

National Park Service  
U.S. Department of the Interior



# Long-Range Interpretive Plan

Saguaro National Park  
Arizona



# Saguaro National Park

## Long-Range Interpretive Plan

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Saguaro National Park

National Park Service  
U.S. Department of the Interior

**Front Cover:**  
Pristine view of the Sonoran Desert  
showing the diversity of natural  
and cultural resources within  
Saguaro National Park.  
NPS photo.

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# Saguaro National Park and Region

Saguaro National Park

United States Department of the Interior • National Park Service

# Executive Summary

*Using the park purpose and resource significance statements, combined with the primary interpretive themes and visitor experience goals, this plan articulates a vision for the park's interpretive future.*

Seventy-five years ago Saguaro National Park was created to preserve and protect the saguaro cactus, along with the diverse plants and wildlife inhabiting the Sonoran Desert and its associated



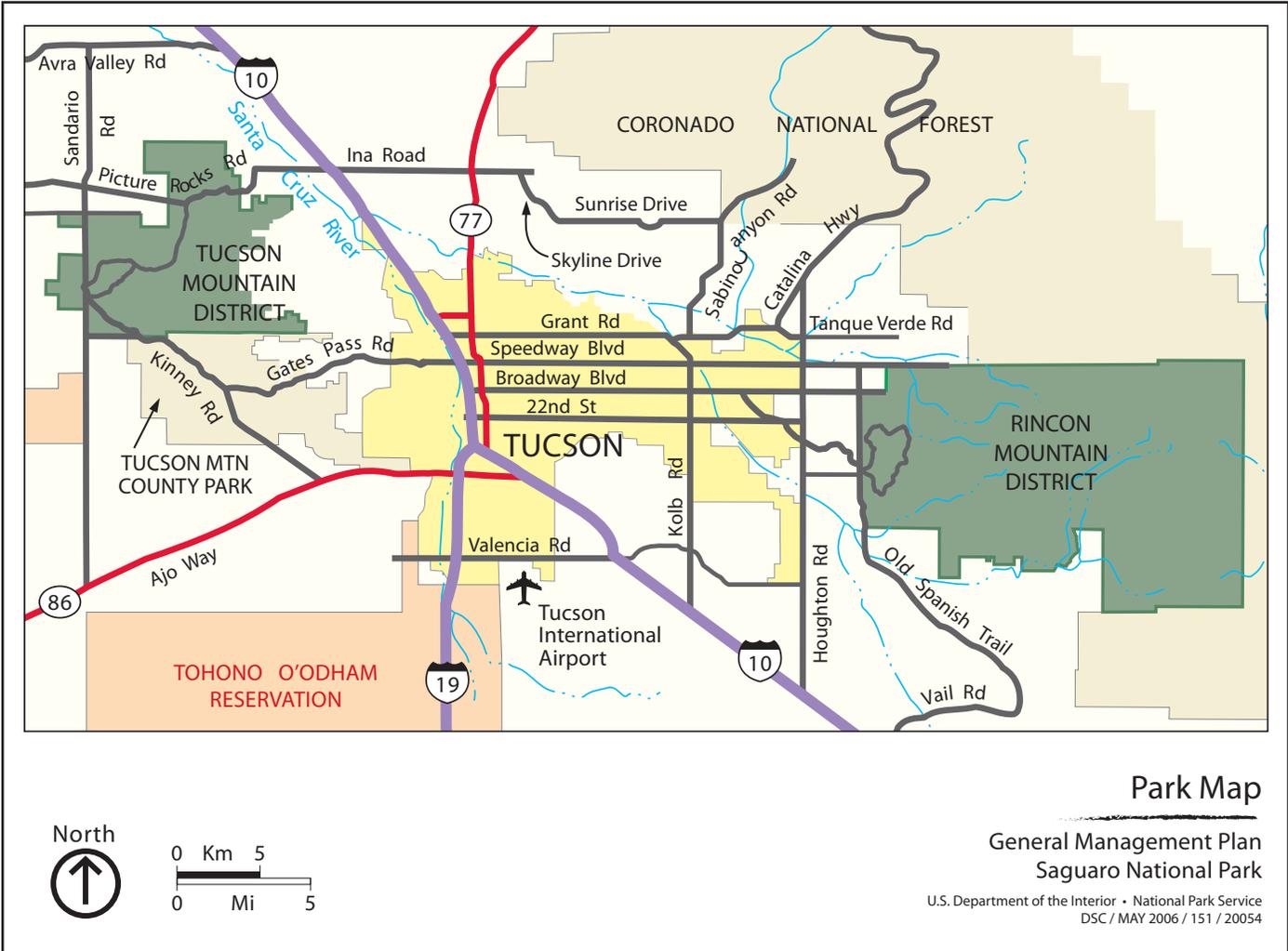
mountain ranges. In the mid-1930's the park was very much a wilderness park – miles away from civilization. Today the park and its two districts straddle a rapidly expanding urban area, home to over one million people. And while the park contains over 71,000 acres of designated wilderness, its close proximity to a large population center presents management challenges. But this also provides Saguaro with extraordinary educational and interpretive opportunities. This LRIP in concert with the park's recently completed General Management Plan will provide necessary guidance and direction for Saguaro's Interpretation and Education program for the next decade. Primary initial recommendations include:

- Depth of information on the park's internet site should be expanded and refined.
- A new Exhibit Design Plan (in progress) for the Rincon Mountain District Visitor Center will integrate new thematic components to best enhance visitor experience.
- A new A/V program at Rincon Mountain District that

compliments the new interpretive themes should be designed and produced.

- The Red Hills Visitor Center should be upgraded to make it more accessible.
- The park will develop a park wide Wayside Exhibit Plan to guide the content, scope, and implementation or upgrade of future and existing wayside exhibits.
- An Annual Implementation Plan should be created and revised yearly.
- All interpretive staff should participate in the Interpretive Development Program.
- A facility for educational programs and junior ranger camps will be developed in Tucson Mountain District.

As Saguaro celebrates its 75<sup>th</sup> anniversary, it's now time for the park to seize upon the opportunities present, with the aid of the LRIP, to engage our diverse populations; to tell the stories of this landscape and its past inhabitants; to promote a sense of stewardship and protection; to maintain its relevancy; and to enhance awareness of this country's incredible national parks.



# Sagguaro National Park

Sagguaro National Park

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# Introduction

*The mission of the National Park Service at Saguaro National Park is to preserve, protect, and interpret the Sonoran Desert's many biotic communities, cultural features, and scientific, scenic, and wilderness values.*

Saguaro National Park protects an incredible example of the Sonoran Desert ecosystem. The park features exceptional stands of Saguaro cactus, critical rare riparian areas, unique wildlife habitats, and (large or impressive or significant) desert mountain ranges. The park's landscape is dotted by places of importance for American Indians, archeological sites, and remnants of more recent history. Saguaro's two districts border the east and west sides of Tucson, Arizona, and have become islands of wildness in a sea of urban development.

Opportunities for visitors to experience this rare combination of preserved wild lands, critical habitats, and a place rife with history and pre-history begin right on the doorstep of many Tucsonans. This proximity presents challenges, but also provides a unique opportunity to acquaint visitors with resources and meanings that are normally much harder to access.

Saguaro National Park is located adjacent to Tucson, Arizona. It consists of two districts that border Tucson on the East and West. The East District encompasses most of the Rincon Mountains and is bordered on the north and east by Coronado National Forest. The West District encompasses portions of the Tucson Mountains, and is bounded by Pima County's Tucson Mountain Park on the south.

## PARK LEGISLATION

The Park legislative statement clarifies and reveals key components of the original enabling legislation and subsequent pertinent legislation that enabled this area as a National Park.

**Established on March 1, 1933 by President Hoover, Saguaro National Monument became Saguaro National Park by an act of Congress on October 14, 1994. Saguaro National Monument was designated a National Park in Public Law 103-364, the Saguaro National Park Establishment Act.**

Several expansions of the park's boundaries have resulted in a total of 91,445 acres being preserved, of which 70,905 acres are designated wilderness.

## THE PLANNING PROCESS

This Long-Range interpretive Plan (LRIP) recommends actions that should occur over the next seven to ten years. It identifies park themes, describes visitors experience goals, and recommends a wide variety of personal and non-personal interpretive services and outreach activities that will best communicate the park's purpose, significance and themes. In concert with the park's Annual Implementation Plan and Interpretive Database, it completes the park's Comprehensive Interpretive Plan, as established in DO-6. In addition, this planning process has been customized to meet the individual park's needs, conditions, and special circumstances. The ultimate product is an effective

and efficient interpretive program that achieves management goals, provides appropriate visitor opportunities, and facilitates desired visitor experiences.

HFC Interpretive Planner Rick Jones contacted Saguaro National Park Superintendent Sarah Craighead in September, 2005. After discussion and agreement regarding an LRIP for Saguaro National Park, Sarah Craighead and Chief Ranger Bob Love determined that District Interpreter Melanie Florez would serve as the park's primary point of contact for this project.

The park and HFC generally agreed that the project would start in the winter of 2005/2006 with a Scoping Trip and Foundations Workshop by the HFC Interpretive Planner. The HFC Planner would also collect information to finalize a Project Agreement and address any unique circumstances or concerns with management. Melanie Florez facilitated the logistics and invitations for the Foundation and Recommendations Workshops.

Barring legislative changes or major new revelations, the foundational elements expressed in this LRIP – purpose, significance, themes, and visitor experience goals – will remain constant over the life of the plan. Specific recommendations about media and programs may need to be updated as staffing, funding, technology, or resource conditions change. Further design documents must be produced to implement some of the goals and recommendations in this plan.

Park Staff at Wayside with Saguaro in Background. NPS photo.



## PARK PURPOSE

Park Purpose describes why an area was set aside and what specific purpose exists for this area. Purpose is derived from legislation, legislative history, public participation, and public rule making. Purpose statements may reflect upon traditional purposes of preservation and enjoyment, the linkages between the management unit and its cultural and natural resources, connections with groups and areas external to the park, and language of the enabling legislation. Additional purposes may have emerged since this area was originally set aside.

