

National Park Service
U.S. Department of the Interior

Death Valley National Park
California



Death Valley National Park

Long-Range Interpretive Plan



Death Valley National Park

Long-Range Interpretive Plan

Prepared by the Department of Interpretive Planning
Harpers Ferry Center
and
Death Valley National Park

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National Park Service
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Badwater and the Panamint Mountains

INTRODUCTION AND BACKGROUND

Introduction

Death Valley National Park (DEVA) is an active world of exciting contrasts and wonders, from scorching valleys to snow-covered peaks, spectacular wildflower displays to beautiful sand dunes, abandoned mines to Scotty's Castle. For thousands of years, the Timbisha Shoshone Tribe has lived in and around the area that now encompasses the park.

Death Valley National Monument was established by presidential proclamation under the Antiquities Act of 1906, on February 11, 1933. The monument was subsequently enlarged and changed to Death Valley National Park by Congressional action on October 31, 1994, with the passage of the California Desert Protection Act. Over 1.3 million acres of new lands were added, bringing the total acreage to 3,396,192. Nearly 95% of the park is designated as wilderness and it is the largest national park unit in the coterminous 48 states.

Death Valley National Park is the lowest point in North America and one of the hottest places in the world. It is also a vast geological museum, containing examples of most of the earth's geologic eras, and a plethora of geologic features including alluvial fans, faults, dunes, playas, salt pans, and volcanoes. Perhaps the park's greatest assets today are clear air, vast open spaces that stretch toward distant horizons, and overwhelming silence.

Death Valley National Park includes all of Death Valley, a 156-mile-long north/south-trending trough that formed between two major block-faulted mountain ranges: the Amargosa Range on the east and the Panamint Range on the west. Telescope Peak, the highest peak in the park and in

the Panamint Mountains, rises 11,049 feet above sea level and lies only 15 miles from the lowest point in North America in the Badwater Basin salt pan, 282 feet below sea level. The California Desert Protection Act added most of Saline, Eureka, northern Panamint, and Greenwater valleys to the park.

The diversity of Death Valley's seven plant communities is reflected in three biotic life zones: the lower Sonoran, the Canadian, and the Arctic/Alpine in portions of the Panamint Range. Three vegetation types are represented: scrub, desert woodland, and coniferous forest. A variety of wildlife species are supported in this environment, including 51 species of native mammals, approximately 350 species of birds, 36 species of reptiles, three species of amphibians, and three species and one subspecies of native fishes. Small mammals, such as kangaroo rats and rabbits, are more numerous than large mammals, such as the desert bighorn, coyote, bobcat, mountain lion, and mule deer.

The park's top resource management priority is the protection of the endangered Devils Hole pupfish. Devils Hole is a limestone cave located on a small track of land east of the park in southwest Nevada. It was added to Death Valley National Monument in 1952. This 40 acre tract is part of a larger spring complex in Nevada called Ash Meadows. Devils Hole falls within the boundaries of Ash Meadows National Wildlife Refuge (whose creation in 1984 was precipitated by the protection of Devils Hole). This limestone cave is the only natural habitat of the Devils Hole pupfish (*Cyprinodon diabolis*). The underground aquifer determines the cave's natural water level, which

has no stream flow out of the cave. Historic and ongoing mining of groundwater in Amargosa Valley has sometimes directly lowered the water level in Devils Hole, occasionally exposing a shallow limestone shelf on which the pupfish depend for food and spawning.

Decline of the Devils Hole pupfish and the continued drop of water levels in the cave drove litigation resulting in a U.S. Supreme Court ruling upholding the government's right to water to maintain a minimum water level in the cave (US v. Cappaert, 1976). In recent years the Devils Hole pupfish population has continued to decline. Even though there has been a corresponding drop in water levels, researchers are trying to determine if the current incidents are related.

For millennia, American Indian peoples lived within the Death Valley area, using the resources and lands to sustain their lives and cultures. Today's tribal governments and communities historically associated with the region include the Panamint or Timbisha Shoshone of Death Valley; Northern Paiute of Benton, Big Pine, Bishop, Fort Independence, and Lone Pine; and the Southern Paiute of Las Vegas and Pahrump. The report, "The Timbisha Shoshone Tribal Homeland (1999)," and subsequent legislation (2000) signed by President William J. Clinton, affirm the continued presence of the Tribe in the park and in other parts of its ancestral homeland. The Timbisha Shoshone Homeland Act addresses the National Park Service's need to more fully incorporate the cultural history, values, and activities of the Timbisha Shoshone Tribe into the overall management of Death Valley National Park. The tribe's occupation of this desert land has shaped the cultural practices of the tribe and has left an imprint on the land. The tribe will play an irreplaceable

role in the interpretation of park features and resources, providing a living link to the distant past and enriching the experience of park visitors.

Many historic properties and landscapes exist within the park, and those which meet the criteria have been listed on the National Register of Historic Places. Most sites contain structures or other tangible remains of the activities that took place there. Death Valley is unique because it displays a continuum of mining activities from at least the 1860s to the present day. Many historic mining resources are of particular significance either because similar resources are not found elsewhere within the national park system, or because they are in a better state of preservation than examples found elsewhere.

PLANNING BACKGROUND

This Long-Range Interpretive Plan (LRIP) for Death Valley National Park is a component of the park's Comprehensive Interpretive Plan (CIP), as outlined in National Park Service Director's Orders-6 (DO-6). Using the park's mission, purpose, and resource significance statements, plus the primary interpretive themes and visitor experience goals, this plan articulates a vision for the park's interpretive future, and recommends the media, facilities, and programs best suited for meeting visitor needs, achieving management goals, and telling park stories.

The last interpretive plan for the park was an Interpretive Prospectus completed in 1990 by Harpers Ferry Center. Since then, the park has been greatly expanded, including changing its designation from a national monument to a national park. Changes in the primary interpretive themes, along with changing visitor use patterns and goals, also have necessitated a new long-range plan for the park's overall interpretive program.

In April 2002, the General Management Plan (GMP) for Death Valley National Park was released. As the park's primary planning document all subsequent planning, including this LRIP, should tier off the actions proposed in the GMP.

In addition to recommending a new parkwide LRIP, actions proposed in the GMP that relate specifically to information, orientation, education, and interpretation include the following:

- Developing an interpretive operation, programs, and activities that integrate the geological, cultural, and biological aspects of the park.
- Improving the educational outreach program in surrounding communities and developing partnerships with local schools and similar groups.
- Seeking additional ways to improve the living history program or other means of interpreting Scotty's Castle.
- Integrating interpretation of prehistoric, historic, and contemporary American Indian cultures into parkwide interpretive themes, focusing on human adaptation to the desert environment.
- Providing (where possible) interpretation and

orientation for visitors before they enter the park.

- Developing unstaffed orientation/information stations within the park along the five major entrance roads.
- Posting signs at key road intersections leading to significant features.
- Cooperating with other agencies and organizations to make information available along approach routes to the park.
- Operating the major visitor centers at Furnace Creek and Scotty's Castle.
- Preparing a comprehensive design plan to update and improve the Furnace Creek visitor center.
- Using additional structures at Scotty's Castle for interpretation and/or education.

This LRIP is not an end in itself, but rather, it establishes the overall framework for the next phases of the process-program planning, and media planning, design, and production over the next 10+ years. Using the recommendations in this LRIP, the park also will develop Annual Implementation Plans and an Interpretive Database to complete the remaining two components of the CIP as stated in DO-6.



**Salt Polygons &
Black Mountains**

PLANNING FOUNDATION

Park Mission

Death Valley National Park dedicates itself to protecting significant desert features that provide world class scenic, scientific, and educational opportunities for visitors and academics to explore, study, and enjoy.

Park Purpose

Park purpose is the reason or reasons for which a park area was established. These statements are based on the park's enabling legislation and legislative history.

Purpose statements are important to planning because they are basic to all other assumptions about the park and the ways in which it should be used and managed.

The purposes of Death Valley National Park are as follows:

- Preserve the unrivaled scenic, geologic, and natural resources of these unique natural landscapes, while perpetuating significant and diverse ecosystems of the California desert in their natural state. Ensure the maximum protection of wilderness values provided by law.
- Preserve the cultural resources of the California desert associated with prehistoric, historic and contemporary American Indian culture, patterns of western exploration, settlement and mining endeavors.
- Provide opportunities for compatible public outdoor recreation and promote the public's understanding and appreciation of the California desert by interpreting the natural and cultural resources.
- Retain and enhance opportunities for scientific research in undisturbed ecosystems.

PARK SIGNIFICANCE

The significance of a park is summarized in statements that capture the essence of the park's importance to our natural and cultural heritage. Significance statements are not the same as an inventory of significant resources. While the resource inventory can be the basis on which significance is determined, the significance statements describe the importance or distinctiveness of the aggregate of resources in a park. Knowing the park's significance helps set resource protection priorities, identify primary park interpretive themes, and develop desirable visitor experiences. Statements of significance describe the distinctive values of DEVA's resources, why these values are important within a national context, and why they contribute to DEVA's purpose.

The resources of Death Valley National Park are significant for the following reasons:

- Death Valley National Park contains the lowest point in North America at 282 feet below sea level. The valley floor receives the least precipitation in the United States (average 1.9 inches per year) and is the site of the nation's highest and the world's second highest recorded temperature (134 degrees Fahrenheit or 57 degrees Celsius).
- Death Valley National Park is world renowned for its exposed, complex and diverse geology and tectonics, and for its unusual geologic features, providing a natural geologic museum that represents a substantial portion of the earth's history.
- The extremely colorful, complex, and highly visible geology and steep, rugged mountains and canyons provide some of the most dramatic visual landscapes in the United States.
- Death Valley National Park contains one of the

Artists Palette (top)
Petroglyph in Titus
Canyon (bottom)



nation's most diverse and significant fossil records and most continuous volcanic histories.

- Death Valley National Park contains five major sand dune systems representing all types of dune structures, making it one of the only places on earth where this variety of dune types occurs in such close proximity. It also contains the highest dunes in California - Eureka Sand Dunes.
- Death Valley National Park is one of the largest expanses of protected warm desert in the world. Ninety-five percent of the Park is designated wilderness, providing unique opportunities for quiet, solitude, and primitive adventure in an extreme desert ecosystem.
- Contrary to many visitors' first impression, Death Valley National Park's natural resources are extremely diverse, containing a large variety of plant species and community types. The area preserves large expanses of creosote bush valleys and other vegetation typical of the Mojave Desert. Extreme conditions and isolation provide habitat for an unusually high number of plant and animal species (as epitomized by the Devils Hole pupfish) that are highly adaptable to these conditions.
- Death Valley has been the continuous home of American Indians, from prehistoric cultures to the present day Timbisha Shoshone Tribe.
- Death Valley National Park contains an unusually high number of well-preserved archeological sites, including rock art and alignments.
- Scotty's Castle, with its architectural style, quality, and priceless collection of antiques and art objects, built in a remote, isolated desert location in the early 1900s, is an icon that has immense public appeal.
- Death Valley National Park has an extensive and well-preserved mining history representing over 100 years of mining technology.
- Since the 1930s there has been a continuous pres-

ence of the U.S. military in the region for a host of test and training activities involving aircraft. Historic crash sites are reminders of the commitment and sacrifices our military personnel have made in the defense of this country.

PRIMARY INTERPRETIVE THEMES

Interpretive themes are those ideas/concepts that are critical for achieving visitor understanding and appreciation of the significance of Death Valley National Park. Primary themes do not include everything that may be interpreted, but they do provide the foundation from which programs and media level themes can be developed. All interpretive efforts (through both personal and non-personal services) should relate to one or more of the primary themes. Effective interpretation results when visitors are able to connect the concepts with resources and derive something meaningful from the experience.

The following are the primary interpretive themes for Death Valley National Park (the sequence does not imply any prioritization):

- The dramatic landscape of the park reveals over a billion years of earth history and dynamic continuing geologic processes.
- From below sea level to high mountain ranges, the environmental conditions and isolated habitats of Death Valley shape life and support diversity.
- Death Valley National Park is a place of cultural and natural contrasts and extremes.
- The Death Valley area has lured and challenged people from prehistoric times to the present.
- Death Valley National Park's finite and irreplaceable wilderness is where "wildness," solitude, and heritage values are enjoyed, preserved, and protected for this and future generations.



Badwater Basin (top)
Charcoal Kilns (bottom)

- The perception of "wilderness" in Death Valley provides an enhanced rich experience for park visitors from all walks of life.
- Death Valley National Park offers opportunities for scientific research and learning that benefits the park, visitors, and society as a whole.
- Activities inside and outside park boundaries present continuing challenges to balancing human use with resource preservation.

VISITOR EXPERIENCE GOALS

Few visitors come to parks just to learn. Visitor experience goals describe what physical, intellectual, and emotional experiences should be available. It is what visitors do, sense, feel, think, and learn and includes knowledge, attitudes, behaviors, and values. It is affected by experiences prior to the visit and affects behavior after the visit.

