedar Pass

Cedar Pass is the center of visitor information, accommodations, and services including the Ben Reifel Visitor Center, park headquarters, Cedar Pass Lodge and Restaurant, and the park campground.

Ben Reifel Visitor Center

Built in 1959 the Ben Reifel Visitor Center is the park’s primary orientation and educational facility. Approximately one-fourth of park visitors stop at Ben Reifel. Because of curves in the road and poor signage, many visitors miss the entrance to the Visitor Center and pass it by. Others turn into the lodge facility thinking they are at the Visitor Center, visit the gift shop, and don't want to backtrack to the Visitor Center. Still others perceive (particularly during peak season) that the parking area is full and bypass the Visitor Center. Others see the bland exterior of the building and drive on.

The Visitor Center contains a combined information and Badlands Natural History Association (BNHA) book sale desk, a BNHA sales area, a touch room, and an exhibit room containing Mission 66 era exhibits. The building also contains offices for some of the park staff including the Division of Resource Education.

The Visitor Center is too small for current visitation and has outdated infrastructure. During the peak summer season, 3,500 visitors enter the visitor center per day causing considerable congestion, especially if several buses arrive at once. There is no room for group programs or special educational programs. The building has poor heating, cooling, and air circulation.

The first thing visitors see when they enter the building is the BNHA sales outlet. They must negotiate through the bookshelves to get to the exhibit room or the information desk. The book sale and interpretive functions take place at the same desk, which can be crowded and confusing. Site bulletins on a variety of topics are available at the visitor center desk. There is no orientation to the region or to the National Park system, even though many visitors plan to visit other National Parks in the region after they leave the Badlands. The only updatable information about the park is through TV-monitors that display the weather forecast, campground status and other current information. There is no information or orientation for backcountry users.

Exhibits

The exhibits in the Ben Reifel Visitor Center are typical Mission 66 era exhibits that have suffered from nearly 40 years of use, wear and tear. In terms of content, the exhibits are outdated, inaccurate, and do not reflect current knowledge and sensitivities. They no longer do an adequate job of interpreting the park's resources and stories. All of the exhibits are "behind glass," and don't accommodate different learning styles and audiences. The exhibits don't take advantage of the park's collections, particularly of fossils. There is no place for changing or temporary exhibits.

One room of the visitor center has been converted into a touch room by park staff. The exhibits are under constant revision, and include a variety of interactive and tactile exhibits. Park staff feel the touch room works well.

A/V

During the summer the outdoor walled-in patio is used as a makeshift auditorium for projection of the park video, "Buried Fossils, Living Prairie." Noise from the adjacent parking area and traffic and odors from the nearby bathrooms make the viewing experience less than ideal. During the off-season, a TV/VCR and chairs are set up in the middle of the exhibit room to project the park video. This is distracting both for

visitors who are trying to view the exhibits, and for visitors who are trying to watch the video.

“Buried Fossils, Living Prairie” was produced by BNHA in 1989. It does an adequate job of touching on the major park themes but does so in a modest manner, more of an expository video than an interpretive film. Park staff estimate that less than 10% of park visitors watch the video.

Cedar Pass Lodge and Restaurant

Cedar Pass Lodge and Restaurant, located a few hundred yards from the Visitor Center, is the only hotel and restaurant facility in the park and is operated by a concession contract. The facility contains a large gift shop in the lobby. Park staff feel there are a significant number of visitors who stop at the gift shop and restaurant, but not at the National Park Service Visitor Center.

Campground

The park’s main campground, with 96 sites plus 4 group sites, is located just south of the Loop Road on the Interior Entrance Road, near Cedar Pass Lodge. The campground is very exposed with little natural shade or windbreak, which discourages some potential campers. Most campers stay only one night; the campground fills 25% of the time during summer months. Campers tend to be the traditional, National Park Service-savvy visitors. Evening interpretive programs are offered nightly during the summer season at the amphitheater, located adjacent to the campground. Average evening program attendance is 125.

Interior Entrance

The Interior Entrance, located approximately one mile from the Ben Reifel Visitor Center, is the least used entrance, greeting less than 5% of visitation. It is heavily used by local traffic.

Loop Road

After leaving the visitor center, visitors drive the rest of the Loop Road; park staff estimate that 90% of all park visitors drive the Loop Road. In fact, for most Badlands visitors, the Loop Road IS their primary Badlands experience.

Many visitors are looking for a short trail to walk. However, they may have already passed the majority of the park’s trails, and may not want to backtrack. The only trail options further west on the park road are the very steep Saddle Pass Trail, the Fossil Exhibit Trail, or the paths at the Pinnacles Overlook.

Most visitors will stop at a few overlooks. Waysides, and in some cases personal services, provide interpretation at some of the overlooks. While the existing waysides are generally attractive they are not well tied into specific tangible visible resources and park themes. For example, a wayside at the Pinnacles Overlook, one of the most popular overlooks with a spectacular view, interprets junipers and birds.

Many visitors who drive the Loop Road don't want to get out of their vehicles - weather certainly plays a discouraging role. Others will wander off-trail for a few minutes into the Badlands, either at a designated pull-out or just by the side of the road.

Fossil Exhibit Trail

The Fossil Exhibit Trail is the major place at the Badlands where paleontology is interpreted. It is a short, self-guided trail with replica fossils in Plexiglas and metal cases located along the side of the trail. Designed to reduce vandalism and theft, the cases containing the fossil casts trap moisture and are often fogged over. The interpretation focuses on the individual identity of the fossils, rather than the significance of the fossils or the larger message. The obtrusive metal cases and Plexiglas destroy the sense of "discovery" or experience of "seeing fossils in place" that was intended. However, vandalism is a major problem without the cases.

During summer months, park interpreters give 20-minute fossil talks twice each day at the small pavilion located at the trailhead in the parking lot. Visitors tend to drop into this program for a few minutes and leave. The pavilion contains one wayside, but does not offer the visitor much in terms of interpretation when there is no interpreter there. Visitors tend to congregate under the shelter simply because it is there and because it provides shade. The parking lot for the Fossil Exhibit Trail is too large for its current use.

Sage Creek Rim Road

Near the end of the Loop Road, visitors have the option to turn west onto the Sage Creek Rim Road, a gravel road that skirts the edge of the wilderness area. Park staff estimate that 300,000-400,000 visitors per year (35% of park visitors) travel at least part of Sage Creek Rim Road. Some of those visitors only drive as far as Roberts Prairie Dog Town, a prairie dog town located right next to the road, where visitors are practically guaranteed to see prairie dogs.

Because the road is unpaved and skirts the edge of the wilderness, it provides a quieter and more remote visitor experience, and provides more opportunities to view wildlife.

Sage Creek campground, a primitive campground located in the western part of the North Unit, is a stepping off point for wilderness users. It is also a popular camping

area for horseback riders, many of whom are repeat users from the local area. There is little orientation or interpretation available at Sage Creek campground.

The Pinnacles Entrance

For the 30% of park visitors that enter the park at the Pinnacles entrance station, there is no orientation or safety information available for 20 miles until they arrive at the Ben Reifel Visitor Center. The only interpretation they receive is through the waysides along the Loop Road. If visitors arrive during regular entrance station hours (8am to 4pm from April through June and September through November, and 6am to 9pm from June to September, closed during winter) they receive a park brochure and newspaper.