The purpose of Saguaro National Park is to:

- **Preserve and protect the saguaro cactus and the diverse vegetation and wildlife habitat of the surrounding Sonoran Desert.**
- **Preserve and protect the mountain and riparian habitats associated with the Sonoran Desert in the Tucson and Rincon Mountains.**
- **Preserve and protect wilderness qualities such as solitude, natural quiet, scenic vistas, and natural conditions.**
- **Promote understanding and stewardship of the park's natural and cultural resources through appropriate scientific study.**
- **Provide opportunities to understand and enjoy Saguaro National Park in a manner that is compatible with the preservation of park resources and wilderness character.**

## PARK SIGNIFICANCE

Park Significance Statements describe the distinctiveness of the combined resources of this park unit. These statements can reflect upon natural, cultural, scientific, recreational, inspirational, and other resources. The statements embody the power of the place through a factual representation of what makes this place special. Usually stated as facts placed in relevant context, these statements summarize the essence of the importance of this park's resources to our natural and cultural heritage. Significances may evolve over time as a result of discoveries and updates to our knowledge about this place.

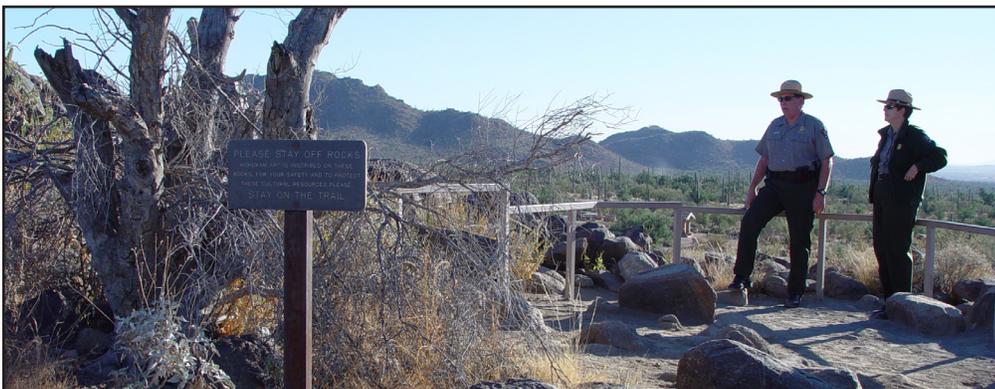
Saguaro National Park has national significance for the following reasons:

- The saguaro cactus biotic community in the park is a superb example of the Sonoran Desert ecosystem because of the density and many generations of saguaro cacti.
- The saguaro is the tallest cactus in the United States and its distinctive form is recognized worldwide as an icon of the American Southwest.
- The park contains abundant evidence of a wide range and long history of human interaction with the land, and has enormous potential for teaching contemporary people about adapting to and thriving in an arid environment.
- The park contains the largest road-less Sky Island in the Sonoran Desert, encompassing a wide range of elevations that support extraordinary biodiversity within a small geographic area.
- The juxtaposition of Saguaro National Park and a large urban community provides for easily accessed wilderness experiences and extensive educational opportunities.

## PARK MISSION

The Mission Statement integrates the Statements of Purpose and Significance for the National Park describing the reason the park exists and the contribution it makes to understand an important part of our nation's history. The mission is derived from this statement.

The mission of the National Park Service at Saguaro National Park is to preserve, protect and interpret the Sonoran Desert's many biotic communities, cultural features, and scientific, scenic, and wilderness values.



Park Staff at Wayside with Sonoran Desert in Background. NPS photo.

## PARK PRIMARY INTERPRETIVE THEMES

*Primary themes should be few enough in number to provide focus for the interpretive program, but numerous enough to represent the full range of park significances.*

Primary interpretive themes are those ideas and concepts about Saguaro National Park that are key to helping visitors gain an understanding of the park's significance and resources. The themes, which are based on the park's mission, purpose, and resource significance, provide the foundation for all interpretive media and programs in the park. The themes do not include everything that may be interpreted, but they do address those ideas that are critical to understanding and appreciating the park's importance. All interpretive efforts (through both personal and non-personal services) should relate to one or more of the themes and each theme should be addressed by some part of the overall interpretive program. Effective interpretation is achieved when visitors are able to associate resources and their values and consequently derive something meaningful from their experience.

The following theme statements will provide the basis for interpretation at the park (the numbers do not denote any prioritization):

1. The dichotomy of the Saguaro Wilderness, so close to a rapidly expanding urban area, provokes and welcomes us to explore the mysteries of nature for spiritual renewal and healing, and also inspires us to protect and preserve similar places.
2. Saguaro National Park's Rincon Mountains are the largest roadless "Sky Island" in the Sonoran Desert: a uniquely pristine and diverse biotic community that provides exceptional opportunities for exploration, education, research, and wonder.
3. People have adapted to, influenced, and lived in the Sonoran Desert since prehistoric times: fruit harvesting and hunting; homesteading and grazing; urbanizing and mining; recreating and exploring; resource and fire management are but a few examples of decisions and subsequent impacts that continue to affect this unparalleled landscape.
4. The Saguaro, the most recognizable cactus in the world, is a symbol with emotional significance spanning centuries and cultures, and is a keystone species in an interdependent community (of plants, animals, and humans) adapted for living and thriving in this harsh arid environment.

Right:  
Visitor Contact Opportunity.  
NPS photo.

Far Right:  
Saguaro Cactus Flower.  
NPS photo.



## DESIRED VISITOR EXPERIENCES

*“Visitor experience” is what people do, sense, feel, think, and learn. It is affected by experiences prior to the visit and affects behavior after the visit. The ultimate goal of interpretation is for visitors to experience strong emotional and intellectual connections with the meanings represented in park resources and as a result become better stewards of these places which characterize our national heritage.*

Desired Visitor Experiences describe what physical, intellectual, and emotional experiences should be available for visitors to Saguaro National Park. These experiences should be available to visitors of all abilities and backgrounds, including those with visual, auditory, mobility, or cognitive impairments. The experiences listed below are priority ranked based on input during the Foundational Workshop.

Visitors to Saguaro National Park will have opportunities to:

- Understand and appreciate the fragile nature of our desert environment and can contemplate their own role and responsibility in stewardship of its natural and cultural resources.
- Experience multiple opportunities to recreate in the park and these activities may include hiking, camping, bicycling and horseback riding. Enhanced access to secluded and wild areas will be provided.
- Access solitude, quiet, and dark night skies.
- Learn about the role of National Parks and the importance of preserving these important places.
- Interact with park employees and volunteers who will provide excellent customer service and are well motivated to assure a quality experience for every visitor.
- Feel welcome and are able to access park resources fully regardless of background and physical abilities. Varied options are provided that allow visitors to experience interpretive and recreational opportunities.
- Explore the park in a safe environment.
- Enjoy safe, clean, and modern facilities.
- Easily access accurate wayfinding and orientation information, in multiple ways and methods, before, during, and after their trip to Saguaro NP.
- Learn about past human activities in the park through long-distance learning, hands on activities, and through on and off site Environmental Education programs for students and classrooms.

- Take materials with them that will assist them in making connections with the resources, exploring the park, and adding meaning to their visit. This may include free materials, items created in interpretive programs and sales items from quality NHA bookstores.
- Experience personal interpretive programs (tours, walks, talks) daily, year-round.
- Gain a broad understanding of how people (past and present) have impacted the Sonoran Desert habitat.
- Harmoniously enjoy the park with a variety of other users groups without negatively impacting it's resources.
- Enjoy multiple types of professionally produced interpretive media including wayside exhibits, interpretive exhibits, film/ AV programs and portable interpretive media throughout the park.
- Feel welcome and experience interpretation and education presented in Spanish for our Spanish speaking visitors.
- Be provided with a variety of interpretive media for exploring the park's front country outside their vehicles on both accessible and intermediate trails.
- Be provided with adequate guidance for a safe and enjoyable visit to the park's backcountry.

## PARK USER AND AUDIENCE PROFILES

Sunset at Saguaro NP.  
NPS photo.



Annual recreational visits to Saguaro National Park have averaged around 700,000 in the last decade. The typical peak period of visitation at Saguaro is January through April. The months with lowest visitation are July and August, perhaps due to the intense summer heat.

Most of the Park's visitors participate in day use activities including hiking, walking, biking, horseback riding, scenic driving and educational programs. Due to the proximity of the park to Tucson, many visitors are local residents and visit the park on a regular basis.

Visitors to the park may be grouped into different categories, depending upon the different ways they may be interpreted to:

**Regular Visitors, Local Residents and Families** constitute a high percentage of visitors to Saguaro National Park and may return to visit frequently. Many are people who retired to the Tucson area. These local residents regularly bring out-of-town guests. They visit the park to hike and ride trails, ride bikes, enjoy other forms of outdoor recreation, watch wildlife, and have small or large group gatherings at the picnic sites.

**International Visitors** have a keen interest in visiting Saguaro National Park, based on the iconic status of the Saguaro Cactus and American West. The park provides Spanish, French, Japanese, Chinese, Dutch, Italian, and German translations of the park's information.

**Fitness Oriented Visitors** utilize the park's roads and trails for recreational activities including hiking, biking, and trail running.

**School Groups** visit both districts of the park, often on guided, curriculum-based fieldtrips led by park staff and sometimes on self-guiding trips.

**Virtual Visitors** may, or may not, physically visit the Park; however, they are a substantial park audience. People utilize the park website in order to plan a visit or to gain information about the park's cultural and natural history.

**Disabled Visitors** are visiting the park in greater numbers. It is vital that we integrate accommodation into all our plans and projects.

**Specialized Groups** utilize the park facilities for their particular interests. These groups range from organized youth groups to church groups to environmental groups. Many of these visits don't take full advantage of the available visitor resources and concentrate on their own particular interests.



Left:  
Specialized Groups.  
NPS photo.

Far Left:  
Park Staff and Volunteers.  
NPS photo.



Above:  
Rock Art.  
NPS photo.

Right:  
Rock Art Wayside.  
NPS photo.

## **EXISTING CONDITIONS, ISSUES AND INFLUENCES**

The following is a summary description of visitor experiences and conditions, as they existed at the onset of this long-range interpretive planning process.

### **PREVISIT, ARRIVAL AND WAYFINDING INFORMATION**

Information regarding Saguaro National Park is available by mail, phone, and on the park's web site. No analysis has been done regarding website effectiveness. Information is also available in several guidebooks like AAA and other Southwest area travel publications. Tucson International Airport lacks substantial wayfinding guidance.