Visitors come to parks seeking something of personal value and relevance for themselves. Visitor experience goals are statements that describe those fundamental visitor experience opportunities which Death Valley National Park, through its visitor services and interpretive program, most wants to facilitate. Visitors cannot be required to have certain experiences, but the park has identified important experiences that should be made available.

In planning facilities, interpretive media, and personal services, Death Valley National Park will work to create and enhance visitors' opportunities to:

- Experience quality, environmentally friendly facilities, personal services, and the opportunity to obtain accurate information through a variety of media.
- Experience solitude and "wildness" on the indi-

vidual's and the park's own terms within a reasonable expectation of safety.

- Learn about the cultural and natural histories of Death Valley National Park from diverse points of view.
- Enrich their experience in the park by direct interaction with the Timbisha Shoshone Tribe through a variety of personal and non-personal interpretive services.
- Gain an understanding of the mission of the National Park Service, the significance of Death Valley National Park and a sense of personal stewardship.
- Experience true wilderness, dark night skies, and extreme silence.
- Experience the hottest, driest, and lowest spot in North America.
- Gain an understanding of the significance of the Death Valley Scotty (Scotty's Castle) Historic District through a variety of interpretive media and experiences.
- Enjoy desert scenery that is relatively unimpaired and pristine.

VISITATION AND VISITOR USE PATTERNS

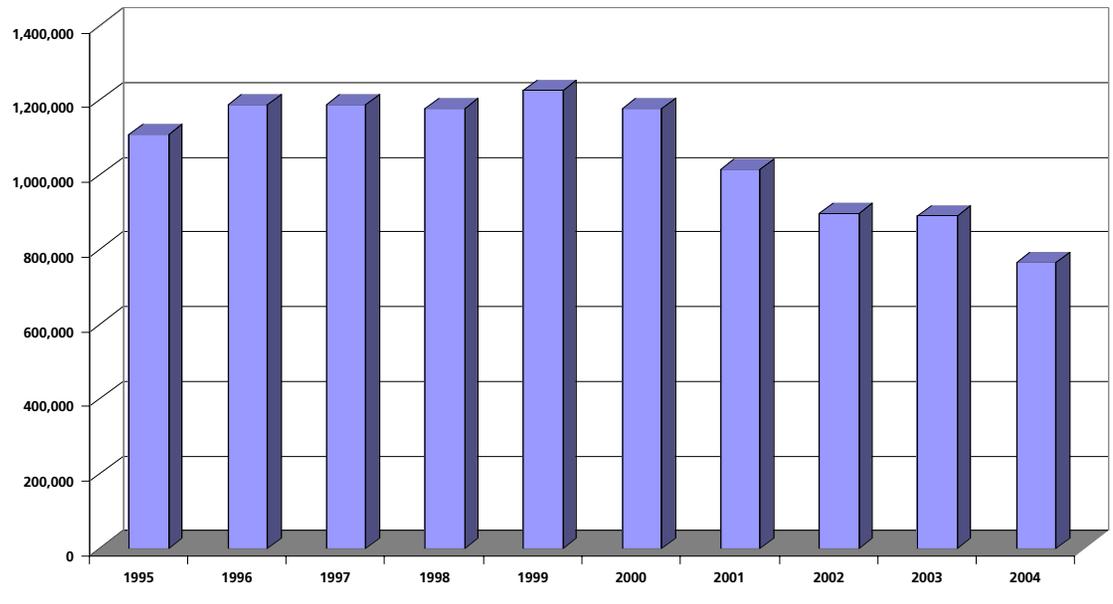
The following information regarding park visitors and visitation patterns is derived from data maintained by the Socio-Economic Services Division (WASO) in Denver, and from two separate NPS Visitor Services Project surveys.

Figure 1 shows the total recreation visits over a ten-year period from 1995-2004, and Figure 2 illustrates the monthly recreation visits for 2004.

While there is a drop after April, the park staff has noticed that visitation has been evening out throughout the year to the point where summer is no longer considered the slow season. However,

Figure 1

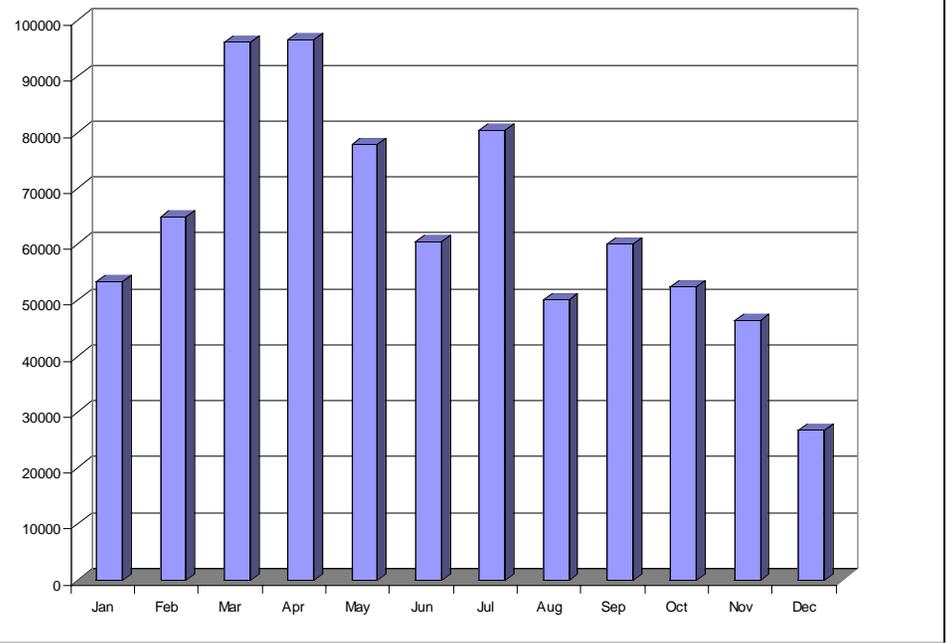
Annual Visitation 1995-2004



*Planning has moved beyond constructing an average profile and labeling **him** "the visitor."*

Figure 2

Monthly Visitation 2004



the average visitor stay in summer is often measured in hours, while in cooler months it can be more than one day. Also, the park staff has noticed that more of the summer visitors are of foreign origin, possibly people who are curious to experience the extreme heat.

The park tracks the number of vehicle entries at nine key areas. The total annual number of vehicles for each of these areas for 2003 is show in Table 1.

Entrance	Total Annual Vehicles
Big Pine	1,679
Daylight	26,547
Grapevine	8,043
Ryan	125,174
Wildrose	14,403
Ashford	9,793
Townes	100,608
Saline Valley	No Data
Furnace Creek	129,476

The following data is summarized from each of two NPS Visitor Services Project surveys. Survey results are relevant only for the time period in which they were conducted. Similar surveys conducted at other times of the year may yield very different results. The first, titled *Visitor Services Project Death Valley National Monument Backcountry*, was conducted during March 21-27, 1994. Visitors were sampled as they entered various backcountry locations, including West Side Road, Harry Wade Road, Hole-in-the-Wall Road, Golden Canyon, Mosaic Canyon, Grotto Canyon, Butte Valley, Saline Valley, Teakettle Junction, Marble and Cottonwood Canyons, Eureka-Dunes Road, and Titus Canyon. Results of the survey showed that:

- Visitors were most often in family groups (42%) or friends groups (29%). Groups most often consisted of two people (45%). The most common visitor ages were 36-50 years old (36%), 21-35 years old (24%) and 15 years or younger (12%). Most (56%) were repeat visitors to the park. International visitors constituted 9% of all visitors. Forty-nine percent of international visitors came from Germany and 16% from Canada. United States visitors came from California (59%) and Oregon (20%) and many other states.
- Common activities for visitors were visiting scenic areas (97%), day hiking on trails (74%), visiting mining ruins/historic sites (73%), picnicking (45%), driving dirt roads in vehicles other than 4x4's (45%), and driving dirt roads in 4x4's (44%).
- The community that the greatest proportion of visitors drove through just before entering the park was Trona (29%). The most used backcountry areas were Titus Canyon and Mosaic/Grotto Canyons (each 43%). Of all backcountry areas, more visitors stopped first at Grotto Canyon (24%).
- Most visitors stayed two to four days in the Death Valley area (64%); 21% stayed 6 days or more. Visitors identified their reasons for visiting as seeing the desert scenery (96%), experiencing wilderness and open space (82%), enjoying recreation (81%), and enjoying solitude and quiet (78%).
- The most important features to visitors' backcountry experience were hiking on trails (80%), rest room and garbage disposal facilities (63%), dirt roads passable by vehicles other than 4x4 (56%), open camping (55%), and developed campsites/campgrounds (55%). Several features were not considered important to visitors' backcountry experience: motorcycle riding (80%),

- using horses and pack animals (73%), and permitting pets in the backcountry (66%).
- Visitors were asked how the number of people they saw in the park's backcountry compared with what they expected. The largest proportion of visitors said it was "about as crowded as I expected" (37%).
- Visitors rated road directional signs and the park brochure/map as the most used and most important services.
- Most visitors (64%) said maps would be the most useful informational item during a future visit. The educational topics most visitors said would be important to them during a future visit were geology and history.

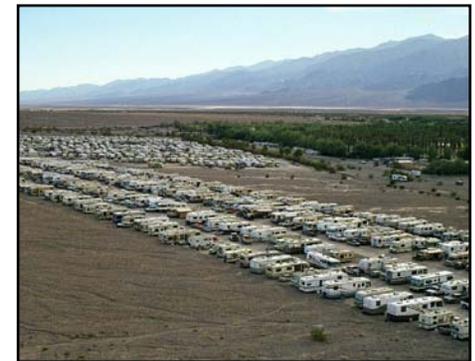
The second survey, titled *Death Valley National Park Visitor Study*, was conducted during September 15-21, 1996. Visitors were sampled as they stopped at key attractions and facilities including: Furnace Creek Visitor Center, Scotty's Castle, Badwater, Zabriskie Point, Dante's View, Furnace Creek Ranch General Store, Stovepipe Wells Store, and Panamint Springs Resort. The results of this survey showed that:

- Fifty-one percent of the visitors were in family groups. Sixty-one percent of Death Valley visitors were in groups of two; 24% were in groups of three or four. Six percent of visitors were in guided tour groups; no visitors were in school groups. Most visitors (41%) were ages 21-35, 36% were aged 46-65, and less than 3% were aged 15 years or younger.
- Among Death Valley visitors, 69% were international visitors. They were from Germany (42%), United Kingdom (17%), Holland (9%), and 22 other countries. United States visitors were from California (23%), Nevada (9%), Florida (7%), and 39 other states.

- Most visitors (82%) were visiting Death Valley for the first time. Two-thirds of the visitors (66%) stayed less than one day; 29% stayed one or two days. Common activities at Death Valley were sightseeing (96%), photography (92%), and hiking less than two hours (42%). The most often listed reason for visiting Death Valley (96%) was to view desert scenery.
- Most visitors (89%) said the park was one of several destinations on this trip. Many visitors (82%) stopped in Las Vegas, Nevada on their way to or from the park. Las Vegas also was the most common starting point and destination on the days visitors arrived at or left Death Valley. Panamint Springs (accessed from Lone Pine and Ridgecrest, California) and Death Valley Junction were the two most commonly used park entrances and exits.
- Visitors listed the number of nights they stayed in different types of accommodations in and outside the park. Motels were the most used type of accommodation. One-third of visitor groups (33%) stayed in a motel for one night in the park. Many groups (82%) stayed one or more nights in motels outside the park.
- The most visited places in Death Valley were Furnace Creek (82%), Zabriskie Point (72%), and the Sand Dunes (66%). The most important features or qualities to visitors were scenic vistas, wilderness/open space, and the desert experience.

These survey results can be helpful in developing informational and interpretive media and programs. The studies should be consulted directly for additional information, and to compare similarities and differences between user groups.

In addition to information about people who do visit Death Valley, the park staff identified a num-



Sunset Campground

ber of groups who generally do not visit. These groups include:

- Hispanic/Latino Americans
- Inner city residents
- African Americans
- Elementary and secondary school students
- Organized eco-tour groups
- Special populations

EXISTING CONDITIONS

The following is a brief and generalized description of visitor experiences and interpretive media and programs as they existed at the onset of this long-range interpretive planning process (2003-4). Emphasis purposely is placed on deficiencies, issues, and concerns that will be addressed in the plan recommendations rather than on things that are working well or that are beyond the scope of a long-range interpretive plan. The purpose of this section is to provide a baseline that may help to justify some of the plan's proposed actions.

Outreach and Pre-Arrival

Death Valley has world-wide recognition. It is mentioned in almost every textbook on American geography. Many older people remember the "Death Valley Days" television series, and younger folks are aware of the park from the filming of the "Star Wars" trilogy. And while most people have heard of Death Valley, there are many misconceptions, and most really aren't aware of the nature, extent, and significance of the resources.

A wealth of printed, audiovisual, and electronic data is available for people who wish to learn something about Death Valley. However, finding accurate and official information can be a challenge.

While written information requests have diminished significantly due to information being available on the Internet, the park receives a large number of phone and email requests. Navigating the phone tree can be confusing, and responding to the volume of phone and email inquiries can be cumbersome.