White River Visitor Center

For some visitors the White River Visitor Center is a destination: most of these visitors have been directed there by a state tourism office or go there to see “Indians” or learn about Lakota culture. Other visitors just happen across the Visitor Center or arrive because they are lost. According to an informal park survey, about 60% of park visitors arrive at White River from the north, and 20% each from the south and west.

The White River Visitor Center, open only during the summer and, from 1992 through 1997, staffed by BNHA personnel, receives 8,000 visitors per summer. NPS staff will resume operation of the White River Visitor Center in 1998. The visitor center is a “temporary” trailer in poor condition that contains faded, old, in-house produced exhibits, some of which could be considered culturally insensitive. The exhibits only interpret Lakota culture and history and don’t provide any general introduction to park themes.

Visitors that arrive at the White River Visitor Center from the south or west don’t receive any kind of introduction to Badlands National Park as a whole. Nothing stylistically or thematically ties the White River Visitor Center experience to the rest of Badlands National Park. There is limited information outside the building for those who stop at the visitor center outside operating hours or during the off-season.

The South Unit

A very small percentage of park visitors enter the South Unit of Badlands National Park. Access to the south unit is difficult or impossible due to private land issues, closed gates, and limited roads. Sheep Mountain Table is the only marginally accessible part of the South unit; however inclement weather and snow can make this dirt road impassable. The view from the top of Sheep Mountain Table is beautiful, and provides a much more remote and contemplative visitor experience. Waysides have historically provided the only interpretation at Sheep Mountain Table but have been subjected to heavy vandalism.

There is some visitor interest in accessing the Palmer Creek and Stronghold units, particularly on the part of backpackers and operators of 4-wheel drive vehicles.

PERSONAL SERVICES

Besides staffing the Ben Reifel Visitor Center year round, NPS paid and unpaid interpreters provide a variety of programs during the summer season. These programs include evening campfire programs on a variety of topics, fossil talks at the entrance to the fossil exhibit trail, twice-daily evolving prairie walks, and as staffing is available, additional talks and walks on wildlife, human history, geology, paleontology, astronomy, and children's interpretation.

EDUCATION PROGRAMS

Badlands National Park has a fairly successful and growing educational program that has been under development and implementation since 1993. The education program has helped forge good relationships with local schools and teachers, and has generally received positive response from the schools. Programs in the school have utilized existing curricula (Project Learning Tree, Project Wild) as well as some educational resources developed by Badlands such as lesson plans on the Black-footed ferret reintroduction or a CD ROM about fossil resources. A Geologist or Biologist in the Classroom program has been developed that sends interns to 3,4 and 5th grade classes within a 100-mile radius. The education program utilizes interns as well as a full-time National Park Service educational specialist.

STAFFING

The Division of Resource Education at Badlands National Park currently consists of:

- Division Chief (GS-12)
- Supervisory Park Ranger (GS-11)
- Park Ranger, Interpretation (GS-9)
- Education Specialist (GS-9)
- Seasonal Park Rangers (GS-5) – five to eight per year
- Seasonal Visitor Use Assistants (GS –4) – two to three per year
- Volunteer Interns – seven to twelve per year

All staff members provide personal services and curricula-based education activities, as well as serve as team members in the development of non-personal service projects.

ISSUES AND INFLUENCES

The following management and safety issues could be addressed through interpretive media or personal services.

Safety Issues

- While hiking off-trail is allowed, many visitors do not realize how fragile and slippery the surface can be. Visitors climb on buttes or formations and fall.
- Poor signage on park trails results in people wandering off trail and getting lost. This is particularly a problem at the Door Trail. Additionally, visitors are not sufficiently warned of the potential dangers of using the ladder at the Notch Trail.
- Interaction with potentially dangerous animals and plants. Visitors get too close to wildlife or try to feed wildlife. Rattlesnakes are a documented danger, but there is probably more fear on visitors' part than actual risk. Two bites have been recorded between 1992 and 1997. Poison ivy and prickly pear cacti are abundant.
- Visitors are often unprepared for the weather conditions of the Badlands. Heat exhaustion, and dehydration are major risks, particularly given the lack of availability of potable water. Blizzards and summer hail and lightning storms can be dangerous.
- Traffic hazards exist along the Loop Road such as people stopping along the side of the road or driving extremely slow. The combination of RVs, cars, bikes and pedestrians on the road can be dangerous. Many visitors don't have much experience driving on dirt roads.

Visitor-related Resource Issues

- The illegal collection of archeological, paleontological and geological resources is a problem. The fact that these resources are available for sale outside the park may encourage collection by giving visitors the idea that these resources are valuable or that collection is legal. Some visitors know it is illegal but collect anyway. Visitors often want to know the location of paleontological or archeological sites, which is sensitive information. Since 1995 there have been two known cases of replica projectile points introduced into the park, which leads to misinformation about cultural history. Vegetation collection occurs, but tends to be out of ignorance rather than malice.

- Some visitors express interest in the location and content of the park collection, which could indicate a security threat.
- Horse users may introduce non-native vegetation through their horse feed. The mix of horse users and backcountry/wilderness campers at Sage Creek can cause conflicts.
- Helicopter tours over the park disturbing the visitor experience and wildlife. The Door Trail area may be “buzzed” by helicopters as many as fifteen times per day during peak summer season.
- Badlands National Park is the premiere site in the National Black-footed Ferret Recovery Program. Aggressive public relations and education efforts have resulted in an interested and informed public. However, now visitors want to see these elusive, nocturnal animals either in the wild or in the visitor centers. This creates occasional conflicts between agency policy, resource management programs, and visitor wants.
- Although “Leave No Trace” principles are incorporated into park media and interpretive programs, many visitors are not low impact users.

Other Resource Issues

- Badlands can’t function as island but increasingly is one. Much of the land outside the park has been significantly altered through grazing, agriculture or development. As a result the mixed-grass prairie ecosystem is becoming more and more threatened.
- The viewshed has been significantly altered, and in some cases there are adjacent cattle grazing or ranches visible from the loop road but outside the park boundary. This confuses people and takes away from the visitor experience.
- There are sometimes conflicting resource values between the park and park neighbors in terms of native vs. exotic species and natural processes. For example, many park neighbors view prairie dogs as pests, bison as threats to cattle, or fire as threat to their land and forage.
- The introduction of non-native species such as clover is a major threat to the park ecosystems. Yet many visitors don’t understand the difference between native and exotic species, or think the introduced species are attractive and beneficial.

- Silt from the natural process of Badlands erosion gets into the water affecting local ranchers or farmers' ability to irrigate.
- There is concern about air quality at the Badlands; current visibility is mediocre. There is little data that could help establish what the trends are.

RECOMMENDATIONS

The following is a description of programs and media proposals designed to further define, support, and realize the visions, objectives, themes, and visitor experiences previously described for Badlands National Park. The discussion of each program or media proposal identifies its purpose, special considerations, and sometimes the suggested themes or methods of presentation. However, these suggestions should not limit creativity in the media planning and design stage.