Wayfinding information is available in the places mentioned above and is fairly comprehensive. Signs along the major access roads to the park are fairly dated and do not have consistent design. One routing sign is in place to guide people from Interstate-10 to the TMD and RMD has a sign from each direction. The park plans to update their sign program, utilizing design components from the NPS Graphic Standards.

### **MEDIA OUTREACH**

The park informs the public of upcoming events and special programs through public service announcements and press releases sent to local area newspapers, television and radio stations, and by posting of flyers in adjacent communities. Local park partners also assist in the dissemination of information regarding these programs.

### **WEBSITE**

The park website is a popular way to gain information about the park. Virtual visitors access the website to learn about the park's natural and cultural resources, recreational opportunities, operating hours, and directions to the park. Park websites have become the most widely used form of media by the public.

## **INTERPRETIVE AND VISITOR CONTACT FACILITIES**

### **Rincon Mountain District (RMD) Facilities**

The Rincon Mountain District visitor center was originally constructed in 1953. An extension and parking lot were added in 1959 as part of the Mission 66 project. This building houses the visitor use area (lobby, sales area, exhibits and auditorium) and office space for interpretive, WNPA, protection and fee management staff. The current building is grossly undersized for the amount of visitation and staff assigned to work there. The visitor center exhibits for the most part are outdated, worn and lacking in any interactive capability. The initial steps have been taken to develop an exhibit plan for the visitor center. The orientation slide program is outdated and is in severe need of replacement.

The parking lot is the same physical size and design as when it was built in the late 1950's before buses and recreational vehicles paid regular visits to the park. Over the years several parking spaces have been lost to accessible parking spaces and a "no parking" zone for the fire hydrant. During the busy times of year, the parking lot is often filled to capacity. During busy times the line at the fee kiosks backs up into the parking lot resulting in "traffic jams" and dangerous conditions for



Original Exhibits Interior.  
NPS photo.

pedestrians and drivers. During these times many visitors have to drive into the park without stopping at the visitor center.

The Cactus Garden, located in front of the visitor center, is a landscaped area featuring many of the common desert plants. Many plants have died and the garden is in need of major replanting. Recent years of drought have also taken their toll on the garden. The asphalt surface of the trail in the garden area is in poor condition with numerous cracks and rough areas.

The Freeman Homestead Nature Trail is a one-mile loop trail that is in good condition. A portion of the trail travels through a wash and wayfinding can sometimes be difficult here. Africanized Honeybees have also been spotted along this wash and a reroute of a portion of the trail has been established to guide visitors away from possible bee activity.

Desert Ecology Nature Trail is a ¼-mile paved loop trail that is wheelchair accessible. This trail is in fair condition and the park's Cactus Rangers assist in the maintenance of the trail. The trail surface is cracked and rough and needs replacing with concrete to make it more sustainable and easier to maintain. The aluminum exhibit panels are outdated and some have been vandalized.

### **Tucson Mountain District (TMD) Facilities**

TMD's Red Hills Visitor Center is an attention-grabbing architectural structure that blends well with the surrounding desert scenery. The park receives many compliments on the structure. Built in 1994, the building and parking lot are in good condition. Storage areas and office space are inadequate. Wooden entrance doors are exposed to the sun and need frequent maintenance. AV equipment is outdated and obsolete and needs to be replaced.

TMD Nature Trails – Paved trails at the VC and the ‘Desert Discovery’ trail are in poor condition with cracked and rough surfaces. Both trails need to be replaced with concrete to make them more sustainable and easier to maintain. Shade structures along the Desert Discovery Trail are in poor condition and need to be replaced with more sustainable structures. Many of the wayside exhibits on the trails are old and refer to the park as the “monument”. Many are faded or vandalized. Different media have been used throughout the park.

## **INTERPRETIVE MEDIA RESOURCES AND MATERIALS**

RMD has a variety of interpretive materials available for use in programs. A Night Walk box has been created for evening activities, which includes props and activity suggestions. There are nine traveling trunks available for use with all types of school and scout groups. Each trunk contains an assortment of props and lesson plans for a variety of age groups. Our current trunks include:

- Bats
- Birds
- Career Day
- Desert Mammals
- Desert Tortoise
- Ethnobotany
- Invertebrates
- Reptiles
- Saguaro Cactus

TMD has a collection of interpretive props, which staff may sign out for their programs. These props are inventoried and listed by category for easy reviewing by the staff. All Traveling Trunks are available for check out as well.

## **SLIDE – PHOTOGRAPH – DIGITAL IMAGE COLLECTION**

The park has an extensive collection of slides, with approximately 50,500 images. These are catalogued and most have duplicates, which are available for use in interpretive programs and products. Park staff is in the process of scanning this collection and these images will be available digitally to the staff on the park’s computer network. There is also an extensive digital photo collection and this is being organized on the park’s computer network for easier access. The majority of the park’s historic photos are stored at the Western Archeological and Conservation Center (WACC) and are available for use by staff through an appointment with WACC.

## **EXHIBITS**

### **Wayside Exhibits**

#### **Rincon Mountain District**

All new wayside exhibits at RMD are fiberglass-embedded panels. Staff will continue to replace the older, often outdated anodized aluminum panels with fiberglass panels as staffing and funding permit. A wayside exhibit inventory was completed in FY06, which lists all existing panels.

### *Current waysides:*

- Cactus Garden (in front of RMD VC) – 27 small, aluminum signs
- Freeman Homestead Trail – 6 fiberglass panels
- Desert Ecology Trail – 8 aluminum panels
- Loma Verde Mine – 1 aluminum sign
- Lime Kilns – 1 aluminum sign
- Manning Camp – 1 fiberglass panel

Cactus Forest Loop Drive – 12 fiberglass panels

*Trailheads* – 1 fiberglass sign at each of the following trails: Douglas Spring, Wildhorse, Loma Verde, Tanque Verde Ridge, Broadway and Loma Alta trailheads.

### **Tucson Mountain District**

The waysides at TMD are a collection of mixed media, i.e. anodized aluminum, fiberglass embedded silkscreen, and porcelain enamel.

### *Current waysides:*

- Red Hills Visitor Center – 8 waysides
- Cactus Garden – 12
- Javelina Wash Trail – 2
- Desert Discovery Trail – 11
- Signal Hill Waysides – 5
- Major Trailheads – 5
- Valley View Trail – 12
- Waterhole - 1



### **Visitor Center Exhibits**

### **Rincon Mountain District**

Many of the exhibits in the RMD visitor center were done in the 1950's and 1960's. Many photos were upgraded from black and white to color in the early 1990's. Two newer exhibits were added in the 1980's. One very outdated panel was replaced about 3 years ago.

The current exhibits tell several stories, including:

- Desert, both worldwide and in the U.S.
- Desert Plants and Animals
- Saguaro Cactus
- Venomous Creatures
- History of Manning Cabin
- Geology/Weather

The lobby of the visitor center features a “Velcro” bulletin board, which advertises upcoming events, any safety concerns, and temporary displays that can be changed out to fit the season. There is also a smaller bulletin board that displays information about the Friends of Saguaro National Park. Near the large picture window is a small table and chairs designed for children, with age-appropriate activities.

## Tucson Mountain District

In addition to wayside exhibits on the balcony and patio of the VC, the main lobby inside the VC has four main exhibits.

- ‘Habitat’ - This exhibit consists of a large glass enclosed diorama which contains life-size plants and animals of the area. The back of the exhibit depicts a cutout of the interior of a saguaro cactus and a view underground of burrows, etc. Two diagrams around the perimeter show outlines and names of the items inside. Four television monitors around the perimeter automatically play five short video presentations in rotation. These presentations have captions that can be changed into German or Japanese text and play background noises such as birdcalls, water sounds, etc., to illustrate the programs. All four screens change the language text at the same time. These AV programs are played on a disc player, recently replaced.
- Desert Spring’ – This exhibit consists of a large mural depicting a scene of the desert with spring wildflowers. Small 3-sided sections of the plants depicted can be rotated by visitors to show a close-up of the flower on one side and text information on another side.
- Information/Orientation exhibit. These panels contain information that orients visitors to roads and trails, time management, safety, available site bulletins, and the volunteer program.
- Saguaro Fruit Harvest. This exhibit consists of a series of photos and text depicting the harvest and processing of the saguaro cactus fruit by the Tohono O’odham people, the American Indian group that has strong cultural ties to the saguaro cactus and the park area.

In addition to these main exhibits, there are several minor exhibits in the VC lobby. Two bulletin board type exhibits contain information about interpretive programs that are offered. Three other exhibits promote the park’s Friends Group. A small area of the VC is ‘Kids Corner’ which contains activities for children.

## Audio / Visual Presentations

### Rincon Mountain District

The auditorium at the visitor center is 32’ long by 12’ wide and seats 48 people. The screen is 8’ wide by 6’ high. “A Home in the Desert” is a 15-minute slide presentation, on DVD, offered every half hour at the RMD VC. This program was created in the late 1990’s by park staff and funded through the WNPA’s Interpretive Support Account. U.S. Film and Video in Denver produced the program. This program discusses both the desert and mountain regions of Saguaro National Park’s east district, highlighting some of the plants and animals that live here, and offering suggestions for visitor activities.

A 53-minute video, “Sentinel of the Desert”, is shown at 1:00 p.m. each day. This is a PBS production and focuses on the saguaro cactus and its interrelationships with other desert plants and animals.

## Tucson Mountain District

The Visitor Center theater holds 64 persons and has a large (18') screen with retractable curtains that reveal the desert landscape after the show. A three-projector dissolve program, 'Voices of a Desert', is shown every half-hour daily. This narrated program presents thoughts and beliefs about the desert from the Tohono O'odham people. The audio portion of the program is played on obsolete disc players. The narration is transmitted on short-range radio in three languages (German, Japanese and French) and an audio description of the slides is also available. Personal headset devices that are loaned to visitors can receive these radio narrations. An open captioned reader bar in the theater also displays the text.

Four television monitors around the perimeter of the 'Habitat' exhibit automatically play five short video presentations in rotation. These presentations have captions that can be changed into German or Japanese text and play background noises such as birdcalls, water sounds, etc., to illustrate the programs. All four screens change the language text at the same time. These AV programs are played on a disc player, which is now obsolete.