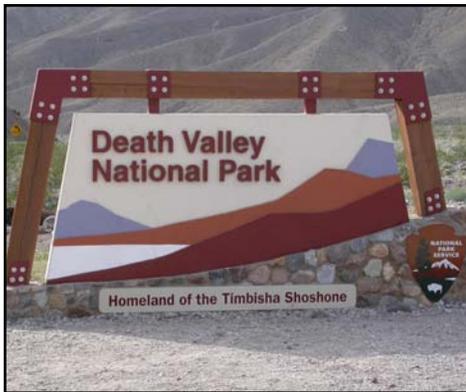
The park web site has a lot of useful information, but some pathways are not easy to navigate. Material for educators and programs that would be attractive to young people is lacking.

The rapid growth of Las Vegas and surrounding area is changing the visitor profile at Death Valley. More and more area residents are discovering that the park is only a day-trip away from home. Reaching these new audiences (including those who have never visited) with information about the park is essential.

On-Arrival

There are numerous entry roads to the park. The park has one entrance station at Grapevine near Scotty's Castle which is not always staffed. Primarily due to remoteness and/or highway ownership by the State of California, there are no standard NPS entrance stations. Some of the relatively new entry signs have deteriorated, and there is little information at or near the entrances to give visitors a sense of arrival or help them plan their stay.

A number of unstaffed information/fee kiosks have been installed at pullouts along some of the park roads. The intent is for visitors to stop, pay the entrance fee at automated fee machines, and obtain some basic park information, including the park newspaper. There are no accurate statistics on how many people stop at the kiosks, or how many of those who do stop actually pay the fee.



Park Entrance Sign

Some of the kiosks have structural problems, and information is not provided in the most effective manner.

While basic directional signing is provided along park roads, the distances to many key attractions are lacking. Some posted side roads, like "Twenty Mule Team Canyon" and "Mustard Canyon" have nothing to tell visitors how long the road is or where they will end up. People have been known to start down these one-way roads, become concerned that they might get lost, and turn around. Likewise, a number of popular trailheads lack information about distances, safety precautions, degree of difficulty, or features that can be seen.

Furnace Creek Visitor Center

The Furnace Creek Visitor Center was built in 1960 when annual park visitation was around 250,000. Current annual visitation is now more than triple this number. The building does not meet accessibility standards, and visitor bottlenecks develop on peak days in the lobby.

Summer visitation has grown and is dominated by international travelers. In addition, Las Vegas is the fastest growing city in the US and has a new international airport. Area residents are increasingly discovering Death Valley.

Many of the visitor center exhibits are over 40 years old. They are in disrepair and out-of-date. Some exhibits are inaccurate, inappropriate, and/or inadequate, and they do not reflect the current interpretive approaches or current knowledge about reaching visitors and communicating resource management issues. Still other exhibits present a Euro-centric view of American Indians associated with Death Valley, a view that has offended tribal leaders. The 1.3 million acre addi-

tion to the park in 1994 is not included in most of the center's orientation or interpretive media. The current audiovisual program also is out-of-date and ineffective.

The building has numerous structural defects (including a leaky roof which necessitated removing some artwork from behind the information desk), and the current design does not begin to meet current sustainability guidelines. The building is not energy efficient with an old and often malfunctioning HVAC system. These conditions mean that during the summer interpreters often work in temperatures over 90 degrees inside the building. The Mission 66 landscaping of non-native plant species, green lawns, and the failed attempt of creating a water feature in the courtyard, tends to send the wrong message to visitors about an agency charged with conserving resources.

In 1998 a Value Analysis Study was conducted for the rehabilitation of the Furnace Creek Visitor Center.

In 2000 a Determination of Eligibility was completed to nominate the visitor center to the National Register of Historic Places (NRHP). The study determined that the building is significant under Criteria A for its association with the Mission 66 program and under Criteria C for its significance in distinctive characteristics of a type and period of construction. The building is an exceptional example of the Park Service Modern style as designed by Cecil Doty, and it retains a high level of integrity. The criteria for the significance of the building and the cultural landscape will need to be considered as the park implements the recommendations for improving the visitor services and interpretive media proposed in this document.



Exhibit Room, Furnace Creek Visitor Center



Scotty's Castle

Scotty's Castle

Most of the interpretive media and programs at Scotty's Castle are relatively new and appear to work well.

A number of historic cars and wagons are stored in the stable. These vehicles require extensive restoration/conservation. They could become a valuable addition to the visitor experience and interpretive story of the site.

There is a desire to display more of the objects in the collection, and to provide programmatic access to inaccessible locations.

The Cookhouse, one of three original structures from the 1922 Scotty's Castle complex, burned on April 13, 1991. At the time the building was used for park offices. The offices have been moved into temporary facilities on site. Reconstructing the Cookhouse has potential for restoring a significant element of the historic scene, and possibly for expanding interpretive media and/or education programs. However, completing the reconstruction may not be feasible within the 10-year scope of this interpretive plan.

The Lower Vine Ranch is the site of Scotty's cabin. However, the site is also important to the Shoshone and it contains rich archeological resources. The site is not interpreted and visitors are not directed to the cabin, though it has great potential for ranger guided activities.

Wayside Exhibits

The park has a mixture of wayside exhibits reflecting multiple generations of planning, design, and production. Some waysides are intrusive on the landscape. Others have suffered from vandalism or have severely deteriorated from the harsh environment.

As stated earlier, some key trailheads and entry points lack important information for visitors.

Education Program

While the park does have limited on-site and web-based programs for children, it does not have a well developed curriculum-based education program. As the Las Vegas region continues to grow, more people (including school groups) will discover the park. There is a great opportunity for the park to tap into the education community and develop strong and positive connections.

At the onset of this planning process, the vacant park education specialist position had not been refilled.

Wayside Exhibit at Devils Golf Course



RECOMMENDATIONS

The following is a description of media and program recommendations for Death Valley National Park. Each recommendation is designed to further define, support, and communicate the park's purpose, resource significance, interpretive themes, and visitor experience goals. Implementation of these recommendations will help ensure that visitors are well prepared and informed, and that they will be able to develop meaningful connections with the tangible and intangible resources.

The discussion of each program or media proposal identifies the purpose, special considerations, and sometimes suggests ideas about their presentation. It is important to remember that these are only suggestions and should not limit the creativity essential during the media or program planning and design processes. On the other hand, the recommendations are specific enough to provide guidance, develop Class C cost estimates, and define the parameters in which these creative energies can flow.

Throughout the implementation process, the park staff and media and program developers need to continually ensure that the products reflect elements of the primary interpretive themes and visitor experience goals.

A number of proposals address the Timbisha Shoshones' long association with Death Valley as their homeland. It is essential that the park maintain continuous dialogue and active participation with tribal leaders regarding the planning, design, and production of theme-related media and programs.

Outreach and Pre-Arrival

General and trip planning information regarding Death Valley National Park will continue to be provided through traditional means such as answering regular mail, phone and email requests. Responses will continue to be tailored to specific inquiries, and pre-developed packets of material will continue to be used in handling more common requests. All printed information will contain appropriate phone numbers and addresses, including email addresses and the park web site url. All materials will be reviewed on a regular basis to ensure they remain accurate, appropriate, and current.

The staff will continue to explore ways to improve the park's telephone system and simplify or eliminate the complex phone tree structure. Staff at the visitor center information desk should not be burdened with handling phone requests. The primary reasons to keep the front desk clear of answering the park's general phone lines include providing uninterrupted service to visitors in the lobby and providing an open phone line for incoming emergency phone calls.

Publishers of regional, national, and international tourism literature often seek periodic updates of their information. To the extent possible, the park will ensure that printed and electronic tourism literature promoting the park remains accurate, appropriate, and current.

The World Wide Web offers a variety of methods to reach future visitors, potential visitors, and virtual visitors before ever entering park lands. Primary goals for the park web page include:

Recommendations should constitute the most effective means of achieving desired outcomes.

- Providing visitors with pertinent information for planning their trip.
- Providing material in multiple languages due to the large number of international visitors.
- Developing a web presence above and beyond the NPS profile system that serves as a central portal to all DEVA web content.
- Strengthening the online experience for young virtual visitors.
- Developing an online repository for literary, artistic, cultural, and scientific information for researchers.
- Providing interpretive experiences for those who can only have a virtual park experience or who may only see the park from the inside of a vehicle.

Every unit of the NPS is provided a web page through the "park profile" system. These websites are designed and maintained in Washington D.C. and are often the very first thing a virtual visitor will see that represents the park. These pages provide the visitor with contact information, park designation, and other basic level information. Each park also is provided space for their "In Depth" page (soon to be changed to a "Features" section), which when used correctly can give the most up-to-date information and announcements, and offer virtual users an experience beyond the delivery of textual information in a static manner. The "In Depth/Features" page offers the park an opportunity to express its individuality and give virtual visitors a more dynamic and engaging look at the park.

The most important recommendation for the Death Valley "Features" website section is that the front page should be a portal directly to all content that is available online by the park. This means that a visitor should be able to gain access to any docu-

ments, images, or information with two clicks or fewer. The importance of this is to make the user experience as simple and intuitive as possible. Content should be arranged in a thematic and consistent manner. Developing an interface that allows a visitor rapid access to all of the content available is essential for visitors who are looking for specific information and are not just "surfers."

Providing information in multiple languages is a great way to ensure that international visitors are prepared for their visit, and receive the same information as an English speaking visitor. It is especially important that non-English speaking visitors are aware of the park's extreme climate, and the necessary precautions to take.

Children are certainly not strangers to the World Wide Web and they potentially can account for much of the online visitation. It is important that children feel connected to the park even though they may not be able to visit in person. The park has made an excellent start in providing material for children, and there is an opportunity to take it to the next level. In addition to the virtual fieldtrip, there also should be interactive exercises or games to help children grasp the park's interpretive themes.

In addition to offering interpretive exercises for children, the website also should be a place for scholarly research. Considering the geological and historical significance of the park, the website could be a centralized repository for information. Students ranging from high school to graduate school should be able to find research material and bibliographic sources to assist them if they are studying Death Valley.

Appendix A shows a visual example of a "Feature" page concept that would serve as a portal to all

content. It also can be viewed at: www.nps.gov/hfc/av/deva.

The proposed new audiovisual program (see Furnace Creek Visitor Center section) also can serve an outreach role through television broadcasting and sales. While AV is not a good reference medium, it can convey and elicit emotion and get people excited about visiting the park.

A direct link between the park website and the cooperating association website will allow people to purchase theme-related materials before and/or after their visit.

As curriculum-based education program materials are developed (see Education Program section), information can be posted on the park website. This will not only benefit area educators, but it also will serve audiences around the world who may never have an opportunity to physically visit the park.

On-Arrival

With multiple entrances and long distances between developed areas, the park is in need of an active park sign committee and a parkwide sign plan to help establish NPS identity, to make people aware of being within a national park and all the special experiences that entails, and to provide more consistent, seamless orientation to park features and functions. The park should consult with the regional sign coordinator to initiate this plan in consultation with Harpers Ferry Center. The parkwide sign plan should consider new, more durable entrance signs and directional signs that tell travelers how far it is to major attractions.

On entering a national park, visitors are accustomed to stopping at an entrance station. Due to

highway ownership issues and the remoteness of some entrances, this is not possible at Death Valley except at Grapevine. The park will continue to rely on self-serve pullouts and the Furnace Creek Visitor Center for visitor orientation and voluntary fee payment. The sign plan also should evaluate the effectiveness of the current highway signs that ask people to stop at the information stations and pay the entrance fee.

The current octagonal information/fee collection kiosks should be replaced with information/orientation structures that are more attractive and durable in the desert climate. Where feasible, these information stations should be located at or near the park boundary and the official entrance sign. Many visitors like to photograph park entrance signs, and people would be more receptive to "one-stop-shopping" for their park entry experience. If it is not feasible to locate information stations at the park boundary, then they should be sited to capitalize on spectacular views, like that from Hell's Gate and Father Crowley Point.

Upright orientation exhibits at these entry locations will help establish NPS identity, orient visitors, and introduce Death Valley's key features. For a two-season approach to visitor safety and resource protection, the design could consider at least one panel for a changeable summer/winter treatment. At these locations, visitors also will realize that they are entering a special place, and that they may need to look hard to find some of the special resources. Development of these exhibits, along with development of the information station design, should be conducted in concert with a parkwide wayside exhibit proposal and plan. This will ensure uniformity and compatibility of design and may also result in cost savings.



View from Zabriskie Point Trail

Since most vehicles today have a CD player, it is recommended that a CD be developed that can deliver audio descriptions/interpretations of different features in the park. The CD could be given to visitors when they pay their entrance fee. They could be distributed at the Furnace Creek and Scotty's Castle Visitor Centers, or possibly dispensed at the fee collection machines at or near the park entrances. The mechanics of distributing this media (including how well they hold up in the heat) would require experimentation, but it would offer visitors a degree of interpretation and orientation that they may not otherwise receive.