Interpretive planning analyzes all needs and recommends a wide array of interpretive services, facilities and programs to communicate in the most efficient and effective way the park's purpose, significance, themes and values.
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Summary

For most visitors, a drive of the Badlands Loop Road IS their experience of Badlands National Park. Interpretive efforts should be focused on getting visitors out of their vehicles and into a more intimate contact with the park resources and park story. This can be achieved through more accurate signing of pullouts and more interpretive opportunities along the Loop Road (waysides, personal programs, overlooks.) New, well-signed trails along the Loop Road west of Cedar Pass would also provide visitors with more chances to come into contact with park resources.

At the time this plan was produced, 75% of park visitors never enter the Ben Reifel visitor center. The entrance to the visitor center needs to be improved to increase the capture rate. Badlands is in need of new and expanded exhibits, a new theater, and space for group programs.

The interpretive program should continue to provide a wide variety of interpretive media and programs outside of the visitor center, particularly along the Loop Road. Recognizing that many Badlands visitors do not stop at all interpretive media, some overlap and reinforcement of interpretive themes park-wide will be desirable.

Better orientation, safety information, and an introduction to park themes, are needed for visitors who enter the park at the Pinnacles entrance or who visit the White River Visitor Center.

Fostering good relationships with the Oglala Sioux Tribe will be critical to designing a complete, accurate, and sensitive interpretive program. These relationships will be particularly important for designing new exhibits and A/V programs.

NON-PERSONAL SERVICES

Pre-visit

Visitors generally have vague ideas about what to expect at the Badlands. Ensuring that visitors have good pre-visit information will help them arrive with accurate expectations of park facilities and resources, arrive prepared to deal with the weather and other safety concerns, and arrive predisposed to collaborate in protecting park resources.

A new trip planner publication was recently completed that has logistical information for planning a park visit. Safety and resource protection information should be added. The publication should be made available at state travel areas, airports, hotels, on the web site, and at other nearby visitor attractions.

Because most Badlands visitors are arriving at the park from the east, the park can work with hotels, chambers of commerce, or other attractions to the east to ensure that accurate and helpful Badlands information is available. Orientation and information panels at rest areas along Interstate 90 are another possibility. The park should make brochures and information available at the Rapid City airport.

The park has expanded its web site for this season. More information, interpretation, and the park map could be added to the web site. Visitors could be encouraged to print out the park map. The material from the unigrid brochure or the park newspaper could easily be added to the web site. A one-minute trailer for the park film (current or new) could be digitized and made available for downloading from the web site.

The park will work with the state transportation agency to improve the signing for Badlands National Park on Interstate 90. Currently the sign reads “Badlands” rather than “Badlands National Park.”

The Park

Wayfinding

Using a multidisciplinary team approach, park staff will develop a comprehensive sign plan for the park. The plan will address regulatory and orientation signs and will develop appropriate design and size standards so that park signs will be consistent in design, vocabulary and content. Signs would be developed to alert drivers that important pullouts or trailheads are ahead, thus encouraging visitors to stop and get out of their vehicles. Better trail markers would be designed for the Door Trail to help visitors stay on the trail.

Interpreters can lead visitors to vistas of great beauty; appreciation must come from within. - Freeman Tilden.
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Waysides

While the design of the current waysides is good and they blend in nicely with the Badlands environment, a wayside plan would help the park better analyze how to provide site-specific yet theme related interpretation at various points in the park. Some of the current waysides are not as specific to features as they could be, and tend to be more descriptive rather than provocative. A wayside plan would help place waysides where they were appropriate (not intrusive), where they meet the interpretive goals, and where they could interpret a site-specific feature or resource-specific issue.

If a wayside plan recommends overhaul or updating of the park's waysides, the option of using the Harpers Ferry standard wayside design should be considered. This would help visitors associate the Badlands with the National Park Service and with the other park units they are likely to visit after the Badlands.

New waysides would have to be careful of including time-dependent information that could rapidly become dated. Time-dependent information could be treated with a portable exhibit backdrop on which interpretation about different resource issues could be mounted. For example, a fire ecology exhibit could be placed near a prescribed fire, or information on active paleontology and archeology placed near sites being worked and so forth.

Some additional wayside recommendations will appear where appropriate.

Door / Window parking area

The park is currently planning to redesign and re-landscape the parking area at the Door/Window Trailhead. The parking area should be designed to encourage visitors to use the established trails rather than roam off trail. The waysides in the Door/Window parking area will need to be replaced when the work is completed. These waysides would provide an orientation to the trails available at the parking area, identify trailheads, and provide safety information.

The Door Trail needs to be re-marked so that visitors can navigate the trail. The trail guide should be redesigned and rewritten to be more thematic. The current trail guide's interpretation of microgeology leads to the disappearance of geological features, which then makes the interpretation obsolete. The trail guide should interpret geology, geological processes, or how geology related to biology, history, or paleontology.

Ben Reifel Visitor Center

Badlands National Park is currently developing plans for a much-needed expansion to the Ben Reifel Visitor Center. The plan involves doubling the size of the building

including adding increased exhibit area, more book sale area, a 100-seat auditorium, an environmental education classroom and patio, and more office space.

Some general **functional goals** of the new visitor center facility include:

- Provide an overview of the park’s main themes and their interrelationships.
- Put Badlands National Park and its resources into a larger context.
- Inspire visitors to explore the park.
- Orient visitors to the park, the National Park Service in general, and other parks in the region, particularly since for many visitors Badlands is the first of several National Parks they will visit on their trip.
- Provide visitors the chance to interact with a uniformed representative of the National Park Service.
- Provide information and orientation for backcountry users including information on leave no trace practices.
- Clearly separate the book sale and interpretation functions.
- Provide a comfortable environment for staff and visitors.
- Provide adequate workspace and storage area for NPS and BNHA staff.
- Provide space for group activities.
- Inform visitors about other interpretive programs and services.

Information and Orientation

Information/orientation wayside panels with a bulletin case would be located near the entrance to the building to serve both daytime and after-hour visitors. There could be text panels that contain information that remains constant as well as bulletin boards for current information. A changeable display board could be placed outside to list the day’s interpretive programs. Upon entering the building, visitors would encounter a staffed information desk and some media to orient them to the park and the region. These media would help address commonly asked and “What can I do” questions. Any media placed in the lobby should be done in such a way as to not interfere with traffic patterns and should still allow space for milling, seating, and groups.

The information desk would include adequate storage for brochures and maps, and adequate space for several interpreters at once. It would also have space for backcountry orientation and permits, should the park go to a permit system. A changeable display would list the daily interpretive programs.

Exhibits

Exhibits are the logical media to provide an overview of the park's main themes and their interrelationships. Since this is primarily a drive-through park, visitor time in the Visitor Center is likely to be limited. Therefore, it is especially important to provide exhibits with layers of information so that those who do not have the time or inclination to carefully study the displays can still come away with an understanding of the park basics. The exhibits would have an understandable and organized layout. Because Badlands visitors are mostly family groups, the exhibits should provide active learning possibilities for adults and children using different techniques and medium. They should be inviting, fun, durable, aesthetically pleasing, and provocative. They could potentially expand outside the building.