## Publications

### Free Publications

- Arizona State Parks and Map
- Attractions in Southern Arizona
- BATS – “Who’s At Bat for the Saguaro?”
- BEES – “Africanized Honeybees”
- BIRDS – “Southeast Arizona Birding Trail” map
- Cacti of Saguaro NP
- Camping in Tucson Area
- DOGS - “Hiking with Dogs – Tucson Area”
- Desert Wonders – Middle School
- Eastern Pima County Trailheads Guide
- Educational Opportunities
- Endangered and Threatened Species
- Employment Opportunities
- Equestrian Etiquette
- Federal Recreation Passport Program
- For All to Enjoy General Information
- Flowers – “Desert Flowers”
- Geology
- GILA MONSTERS – “Living with Gila Monsters”
- History of Mining in Saguaro NP West
- Ironwood Forest NP Maps
- Javelina
- Junior Ranger Booklets
- Kids Corner Drawing Sheet
- MAP - Downtown Tucson map
- MAP - Tucson City map
- Non- Native Plants in the Sonoran Desert
- Prickly Plants & Peculiar Pronunciations
- Rincon Mt. Wilderness Trails
- RMD Hiking – “Hiking in the Cactus Forest”
- Rincon Valley Area
- Rock Art
- Saguaro Cactus

- Saguaro NP Brochure
- Saguaro Sentinel (The Park Newspaper)
- Shower Facilities
- Signs of Life
- SNAKES – “For Goodness Snakes”
- TORTOISE – “Desert Tortoise”
- TORTOISE – “Encountering the Desert Tortoise”
- Trails In The Tucson Mountains
- TRANSLATIONS – French, German, Italian, Japanese, Spanish, Dutch
- Travel Distances from Red Hills VC
- Tucson Mt. Park Regional Maps (County Park Trails)
- Visitor Comment Cards
- Volunteers in Parks
- You Can Get There From Here

### WNPA Sales Items

Western National Parks Association operates a sales outlet at both district visitor centers. A wide range of items is sold. The majority of items are educational and a few, such as film, sunscreen and hats, are for convenience and/or safety. New sales items are reviewed and recommended by park staff on a regular basis throughout the year. A newly update Scope of Sales would be valuable.

A sampling of park-relevant items includes:

- “Saguaro National Park” (WNPA publication)
- “Frequently Asked Questions about the Saguaro”(also WNPA)
- “Sonoran Desert: The Story Behind the Scenery”
- “50 Common Insects of the Southwest”
- “Field guide to Desert Holes”
- “Field guide to Plants of Arizona”
- “Finding Birds in Southeast Arizona”
- “Flowers, Shrubs and Trees of the Southwest” (4 book set)
- “How Indians Used Desert Plants”
- “Low Water Use Plants”
- “Natural History of the Sonoran Desert”
- “Western Amphibians and Reptiles”
- “Saguaro: the Desert Giant”
- “Mammals” (Peterson field guide)
- “Birds of Western North America” (Sibley)
- “Sing Down the Rain”
- “Tucson Hiking”

### Media Assets

Media assets include other park resources available to interpretation that support the design of personal services programs or interpretive media.

### Museum Collection and Archives

The majority of the cultural history collection is currently stored at the Western Archeological and Conservation Center (WACC) in Tucson, Arizona. The natural history collections are currently stored at WACC, the University of Arizona, and the University of Minnesota. There are a few rock specimens from the collection on display in the RMD visitor center.

## Park Library

Saguaro National Park has two libraries; the larger library is maintained at the Rincon Mountain District, while a smaller, “branch” resides at the Tucson Mountain District. RMD’s library collection has been converted to the Library of Congress cataloguing system, and will soon have a bar code scan checkout system. The collection has been culled recently and new titles are being added each year as budget permits. RMD’s collection will soon be available for on-line searches by park staff; the collection will not be available to the general public. The library has approximately 1200 titles, including books, reference materials and videos.

TMD maintains a small library of approximately 900 books, 60 videos/tapes, and a few dozen magazines and references articles. These collections are catalogued\* and are available to staff on a daily basis. All materials may be checked out except for reference books.

*\*Currently under the Dewey Decimal system – to be changed soon to Library of Congress system*

## Personal Services

### Rincon Mountain District

Interpretive programs range from slide presentations to short garden strolls to longer walks and extensive hikes in the desert. From November through April, a weekly schedule of activities is offered to visitors. Throughout the year, special evening lectures, Night Walks and Star Parties are offered on a monthly basis. The themes of these programs include many aspects of the desert natural and cultural history.

- Daily Talks and Walks – these include slide programs in the VC auditorium, 30-minute garden walks, patio talks and 2-hour walks on 1- to 2-mile trails.
- Longer hikes of 3 to 4 miles are offered several times each week on a variety of trails.
- Night Walks - 2-hour, 1-mile walks are offered throughout the year (as staffing levels permit).
- Star Parties – offered at the VC and on the patio several time a year.
- Evening Lectures – offered once a month on a variety of topics, presented by park staff and local experts.
- Bird walks are offered weekly From November to April.

RMD offers a variety of curriculum-based EE programs free of charge to the local schools, both public and private, and many other youth-oriented groups, reaching an average of 2,500 children each year. Programs meet Arizona State Standards for 3<sup>rd</sup> and 4<sup>th</sup> grade science and social studios. Offerings include fieldtrips to the park, classroom visits and presentations at community recreation centers and public libraries.

- Desert Characters (preschool, kindergarten and first grade) – offers an introduction to desert plants and animals.

- Desert Discoveries (3<sup>rd</sup> grade) – takes students on a 1-mile hike to discover how plants and animals adapt to life in the desert.
- Desert Communities (4<sup>th</sup> grade) – rotates students through a series of stations that explores various aspects of human life in the desert.

### **Tucson Mountain District**

The majority of the personal interpretive services are offered during the busy season, November through April. Lack of staffing and temperature extremes prevent many personal programs from being offered during the remainder of the year.

- Daily Talks and Walks – Short (30-60 minute) talks, walks, and slide or power point programs are offered several times daily during the season. These are offered on the patios, balconies, trails and small meeting room in the immediate vicinity of the VC.
- Longer Guided Hikes – Longer (2-4) hour guided walks and hikes are offered several times weekly during the season. These are generally offered on trails in a variety of areas throughout the park.
- Moonlight Programs – Each month during the week of the full moon, three guided hikes and a patio talk are offered.
- Bird Walks – Guided ‘Bird Walks’ are offered once a month, year-round.
- Special Programs – Special guided hikes, such as “Wildflower Hikes” or other special programs are offered seasonally or on an irregular basis.

TMD offers a variety of curriculum-based environmental education programs from field trips to the park and classroom visits. All programs meet multiple state standards. Programs are presented to public, private, and religious based schools, home school organizations, and colleges reaching approximately 6,000 students a year. Programs are presented to a wide diversity of social and economic communities in and outside the greater Tucson area. Through a variety of avenues the EE staff reaches underserved populations in these communities. Over 50% of all programs offered are to schools where the majority of the students are participating in free or reduced lunch programs.

- ‘Desert Communities’ is an outdoors, hands-on program for 4<sup>th</sup> grade exploring the interrelationships of the plants, animals, and people of the Sonoran Desert.
- ‘Desert Wonders’ offers grade 1-6 a broad overview of the Sonoran Desert through exploration of the Red Hills Visitor Center and nearby trails.
- ‘Desert Biomes’ reaches Junior HS or HS students and integrates school curriculum with scientific, cultural, historical, and natural aspects of the park.
- The Desert Tortoise Tracking Program brings middle and high school biology/science students into the field to radio track desert tortoises while learning about their ecology and conservation.



Right:  
American Indian Cultural Fair.  
NPS photo.

Below right:  
Junior Ranger Camp.  
NPS photo.

## Parkwide Personal Services

### Special Events:

- The annual American Indian Heritage Cultural Fair is held one Saturday in November at the Tucson Mountain District. The event includes craft demonstrations, American Indian dancers and musicians and guest speakers.
- Other special events are planned and presented as appropriate (including Manning Cabin turning 100 in 2005 and Saguaro NP turning 75 in 2008).
- A Fiesta celebrating the Hispanic heritage of this area is held each April at the Rincon Mountain District. Activities include local musical and dance groups, children's activities and traditional Mexican food.

### Junior Ranger Programs:

Self-guiding program – Both districts offer a self-paced Junior Ranger Program. A workbook and backpack (filled with things such as field guides and binoculars) are checked out and the child completes the activities. The child returns to the visitor center and a park staff member checks the workbook and swears the child in as a Junior Ranger. The participant receives a Junior Ranger badge and a personalized certificate. Two levels of workbooks are offered, one designed for very young children (4 – 6 years old) and an expanded, more challenging version for older children.



## Junior Ranger Camps

- RMD offers summer Junior Ranger Day Camps during June. There are 4 3-day sessions, 2 for children ages 6 – 8 and 2 for ages 9 – 11, with each week open to 20 participants.. These day camps offer children a variety of learning activities, including hiking and outdoor exploration, crafts, games and presentations by park staff. A small fee is charged to cover camp supplies. during the summer months. A small fee is charged to cover camp supplies.
- TMD offers Junior Ranger Camps during various school breaks and has started a series of one-day Family Junior Ranger Camps that are offered during the summer months. A small fee is charged to cover camp supplies.
- Cactus Rangers - both districts offer Cactus Ranger programs for local children. These groups meet once a month for activities including fieldtrips, maintenance projects, assistance at park special events, assistance with Junior Ranger camps, hikes in the park, and special presentations.

## Environmental Education School Visits:

- Traveling Trunk presentations are designed to enhance classroom lessons and units. These programs are presented in the classroom by park staff. Trunk topics include bats, birds, reptiles, invertebrates, Ethnobotany, desert tortoise, Saguaro cactus, and desert mammals.
- Pre-visits – Both districts offer pre-visits for their fieldtrip programs, including Desert Discoveries, Desert Communities, and Desert Biomes.
- “Love of Reading Week” – park staff assists schools in celebrating this event. Books on desert natural and cultural history are read to classes, accompanied by hands-on materials. Park staff has assembled kits for this activity.
- Career Days – staff participates in several Career Day events a year, from elementary school career days to college job fairs. A traveling trunk is available for these events, which include age-appropriate materials.
- Special Request EE Programs – as staffing and time permit, staff will work with schools and other groups to fill special program needs, both in the classrooms and in the park. We do several scout programs a year and adapt programs to meet the needs of the many home school groups in Tucson.
- A Teacher’s Guide is available on the park web page to teachers, which offers classroom lesson plans for grades 3 – 5.