As visitors drive through the park they would be able to track through their CD for interpretive messages about their current location. The CD eventually could be authored to target specific audiences (including different languages) or specific visitor interests. The interpretive messages would be cued by signs (or attachments to existing signs) at various locations along park roads.

The use of Travelers Information Stations (TIS) to deliver low-watt radio broadcasts was considered, but rejected. The messages are often of inferior quality, and studies have shown that they reach only about 20% of park visitors.

Furnace Creek Visitor Center

This long-range interpretive plan endorses the preferred alternative recommendations for the Furnace Creek Visitor Center developed during the 1998 Value Analysis (VA) Report. This VA study identified the essential functions of the visitor center as:

- Interpreting park story/themes through a variety of media and approaches
- Providing visitor services (e.g. rest rooms, shade, cooling, emergency services, seating)



Wagons at Harmony Borax Works

- Providing orientation/information (e.g. park, region, national park system, area services)
- Promoting visitor safety
- Providing/encouraging appreciation/inspiration
- Promoting/demonstrating sustainability/conservation
- Responding to changing needs (flexibility)
- Promoting effective visitor circulation
- Providing optimal use of space

With its outdated media, poor visitor circulation patterns, and lack of sustainable design elements, the current Mission 66 structure is inadequate. Keeping in mind that the structure also is being considered for the NRHP, the park will need to consider the significant building features identified in the Determination of Eligibility. The VA report recommends:

- Rehabilitating the existing structure to improve sustainability, energy conservation, and visitor experience. This would include adding insulation, new flooring and roof, asbestos abatement, replacing windows, and upgrading electrical and HVAC systems.
- Expanding the lobby to the north, adding 1,295 additional square feet (including vestibules) to the currently congested area, which will improve circulation and access to the theater, exhibits, information area, and provide energy-efficient airlocks.
- Converting the existing small theater into a cooperating association sales area, moving sales out of the lobby, which will improve circulation, reduce congestion, and provide a better space for displaying interpretive publications and other items.
- Converting the existing large theater into a 190-seat theater with an elevated, accessible projection room, providing adequate space for an introductory video program, and for most interpretive talks.

- Producing new exhibits that interpret all primary themes and help orient visitors to directly experience the resources. Existing exhibits and artifacts would be rehabilitated whenever possible. (Note: Elsewhere in the report it states that overall rehabilitation of the existing exhibits was considered but rejected: they are obsolete and outmoded; they don't correspond to existing interpretive themes; they don't fit with new design; and, they wouldn't be sufficiently effective.) Changeable modules would house exhibits that need to be updated periodically, to reflect current management or environmental issues.
- Producing new audiovisual programs which would include an introductory video program to be shown in the theater, and four short video programs to be incorporated into exhibits.
- Rehabilitating the landscape immediately around the visitor center. Providing a better approach and after-hours orientation at the visitor center entrance. Replacing exotic vegetation with native plantings supported by drip irrigation. Removing cracked concrete walls, patio, and reflecting pool, and replacing with walkways and seating to enable more visitor use of outdoor areas, to use the outdoors for interpretation, and to improve water conservation.

Drawings showing the existing site and building plan plus the proposed site and building concepts are shown in Appendix B, and serve as the basis for the following discussions.

The following recommendations stem from discussions during the long-range interpretive planning workshops, and expand on many of the above VA proposals. In addition to the important function of providing visitor information, orientation, and trip planning, it is recommended that interpretive media at the visitor center provide an integrat-

ed story line that would illustrate and emphasize the interrelationships with the land, climate, plants/animals, and people.

Entry

The interpretive experience at the visitor center would actually begin as visitors approach the building. The thermometer and the elevation sign are very popular with visitors and should remain as outdoor exhibit elements; however, there is great potential to create a more evocative and meaningful entry experience for visitors.

Other outdoor approach features would highlight a variety of simulated park habitats or life zones that show visitors the great diversity to be found here. Examples could include planted areas, simulated mud cracks, an alluvial fan, salt formations, or animal tracks that would raise visitor curiosity and promote questions. Interpretive sculptures also could be integrated into the habitat vignettes to show aspects of human presence or wildlife in Death Valley. Potential sculptures might include an Indian woman grinding seeds, and Indian man hunting, a prospector looking at an ore sample, or even a desert bighorn sheep.

These simulated landscape features would lead visitors into the building where they could discover and learn more about these integrated and theme-related topics. These vignettes also would reinforce the fact that visitors may see evidence of wildlife and human occupation in the desert, but not necessarily the people or animals themselves.

Orientation exhibits also would be an important component of the outdoor exhibit experience, and especially useful for visitors who arrive after hours. The design and content might be similar to that developed for the unstaffed information kiosks



Sand Dunes near Stovepipe Wells

near the park entrances, including the ability to rotate safety information between summer and winter. Additional or more in-depth information/orientation media would be developed inside the lobby.

The outdoor exhibits need to be closely coordinated with the architecture and landscape design of the facility. They also need to be located where visitors can view them in some degree of comfort (i.e. under the proposed shade canopy), but they should not impede visitor circulation.

Lobby

As visitors pass through the proposed airlock entrance they will arrive in an expanded visitor center lobby. The current information desk pods would be incorporated into the redesign, as well as some type of relief model of the park, possibly reusing the existing model from the exhibit room. The relief model (cleaned and repaired where necessary) would include some type of reader rail and LED or fiber optic lighting to identify features in the landscape without needing to place labels directly on the surface. Proximity to the information desks also would allow staff to use the model as a visual aid for visitor orientation or short informal interpretive talks.

Other exhibits in the lobby would expand on basic safety issues, backcountry use, and current issues. Safety messages might include video/sound or computer based interactive elements showing visitors doing things properly and safely. The use of sound in any exhibits will need to be carefully designed to ensure that it does not adversely impact other center functions.

The idea of presenting current issues affecting the park in a changeable/rotating newsstand format

was proposed. This format would be compelling and allow items to be changed easily. The design also might enable visitors to weigh in on various issues. This concept has additional implications for the park website as well.

The current display of free handouts, the touch table, and other displays would be retained, but evaluated individually as to whether they should be redesigned.

For the foreseeable future, fee collection operations will be part of the visitor experience in the lobby. The orientation and layout of the information pods should be designed to better distinguish the fee collection stations from the regular visitor information stations. This will reduce confusion for visitors on where they need to pay their fees and should also help provide for the safety and security of the fee collection staff.

Care will be taken to avoid overfilling the lobby with media. Open space is critical for visitor reception, orientation, gathering, sitting, and making initial contact with groups.

Exhibit Room

As stated in the VA report, all of the current displays in the exhibit room should be removed. It may be possible (where appropriate) to reuse some individual objects in the new design, but this would be determined on a case-by-case basis.

Removing the center island and reestablishing a relief model in the lobby will significantly open the exhibit room and reveal a space consisting of approximately 3,300 square feet. The large open space also will promote random exploration and create opportunities to use large graphics to reinforce the grandeur of the park.

The potential of creating views of the outside resources (as proposed in the VA report) also will bring some natural light into the space. While a window can create strong interpretive links, light infiltration, especially in the morning when direct sunlight will reach into the space, will require special media design considerations.

It is highly recommended that the structural rehab planning and design be done in concert with the planning and design of new media. This will ensure that both processes share ideas, resolve differences, and achieve a unified result.

The exhibit room would have an overarching implicit mission of immersing visitors in the variety of Death Valley while introducing them to elements of each of the primary interpretive themes. Three major goals of the exhibit space are to:

1. Present balanced theme-related stories-not emphasizing one component over others. One way to convey balance is to present multiple and/or contrasting perspectives. Another approach would be to integrate (where possible) natural and cultural stories.
2. Group story elements thematically. For example, the 49er story is closely associated with mining and exploration.
3. Develop interactive elements into the exhibit design. For example, the presentation of geologic processes (often a difficult subject to interpret) could be reinforced by mechanically interactive components, perhaps on the order of those at the Moraine Museum in Rocky Mountain National Park. These exhibits have no electrical components, but are effective interactive exhibits on the geology of the Rocky Mountains.

Consultation with appropriate park partners and with the Timbisha Shoshone will be essential in the planning and design of exhibit and other media that touch on cultural and/or theme-related topics. The Timbisha Shoshone have expressed a strong desire to have a role in telling their story, interpreting the ties to their land, and letting visitors know that they are an active and living culture.

The following exhibit scenario (provided by HFC Exhibit Designer Michael Lacome) is divided into five sections, and serves to illustrate how these major goals could be met. The specific media treatments presented are only suggestive; however, the interpretive messages/concepts and desired visitor experiences are important proposed recommendations.

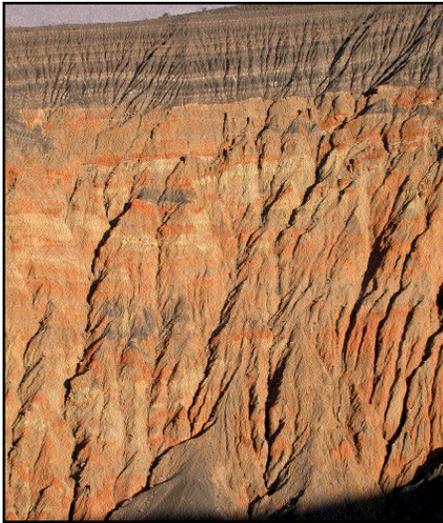
Section A:

The transition zone between the lobby and the main exhibit area would contain large format graphics showing the wide variety of landscapes in the park from snow capped peaks to parched valley floor and from verdant oasis to a seemingly lifeless salt pan. Visitors will grasp the enormous variety of landscapes in the park and that this wilderness harbors a corresponding variety of life forms and human history.

Quotes associated with the graphics can present multiple perspectives of the origin and significance of the valley. Indian creation stories, and other voices that speak of the "soul" of the place, beyond its physical nature, will make visitors aware that people have lived here for thousands of years and have developed an intimate knowledge and relationship to its resources. The voices could include and reflect those in the landscape vignettes that visitors experienced on their approach to the visitor center.



Desert Contrasts



Ubehebe Crater



Titus Canyon

Section B:

The introductory exhibits in Section A would transition into the geology story of Death Valley. The "voices" of prospectors, explorers, or geologists could describe their discoveries. The exhibits would be a combination of interactive models to show geological concepts like uplift, subduction, basin and range, etc. Other exhibits would utilize specimens and graphic panels incorporating original art to illustrate additional geologic processes that formed the area. A short 3-5 minute audiovisual presentation could compress geologic time to help people visualize certain geologic processes in summary fashion.

Section C:

The geologic exhibits transition into geographical phenomena like weather, erosion, and formation of soils. These exhibits would present the climatic changes that Death Valley and the region have experienced over the last 10,000 years that changed it from a relatively wet environment to the deeply arid one of today. Exhibits might include a large format artist rendered view of Lake Manley from a point in the park that still exists. The artist created view would morph into the view seen today. Other images and objects would help visitors better understand the processes that produce climatic extremes at Death Valley. In addition, a computer animation could clearly show the rain shadow effect of the Sierras on the Death Valley region.

Section D:

The scene next transitions to one depicting the living environment. The "voices" could be those of Indians, scientists, and others to offer multiple perspectives of the desert flora and fauna. An Indian woman could guide visitors through the story of plant adaptations to Death Valley from the

perspective of a gatherer, one who understands natural cycles of the valley and mountains. An Indian man, perhaps from the perspective of a hunter, might relate the habits of certain animals. These views could be intertwined with some of the most current scientific knowledge of plants and animals in the valley.

The multiple perspectives on the plant and animal life of Death Valley could be represented by a diorama that depicts different ecological settings and their distinctive flora and fauna. Various low-tech interactive devices (mostly touchable items and models) would be incorporated into this section. Graphics would include panels with original art, illustrations, and photographs.

An introduction of the human presence in Death Valley would be made near the conclusion of this section. Early human artifacts in cases along with touchable reproduction items would help tie together the close relationships early people had with their environment. Large format historic images of Paiute and Shoshone people and life-ways would be introduced along with objects that make direct connections to the natural resources via their manufacture and/or use.

Section E:

This section continues the story of Indian people and their presence in Death Valley up to the present day. The "voices" and other media in this portion of the exhibit will allow visitors to discover that this is the homeland of the Timbisha Shoshone, and that they are a living people who value their long, close, and continuing relationship with the land.

This section also tells the story of the 49ers, mining, tourism, and the establishment of the national

monument/park. A model (perhaps full-scale) of a 49er wagon with molded oxen and including simple interactive elements, artifacts in cases, and interpretive panels would tell the story of the gold seekers and the origin of the name "Death Valley." An interactive component of this display could focus on knowledge and preparation as keys to survival in the desert. For example, visitors could determine what provisions (i.e. how much water) are needed for a safe journey across the valley. This display would have both historic and present day implications.

The "voices" of former miners and prospectors would relate aspects of the mining efforts of the late 19th and early 20th centuries. Large format graphics with historic images of mining operations in the valley would bring visitors into the story. Specimens of ores, artifacts (some large), and products (i.e. made from borax) would support the graphic panels and recount the era when riches were made by a few and sought by many in the valley and canyons of the region.