The configuration of the current visitor center plans allow approximately 38 ft. X 44 ft. of exhibit space, including the touch-room but excluding the lobby.

Some suggestions of general exhibit goals follow. The design ideas are merely suggestions to help illustrate some of the kind of ways these goals could be met.

- **Help visitors understand how paleontology works**, and give them the opportunity to **participate in paleontological activities**. Video clips of paleontological digs, exhibits that simulate a paleontological dig, or other real or simulated process or procedure of paleontology that would help show what paleontologists do, how they know what they know, and why the information is important. There could be a real paleontological lab as part of the exhibit, although there are safety and audio concerns that would need to be addressed. There could be exhibits on how science (particularly paleontology) is evolving and has evolved. This could include science activities for kids and families.
- **Help visitors understand why paleontology is important and how it is related to other global processes and sciences**. This could be an interpretation of paleontology that ties it to other stories such as evolution, biodiversity, global change, or geology. The interpretation should focus on the concepts, stories and significance behind fossils rather than the individual identities of fossils. The exhibits should show some real fossils (people want to see the real thing and stories

need objects for illustration) but recognize that objects should be displayed to support stories. The diversity of fossils (macro to micro) could be represented.

- **Put geology into larger perspective and context of cycles, history, time, and people.** Show that geology is a dynamic process - could be done through time lapse photography or a video that shows the progression and change of geological forces and features.
- **Reveal the subtle aspects of the prairie** - for example the biodiversity and complexity of the prairie ecosystem. Videos could be updated about current events or strategies in prairie management such as the reintroduction of ferrets or the use of prescribed fire. Murals or dioramas could be used to show how the badlands area used to look, what animals and plants used to be there, and how the modern-day prairie has evolved.
- **Introduce the human element of the Badlands: how people have had and continue to have an ongoing relationship with the land.** This would include how people are both affected by natural processes, and how people affect the natural resources and processes of the Badlands. For example, geology dictates where people live and how culture forms.
- Provide a large **changing exhibit space** where temporary exhibits could highlight new research, ongoing projects, seasonal information, and updates.

It is important that the building construction documents be reviewed by qualified exhibit and audiovisual designers so that all elements (lighting, electricity, climate control) will be appropriate for exhibit and theater spaces. Each individual exhibit should be designed to conserve the exhibit object/s it contains.

Theater / Audiovisual Media

Badlands National Park is in desperate need of a dedicated theater that will provide a pleasant environment conducive to showing audiovisual media. The theater could also be used for evening programs during inclement weather, featured speakers, or special programs. The park's visitation levels require a large theater. A large screen is necessary in order to do justice to the vastness and panorama of the Badlands. The current visitor center plans call for a 100-seat, sloped floor theater with a projection booth, surround-sound system, and 16'x9' perforated screen; that is to say, a premier NPS theater space. This type of theater deserves an interpretive film shot on film and as high in production quality as the theater it is shown in.

A new film need not break new ground in terms of subject matter, but should move into the realm of a truly interpretive film, using one concept, one vision, one vehicle to synthesize and unite the primary park themes. This synthesis is usually what the visitor is seeking most and what the film media can provide. Understanding the interpretive concepts of the Badlands - paleontology, geology, prairie ecology - is hard work for people who are, for the most part, on vacation. A good film can provoke and inspire visitors to learn more about these themes through other media. The in-depth exploration of the themes and orientation can be left to other media - exhibits, publications - that are more effective than film at presenting hierarchies of information.

The film could include images that the vast majority of drive-through visitors will never see: aerials of the remote Palmer Unit or Sage Creek wilderness area, time lapse of shadows moving through the ravines, a thunderstorm sweeping across the prairie, bison pawing at the snow to find grass in mid-winter, fire crackling through the grass, destroying and rejuvenating in the same moment. The film should be a surrogate experience for those visitors who are just driving the loop road, and should entice them to stay longer and discover the Badlands. The film would help visitors understand why people love the Badlands, and why the Badlands are important.

Because film is expensive to modify, it is not the best medium for “current” science because it could easily and rapidly become dated. The film would also need to incorporate correct local pronunciation.

Publications

Because site bulletins are easily updatable, they provide a great medium for information about current events, research, and resource issues. They can be developed to confront specific resource issues, for example: wilderness/leave no trace etiquette, why fossil resources should be left alone, or what is happening at the pig-dig and when. They can also address specific topics such as events or people important in Badlands history.

There is a lack of lay-person information about paleontology, the paleontological resources of Badlands, and why and how paleontology is important. BNHA could develop such a publication. BNHA could also evaluate whether developing a Harpers Ferry-produced Badlands handbook would be worth-while. This would provide visitors with take-home pictures, education, interpretation, and reference, and could be made available at other National Park Service areas.

Main Campground

Bulletin boards should be installed for posting program schedules, rules and regulations, orientation information, trip planner type information, or rotating

interpretive information. A short trail could be developed near the campground to provide visitors a chance for an evening or night time stroll.

Cedar Pass Lodge

National Park Service bulletin boards could be installed and maintained outside the lodge for the after-hours information of lodge and restaurant goers, and to provide information on interpretive programs, safety issues or resource issues.

Loop Road

A park-wide wayside plan would help develop comprehensive approach to waysides. Waysides would be used not at every overlook, but to help visitors build a visual “vocabulary” so that they could ultimately see and interpret on their own. Waysides should provoke people to think, not just be descriptive of the visual scene. Waysides could introduce visitors to and interpret the Badlands Wall formation, the major formation running the length of the North Unit. They could also interpret geological features, wilderness (at edge of wilderness area pointing out the wilderness location and explaining what wilderness is), or air quality (near wilderness area).

Trails

Additional trails would be added to the west of the visitor center to provide visitors more safe and “comfortable” access to the badlands, and to provide access to the prairie. Trails would provide more visitors opportunities to get out of their vehicles and experience park resources firsthand. While the exact location of the trails is outside the scope of this plan, careful consideration needs to be given to resource protection issues, safety issues, parking, and providing a quality visitor experience. Careful thought should be given to the park’s capability to maintain any new trails. Some trails could be self guided, others would simply provide an opportunity for recreation, contemplation and reflection on the sights, sounds, and experiences of the prairie and badlands.

A short, elevated trail is currently being developed at the “Prairie Wind” pullout. However, this trail experience has limitations since it never gets visitors away from the road, and takes them through a highly-modified portion of the prairie.

Other potential self-guided trail possibilities include interpreting the prairie and the interaction between prairie and wildlife, trails for kids, a geology trail around the yellow mounds area, or trails that interpret the relationship between geology and biology.

Fossil Exhibit Trail

The park is currently working on redesigning the parking area at the Fossil Exhibit Trail.

The Fossil Exhibit Trail was an idea that never worked quite right because of technical problems in placing fossils or models unprotected in a remote location. Because the interpretation provided on the trail is not site-specific, the trail and the idea of fossil replicas “in-place” could be moved anywhere. The park may want to consider relocating the trail adjacent to the Ben Reifel Visitor Center where it could work in tandem with the indoor exhibits to tell the paleontology story. It could be expanded to reflect a more accurate depiction of a dig, and use models cast of more durable materials that are securely anchored into the ground. Locating it in the vicinity of the visitor center would also help to reduce vandalism.