## Partnerships

### Cooperating Association

Western National Parks Association (WNPA) operates the bookstore in both visitor centers. The sales area contains a variety of site-specific publications, including history, botany, animals, geology, recreation, and theme-related items (t-shirts, ball caps, pins, magnets, etc.). WNPA donates 6.5% of its sales each year to aid the park interpretive program.

## **Rincon Institute**

The Rincon Institute, whose main focus is preserving Sonoran Desert ecology, has worked with the park in several instances and the park would like to expand that relationship.

## **Volunteers in Parks Program**

Saguaro National Park maintains a Volunteer-In-Parks (VIP) program to enhance the interpretive mission of the park. Numerous volunteers help conduct interpretive programs, present environmental education programs, and assist with staffing the visitor center information desks throughout the year.

## **Friends of Saguaro National Park**

Saguaro National Park benefits from an active and engaged friends group, the Friends of Saguaro National Park, which provides a connection to the local community and alternate funding for programs. The group is particularly helpful with fundraising and assistance with special events. This is an outstanding partnership that should continue to be nurtured.

## **Sunnyside School District**

The park has developed a partnership with the Sunnyside School District to develop programs that targets underserved students. Saguaro National Park is participating in the Teacher-to-Ranger-to-Teacher program and strives to involve teachers from this district. Two Sunnyside teachers worked in this program during the summer of 2006 and 2007, assisting with Junior Ranger camps and evaluating existing environmental education programs to ensure they meet state standards.

## **ISSUES AND INFLUENCES**

These safety, resource, and management issues could be addressed through interpretation.

### **Visitor-related resource and safety issues**

- Develop unified messaging for visitors concerning border issues and safety.
- Increased presence of uniformed employees in the field, to facilitate contact with visitors where they are recreating.
- Enhanced coordination with the Protection Division for visitor and staff safety.
- Safety and awareness issues regarding bears and mountain lions, Africanized honey bees, rabies and similar threats.
- Guidance and information regarding proper equipment, the harsh climate, communications, staying on trails, etc.

### **Other Management Issues**

- Demographics of visitation do not represent community makeup.
- Declining participation at Junior Ranger Camps (especially at TMD).
- Declining participation in EE programs (especially at RMD).

# Recommendations and Implementation Strategies

*Ultimate goals of recommendations are to support management's strategies and to provide visitors opportunities to connect with the meanings inherent in this park's resources.*

Interpretive planning assesses current conditions and formulates recommendations that will provide direction and focus to achieve the desired Future Interpretive Program. The discussion of each program or media proposal identifies its place within the overall strategy, special considerations and sometimes will suggest specific theme / location pairing to facilitate a desired interpretive outcome. These suggestions should provide a framework for the park's strategic vision, but should not limit the creativity and scope so essential when planning specific programs and media. These recommendations contain both long-term and short-term strategies which may be very helpful when preparing the Annual Implementation Plan and related funding requests.

## Pre-Visit Orientation, Information, and Way finding

General and trip planning information regarding Saguaro National Park will continue to be provided by traditional means such as regular mail, phone, website, and e-mail. All mailed information should include the park's web site address, so that visitors may easily access more in-depth information. Critical information regarding access, weather, and safety should be included in all communications.

Adequate, clear information should be provided at some distance from the park so that potential visitors are given the tools and motivations with which to make a decision as to whether to visit the park. As minimal public transportation is available to take visitors to the site, visitors typically access the Park by vehicle and rely on signs to direct them to points of interest and the Visitor Center.

## Recommendations:

- Develop unified messaging for visitors concerning border issues and safety.
- Continually update training for all employees and volunteers on park information, way finding, and informal visitor contacts. Park staff should understand the value in providing excellent visitor services.
- Assure that up-to-date orientation information is available at our partners' sites and related tourist contact points. Local airports, visitor information centers, libraries, other agency offices, and military offices were mentioned in the workshops.
- The workshop team found great value in a live person answering the phone during office hours. They felt that the extra services and opportunity for the visitors outweighed the additional staffing cost.
- Develop an updated Park Sign Plan that includes the wayfinding signs that direct visitors to the site and internal points of interest. These signs should conform to the NPS sign standard and enhance agency identity in this region of the country. This consistent, recognizable design may develop greater "brand identity" for the park. The park should work cooperatively with the City of Tucson, Pima County and the Arizona Dept. of Transportation on this issue.

- Expand the depth of information on the park’s internet site. This is an excellent venue to whet the appetite of the potential park visitor, while providing solid wayfinding information. An overview on how to safely visit this area is critical. This can also be a wellspring of information to historians and academics, who look to the park for solid research and information. The park website should continue to make available translations of the Unigrid Brochure in Dutch, French, German, Italian and Japanese.
- Review internal and external printed and electronic tourism literature promoting Saguaro and associated sites to assure that it is accurate, appropriate, and up to date.
- The park should also continue to self-publish the wide array of site bulletins that are available in print at park visitor centers and on-line at the park website.

### Arrival and Orientation

The visitor is welcomed to the park with traditional park entrance signs and directional signs to the main parking areas, roadways and other points of interest. Some visitors are stymied by the lack of coordinated orientation and wayfinding signs, especially in the Tucson Mountain District. Improving the visitor’s ability to get oriented and understand their options is a major factor in the improvement of the visitor’s experience.

### Recommendations:

- Develop an updated Park Sign Plan that includes wayfinding/orientation signs that direct visitors to points of interest. These signs should conform to the NPS sign standard and enhance agency identity in this region of the country. This consistent, recognizable design may also enhance greater “brand identity” for the park as mentioned above and the park should work cooperatively with other agencies during this process.
- Park Brochures are a recognizable and desired method for visitors to receive their initial introduction to the park and its resources. Saguaro’s park brochure, produced by Harpers Ferry Center (HFC), provides an overview of the park story and effective orientation in both English and in Spanish, but it is due for a re-vamp which should integrate new thematic material and changes in visitor opportunities.
- Road signage identifies park entry points and visitor use areas by site name. However, the identity of these sites as part of Saguaro National Park is not always clear because many road signs do not reveal an indication of the Saguaro National Park or National Park Service identity. Since other parklands administered by other governmental entities (Tucson Mountain County Park and Coronado National Forest) adjoin Saguaro National Park, this results in some ambiguity for the driving visitor regarding the destinations signed. The park should produce a new set of orientation/directional signs that conforms to the NPS Graphic Standard and provides an integrated system for guidance that visitors can recognize throughout the Park. A Sign plan is currently being developed, in concert with Harpers Ferry.
- Information distributed on the web, in publications, and by downloadable means should continue to be available in other languages, particularly in Spanish.

- Continue to produce the Park Visitor’s Guide newspaper, as it is a valuable asset to orient visitors and invite them to begin investigating the stories here at Saguaro.
- Develop a model of the outdoor terrain that is utilized in a consistent way throughout the Park to provide a fuller, more understandable experience for visitors. It may be the best method to communicate the radical topography that forms this Park. A 3-D model could be placed at critical junctions, with versions available via printed material, the Park website, and downloadable for those with appropriate devices.
- Develop an assessment of where visitors are going and what they are doing to help with future planning processes for new exhibits, area access and structures.
- Safety information should be integrated into all facets of the visitor experience here at Saguaro, beginning with pre-trip planning.
- Continue coordination with ADOT to maintain adequate directional signs on roads leading to the Park. It is especially important to maintain or establish those signs at critical decision points in a traveler’s journey to Saguaro.
- Downloadable information including A/V, MP3 and PDF files, offered at the park’s website and other venues should include wayfinding, orientation and safety messages. Pod casts or equivalent A/V files could include that information and expand into more in-depth orientation and interpretive information. See [www.parkcast.com](http://www.parkcast.com) for insight on what other parks are offering.

## Visitor Centers

There are two primary visitor contact stations, one in each district, which are staffed by NPS employees year round. Both contain a desk for visitor contact, a Cooperating Association bookstore, and several interpretive exhibits. The facility at TMD is fairly new and in good condition, although some of the exhibits are beginning to show some age-related deterioration. The facility at RMD is very old and while some upgrades have improved the visitor experience, there is a great need for new exhibits in this VC.



Tucson Mountain District Visitor Center. NPS photo.

To create successful exhibits in the limited space at RMD, the park faces several of the same challenges they face in any of their interpretive work. First, the sheer number of people occupying the site is an influential factor in many park decisions. Crowds have several implications for exhibits. To accommodate big crowds, an exhibit must leave sufficient room for people moving around and stopping to look. Often, this means leaving significantly more square footage for people than for displays. Every component of an exhibit must justify the space it consumes, as well as the space occupied by people looking at it. Large crowds also influence decisions about content and quantity as exhibits that don't effectively support major interpretive themes are hard to justify and displays in the middle of a room require more viewing space than displays along the walls. Use of audiovisuals can be problematic also, due to ambient noise and the amount of time people have to experience an exhibit.

### **Recommendations:**

- A Visitor Center Schematic Plan should be considered for both Visitor Centers. This plan would specify visitor experience opportunities for this facility, more specifically relate Interpretive Themes to particular exhibit designs and content, create bubble diagrams or floor plans, a visitor walkthrough narrative, and provide three dimensional views of any proposed new exhibits or modifications to the existing exhibits, theatres, or information desk. Access and lighting would also be addressed. This plan will inform any decisions to be made on exhibit and facility upgrades over the life of the plan.
- A new Exhibit Design plan (already in progress) for the RMD Visitor Center would facilitate the integration of new thematic components to best enhance the visitor's experience and understanding. New exhibits could be designed to incorporate all the needed exhibit purposes into a consistent and professional design which would better meet the modern visitors' needs, engage visitors' interest more strongly, and make the best use of space. The new exhibits should also be designed to coordinate with the pre-existing, recently upgraded WNPAs Sales Area and Information Desk.
- The planning team recommends that audience evaluation be conducted as part of any new media development. Many of the media elements in the park are old, and visitors are more diverse than in the past. It would be valuable to conduct front-end evaluation to determine what visitors already know and what they might like to experience in the park; formative evaluation to test proposed exhibit concepts before final production; and summative evaluation to fine-tune the exhibits after installation. Evaluation will increase the cost of exhibit development, but will probably add value during the life of the exhibits by insuring that visitors' needs are being met. Appended below is an HFC document on exhibit evaluation.