A transition between the "voices" of the miners and the "voices" of tourism is the story of Albert and Bessie Johnson and Walter Scott. Scotty's exploits and conning of money from Johnson and others occurred during the mining era. The house (Scotty's Castle) is a major park attraction and cultural resource. An exhibit that introduces this resource and its characters will show the connection to Death Valley and American History, and encourage visitors to go see the real thing.

The decline of the mining era would be replaced by the steady growth of tourism. Tourists from the 1920s or 1930s would provide the "voices" of those who understand and value the intangible riches of the park and who seek to explore the unique fea-

tures, experience the extreme climate, and enjoy the solitude of Death Valley. The story would be supported by large graphics of early tourist activities and by advertisements and documents promoting Death Valley as a tourist destination.

Since the 1930s there has been a strong military presence in the desert in the form of aviation testing and training. An exhibit that helps to illustrate how the desert landscape not only attracted tourists, but how it has been and continues to be important in the support of the country's freedom is recommended.

A small dedicated audiovisual space, perhaps designed like an early camp tent at Stovepipe Wells, would show a short film that addresses the creation of the National Monument and the current mission and purpose of Death Valley National Park. This could include showing the competing recreational and special use requests the park must deal with (i.e. special bicycle and marathon races, vehicle testing, and commercial and non-commercial filming).

Bookstore

The VA report recommends moving the cooperating association bookstore into the current small theater space. This will provide adequate room for this function, and greatly improve visitor circulation in the lobby. This location also can be closed off in the evenings when the large theater is being used for interpretive programs.

There is concern that the new configuration will separate the bookstore from the rest of the visitor center areas resulting in reduced visitor traffic to the bookstore. This would translate to a subsequent reduction in sales revenues. One solution would be to locate the primary entrance to or exit from the theater in the book sales area.



Desert Five Spot



View from Leadfield Mining Structure

With the development of new interpretive themes, it is recommended that the cooperating association conduct a Scope of Sales study. This process evaluates all current sales and free items with regard to price range, theme(s) addressed, and audience(s) served. The results can be used to identify gaps in the publication program and to develop publication program priorities.

Theater

This plan supports the VA report proposal to adapt the existing large theater into a 190-seat theater, and to retain the flat floor. While a sloped theater floor is often preferable to provide a proper viewing angle, the existing high ceiling can easily compensate for this.

A new park film will provide an intellectual and emotional orientation to Death Valley. The primary theme, “*The Death Valley area has lured and challenged people from prehistoric times to the present,*” will provide the primary focus for the production; however, as with many interpretive programs, elements of all the themes (where appropriate) will be included.

The new film will portray the grandeur, vastness, and scale of the park, balanced with smaller elements like pupfish, snails, birds and plant life. Some scenes may require aerial photography.

Viewers also will discover the extreme contrasts and diversity in the park. The desert bloom of spring contrasted with the searing heat of summer, along with the changes that occur in traveling from the valley floor to the mountain peaks could be shown dramatically.

In viewing the film, visitors will discover that the park is much too big to see in one day. It will moti-

vate them to go to some areas, and show them things they may not be able to see without proper preparation, fitness, equipment, or a four-wheel drive vehicle. Illustrating scenes from different seasons may encourage viewers to return at different times of year.

Two versions of the film are proposed. A 26 minute version would be produced that could be used as a sales item, for outreach/education programs, and for television broadcasts (e.g. PBS). This film would be edited into a shorter 15-18 minute version that would be shown in the visitor center theater. However, in summer when visitors are more willing to spend a longer time indoors, the full-length version of the film could be shown in the theater. A switch at the information desk could activate the long or short version.

Courtyard

The covered ramada proposed in the VA report will allow for seasonal interpretive programs and informal visitor gatherings in the courtyard. Moveable seating would allow visitors and interpreters to take best advantage of the sun or shade. The use of outdoor art and/or native landscaping could inspire a contemplative experience in the courtyard, without creating a heavy interpretive focus.

Replacement of exotic species with native plantings will not only save money and water, but it will convey an implicit conservation message that the NPS practices what it preaches. Small ancillary waysides could be considered to identify some of the plants and perhaps mention something about their use by Native peoples.

Scotty's Castle

The living history program continues to be an excellent way of providing interpretive tours of



Scotty's Castle

Scotty's Castle. The tours are extremely popular with visitors; they are self-sustaining; and, it is highly recommended that they continue. The uniformed personal services tours of the castle basement and tunnel system also are very effective and should continue. The park should continue to look for ways to offer visitors opportunities to learn about, see, and experience more of the castle resources by exploring options to expand the variety of tours. This could include guided tours of Lower Vine Ranch and the chimes tower. Expansion of personal services could add more diversity to the interpretive programs and expand the visitor experience in the North District through geology and natural history talks and walks.

The exhibits, information desk, and cooperating association sales area in the Gas House are relatively new, and in good condition. However, lighting and the size of the information desk are inadequate when the tour ticket sales operation shares the same small desk space with regular visitor center services. (Note: ticket sales are conducted in a separate building during the cooler fall, winter, and spring months.) While there is an expressed desire to develop additional space for exhibiting more items in the museum collection, it was felt that the prospects of expanding during the life of this plan were unrealistic. Besides, much of the collection is on display in context in the castle.

If the Cookhouse is programmed for restoration during the life of this LRIP, then consideration should be given to exploring the building's potential use for interpretive or education functions. The building could be used for exhibits to display and interpret additional items from the collection. The structure also could become a site for future on-site education programs and activities that would

include the interpretation of preservation and curatorial activities.

The changeable exhibit case that was part of the current exhibit design for the Gas House is not being used, and some old exhibits have been moved into its place. The purpose of this case was to allow for rotating exhibits and the display of additional items in the collection. It is recommended that the old exhibits be removed and the changeable case be upgraded if necessary and used for its intended purpose.

The park has provided for several means of accessibility. A virtual tour of the house is available on the park website, and segments of Johnson's home movies are shown in the exhibit hall. A wheelchair lift is provided for visitors unable to negotiate the stairs to the second floor. To improve the programmatic accessibility, it is proposed that the castle virtual tour be redone and made available in the exhibit room.

It is recommended that the vehicles in the stable receive much-needed curation/restoration and that they be interpreted in this location. The stable would become an important part of a self-guiding tour of the complex.

The only change recommended for the furnished rooms is to replace the bright-colored chairs that visitors can use with something less intrusive on the historic scene.

Even though a self-guiding booklet of the Castle grounds is available as a sales item, it is recommended that a series of unobtrusive wayside exhibit panels be considered to enhance the visitor's experience of the outbuildings and sites.



Weather Vane at Scottys Castle



Organ at Scottys Castle

Beatty/Rhyolite Visitor Contact Station

The visitor contact station at Beatty serves an important function, but it needs to move. The current building is not adequate and is in poor condition. A visitor facility in this area has the potential to reach people traveling on Route 95 and to interest them in visiting the park. The facility also is good for public relations in the community and surrounding area.

The community is trying to improve its tourism status. There is interest in possibly developing a community/multi-agency visitor center and having the NPS become part of it. A couple of potential sites are being considered.

The process of recommending and/or selecting a site for a new visitor contact station is beyond the scope of a long-range interpretive plan. However, regardless of the location, the facility needs to be staffed and to perform the following functions:

- Be easily seen and accessible by travelers.
- Provide park and regional information/orientation services (including information about road conditions in Titus Canyon, etc.)
- Project a NPS identity (using consistent imagery, fonts, arrowhead, etc.)
- Contain cooperating association sales
- Inspire people to visit the park
- Permit fee collection
- Provide a place for contacting groups, including school groups
- Contain a video monitor for showing theme-related videos, including the new park film

Emigrant and Stovepipe Wells

The structure at Emigrant was discussed regarding its potential to serve as a visitor contact station.

However, it was felt that this location presents too great of a safety hazard with traffic on the highway.

A new ranger/visitor contact station at Stovepipe Wells is planned for construction in FY 2006/2007. The new facility will fit the same footprint of the former building which was destroyed in a wind storm. The visitor use area also will be about the same square footage. It is recommended that some visitor orientation/interpretation treatment be included in the new structure to meet the needs of visitors to this area of the park. Limited book sales will continue as well as fee collection operations.

Wayside Exhibits

Some of the recommendations related to a park-wide sign plan and informational wayside exhibits also appear in the On-Arrival section of this document.

Encompassing a vast area, with many sites in seeming isolation, wayside exhibits can reinforce the park's identity and connect people to its significant features. At this stage in the park's interpretive evolution, a parkwide approach to waysides would dramatically improve the outdoor media at Death Valley. A parkwide wayside exhibit plan, with consistent design and interpretive style, could stitch together far flung features into a coherent whole.

Orientation and Trailhead Exhibits

New upright orientation exhibits at or near the park's entrances would help establish NPS identity, orient visitors, and introduce Death Valley's key features. These exhibits could include after-hours orientation at the Furnace Creek Visitor Center. For a two-season approach to safety and resource protection, a parkwide proposal could consider at least one panel for a changeable summer/winter treatment.



Rhyolite Ghost Town, BLM

Well-designed trailhead exhibits also are needed at major trailheads, such as Golden Canyon, Harmony Borax, Keane Wonder Mine, Zabriskie Point, and Titus Canyon to orient potential hikers and to introduce the trail experience.

Themes

Because the park's terrain and topography are such a powerful part of the story, wayside exhibits are in a unique position to connect people to the specific, significant features of the landscape, from salt flats to charcoal kilns. Because the majority of visitors experience the park via automobile, a wayside exhibit proposal and plan should carefully consider exhibit siting and associated landscaping. Throughout, a new wayside exhibit design should better integrate safety and resource protection messages.

Exhibit Panel Materials

Climate at Death Valley is extremely rough on outdoor exhibits. Fiberglass embedments, in particular, erode rapidly in the intense heat and sun. Climate-resistant porcelain enamel would appear to be a good solution for low profile exhibits, although recently installed porcelain panels show some minor scratching. Replacement costs are high for porcelain, which may argue against them in remote locations. New digital laminated panels might offer the most efficient solution in the future.

Wayside Exhibit Bases

The present high-angle low profile bases are not successful; they are more intrusive on the landscape and to some extent they interfere with the view of the feature being interpreted. A new parkwide wayside proposal should recommend a return to the HFC standard design for all low profile interpretive exhibits.

Parkwide Sign Plan

With multiple entrances, and long distances between developed areas, the park is in need of a parkwide sign plan, to help establish NPS identity, to make people aware of being within a national park and all the special experiences that entails, and to provide more consistent, seamless orientation to park features and functions. The park should consult with the regional sign coordinator to initiate the plan, in consultation with HFC.

Personal Services

A wide variety of personal services activities will continue to be an essential component of the overall interpretive program at Death Valley National Park. These programs have the unparalleled advantage of being inspiring, versatile, alive, and tailored to the needs of individuals and groups. An interpretive staff presence helps with the protection of fragile resources. Interpreters, whether behind an information desk, roving, leading a tour, giving a talk, or conducting a demonstration, are the best of all interactive tools in enabling visitors to experience, understand, appreciate, and make personal connections with resources.

In spite of their advantages, however, personal services interpretive programs have limitations. They can be costly, often limited in number, and sometimes only reach a small percentage of visitors. Quality and accuracy must be maintained through regular audits and continual education and training.

Discussions and recommendations regarding personal services interpretation appear throughout this document, but are summarized here to reinforce their importance in communicating the interpretive themes and meeting visitor experience goals.



Golden Canyon

The living history program at Scotty's Castle offers an excellent way to experience the site; it is extremely popular with visitors; it is self-sustaining; and, it is highly recommended that it continue. The uniformed personal services tours of the Castle basement and tunnel system are very effective and also should continue. In addition, there are spectacular natural features in the North District near the castle. A uniformed presence in these areas, such as Ubehebe Crater, would provide additional resource protection, visitor safety, and the ability for visitors to have quality interpretive experiences.

Modifications to the Furnace Creek Visitor Center will allow easy and safe evening access to activities and programs in the theater. It also will allow the bookstore to be closed off after hours. Proposed shade structures in the courtyard will allow the space to be used for various activities.

Tightening budgets have forced the reduction and/or elimination of personal services programs in other areas of the park. With ever increasing visitation, this plan highly recommends a restoration of personal services programs throughout the park. See the Staffing section for a listing of specific needs.

The complexity and diversity of the park's overall interpretive program presents almost limitless opportunities for both standard and innovative activities. Keeping within the parameters of the interpretive themes and visitor experience goals, park staff should be given a high degree of creative freedom to explore and experiment with new programs. This will help to maintain a creative edge and attract new and returning audiences.

Since personal services interpretive programs are relatively easy to change, the activities should be

evaluated on a regular basis to discontinue those that are not effective, modify and improve those that require it, and validate those that are successful.

Education Program

One of the GMP recommendations is "to improve the educational and outreach program in surrounding communities and develop partnerships with local schools and similar groups."

In order to begin addressing any of the recommendations in this section, the vacant park education specialist position needs to be filled (see Staffing section). Education programs differ from most traditional forms of interpretation in many ways, and special skills are required to effectively plan, design, implement, and assess multidisciplinary curricula.