Outdoor active fossil excavations such as the “Pig-Dig” can also meet need for showing visitors what fossils look like in place.

The footprint of the existing Fossil Exhibit Trail would be maintained but the theme would be changed to a more site-specific theme such as geology (particularly more recent geology), or the inter-relationship between geology, biology and paleontology. Other interpretive information could be added to the kiosk if the kiosk stays at its current location.

Pinnacles Entrance Station

Facilities for rest rooms, potable water, orientation and interpretation should be developed in the vicinity of the Pinnacles Entrance station for people entering the park from that direction. This facility could be unstaffed, but should provide shade. This could be a large kiosk - something more than a standard wayside, but not as elaborate as an indoor exhibit. This kiosk would provide visitors with an orientation to the park and an introduction to the major park themes. A bulletin board could also address safety issues and promote personal services programs. If a backcountry permit system is developed, facilities for backcountry self-registration and introduction to leave no trace could be incorporated. The exact location of the kiosk and rest room facility would need to be determined in the General Management Plan. It could be located near the entrance station, or just outside the park, or at the T with the Sage Creek Road.

Sage Creek Campground

The park is currently planning to redesign the Sage Creek Campground to help separate the functions of horse users campground, traditional campground, and a gateway to the wilderness. Once the campground is redesigned, waysides and bulletin boards can be used at the unofficial trailhead for the wilderness area to introduce visitors to wilderness, leave no trace ethics, and safety issues (weather, water, dangerous plants

and animals). A separate bulletin board can provide campground information, and a third bulletin board can orient horse users and address the issue of invasive species entering the park through horse feed.

White River Visitor Center

The White River Visitor Center poses several difficult problems. First, the existing General Management Plan for the South Unit calls for National Park Service facilities and operations to be moved to a new location in the South Unit. Second, the Memorandum of Agreement between the National Park Service and the Oglala Sioux Tribe calls for the construction of a Lakota Cultural Center. Such facility would make the interpretation in the White River Visitor Center redundant. Third, the existing building was designed to be temporary and is in poor condition. It would be a mistake to put expensive new exhibits into the existing building without extensive upgrading of the building's interior finishes. Such an investment would not be cost effective due to the structure's overall condition and projected life span. Fourth, the National Park Service needs to develop closer relationships with the Oglala Sioux Tribal Government or their designated representatives to discuss various management issues including the interpretive program at Badlands National Park. This relationship will be essential particularly for planning for interpretive operations and facilities in the South Unit.

While there is a definite interest on the part of the public to learn about the culture and history of the Lakota, closer relationships with the Lakota will be essential in determining what aspects of Lakota history and culture are appropriate to tell, by whom, where, and how. The specific stories of the Lakota should evolve from close consultation with the Lakota people themselves with assistance as requested and appropriate from the National Park Service.

Given the physical condition of the White River Visitor Center, major new exhibits should wait for the construction of the Lakota Cultural Center and wait until closer working relationships with the Oglala Sioux Tribel government have developed.

Depending on the time frame for the Lakota Cultural Center, some very modest improvements could be made to the existing White River Visitor Center. Consultation with the Tribal representatives about the current exhibits could help the National Park Service decide if it would be appropriate to update the existing exhibits by simply graphically repackaging them. Some general interpretation of the other major themes of the Badlands should also be made available. This would provide an introduction to Badlands National Park for the 40% of White River Visitor Center visitors who are coming to White River from the West or South.

Opportunities should continue to exist for Lakota people to interpret their culture, whether as paid NPS employees, as volunteers, or through another cooperative-type relationship.

Because the White River visitor center is only open seasonally, and then with limited hours, waysides and bulletin boards should introduce visitors to Badlands National Park, orient them to the park in general and the south unit, and address safety issues, particularly of the former Badlands Gunnery Range.

Working in consultation with the tribal representatives, an ethobotany trail could be developed in the South Unit.

In 1998 two National Park Service seasonal interpreters will staff the White River Visitor Center and offer short personal services programs. This experiment should be evaluated at the end of the season to determine whether it was effective, or if not, what other type of interpretive services could be offered in the South Unit.

Sheep Mountain Table

Wayside panels addressing orientation and safety issues could be installed at the beginning of the road. These would have to be of a vandalism-resistant material. Panels at the top of the table have traditionally been heavily and rapidly vandalized due to alcohol related activity and the remote location.

PERSONAL SERVICES

Because most visitors spend only a few hours at the Badlands, interpretive programs during the day should be kept fairly short and offered frequently. This will also help reach the goal that all visitors will have the chance to participate in an interpretive program during the summer. Where possible, they should take place in the resource, or at least use props or other visual aids or activities to bring them alive. They should also be appropriate for all ages since most Badlands visitors are traveling in family groups. Some program should be targeted for kids as well.

For most visitors, the Badlands Loop Road is their primary experience at Badlands National Park. If visitors can not be convinced to enter the Visitor Center, programs and staff can be brought to the visitor along the Loop Road. Short site-specific, theme-based interpretive programs or simple roves at various points along the road could work effectively to reach park visitors. These programs will provide visitors the chance to have contact with a National Park Service representative. The park will be trying out some new interpretive talks on history and geology, along the loop road this year (1998), and will be giving guided Roberts Prairie Dog town walks. A portable sign could help advertise these programs and alert visitors who happen to be passing by to their existence. Theme-based roving (with props, hand-outs, or specific messages) would also be effective along the loop road.

Personal services work well to tell about the human and cultural history of the Badlands. This could include story-telling, first-person interpretation, or guest speakers. Incorporating guest speakers would encourage including non-National Park Service and multiple perspectives in the interpretive program.

Guided walks can be particularly useful to interpret geological features and processes, or to talk about the importance of the biodiversity of the prairie. Interpreters have historically had a hard time interpreting geology and paleontology due to the steep learning curve. A new publication on paleontology, updating and/ or moving the Fossil Exhibit Trail, and new exhibits in the Ben Reifel Visitor Center could help train interpreters and alleviate some of the need for personal services about these themes. Additionally, the pig-dig is a great place for personal service interpretation of paleontology.

Evening programs are popular and can be an effective tool. However, given the nature of Badlands campers, it should be kept in mind that these programs tend to “preach to the choir” rather than reach new audiences.

A junior science program, similar to a Junior Ranger program, would be developed with activities for kids to do either at the visitor center or along the Loop Road. If it took place along the Loop Road, there would have to be some mechanism for kids to turn in their work at the Pinnacles entrance station since that is the direction that people are usually heading.

All personal service programs should be fun, provocative, accurate, and theme-based. Personal service programs should be safe, and in the resource but not resource damaging.

Pig Dig and other research

Ongoing paleontological digs, research, or other activities can serve as an excellent interpretive tool that teaches visitors about the importance of paleontology, the processes it uses, and gives visitors the chance to come into contact with scientists and researchers. Watching “live” research or excavation gives visitors the chance to feel a sense of discovery and to see what fossils look like in place. The “Pig Dig,” an excavation of a cluster of animal fossils including an Archeotherium, has been ongoing by the South Dakota School of Mines since 1993. The excavation has been used as an interpretive program during the summers of 1994, 1995, 1996, and 1998.