### **Visitor Center Exhibits**

New exhibits at the Rincon Mountain District Visitor Center could be designed to incorporate all the needed exhibit purposes into a consistent and professional design which would better meet the modern visitors' needs, engage visitors' interest more strongly, make the best use of space, give a more elegant appearance, and be easier to maintain and sustain. These would include the display of interpretive exhibits containing artifacts and fragile models; the presentation of videos/computer programs; the display and sale of books, videos, and other

educational materials; and a space to interact with rangers and interpreters. All of the exhibits in the visitor center will be available for rangers to use in informal or formal interpretive talks. Of particular use might be an updated 3-D terrain model. In addition, with a reconfigured exhibit space, the view to the pond area behind the visitor could be integrated with the long distance views to introduce the “Sky Island” concept.

The exhibits at the Tucson Mountain District VC are more modern and better coordinated than those on the RMD side, but they too are beginning to show their age. Visitors seem to particularly like the A/V components integrated into the exhibits and have a great affinity for the current film and curtain opening finale (when it is working).

### **Specific Recommendations for the Rincon Mountain District Visitor Center**

- An improved 3-D terrain model of the park would be a useful addition to the exhibit area. Associated with it could be a map of the surrounding area to show access points. The dramatic changes in elevation in the park would work well in the model which could be colored to show the various vegetation and landform types. The model should be fabricated of durable materials to allow touching. A visitor with vision impairments could get a good concept of the radical topography. Once the model is fabricated, additional models could be produced for reduced cost, perhaps half the cost of the first. A color model made of fiberglass or plastics would probably not be practical for outdoor use, but metal castings could be made for use at other sites. Feelings were mixed about keeping a version of the current relief map, although most agreed that an upgrade which included the advantages of a 3-dimensional model, either static or created via A/V would help visitors really understand the scope of these resources. Being able to print-out a certain view represented in the display was also suggested.
- The recently-prepared exhibit proposal calls for the exhibits room at this visitor center to focus primarily on two of the park’s interpretive themes, including the ecology of the saguaro cactus and related desert species (Theme #4) and the cultural heritage of this area (Theme # 2) Orientation information and information on the park wilderness (Theme #1) will be addressed in displays in the visitor center lobby.
- The Cactus Garden should be re-vamped and better maintained, as it is one of the first things visitors encounter before entering the Visitor Center. It was felt that many people utilize the Cactus Garden and then don’t go inside the building, so it may be helpful to have materials that encourage visitors to go inside the Visitor Center after experiencing the Cactus Garden
- The tentative expansion of the RMD Visitor Center, as specified in the current GMP’s Preferred Alternative, to provide additional office and exhibit space should be encouraged. This could greatly benefit visitor experience in this facility with more usable space being available for personal and non-personal Interpretation.
- The general layout was deemed fairly cramped and some participants wondered if the configuration of the Exhibit Room and A/V Theatre might be reconfigured, although no specific recommendations were forthcoming.

- Exhibits here might be crafted to support educational activities that take place here at the VC and surrounding area.
- The current Slide Program is very dated and a new A/V program that compliments our new interpretive themes needs to be designed and produced.
- The Exhibit Design Plan mentioned above would compliment a Visitor Center Schematic Plan or some other method which would assess visitor flow in the somewhat constrained space in the VC. This plan would also confirm which Themes could best be presented in this indoor, rather cramped venue.
- Virtual experiences portrayed in these exhibits would not only whet the appetite of visitors who will explore more of the area, but will provide access to differently-abled visitors. A “Virtual Trip” to the top of the Rincons, by hiking and horseback was suggested in the workshop. These virtual trips could also be downloaded to personal video devices as mentioned below.
- Exhibits should include static displays, and interactive A/V components, along with the ability to provide a download of programs crafted for handheld video devices like Ipods. These programs could expand upon the messages in the display area .
- It was generally agreed that exhibits here would benefit from having “touchable” components that would provide different sensory inputs than the norm for visitors. These could compliment the touch opportunities already available in other areas of the VC.
- Exhibits should include options for translation to different languages including those from other countries and particularly Spanish.
- Many participants felt that the exhibits could reveal immediate connections with adjacent areas like the Cactus Garden and Waterhole, which could in turn lead visitors out to experiences the resources first hand.
- The planning team recommends that audience evaluation be conducted as part of any new media development. Most of the media elements in the park are old, and visitors are more diverse than in the past. It would be valuable to conduct front-end evaluation to determine what visitors already know and what they might like to experience in the park; formative evaluation to test proposed exhibit concepts before final production; and summative evaluation to fine-tune the exhibits after installation. Evaluation will increase the cost of exhibit development, but will probably add value during the life of the exhibits by insuring that visitor’s needs are being met.
- Participants felt that an integrated story could be told by these exhibits, rather than a set of individual vignettes.
- This was deemed a premier place to introduce the Sky Islands concept and associated impacts of urban encroachment upon Saguaro’s resources.
- Many participants mentioned not trying to put too much into the relatively small display area, which struck many as overly cramped.

## Specific Recommendations for the Tucson Mountain District Visitor Center

- The Red Hills Visitor Center, completed in 1996 continues to present engaging interpretive exhibits and serves as an attractive venue for presentation of the park's feature audiovisual program. The natural history diorama recently underwent a major cleaning and makes an excellent presentation for the visitor. The video players on the reader rail of this exhibit would benefit from upgrade in technology to offer a more reliable and cleaner image to the visitor. Otherwise, this visitor center offers the visitor a fresh and appealing experience and seems capable of sustaining that character for another decade.
- A minor revamp of the current theatre's infrastructure may be considered as workshop participants reported that the drape mechanism and some related features are operating inconsistently.
- Complete an Exhibit Plan that assesses and optimizes visitor flow through the Visitor Center's constrained exhibit area. This plan would also confirm which Themes could best be presented in this venue and would help anticipate changes needed to upgrade these exhibits when the park deems that necessary.

## Wayside Exhibits

Every unit of the National Park Service needs to 'show the flag' at the same time that we inform visitors what they can see and do in that site. Waysides created by park staffs working with Harpers Ferry Center use a standard service-wide design to quietly remind visitors that an NPS-preserved place is something of great value to our nation.

Signs, like the NPS uniform, also reinforce the idea that this is a special place that merits national significance. Much effort has been invested at the national level to have a distinctive, easy-to-read, comprehensive system of signs. The system provides off-the-shelf solutions from formal park entrance signs to trail direction markers and campsite numbers. Built into the NPS sign program is a visual hierarchy that gives readers clear clues as to the relative importance of the blocks of information seen on the signs.

Both park Districts currently have many types of wayside exhibits that interpret park features and resources for visitors. These waysides consist of a variety of styles: some older styles that predate the NPS Unigrid style or current NPS identity system style; some produced in one-color as etched and anodized aluminum (Permalloy) panels, and some in current NPS Unigrid or identity styles acquired through the HFC wayside technical assistance program. Text content is presented in English language only. Some of the older exhibits found in the park refer to the park as Saguaro National Monument, predating the 1994 designation of the park as a National Park.

No comprehensive wayside plan for Saguaro East/Rincon Mountain District exists. In 1993 a Wayside Exhibit Plan consisting of 24 exhibits for the Saguaro West / Tucson Mountain District was developed. Implementation of this plan with all 24 exhibits was completed and installed by 1996. Since then the park has developed many additional exhibits for both the West and East districts of the park through the Harpers Ferry Center wayside technical assistance program.



## Recommendations

The park should continue to update outdated wayside exhibits and develop new wayside exhibits. It is important that the park continue with its efforts to use wayside exhibits to help visitors connect with the many significant resources administered by the park. The staff of Saguaro National Park can use wayside exhibits to continue to broadcast significant information and interpretation to the public to make their visits safe and enjoyable and to foster appreciation and advocacy for the national park and its resources. Relative to wayside exhibits, presenting these messages via well planned and appealing, high quality design, writing, and production material serves to better the prospect of effectiveness.

- Since wayside exhibits provide economical, round-the-clock information and interpretation they should be considered the media of choice for establishing park and NPS identity at the park's many sites where personal services or more ambitious physical facilities are impractical.

- The park should develop an up-to-date park wide Wayside Exhibit Plan to guide the content, scope, and implementation of future wayside exhibits. When developing this comprehensive wayside exhibit plan, an in-depth assessment of potential wayside exhibit sites would be conducted. Existing wayside exhibit installation would be evaluated along with new sites with potential for wayside exhibit interpretation. For example, etched aluminum exhibits on the Desert Ecology Trail contain references to the park as a National Monument rather than a National Park and an exhibit on that trail references 1990's population data. The existence of such errors will be clearly identified in the plan and will help park management establish priorities for wayside replacement and upgrade. The resulting plan would describe the purpose for each exhibit, identify graphics available for use, show thumbnail design concept drawings, and determine exact exhibit sizes, base styles, and locations of each exhibit. A detailed estimated budget would also be part of the plan. This plan will provide a balanced and coordinated plan that will promote the most effective use of park resources in implementing its wayside exhibit program. The proposal provides an overview of the wayside experience helping to avoid unnecessary duplication of content within the park. While this planning effort requires funding and time to complete it enables an efficient process of prioritizing the phasing of exhibits to meet phased availability of funding.
- Park orientation exhibits should be the foundation of a park wide wayside exhibit program. Engaging photographs of park resources in this exhibit would pique visitor interest and appreciation. Basic information and spatial orientation for the park's two districts should be presented. The exhibit should present the range of park resources and recreational experiences available in a compelling manner to pique visitor interest and help the visitor make the choice *to* visit and as well as *how to* visit Saguaro National Park sites and features. This exhibit should be installed wherever it would be likely to engage visitors, particularly at visitor arrival areas. This exhibit could also be utilized at off-site locations such as the Tucson airport, Tucson convention center, or visitor contact facilities of other Tucson area parks and attractions.
- Each of the two park districts would benefit from specific orientation exhibits of their own. District maps, well-chosen graphics, and resource information would aid visitors in understanding, appreciating and making the best use of park resources. National Park identity as well as visitor safety and regulatory, administrative and emergency contact information specific to these installations could thus be communicated clearly and authoritatively. As with the park wide orientation exhibit these district orientation exhibits should be installed wherever likely to engage visitors, particularly at visitor arrival areas. Some examples are included in the Appendix.
- Opportunities for interpretive wayside exhibits abound in Saguaro National Park. As stated at length above, a comprehensive park wide wayside plan would provide a coordinated and complete compilation of interpretive wayside exhibits for the park's roads, pull offs, trails and other suitable visitor use areas. Proposed location, purpose, size and estimated cost would all be clearly described for each exhibit.
- As mentioned above, the planning team recommends that audience evaluation be conducted as part of any new media development. It would be valuable to conduct front-end evaluation to determine what visitors already know and what they might like to experience in the park; formative

evaluation to test proposed exhibit concepts before final production; and summative evaluation to fine-tune the exhibits after installation.