Education coordination in the NPS has become a discipline in its own right, and the need for a separate education plan has become essential. At some future date an education plan will be needed at Death Valley National Park.

Partnerships with area school districts and other federal and state conservation agencies will be critical in the establishment and growth of the park's education program. The participation of professional educators is essential in the development of all programs to ensure that activities are curriculum based, appropriate to targeted grade levels, and meet the needs and education standards of individual schools, school districts, historical societies, museums, and states. All proposed programs and activities also should be field tested for effectiveness and evaluated by their ability to communicate primary interpretive themes.

DEVA is part of a fairly new entity called the Desert Learning Center. This organization

includes several national park units and is still in its formative phase of development. The potential of working through this organization to develop an education program and facility at Death Valley should be explored. Through this or similar programs, sites such as Ryan (owned by Rio Tinto Borax) could be considered for development as a future residential education center, operated and funded through multi-agency entities in partnership with US Borax.

As the education program grows, more materials would be made available through the park website. Some materials could be offered for free and downloaded by anyone. Other items could be advertised for sale through the cooperating association. The internet also makes elements of the education program available to worldwide audiences, including home-schooled children and many who may never be able to travel to the park.

Like most ambitious endeavors, Death Valley's education program needs to start small and grow gradually. Small successes often can generate support and funding for additional staff and broader projects. Eventually, a multi-faceted, multi-audience program can evolve and become a vital part of the Death Valley experience.

Special Populations

Provisions will be made to accommodate the needs of special populations who visit Death Valley National Park. Special populations are identified as those with sight, hearing, learning, and mobility impairments; visitors who do not speak English; and, the elderly and young children.

Public Law 90-480, the Architectural Barriers Act, and the Americans with Disabilities Act of 1990 establish standards for physical access. Other regu-

lations, laws, and standards include Sections 504 and 508 of the Rehabilitation Act of 1973, Director's Orders No. 42, and Accessibility for Visitors with Disabilities in National Park Service Programs, Facilities, and Services. All newly constructed facilities, as a matter of course, will be designed for accessibility for physically disabled visitors and employees.

Every effort will be made to provide full access to interpretive media and programs to ensure that people with physical and mental disabilities, as well as people who do not speak or understand English, have access to the same information necessary for a safe and meaningful visit to Death Valley National Park. All new interpretive media will follow the standards for accessibility as described in the NPS, June 1999 Programmatic Accessibility Guidelines for Interpretive Media. These guidelines (see Appendix C) will be consulted by park staff and media developers during the planning and design of new interpretive media.

Research Needs

The interpretive staff needs to work closely with the resource management staff to keep up to date on research activities and results. Scientists and resource management specialists should be encouraged to present regular briefings to the entire park staff, especially interpreters. Agency and contract researchers also should be encouraged to produce executive summaries and programs that translate research results for park staff and the public. Summaries with bibliographies could be put into PDF format and placed on the park's website.

Death Valley National Park needs to learn more about its actual and potential audiences: Who visits? What are their motivations, expectations, and

satisfaction levels? Who doesn't visit and why? How do the answers to these and other questions vary with summer and winter visitors?

While some of these questions are addressed in the 1994 and 1996 Visitor Services Projects cited earlier, other methods may be employed. For example, front-end evaluations would query potential users of programs, facilities, and media before the products are developed. This type of research is targeted so that practical use can be made of the results. Formative evaluations would be conducted during conceptual design, and would test inexpensive mockups of interpretive media before fully investing in final products. Summative evaluations are valuable in helping to

determine the effectiveness of final media, facility, and programs-i.e. whether the intended themes are being communicated, if people actually make use of the information, or if visitor behavior is affected.

Field of Desert Gold



SUMMARY OF PRODUCTS AND ACTIONS

The following is a summation of the action items and products proposed in this long-range interpretive plan. Each of these items is described in greater detail in the narrative sections of the plan. This list is designed to help develop annual and longer-term priorities, assign responsibilities, and develop cost estimates.

It must be emphasized that the following list deals specifically with actions and products for media and programs related directly to information, orientation, interpretation, and education. Although new, restored, or renovated facilities are proposed or referenced, actions related to these structures will need to be developed in greater detail during specific planning, design, and construction processes. Staffing requirements to implement the following actions are identified and addressed separately.

Parkwide

- Improve efficiency of park phone tree.
- Update park folder & other park-produced literature (ongoing).
- Review/enhance information produced by external sources (ongoing).
- Enhance/expand park web site (ongoing).
- Develop multi-lingual information.
- Conduct cooperating association Scope of Sales study.
- Develop/revise park sign plan in partnership with others.
- Redesign/relocate information/fee collection kiosks at or near park entrances.
- Develop and implement parkwide wayside exhibit proposal and plan.
- Develop multilingual CD/Cassette tour media, including a children's version.

- Restore/expand personal services interpretive programs (see Staffing section).
- Develop curriculum based education program in partnership with others.

Furnace Creek Visitor Center

- Rehabilitate structure as recommended in 1998 VA Report.
- Develop outdoor entry exhibits.
- Develop/rehab lobby exhibits (some with AV or interactive elements).
- Develop new exhibit room media (some with AV or interactive elements).

Scotty's Castle

- Rehab changeable exhibit case for Gas House.
- Preserve, protect, and appropriately display historic vehicles in stable.
- Replace modern bright colored chairs in Castle.
- Explore interpretation/education options for Cookhouse.

Beatty/Rhyolite Visitor Contact Station

- Explore sites for relocation of facility in partnership with others.
- Develop new exhibit media when operation moves to new location.

Staffing and Training

Table 2 summarizes existing staff levels and additional staffing requirements needed to fully implement the recommendations of this long-range interpretive plan.

The following goals and objectives describe the Division of Interpretation's commitment to employee training:

Table 2

POSITION	EXISTING	NEW	TOTAL
Chief of Interpretation	1		1
Admin Clerk	1	1	2
N. District Supervisor	1		1
S. District Supervisor		1	1
Education Specialist		1	1
Education Park Rangers		2	2
Media Design Specialist		1	1
Park Ranger – Interpreter	6	1	7
Park Guide	4	5	9
TOTAL PERMANENT	13 (13 FTE)	12 (12 FTE)	25 (25 FTE)
Seasonal Park Ranger - Interpreter		3	3
Seasonal Education Tech		2	2
Seasonal Park Guide	10	2	12
Seasonal Volunteers	10		10
TOTAL SEASONAL/VIP	20 (9.8 FTE)	7 (3.5 FTE)	27 (13.3 FTE)
TOTAL	33 (22.8 FTE)	19 (15.5 FTE)	52 (38.3 FTE)

- Offer training to all park staff in critical resource issues and effective informal interpretation and communication skills, recognizing that all park employees, including concessionaires and cooperating association employees, have a role in providing effective visitor services and achieving the NPS mission.
 - Offer developmental opportunities for park staff to broaden their awareness of park issues. Provide opportunities for park employees to learn about and/or improve their ability to articulate the relationships between their work, park goals and the NPS mission.
 - Offer a minimum of two weeks of interpretive training to seasonal interpreters, which include interpretive philosophy, interpretive skills, subject matter knowledge, operations procedures, and an overview of NPS programs, policies, and initiatives.
 - Fully implement the Interpretive Development Program curriculum and encourage participation in the interpretive competencies certification program. Evaluate programs against the national standards.
 - Encourage individual participation in professional development opportunities. Assess employee development needs and provide training opportunities. Maintain a learner-driven and outcome based atmosphere.
- Training in interpretation and communication skills and related competencies, along with a sound knowledge of the park's resources needs to be ongoing. Interpreters, educators, and others who deal with the visiting public need to be kept abreast of current and planned activities, past and present research, and new technologies, not only as they relate to park resources, but also regarding visitor

studies, interpretive media, education, etc. By working across organizational and operational lines, and in concert with partners, effective and efficient ways to alert and/or involve staff in new or on-going projects and innovations can be explored.

The park staff also will explore opportunities to offer training to others throughout the area who are engaged in information/orientation, interpretation, and education activities. Training could be offered through scheduled courses, workshops, informal meetings, etc. Other training could be offered through existing programs offered by local or regional institutions. Potential trainees could include area educators, volunteers, interagency staffs, and others throughout the region who deal with the visiting public.

IMPLEMENTATION PLAN

Implementation of the recommendations in this long-range interpretive plan will be phased over the next 10-15 years, and many will require independent planning and design efforts. Other action items can be implemented immediately, within existing funds and staffing levels.

Changes in staffing, funding, and other unforeseen circumstances can alter priorities, especially when they are long-range or contain a lot of specific details. The following list shows a general phasing of priorities. Specific descriptions/components of each item can be found in the Recommendation section of this document. The following list should serve as a guide in developing the annual work program components of the Comprehensive Interpretive Plan.

The action items are:

Short Term (1-3 years)

- Fill permanent Education Specialist position w/term or seasonal assistance.
- Initiate planning for the park's Environmental Education plan.
- Gain approval and fill permanent Division Admin Clerk position.
- Initiate requests to fill new and vacant interpretive division positions.
- Explore the feasibility and functionality of incorporating fee collection operations under the Interpretation Division.
- Update park web page with new WASO guidelines.
- Develop and link park specific children's web ranger activities to park web page.
- Re-establish park sign committee and initiate planning for park-wide sign plan.
- Restart planning for Furnace Creek Visitor Center rehab and new exhibits.
- Work with Death Valley History Association and David Vasser in the planning and production of a new park orientation film.
- Build open communication links with Timbisha Shoshone Tribe in the development of interpretive materials for the public.
- Develop partnerships with local area universities for educational/outreach programs.
- Develop stronger network relationships with Mojave Desert parks in the development and completion of common interpretive/education projects.
- Implement limited tours of Lower Vine Ranch, as well as more diverse ranger programs on the geology and natural history of the North District.
- Initiate planning of phase III of the park's way-side exhibit plan.

Medium Term (4-7 years)

- Implement filling new or vacant Division posi-

tions or continue to seek higher priority to fill new and vacant positions.

- Develop more in-depth interactive web pages in multiple languages.
- Provide assistance in planning and or staffing BLM or Beatty Development Committee visitor center - possible interagency facility.
- Provide exhibit development assistance for Furnace Creek Visitor Center.
- Develop a more formal tour schedule for Lower Vine Ranch in the North District.
- Develop and/or begin installation of new phase III wayside exhibits.
- Provide assistance in the planning for the Scotty's Castle Cook House - office space, exhibit space, etc.
- Provide assistance in overall DCP planning for the Scotty's Castle Historic District.

- Implement elements of the EE plan and develop and expand the EE program.

Long Term (8-15 years):

- Implement filling new or vacant Division positions or continue to seek higher priority to fill new and vacant positions. All will be based on needs of the park in 8-10 years.
- Develop a collaborative self-guiding tour plan (may include a park-wide CD tour of popular scenic routes in the park).
- Produce and install new exhibits in Furnace Creek Visitor Center.
- Re-design Scotty's Castle exhibits and book sales area. This will depend on park's plans for use of historic structures at Scotty's Castle.

**Red Cathedral - Badlands
View from Zabriskie Point**



PLANNING TEAM AND CONSULTANTS

Death Valley National Park

JT Reynolds, Superintendent
Terry Baldino, Chief of Interpretation
Corky Hays, former Chief of Interpretation
Colleen Bathe, former North District Supervisory Ranger, Interpretation
Alan Van Valkenberg, South District Park Ranger, Interpretation
Bob Smith, North District Park Ranger, Interpretation
Aaron Shandor, Park Ranger, Ranger Activities
Blair Davenport, Curator, Resources Management
Terry Fisk, Hydrologist, Resources Management
Mike Reynolds, Former IT Specialist, Administration
Jon Christensen, Former Landscape Architect

Park Partners/Consultants

Pauline Esteves, Timbisha Shoshone Tribal Elder
Barbara Cottonwood Durham, Timbisha Shoshone Tribal Administrator
Richard Boland, Timbisha Shoshone Tribal member
Cal Jepson, Manager of Furnace Creek Ranch & Inn, Xantera Corporation
Esz Fields, Former Executive Director, Death Valley Natural History Association
Michael Prather, Member, Death Valley National Park Advisory Commission
Mike Raushkolb, Rio Tinto Borax
Kay C. Wylie, U.S.D.A., Forest Service
Barbara Schuck, Bishop Elementary School District
Susan Sorrells, Death Valley Chamber of Commerce
Shirley Harding, Chair, Death Valley 49ers Park Liaison Committee

Harpers Ferry Center

John Grabowska, Audiovisual Producer
Dick Hoffman, Senior Wayside Exhibit Planner
Michael Lacome, Exhibit Designer
Tony Sciantarelli, Audiovisual Production Aide
Wendy Janssen, Former Interpretive Planner
Paul Lee, Interpretive Planner