Every effort should be made to make this interpretive experience available for park visitors all season long. Signs directing visitors to the site, site bulletins, or a changeable exhibit in the visitor center could help direct people to this experience while also stressing that fossils can not be collected. Interpreters or interns would be stationed at the site to provide interpretation while the research is going on.

BNHA could develop field seminars that allow visitors to participate in paleontological research or excavations.

Education Program

The park’s education program would be expanded and will continue to help improve relations with local schools and park neighbors, and help local residents realize the importance and significance of Badlands National Park. It will continue to introduce kids to park themes and resources in a fun way. The park should ensure that the educational program is tied into park themes, and where possible, develop curriculum that is specific to Badlands resources and issues. Goals specific to the educational program should be formulated that will help the park direct and develop the most effective educational program possible.

Teacher workshops would continue to increase the multiplier effect and reduce the park staff’s responsibility for direct teaching in the classroom.

Other educational units could be developed about science, and could incorporate traveling science boxes that include resource and theme-based activities for kids. Education curriculum could be posted on the internet. “Ask a paleontologist” or “ask a ranger” programs could be added to the park web site.

Community relations

Many local residents of the Badlands region have never been to Badlands National Park, or have been once. In particular, many local children have never been to the park. In general, there is a lack of interest in or knowledge of the park and its programs by the local community.

Increasingly park staffs are realizing that parks can not function as islands. Many resource issues transcend park boundaries and need the support of local communities to be effectively addressed.

Particular issues that could be addressed through community extension activities include: prairie restoration actions including protection or reintroduction of native species, the use of fire as a resource management tool, control of exotic species, commercialization of fossil or archeological resources, or any other resource issue.

Methods that could be used to address these issues include:

- Developing traveling exhibits.
- Hosting open-houses for local landowners or park neighbors where park staff address certain topics or issues.
- Writing articles for the newspaper about current events or resource-related updates .
- Developing slide shows for community groups that address resource issues.
- Publishing a newsletter specifically geared toward local community.
- Hosting periodic meetings with community leaders.
- Scheduling special events, lectures of guest speakers, or other events hosted by the park or BNHA such as homesteader days, Indian festivals, or other such events.
- Reactivating the YCC program.
- Writing newspaper articles that explain what Badlands does for the local community (money generation model, quality of life)
- Recruiting locals for job vacancies, internships or VIP program.
- Contacting nearby cable television stations to see if the existing park video or other new movies could be shown on cable TV to reach a larger audience and provoke more local visitation to the park.
- Recruiting locals to give interpretive programs.
- Dissemination of the fact that locals do not have to pay entrance fee.

PARTNERSHIPS

Implementation of elements of this interpretive plan depends on the continuation and expansion of existing partnerships and the initiation of new ones. While there are some partners currently assisting in the development, presentation, or evaluation of interpretive programming, there is a need for additional partnering to assist in providing specific expertise, programming, and services. Some of these cooperative efforts have been proposed in other sections of the plan but will be summarized here.

While all partnerships are important, the relationship between the National Park Service and the Oglala Sioux and other Native American tribes associated with Badlands deserve special note. Consultation with the tribes on certain topics and issues is the law. Beyond the law, consultation with the tribes regarding interpretation is essential to providing an accurate, sensitive and complete interpretation of the Badlands resources.

Good planning helps provide everyone who has a stake in the decisions with an opportunity to be involved in the planning process and to understand the decisions as they are being made. The ultimate outcome of planning for national parks is an agreement among the National Park Service, its partners, and the public on why each area is managed as part of the national park system, what resource conditions and visitor experiences should exist there, and how those conditions can best be achieved.

The partnership with BNHA will need to be expanded during the design and construction of the new visitor center, to publish new educational materials, to provide possible field camps, to help coordinate special events, or to expand the amount and type of programming and visitor services that can be provided by the NPS staff.

Continued cooperation with the US Forest Service (USFS) will be essential for the dissemination of information about Badlands National Park at the USFS visitor center in Wall. This partnership could be expanded to co-sponsor interpretive programs, activities, field camps, traveling exhibits or special events, particularly regarding the prairie ecosystem.

Continued and expanded cooperation with state travel and transportation divisions, local chambers of commerce, and other nearby attractions and motels will be essential to provide visitors with information about the Badlands before they arrive at the park.

Continued cooperation with local universities and schools will be essential for the expansion of the park's intern program, and for research and expertise about Badlands resources. Partnerships with local schools will be essential for developing and testing new curriculum and educational activities.

IMPLEMENTATION PLAN

Implementation Plan

Possible with Current Staffing and Budget

Responsible Party	Responsible Party	Completion Date
Improve directional and informational signing	Maintenance in conjunction with Chief, RE	9/99
Offer more personal services along Loop Road during peak visitor season	Chief, RE	6/99
Offer personal services in park during shoulder season	Chief, RE	5/99
Improved visitor information (non-personal services) at White River VC	Chief, RE	9/99
Improved capability for personal services at White River VC	Chief, RE	6/99
Update website	Staff Interpreter	6/99
Develop publications plan	Operations Supervisor	9/99
Develop education plan	Education Specialist	9/99
Develop rack card	Chief, RE	7/99
Improve State provided signing on Interstate 90	Superintendent	9/99
Develop Sign Plan	Sign Committee (Chief, RE is a member)	5/00
Develop Wayside Improvement Plan	Chief, RE	12/99
Construct interpretive shelters at Fossil Exhibit Trail, Door Trail, and Campground Amphitheater	Maintenance	5/99
Install bulletin boards at key overlooks, trailheads, and parking areas with safety and interpretive information	Maintenance/RE staff	6/99
Develop Door Interpretive Proposal	Chief, RE	8/99
Create draft for new Cliff Shelf Trail Interpretation, including a booklet and waysides	Park Ranger (Special Projects)	9/99
Develop Interpreting Geology Proposal	Chief, RE	9/99
Create phenology/update slide file for Touch Screen Herbarium	Chief, RE through contractor	9/99
Install Touch Screen Herbarium	Chief, RE through contractor	9/00
Exhibit Plan for Ben Reifel Visitor Center	Chief, RE	9/00
Audiovisual Facility for Ben Reifel Visitor Center	Chief, RE	9/00
Implement Badlands in Your Classroom Program	Education Specialist	12/99
Pursue creation of a text printed by BNHA on Badlands geology and paleontology	Chief, RE through BNHA	02/00
Pursue development of a Harpers Ferry produced handbook	Chief, RE through HFC	7/99
Complete interpretation on the Prairie Wind Trail	Chief, RE	9/99
Develop Fossil Exhibit Trail Plan	Chief, RE	9/99

APPENDIX A.

THE PLANNING TEAM

Badlands National Park

Bill Supernaugh, Superintendent
Marianne Mills, Chief of Resource Education
Steve Thede, Interpretive Operations Supervisor
Pat Sampson, Interpretive Park Ranger
Rachel Benton, Paleontologist
Bruce Bessken, Chief of Resource Management
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APPENDIX B.