Several places at Saguaro currently have or may need waysides that both introduce visitors to the immediate site and its possibilities, and link the Park to the greater National Park system. These are all places where some percentage of visitors will be getting out of their cars for the first time. In most NPS areas, **orientation** and **agency identity** are accomplished by trailhead style upright waysides; often paired at the parking lots or overlooks. These orientation pairs would be the minimum level of outdoor orientation/ interpretation that should be provided. Consideration should be given to comprehensive availability of Spanish language translations on all new exhibits and signs.

Additionally, some suggestions generated in the workshops reveal sites with the best potential for high-quality, effective, site-specific interpretive waysides that would link theme-based interpretive stories to grand views and revealing landscapes. Note that these are in addition to the effective pre-existing wayside exhibits, listed with prioritization for rehabilitation, on page 21 of this document. Some are reiterated here due to specific mention in the workshops. Other Trailheads to consider additional signs or exhibits include Hugh Norris, King Canyon, Camino del Cerro and the Scenic Drives.

<b>Site</b>	<b>Suggested Type and Content</b>
Picnic Grounds–RMD/TMD	Upright Wayside: Parkwide Orientation / Safety Site Orientation
Visitor Center Parking Areas-RMD/TMD	Upright Wayside: Parkwide Orientation / Safety Site Orientation
Freeman Homestead Trail-RMD	Upright Trailhead or Low Profile Wayside: Trailhead Orientation / Interpretation Content reflecting themes 2, 3, 4
Madrona Area and Trailhead-RMD	Upright Trailhead Wayside: Site Orientation / Safety Trailhead Orientation / Interpretation Content reflecting themes 2,3
Esperanza Trailhead-TMD	Upright Trailhead Wayside: Trailhead Orientation / Safety
Douglas Springs Trailhead–RMD	Upright Wayside already exists: Trailhead Orientation / Safety Remove current Bulletin Board
Tucson Mountain Park-Partner	Coordinate a new joint Wayside Exhibit
Gilbert Ray Campground –Partner	Coordinate a new joint Wayside Exhibit incorporating A/V components
Gates Pass-Partner	Coordinate a new joint Wayside Exhibit
Tucson International Airport-Partner	Coordinate a new joint exhibit on site at airport
Desert Ecology Trail-RMD	Upright Trailhead or Low Profile Wayside: Trailhead Orientation / Safety Content reflecting themes 2,4,5
Loop Drive-TMD	Low Profile Waysides: Site Orientation / Interpretation Content reflecting themes 2,3,4

CCC Camp-TMD	Upright or Low Profile Wayside: Trailhead or Site Orientation / Safety Content reflecting themes 3
Loma Alta Trailhead	Upright Trailhead Wayside already exists: Trailhead Orientation / Safety Content reflecting the Arizona Trail
Expansion Lands	Upright Trailhead or Low Profile Wayside: Trailhead Orientation / Safety Content reflecting themes 2,3
Mica View Picnic Area-RMD	Upright Wayside: Site and Trailhead Orientation / Interpretation with content reflecting themes 1,2,4,5
Broadway Trailhead-RMD	Upright Wayside already exists Trailhead Orientation / Safety
Wildhorse Trailhead-RMD	Upright Wayside already exists: Trailhead Orientation / Safety Content reflects themes 1,2,3 and horse access content
Cental Arizona Project Ponds-TMD At the Red Hills Visitor Center	Low Profile Wayside: Site and Orientation / Interpretation with content reflecting themes 1,2 and specific content regarding the impacts of CAP and human populations.
Lime Kiln Accessible Trail-RMD	Low Profile Waysides: Site Orientation / Interpretation Content reflecting themes 1,3,5 developed to provide a fully accessible experience
Exposed Fault Line Cactus Forest Loop-RMD	Low Profile Waysides: Site Orientation / Interpretation Content reflecting theme 5
Bike Ramada-RMD	Upright Wayside: Site Orientation / Safety / Interpretation with content reflecting themes 1,2,3

## Distributable Media

Generally the distributable media here is well accepted by the visitor and very accurate. Providing orientation and way finding material on a region wide basis would serve to increase Saguaro's exposure to greater numbers of more diverse visitors.

### Recommendations:

- Continue to produce and distribute the Saguaro Sentinel, as many workshop participants felt that it was a valuable primary source of orientation and interpretation for many visitors.
- Continue to develop and refine current handouts and related media.

## Audio / Visual Technology

Audio Visual Technology has become an integral part of interpretive media, allowing us to communicate in ways and with certain user groups that were previously unreachable. While this type of media is not appropriate in many circumstances, it should not be overlooked for use in non-traditional locations and circumstances.

Since the 1970s the National Park Service has tried out many types of audio message repeaters to complement outdoor wayside exhibits. Audio by itself, if done well, can add emotional color and authenticity. When visitors hear directly from recognized subject-matter experts or from people who work in the park and know it well, it is powerful. Period music or sound effects or actors using historic dialects can shape and deepen the visitor experience. Like waysides, audio messages work best if they are kept short and well focused. An audio message that runs longer than 90 seconds is in trouble.

Fixed audio stations of the last 50 years often failed to deliver good value for what they cost. Developing and producing the audio content was never cheap and the park had to come up with the recurring costs to maintain the hardware. Outdoor audio units are notorious for breaking down. In remote areas, audio repeaters can use batteries or easily vandalized solar panels. Visitors who punch an audio start button and get no message have a strong negative experience.

Considering the issue of visitor sovereignty is just as important as cataloging all the technical headaches the National Park Service has had with outdoor audio stations. Visitors should have the right to choose what to read or hear and what to ignore. When school groups are on a trail, a fixed message repeater will be triggered over and over and over. The quality of the park experience for any visitors on that trail who are not part of the school group suffers, because these visitors have no choice as to whether they want to hear the audio message repeated or not.

#### Recommendations:

- Workshop participant and park staff universally lobbied for the development of a Podcast development program that would provide portable, downloadable, upgradeable A/V programs for on and off-site visitors. Providing multiple options for downloading these productions, from the web or at downloading stations within the park, would provide expanded opportunities for visitor understanding and may enhance the recruitment of new park visitors from under-represented groups.

In addition, for visitors who are visually impaired, a new audio tour in the Podcast format could include developed **audio descriptions**, like those now being used in major museums and in theatrical performances. Audio description would not only narrate the text of the wayside and describe the graphics seen on the panels, but also describe the third dimension of any wayside — the surrounding view that started the need to tell the story.

- A full range of A/V opportunities should be utilized in the redesign of the Visitor Center exhibits at RMD. The Exhibit Plan should provide in-depth guidance into the most appropriate locations and uses.
- The AV programs created and installed as integral parts of the exhibits for the Red Hills Visitor Center are working well interpretively, but suffering from some age related problems. These exhibits should be assessed and a plan developed to bring them back to optimal operating conditions.
- Workshop participants universally approved of the Red Hills Visitors Center film and encourage that it be retained and the curtains repaired so that they work on more than just an occasional basis, as mentioned above.

## Off-Site Activities and Partnerships

Expanded partnerships and greater civic engagement have proven to be beneficial to park sites and regional communities. A great opportunity exists when the local community is given a hand in the decision making process as they become better stewards and supporters of their park and the National Park System.

### Recommendations:

- Design and distribute off-site exhibits and poster at regional County Park and Tourism Centers.
- Enhanced coordination with the Arizona Sonora Desert Museum was strongly emphasized by the Team.
- Park participation in the Southern Arizona Attractions / Tucson Attractions Passport program could enhance the Park's Off-Site Marketing efforts.
- Workshop participants expressed a great desire to interact more with County and Local Parks in the area and specifically noted a need for coordination with these entities in Tucson Mountain Park, Gilbert Ray Campground, and the Gates Pass area.
- The Team encourages continuing interaction with the Southern Arizona Group Office for support in alternative fund raising, marketing the Park and coordination of region-wide special events and wayfinding that may lead visitors to experience the Park.
- Workshop participants encouraged the establishment of a Field Institute which could enhance participation with our partners, benefit particular sub-groups of visitors including educators and special populations, and encourage our tour group partners to embrace accurate, professional interpretation.
- Enhanced cooperation and coordination with our regional partners, especially Pima County, the University of Arizona, and other close cooperators would improve our ability to manage Saguaro's resources to better benefit visitors, educators, and the region. Also, increase interplay and cooperative efforts with public land education partners and organizations.
- Provide Familiarization Tours for travel writers and local media partners to engage a wider audience. This could also strengthen relationships with our business partners including the park concessionaire and business permittees.
- Participate in regional Career Fairs to enhance recruiting and utilize the opportunity to connect with a unique generational group that may not have a connection with Saguaro or the National Park Service.

## Personal Services

Personal interpretive services are those in which the Park staff interacts with visitors. Examples of personal services include staffing the visitor center, formal interpretive programs, informal (roving) interpretation, conducted activities,

special events, orientation and educational programs all of which give the park staff an opportunity to enhance the visitor's experience through personal interaction. Personal services are often most effective for interpreting complex or conceptual themes and topics.