APPENDICIES

Appendix A: Web Page Concept

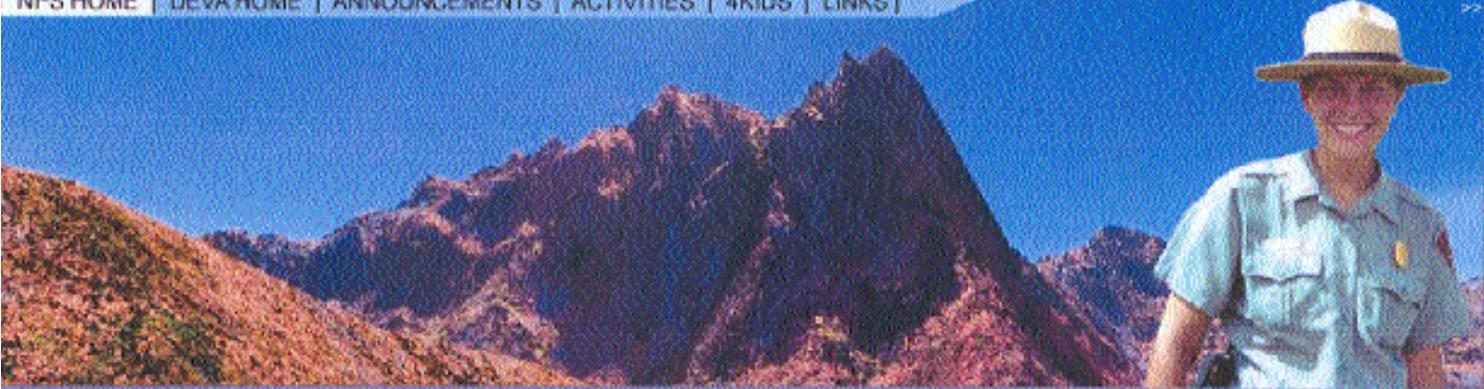
Appendix B: Furnace Creek Visitor Center Rehabilitation Project Drawings

Appendix C: Programmatic Accessibility Guidelines for Interpretive Media

Appendix A: Web Page Concept

Death Valley National Park

[NPS HOME](#) | [DEVA HOME](#) | [ANNOUNCEMENTS](#) | [ACTIVITIES](#) | [4KIDS](#) | [LINKS](#)



+Documents

- Road Conditions
- Backcountry Camping
- Backcountry Roads
- Backpacking & Backcountry Hikes
- Day Hikes
- Death Valley Paleontology
- Ranger Programs
- Research & Planning
- Timbisha Shoshone Tribal Homeland
- Wilderness Ethos - "Leave No Trace"
- Maps

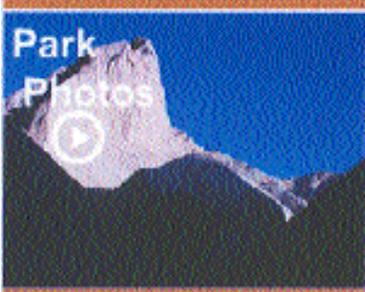
+Feature

Hottest, Driest, Lowest: Death Valley is a land of extremes. It is one of the hottest places on the surface of the Earth with summer temperatures averaging well over 100 degrees Fahrenheit. It encompasses the lowest point in the Western Hemisphere at 202 feet below the level of the sea, and it is the driest place in North America with an average rainfall of only 1.90 inches a year.

This valley is also a land of subtle beauties: Morning light creeping across the eroded badlands of Zabriskie Point to strike Merly Beacon, the setting sun and lengthening shadows on the Sand Dunes at Stovepipe Wells, and the colors of myriad wildflowers on the golden hills above Harmony Borax on a warm spring day.

Death Valley is a treasure trove of scientific information about the ancient Earth and about the forces still

+Photo Galleries



Park Photos



Historic Photos

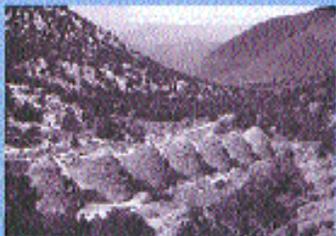


Scotty's Photos



Wildflower Photos

History and Culture



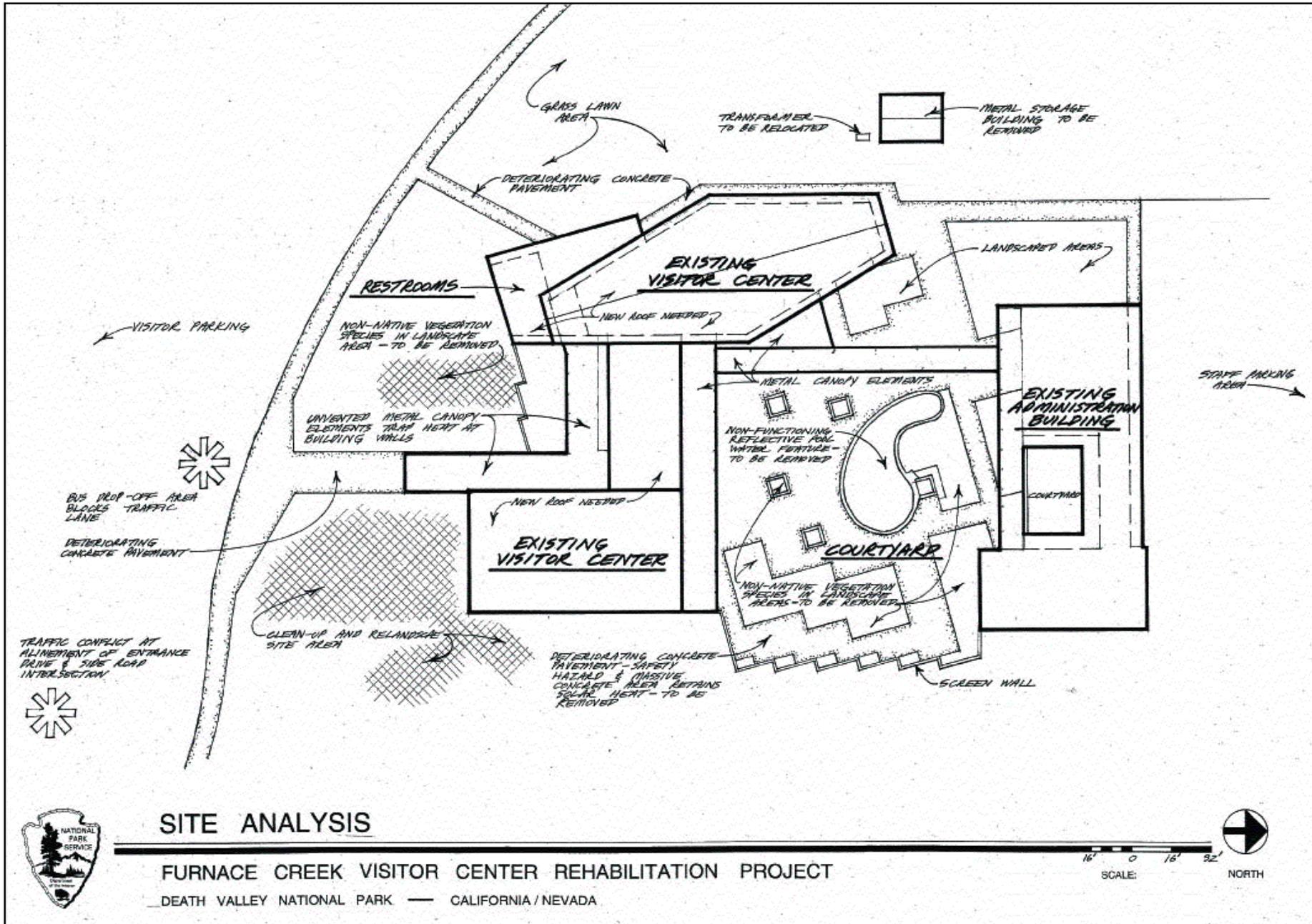
In 1877 George Hearst's Modoc Consolidated Mining Company completed construction of the charcoal kilns in Wildrose Canyon. The charcoal produced by the kilns was to be used as fuel for two silver-lead smelters that Hearst had built in the Argus Range 25 miles to the west. The kilns operated until the summer of 1879 when the Argus mines, due to deteriorating ore quality, closed and the furnaces shut down.

The Wildrose kilns employed about 40 woodcutters and associated workmen, and the town of Wildrose, a temporary camp located somewhere nearby, was home to about 100 people. Remi Nadeau's Demo Gordo Freighting Company hauled the charcoal to the smelters by pack train and wagon.

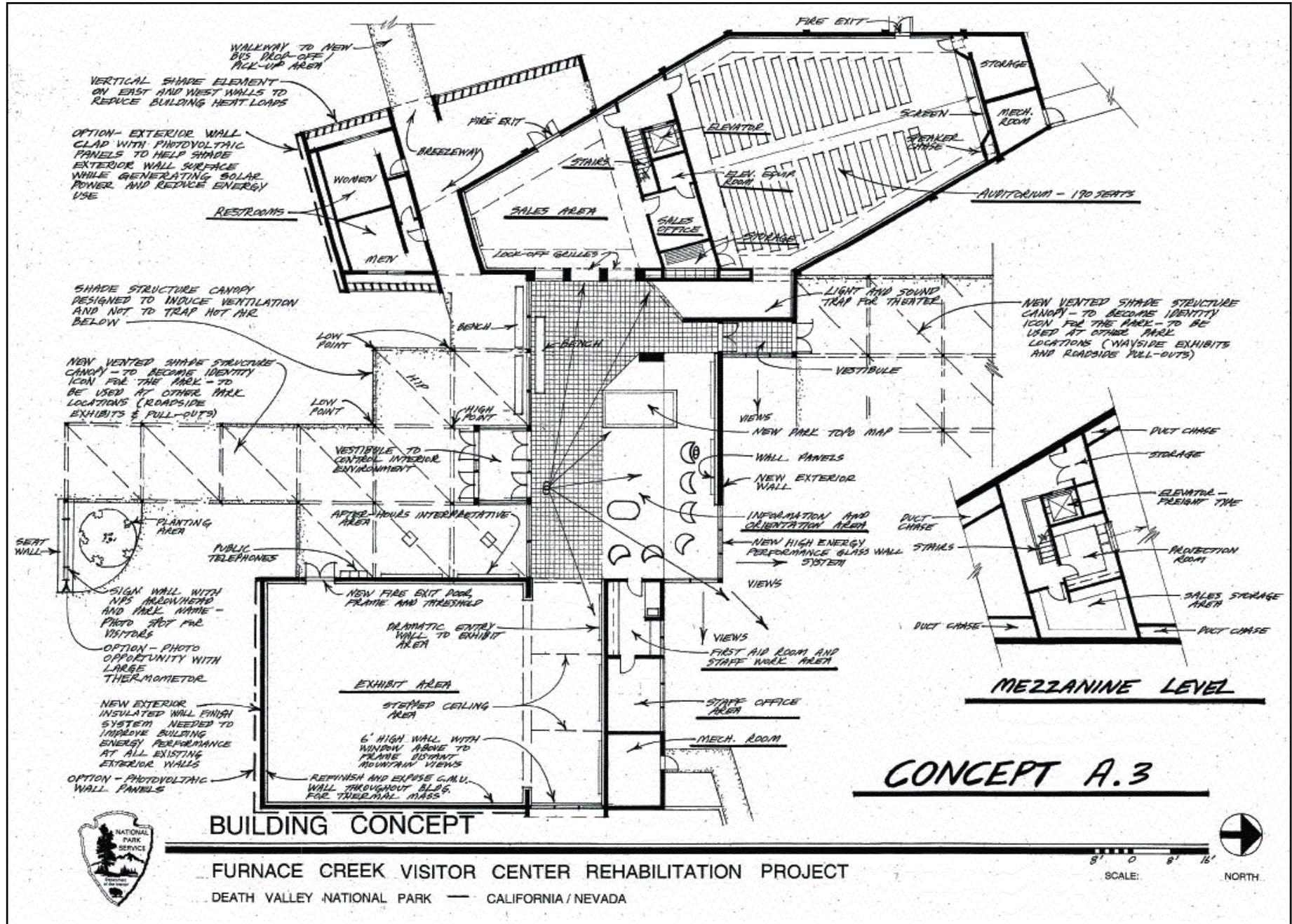
Each of the 10 kilns stands about

- Scotts Castle-Historic House
- Death Vail in the Moles (PDF)
- The Charcoal Kilns
- The Vivian Conservation Corps
- Harmony Borax
- The Kane Wonder Mine and Mill
- The Lost Forty-niners
- Rhoads Ghost Town

Appendix B: Site Analysis, Furnace Creek Visitor Center



Appendix B: Building Concept, Furnace Creek Visitor Center



Appendix C: Programmatic Accessibility guidelines for Interpretive Media

Special Populations: Programmatic Accessibility Guidelines for Interpretive Media

**National Park Service
Harpers Ferry Center**

June 1999

**Prepared by
Harpers Ferry Center
Accessibility Task Force**

Contents:

Statement of Purpose
Audiovisual Programs
Exhibits
Historic Furnishings
Publications
Wayside Exhibits

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 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 NOS 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 video programs, and audio and interactive 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 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 Visitors with Mobility Impairments

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 locations, usually between 9" and 48" from the ground and no more than 24" deep.