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APPENDIX C.

**Special Populations:
Programmatic Accessibility
Guidelines for Interpretive Media**

National Park Service
Harpers Ferry Center

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Prepared by
Harpers Ferry Center
Accessibility Task Force

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Statement of Purpose

This document is a guide for promoting full access to interpretive media to ensure that people with physical and mental disabilities have access to the same information necessary for safe and meaningful visits to National Parks. Just as the needs and abilities of individuals cannot be reduced to simple statements, it is impossible to construct guidelines for interpretive media that can apply to every situation in the National Park System.

These guidelines define a high level of programmatic access which can be met in most situations. They articulate key areas of concern and note generally accepted solutions. Due to the diversity of park resources and the variety of interpretive situations, flexibility and versatility are important.

Each interpretive medium contributes to the total park program. All media have inherent strengths and weaknesses, and it is our intent to capitalize on their strengths and provide alternatives where they are deficient. It should also be understood that any interpretive medium is just one component of the overall park experience. In some instances, especially with regard to learning disabilities, personal services, that is one-on-one interaction, may be the most appropriate and versatile interpretive approach.

In the final analysis, interpretive design is subjective, and dependent on both aesthetic considerations as well as the particular characteristics and resources available for a specific program. Success or failure should be evaluated by examining all interpretive offerings of a park. Due to the unique characteristics of each situation, parks should be evaluated on a case by case basis. Nonetheless, the goal is to fully comply with NPS policy:

"...To provide the highest level of accessibility possible and feasible for persons with visual, hearing, mobility, and mental impairments, consistent with the obligation to conserve park resources and preserve the quality of the park experience for everyone."

NPS Special Directive 83-3, Accessibility for Disabled Persons

Audiovisual Programs

Audiovisual programs include motion pictures, sound/slide programs, video programs, and oral history programs. As a matter of policy, all audiovisual programs produced by the Harpers Ferry Center will include some method of captioning. The Approach used will vary according to the conditions of the installation area and the media format used, and will be selected in consultation with the parks and regions.

The captioning method will be identified as early as possible in the planning process and will be presented in an integrated setting where possible. To the extent possible, visitors will be offered a choice in viewing captioned or uncaptioned versions, but in situations where a choice is not possible or feasible, a captioned version of all programs will be made available. Park management will decide on the most appropriate operational approach for the particular site.

Guidelines Affecting Mobility Impaired Visitors

1. The theater, auditorium, or viewing area should be accessible and free of architectural barriers, or alternative accommodations will be provided. UFAS 4.1.
2. Wheelchair locations will be provided according to ratios outlined in UFAS 4.1.2(18a).
3. Viewing heights and angles will be favorable for those in designated wheelchair locations.
4. In designing video or interactive components, control mechanisms will be placed in accessible location, usually between 9" and 48" from the ground and no more than 24" deep.

Guidelines Affecting Visually Impaired Visitors

1. Simultaneous audio description will be considered for installations where the equipment can be properly installed and maintained.

Guidelines Affecting Hearing Impaired Visitors

1. All audiovisual programs will be produced with appropriate captions.
2. Copies of scripts will be provided to the parks as a standard procedure.
3. Audio amplification and listening systems will be provided in accordance with UFAS 4.1.2(18b).

Guidelines Affecting Learning Impaired Visitors

1. Unnecessarily complex and confusing concepts will be avoided.
2. Graphic elements will be chosen to communicate without reliance on the verbal component.

3. Narration will be concise and free of unnecessary jargon and technical information.

Exhibits

Numerous factors affect the design of exhibits, reflecting the unique circumstances of the specific space and the nature of the materials to be interpreted. It is clear that thoughtful, sensitive design can go a long way in producing exhibits that can be enjoyed by a broad range of people. Yet, due to the diversity of situations encountered, it is impossible to articulate guidelines that can be applied universally.

In some situations, the exhibit designer has little or no control over the space. Often exhibits are placed in areas ill suited for that purpose, they may incorporate large or unyielding specimens, may incorporate sensitive artifacts which require special environmental controls, and room decor or architectural features may dictate certain solutions. All in all, exhibit design is an art which defies simple description. However, one central concern is to communicate the message to the largest audience possible. Every reasonable effort will be made to eliminate any factors limiting communication through physical modification or by providing an alternate means of communication.

Guidelines Affecting Mobility Impaired Visitors

1. Exhibit space will be free of physical barriers or a method of alternate accommodation shall be provided.
2. All pathways, aisles, and clearances will meet standards set forth in UFAS 4.3. Generally a minimum width of 36" will be provided.
3. Ramps will be as gradual as possible and will not exceed a slope of 1" rise in 12" run, and otherwise conform with UFAS 4.8.
4. Important artifacts, labels, and graphics, will be placed at a comfortable viewing level relative to their size. Important text will be viewable to all visitors. Display cases will allow short or seated people to view the contents and the labels. Video monitors associated with exhibits will be positioned to be comfortably viewed by all visitors.
5. Lighting will be designed to reduce glare or reflections, especially when viewed from a wheelchair.

6. Ground and floor surfaces near the exhibit area will be stable, level, firm, and slip-resistant. (UFAS 4.5).
7. Operating controls or objects to be handled by visitors will be located in an area between 9" and 48" from the ground and no more than 24" deep. (UFAS 4.3)
8. Horizontal exhibits (e.g. terrain model) will be located at a comfortable viewing height.
9. Information desks and sales counters will be designed for use by visitors and employees using wheelchairs, and will include a section with a desk height no greater than 32 to 34 inches, with at least a 30 inch clearance underneath. The width should be a minimum of 32 inches vertical, with additional space provided for cash registers or other equipment, as applicable.
10. Accessibility information about the specific park should be available at the information desk and the international symbol of access will be displayed where access information is disseminated.
11. Railings and barriers will be positioned in such a way as to provide unobstructed viewing by persons in wheelchairs.

Guidelines Affecting Visually Impaired Visitors

1. Exhibit typography will be selected with readability and legibility in mind.
2. Characters and symbols shall contrast with their backgrounds, either light characters on a dark background or dark characters on a light background. (UFAS 4.30.3)
3. Tactile and participatory elements will be included where possible.
4. Audio description will be provided where applicable.
5. Signage will be provided to indicate accessible rest rooms, telephones, and rest rooms elevators. (UFAS 4.30)

Guidelines Affecting Hearing Impaired Visitors

1. Information presented via audio formats will be duplicated in a visual medium, either in the exhibit copy or by printed material.

2. Amplification systems and volume controls will be incorporated to make programs accessible to the hard of hearing.
3. Written text of all audio narrations will be provided.
4. All narrated AV programs will be captioned.
5. Allowance for Telecommunication Devices for the Deaf (TDD) will be included into information desk designs.