Guidelines Affecting Visitors with Visual Impairments

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

Guidelines Affecting Visitors with Hearing Impairments

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 Visitors with Learning Impairments

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, they may incorporate sensitive artifacts which require special environmental controls; and room décor 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 alternate means of communication.

Guidelines Affecting Visitors with Mobility Impairments

Note: The Americans with Disabilities Act Accessibility Guidelines (ADAAG) is the standard followed by the National Park Service and is therefore the basis for the accessibility standards for exhibits, where applicable.

1. Height/position of labels: Body copy on vertical exhibit walls should be placed between 36" and 60" from the floor.
2. Artifact Cases:
 - a. Maximum height of floor of artifact case display shall be no higher than 30" from the floor of the room. This includes vitrines that are recessed into an exhibit wall.
 - b. Artifact labels should be placed so as to be visible to a person within a 43" to 51" eye level. This includes mounting labels within the case at an angle to maximize its visibility to all viewers.
3. Touchable Exhibits: Touchable exhibits positioned horizontally should be placed no higher than 30" from the floor. Also, if the exhibit is approachable only on one side, it should be no deeper than 31".

4. Railings/barriers: Railings around any horizontal model or exhibit shall have a maximum height of 36" from the floor.

5. Information Desks: Information desks and sales counters shall include a section made to accommodate both a visitor in a wheelchair and an employee in a wheelchair working on the other side. A section of the desk/counter shall have the following dimensions:

a. Height from the floor to the top: 28" to 34". (ADAAG 4.32.4)

b. Minimum knee clearance space: 27" high, 30" wide, and 19" deep of clearance underneath the desk is the minimum space required under ADAAG 4.32.3, but a space 30" high, 36" wide, and 24" deep is recommended.

c. Width of top surface of section: at least 36". Additional space must be provided for any equipment such as a cash register.

d. Area underneath desk: Since both sides of the desk may have to accommodate a wheelchair, this area should be open all the way through to the other side. In addition, there should be no sharp or abrasive surfaces underneath the desk. The floor space behind the counter shall be free of obstructions.

6. Circulation Space:

a. Passageways through exhibits shall be at least 36" wide.

b. If an exhibit passageway reaches a dead-end, and area 60" by 78" should be provided at the end for turning around.

c. Objects projecting from walls with their leading edges between 27" and 80" above the floor shall protrude no more than 4" in passageways or aisles. Objects projecting from wall with their leading edges at or below 27" above the floor can protrude any amount.

d. Freestanding objects mounted on posts or pylons may overhang a maximum of 12" from 27"

to 80" above the floor. (ADAAG 4.4.1)

e. Protruding objects shall not reduce the clear width of an accessible route to less than the minimum required amount. (ADAAG 4.4.1)

f. Passageways or other circulation spaces shall have a minimum clear head room of 80". For example, signage hanging from the ceiling must allow at least 80" from the floor to the bottom of the sign. (ADAAG 4.4.2)

7. Floors:

a. Floors and ramps shall be stable, level, firm, and slip-resistant.

b. Changes in levels between ¼" and ½" shall be beveled with a slope no greater than 1:2. Changes in level greater than ½" shall be accomplished by means of a ramp that complies with ADAAG 4.7 or 4.8. (ADAAG 4.5.2)

c. Carpet in exhibits shall comply with ADAAG 4.5.3 for pile height, texture, pad thickness, and trim.

8. Seating for Interactive Stations/Work Areas: The minimum knee space underneath a work desk is 27" high, 30" wide, and 19" deep, with a clear floor space of at least 30" by 30" in front. The top of the desk or work surface shall be between 28" and 34" from the floor. (ADAAG 4.32, Fig. 45)

Guidelines Affecting Visitors with Visual Impairments

1. Tactile models and other touchable exhibit items should be used whenever possible. Examples of touchable exhibit elements include relief maps, scale models, raised images of simple graphics, reproduction objects, and replaceable objects (such as natural history or geologic specimens, cultural items, etc.).

2. Typography: Readability of exhibit labels by visitors with various degrees of visual impairment shall be maximized by using the following guide-

lines:

- a. Type Size: No type in the exhibit shall be smaller than 24 point.
 - b. Typeface: The most readable typefaces should be used whenever possible, particularly for body copy. They are: Times Roman, Palatine, Century, Helvetica, and Universe. (Note: since the development of these guidelines, typefaces NPS Rawlinson and Frutiger should be added.)
 - c. Styles/Spacing: Text set in both caps and lower case is easier to read than all caps. Choose letter spacing and word spacing for maximum readability. Avoid too much italic type.
 - d. Line length: Limit the line length for body copy to no more than 45 to 50 characters per line.
 - e. Amount of Text: Each unit of body copy should have a maximum of 45-60 words.
 - f. Margins: Flush left, ragged right margins are easiest to read.
3. Color:
- a. Type/Background Contrast: Percentage of contrast between the type and the background should be a minimum of 70%.
 - b. Red/Green: Do not use red on green or green on red as the type/background color.
 - c. Do not place body copy on top of graphic images that impair readability.
4. Samples: During the design process, it is recommended that samples be made for review of all size, typeface, and color combinations for labels in an exhibit.
5. Exhibit Lighting:
- a. All labels shall receive sufficient, even light for good readability. Exhibit text in areas where light levels have been reduced for conservation purposes should have a minimum of 10 footcandles of illumination.
 - b. Harsh reflections and glare should be avoided.

- c. The lighting system shall be flexible enough to allow adjustments on-site.
 - d. Transitions between the floor and walls, columns or other structures should be made clearly visible. Finishes for vertical surfaces should contrast clearly with the floor finish. Floor circulation routes should have a minimum of 10 footcandles of illumination.
6. Signage: When permanent building signage is required as a part of an exhibit project, the ADAAG guidelines shall be consulted. Signs which designate permanent rooms and spaces shall comply with ADAAG 4.30.1, 4.30.4, 4.30.5, and 4.30.6. Other signs which provide direction to or information about functional spaces of the building shall comply with ADAAG 4.30.1, 4.30.2, 4.30.3, and 4.30.5. Note: When the International Symbol of Accessibility (wheelchair symbol) is used, the word "Handicapped" shall not be used beneath the symbol. Instead, use the word "Accessible".

Guidelines Affecting Visitors with Hearing Impairments

1. Information presented via audio formats will be duplicated in a visual medium, such as in the exhibit label copy or by captioning. All video programs incorporated into the exhibit, which contain audio, shall be open captioned.
2. Amplification systems and volume controls should be incorporated with audio equipment used individually by the visitor, such as audio handsets.
3. Information desks shall allow for Telecommunication Devices for the Deaf (TDD) equipment.

Guidelines Affecting Visitors with Learning Impairments

1. The exhibits will present the main interpretive themes on a variety of levels of complexity, so people with varying abilities and interests can understand them.
2. The exhibits should avoid unnecessarily complex and confusing topics, technical terms, and unfamiliar expressions. Pronunciation aids should be provided where appropriate.
3. Graphic elements shall be used to communicate non-verbally.
4. The exhibits shall be a multi-sensory experience. Techniques to maximize the number of senses used in the exhibits should be encouraged.
5. Exhibit design shall use color and other creative approaches to facilitate comprehension of maps by visitors with directional impairments.

Historic Furnishings

Historically refurnished 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 problematic in many NPS furnished sites because of the very nature of historic architecture. Buildings were erected with a functional point of view that many times is 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 Visitors with Mobility Impairments

1. The exhibit space should be free of architectural barriers, or a method of alternate accommodation should be provided, such as slide programs, video tours, visual aids, dioramas, etc.
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 a 12" run, and conform to 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 visitors with physical impairments.

Guidelines Affecting Visitors with Visual Impairments

1. Exhibit typefaces will be selected for readability and legibility, and conform to 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 Visitors with Hearing Impairments

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

Guidelines Affecting Visitors with Learning Impairments

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 brochures which provide an overview and orientation to a park, to more comprehensive handbooks. Each park brochure should give a brief description of services available to visitors with disabilities, 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 visitors

with disabilities and to describe barriers which are present in a park. A template for this site bulletin will be on the Harpers Ferry Center website for parks to create with ease, a consistent look throughout the park service. These bulletins should be in large type. 16 points minimum and follow the large-print criteria below.

Guidelines Affecting Visitors with Mobility Impairments

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

Guidelines Affecting Visitors with Visual Impairments

1. Publications for the general public:
 - a. Text
 - i. Size: the largest type size appropriate for the format. (preferred main body of text should be 10 point)
 - ii. Leading should be at least 20% greater than the font size used.
 - iii. Proportional letterspacing.
 - iv. Main body of text set in caps and lower case.
 - v. Margins are flush left and ragged right.
 - vi. Little or no hyphenation is used at ends of lines.
 - vii. Ink coverage is dense.
 - viii. Underlining does not connect with the letters being underlined.
 - ix. Contrast of typeface and illustrations to background is high (70% contrast is recommended).
 - x. Photographs have a wide range of gray

scale variation.

xi. Line drawings or floor plans are clear and bold, with limited detail and minimum 8 point type.

xii. No extreme extended or compressed typefaces are used for main text.

xiii. Reversal type should be a minimum of 11 point medium or bold sans-serif type.

b. Paper:

i. Surface preferred is a matte finish. Dull-coated stock is acceptable.

ii. Has sufficient weight to avoid "shoe through" on pages printed on both sides.

2. Large-print version publications:

a. Text

i. Size: minimum 16 point type.

ii. Leading is 16 on 20 point.

iii. Proportional letterspacing.

iv. Main body of text set in caps and lower case.

v. Margins are flush left and ragged right.

vi. Little or no hyphenation is used at ends of lines.

vii. Ink coverage is dense.

viii. Underlining does not connect with letters being underlined.

ix. Contrast of typeface and illustrations to background is high (70% contrast is recommended).

x. Photographs have a wide range of gray scale variation.

xi. Line drawings or floor plans are clear and bold, with limited detail and minimum 14 point type.

xii. No extreme extended or compressed typefaces are used for main text.

xiii. Sans-serif or simple-serif typefaces.

xiv. No oblique or italic typefaces.

xv. Maximum of 50 characters (average) per line.

xvi. No type is printed over other designs.

xvii. Document has a flexible binding, preferably one that allows the publication to lie flat.

xviii. Gutter margins are a minimum of 22mm; outside margin smaller, but not less than 13mm.

b. Paper:

i. Surface is off-white or natural with matte finish.

ii. Has sufficient weight to avoid "show-through" on pages printed on both sides.

3. Maps

a. The less cluttered the map, the more visitors can use it.

b. The ultimate is a map that has large print and is tactile.

c. Raised line/tactile maps can be developed using digital files and a thermoform machine. Lines are distinguished by lineweight, color, and height. Areas are distinguished by color, height, and texture.

d. Digital maps are located on an accessible website.

e. Same paper guidelines as above.

f. Contrast of typeface background is high (70% contrast is recommended).

g. Proportional letterspacing.

h. Labels set in caps and lower case.

i. Map notes are flush left and ragged right.

j. Little or no hyphenation is used at ends of lines.

k. No extreme extended or compressed typefaces are used for main text.

l. Sans-serif or simple-serif typeface.

4. The text contained in the park brochure should also be available on audiocassette, CD and accessible website. Handbooks, accessibility guides, and other publications should be similarly recorded where possible.

5. The official park brochure is available in a word processing format. This could be translated into Braille as needed.

Guidelines Affecting Visitors with Hearing Impairments

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

Guidelines Affecting Visitors with Learning Impairments

1. The park site bulletin should list any special services available to these visitors.
2. Publications:
 - a. Use language that appropriately describes persons with disabilities.
 - b. Topics will be specific and of general interest. Unnecessary complexity will be avoided.
 - c. Whenever possible, easy to understand graphics will be used to convey ideas, rather than text alone.
 - d. Unfamiliar expressions, technical terms, and jargon will be avoided. Pronunciation aids and definitions will be provided where needed.
 - e. Text will be concise and free of long paragraphs and wordy language.

Wayside Exhibits

Wayside exhibits, which include outdoor interpretive exhibits and signs, orientation shelter exhibits, and bulletin boards, offer special advantages to visitors with disabilities. 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 many interpretive tools which visitors can use to enhance their appreciation of a park.

Guidelines Affecting Visitors with Mobility Impairments

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" from the bottom of the exhibit panel to the finished grade; for vertical exhibits the height of 6-28".
3. Trailhead exhibits will include information on trail conditions which affect accessibility.
4. Wayside exhibit sites will have level, hard surfaced exhibit pads.
5. Exhibit sites will offer clear, unrestricted views of park features described in the exhibits.

Guidelines Affecting Visitors with Visual Impairments

1. Exhibit type will be as legible and readable as possible.
2. Panel colors will be selected to reduce eyestrain 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 audio tours, radio messages, and ranger talks.
5. Appropriate tactile cues should be provided to help visually impaired visitors locate exhibits.

Guidelines Affecting Visitors with Hearing Impairments

1. Wayside exhibits will communicate visually, and will rely 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 Visitors with Learning Impairments

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.