Guidelines Affecting Learning Impaired Visitors

1. Exhibits will avoid unnecessarily complex and confusing topics.
2. Graphic elements will be developed to communicate non-verbally.
3. Unfamiliar expressions and technical terms will be avoided and pronunciation aids will be provided where appropriate.
4. To the extent possible, information will be provided in a manner suitable to a diversity of abilities and interests.
5. Where possible, exhibits will be multi-sensory. Techniques to maximize the number of senses utilized in an exhibit will be encouraged.
6. Exhibit design will be cognizant of directional handicaps and will utilize color and other creative approaches to facilitate comprehension of maps.

Historic Furnishings

Historically refurbished rooms offer the public a unique interpretive experience by placing visitors within historic spaces. Surrounded by historic artifacts visitors can feel the spaces "come alive" and relate more directly to the historic events or personalities commemorated by the park.

Accessibility is problematical in many NPS furnished sites because of the very nature of historic architecture. Buildings were erected with a functional point of view that is many times at odds with our modern views of accessibility.

The approach used to convey the experience of historically furnished spaces will vary from site to site. The goals, however, will remain the same, to give the public as rich an interpretive experience as possible given the nature of the structure.

Guidelines Affecting Mobility Impaired Visitors

1. The exhibit space should be free of architectural barriers or a method of alternate accommodation should be provided, such as slide programs, videotaped tours, visual aids, or dioramas.
2. All pathways, aisles, and clearances shall (when possible) meet standards set forth in UFAS 4.3 to provide adequate clearance for wheelchair routes.
3. Ramps shall be as gradual as possible and not exceed a 1" rise in 12" run, and conform with UFAS 4.8.
4. Railings and room barriers will be constructed in such a way as to provide unobstructed viewing by persons in wheelchairs.
5. In the planning and design process, furnishing inaccessible areas, such as upper floors of historic buildings, will be discouraged unless essential for interpretation.
6. Lighting will be designed to reduce glare or reflections when viewed from a wheelchair.
7. Alternative methods of interpretation, such as audiovisual programs, audio description, photo albums, and personal services will be used in areas which present difficulty for the physically impaired.

Guidelines Affecting Visually Impaired Visitors

1. Exhibit typefaces will be selected for readability and legibility, and conform with good industry practice.
2. Audio description will be used to describe furnished rooms, where appropriate.
3. Windows will be treated with film to provide balanced light levels and minimize glare.
4. Where appropriate, visitor-controlled rheostat-type lighting will be provided to augment general room lighting.

5. Where appropriate and when proper clearance has been approved, surplus artifacts or reproductions will be utilized as "hands-on" tactile interpretive devices.

Guidelines Affecting Hearing Impaired Visitors

1. Information about room interiors will be presented in a visual medium such as exhibit copy, text, or pamphlets.
2. Captions will be provided for all AV programs relating to historic furnishings.

Guidelines Affecting the Learning Impaired

1. Where appropriate, hands-on participatory elements geared to the level of visitor capabilities will be used.
2. Living history activities and demonstrations which utilize the physical space as a method of providing multi-sensory experiences will be encouraged.

Publications

A variety of publications are offered to visitors, ranging from park folders which provide an overview and orientation to a park to more comprehensive handbooks. Each park folder should give a brief description of services available to the disabled, list significant barriers, and note the existence of TDD phone numbers, if available.

In addition, informal site bulletins are often produced to provide more specialized information about a specific site or topic. It is recommended that each park produce an easily updatable "Accessibility Site Bulletin" which could include detailed information about the specific programs, services, and opportunities available for the disabled and to describe barriers which are present in the park. These bulletins should be in reasonably large type, 18 points or larger.

Guidelines Affecting Mobility Impaired Visitors

1. Park folders, site bulletins, and sales literature will be distributed from accessible locations and heights.
2. Park folders and Accessibility Site Bulletins should endeavor to carry information on the accessibility of buildings, trails, and programs by the disabled.

Guidelines Affecting Visually Impaired Visitors

1. Publications will be designed with the largest type size appropriate for the format.
2. Special publications designed for use by the visually impaired should be printed in 18 point type.
3. The information contained in the park folder should also be available on audio cassette. Handbooks, accessibility guides, and other publications should be similarly recorded where possible.

Guidelines Affecting Hearing Impaired Visitors

1. Park site bulletins will note the availability of such special services as sign language interpretation and captioned programs.

Guidelines Affecting Learning Impaired Visitors

1. The park site bulletin should list any special services available to this group.

Wayside Exhibits

Wayside exhibits, which include outdoor interpretive exhibits and signs, orientation shelter exhibits, trailhead exhibits, and bulletin boards, offer special advantages to disabled visitors. The liberal use of photographs, artwork, diagrams, and maps, combined with highly readable type, make wayside exhibits an excellent medium for visitors with hearing and learning impairments. For visitors with sight impairments, waysides offer large type and high legibility.

Although a limited number of NPS wayside exhibits will always be inaccessible to visitors with mobility impairments, the great majority are placed at accessible pullouts, viewpoints, parking areas, and trailheads.

The NPS accessibility guidelines for wayside exhibits help insure a standard of quality that will be appreciated by all visitors. Nearly everyone benefits from high quality graphics, readable type, comfortable base designs, accessible locations, hard-surfaced exhibit pads, and well-landscaped exhibit sites.

While waysides are valuable on-site "interpreters," it should be remembered that the park resources themselves are the primary things visitors come to experience. Good waysides focus attention on the features they interpret, and not on themselves. A wayside exhibit is only one of the many interpretive tools which visitors can use to enhance their appreciation of a park.

Guidelines Affecting Mobility Impaired Visitors

1. Wayside exhibits will be installed at accessible locations whenever possible.
2. Wayside exhibits will be installed at heights and angles favorable for viewing by most visitors including those in wheelchairs. For standard NPS low-profile units the recommended height is 30 inches from the bottom edge of the exhibit panel to the finished grade; for vertical exhibits the height of 6-28 inches.
3. Trailhead exhibits will include an accessibility advisory.
4. Wayside exhibits sites will have level, hard surfaced exhibit pads.
5. Exhibit sites will offer clear, unrestricted views of park features described in exhibits.

Guidelines Affecting Visually Impaired Visitors

1. Exhibit type will be as legible and readable as possible.
2. Panel colors will be selected to reduce eye strain and glare, and to provide excellent readability under field conditions. White should not be used as a background color.
3. Selected wayside exhibits may incorporate audio stations or tactile elements such as models, texture blocks, and relief maps.
4. For all major features interpreted by wayside exhibits, the park should offer non-visual interpretation covering the same subject matter. Examples include cassette tape tours, radio messages, and ranger talks.
5. Appropriate tactile cues should be provided to help visually impaired visitors locate exhibits.

Guidelines Affecting Hearing Impaired Visitors

1. Wayside exhibits will communicate visually, and will rely heavily on graphics to interpret park resources.
2. Essential information included in audio station messages will be duplicated in written form, either as part of the exhibit text or with printed material.

Guidelines Affecting Learning Impaired Visitors

1. Topics for wayside exhibits will be specific and of general interest. Unnecessary complexity will be avoided.
2. Whenever possible, easy to understand graphics will be used to convey ideas, rather than text alone.
3. Unfamiliar expressions, technical terms, and jargon will be avoided. Pronunciation aids and definitions will be provided where needed.
4. Text will be concise and free of long paragraphs and wordy language.