Personal services encourage visitors to become active participants in exploring the park's stories. A variety of formal and informal programs are offered at Saguaro, including formal guided talks, roving interpretation, and education programs. Because this site has an overwhelming amount of visual clues and unique landscapes which relate to many stories, personal services are vital to create opportunities for visitors to truly understand and relate to all the meanings and stories represented here.

This park is a great example of interpretation being delivered by all staff members, not just interpreters. Visitors do not differentiate between personnel in different divisions within the park and the planning team encourages that this practice be continued and encouraged here at Saguaro.

The Interpretive Staff here at Saguaro should assess which particular personal interpretive services will be most effective on a yearly basis. This is the core of the Annual Implementation Plan which will guide the Interpretive Program in supporting management goals and providing optimum opportunities for the visitor. This process includes yearly re-evaluation of Desired Visitor Experiences and subsequent assessment of the most effective combinations of interpretive themes, locations, audiences and types of personal services to best fulfill the visitor's needs. These factors can change from year to year as the park's demographics, management needs, and other factors change.

### Recommendations

- Guided interpretive walks led by uniformed interpreters will continue to provide optimum experiences for visitors here at Saguaro. Varied theme based programs will continue to provide visitors with a multitude of prospects for connecting with the Park's stories. It is very important to provide this visitor opportunity, due to the scope of the site's stories. A suggestion was made in a workshop that it may be beneficial to target programs specifically to a Latino audience to enhance visitation by this underrepresented visitor group.
- The workshop participants agreed that several current programs should be retained and enhanced. They include the Night/Full Moon Walks, Star Parties, Evening Strolls, Evening Lectures at the RMD Visitor Center, the Native American Cultural Fair, the Fiesta de Saguaro, Holiday Programs and the Cactus Ranger program.
- Based on the results of this plan a Long Term Staffing Assessment should be completed to anticipate future needs, integrate changes suggested in this plan and support attendant increases in funding.
- Another challenge for the Interpretive division is offering programs in some venues which have so many attendees that the person providing the service is immediately overwhelmed. It may be prudent to have more than one Interpreter where these conditions are frequent, to assure that visitors are afforded a quality experience. This in turn would require more staffing support to accommodate these changes.



Night Walk Program.  
NPS photo.

- More storage and working space is desperately needed by the Interpretive Staff in both Districts. An improvement in office and storage space would enhance efficiency and morale.
- Roving or informal interpretation should be provided throughout the Park, though the staff must provide different opportunities from those offered by other interpretive media. Workshop participants emphasized that an increase in personal contacts at trailheads in both districts would be beneficial.
- The ongoing, highly successful Junior Ranger Program here should be retained and expanded as staffing and funding allows. A Junior Ranger Camp (3 – 4 days long) might be established which coordinates with the education program. This would enhance these current programs and could encourage more use by specialized groups of children including special populations and those of a diverse background.
- The Volunteer in Parks Program could be enhanced with more dedicated NPS supervision, enhanced VIP accommodations, and an increase in VIP funding. Continued outreach to those volunteers interested in these historical events could produce benefits in research and the availability of alternatives to ranger led interpretation. More ability to enhance the participation of local volunteers would be beneficial as well. Workshop participants felt that the public particularly benefited from contacts with volunteers at the Visitors Centers and the Volunteer Horse Patrol..
- As mentioned above, an Annual Implementation Plan should be created and revised yearly. It is important to assess changes in management strategy, demographic shifts, and any new information that would modify our message to the visitor. One tool that helps to integrate inevitable change into a personal services program is the use of a matrix which assesses the best combinations of current interpretive themes or sub-

themes, best locations for services, and most effective services for particular audiences. This should in turn facilitate the Park's Desired Visitor Experiences. This is also a good time to assess whether we are best utilizing our resources to produce these Desired Visitor Experiences and support management initiatives.

- Assessment of the effectiveness of our interpretive techniques and services is critical to maintaining positive visitor experiences and providing rationale for our programs. These assessments can include supervisory assessments of effectiveness, more formal outcome based assessment, a correlation of visitor inputs, and formal demographic studies. The rubric based assessment method utilized in the Interpretive Development Plan, while not addressing "supervisory concerns" does give great insight into whether a particular service is effective in creating interpretive opportunities for our visitors. Outcome based evaluative methods would be effective as well.
- When core operations have been addressed, it could be very beneficial to step off of the park grounds and expand personal outreach to park partners, the community center, assisted living centers and other regional venues. Interpretive and educational programs should also be further developed for the telnet system, which would expand Saguaro's presence even further.
- All interpretive staff should participate in the Interpretive Development Program. This is the NPS primary professional training in interpretation and is critical for field level interpreters and interpretive supervisors. It will keep them abreast of the most effective interpretive methods and provide valuable insight into national policy.
- Higher staffing levels will be required for the park to fully support this plan. Realizing that budget levels are stagnant at the time this was written, it would be appropriate for the park to look at other methods of staffing. An expansion of the numbers of park volunteers and Student Conservation Corp. volunteers could be effective, though the infrastructure needed to support a large volunteer force can drain resources quickly.

#### **Specific Recommendations for Rincon Mountain District:**

- One way to accommodate visitors in the harsh environment of the Sonoran Desert is to provide shaded areas for programs. A location critical to the visitor experience that would benefit from a large Shade Ramada is the Javelina Picnic Area or other areas appropriate and able to accommodate large groups.
- Develop the Madrona Area for visitor use and establish Ranger Led Hikes and related programs.



Shaded Picnic Area.  
NPS photo.

### Specific Recommendations for Tucson Mountain District:

- It was noted that the Guest Speaker Series on the west side was less than successful. It would be valuable to determine why it was not successful and work towards a better outcome via those inputs.
- Fully develop the Environmental Education area noted below.

### Education Program

The current education program at Saguaro centers on the established Environmental Education Program and outreach program for numerous schools and groups in the region. The interpretive staff presents a variety of curriculum based programs and assemblies for students throughout the Tucson area. Interpretive rangers provide guided experiences for day care centers, school groups, university classes, and Elderhostel groups. Educational themes have expanded to include education about our natural resources as well as cultural and historical resources.

### Recommendations

- The team was impressed with the Park's Environmental Education Program and encourages continuation and expansion of this program. However, the efforts parkwide need to be consolidated for enhanced efficiency..
- The staff who serves jointly as education coordinators at the park must keep abreast of changes to the Arizona State Curriculum, so as to keep the program effective and relevant to education partners.
- The Park should work to integrate the park's programs into our education partner's curriculum mapping efforts and complete park specific curriculum mapping to better reveal the benefits and effectiveness of our education programs and projected needs.

- The Park should develop a facility for education programs and junior ranger camps.
- The design and creation of an Environmental Education Center at Camino Loma Alta, as mentioned in the GMP proposed Preferred Alternative, in coordination with the Rincon Institute and other partners and on the Green Property would facilitate the continued expansion and positive impact of this excellent EE program.
- Enhance and expand the partnership with the Sunnyside School District to expand the Park's educational presence and reach a new set of potential visitors.
- The park should develop educational opportunities suited to family groups, like workshops and special events.
- Expanding the availability of educational opportunities and curriculum based classes available on the park's website, would encourage greater involvement by smaller educational institutions and home-school participants, some of whom may not have close proximity to the Park and its resources.
- Continuing to enhance Junior Ranger program can inspire locals to further explore the opportunities at Saguaro with their children. The popular program is also becoming a traveling point for many families, who seek out parks with fun and effective Junior Ranger programs. Enhancements might come in the form of program development for a broader age range and more funding development for materials.

### Services for Special Populations

The park has made great strides in the accommodation of disabled visitors. It is important to move beyond just accommodation to an active pursuit of equal opportunities in all facets of interpretation for those that are differently-abled.

### Recommendations

- Wayfinding and interpretive material should be modified with appropriate accommodations available for disabled visitors. This should be part of any new exhibit or sign plans. A/V and media programs should meet accessibility standards as well.
- Establish a Senior Ranger Program which would operate along the line of the Junior Ranger Program, but offer visitors of this age group programs, projects, and opportunities crafted toward their interests and abilities. One possible opportunity may be the development of an Accessibility Hiking Trail in TMD.
- Enhance and expand the cooperation with Elder Hostel groups, which may also serve as a valuable recruiting tool for VIPs.
- Develop a variety of interpretive experiences to serve the disabled and aging population who are not likely to explore farther on their own.
- When developing the new waysides and exhibits, the design should not just accommodate disabled visitors, but should be designed to fully involve those visitors in the interpretive opportunities.

- References to guidelines for designing for and accommodating those with special needs are found in the appendix.

## Library Collections and Research Needs

The park currently has a comprehensive collection of artifacts, most of which are housed and managed at the Western Archeological and Conservation Center in Tucson. The ultimate goal of any collection is to allow optimum research accessibility. In addition, a fairly substantial research library is maintained at the Headquarters' Annex, accessible to the public on a case by case basis.

## Recommendations

- Develop a plan for funding and developing a searchable database of all the collection, which will be available online. Search for possible partnership assistance and new opportunities with educational institutions and other partners.
- Develop a current list of needs for the library, then assess if a new library space is needed.

## Staffing and Training

Implementation of this plan, especially with the necessary additional interpretive personnel, would require an increase of staff and funding along with enhanced support functions and effective recurring training. The staff is already operating very efficiently, but is close to the limit of their capacity. Implementation of many items that are recommended here will be subject to the whims of political and managerial fortune, but this should not dissuade the Park from moving forward on select items as conditions and prior preparations allow. This may also provide opportunities to attract a more diverse workforce, in particular enhancing the number of Spanish speakers on the Interpretive staff.



Park Ranger-Interpretation.  
NPS photo.

## Implementation Priorities

The park has chosen to structure implementation of their priority actions into three tiers. The first tier specifies items that the team considers primary, the second tier contains items which are important and the third tier contains items that would be very beneficial.

### Tier 1 ~ Primary

- Expand the depth of information on the park's internet site. This is an excellent venue to whet the appetite of the potential park visitor, while providing solid wayfinding information. An overview on how to safely visit this area is critical. This can also be a wellspring of information to historians and academics, who look to the park for solid research and information. The park website should continue to make available translations of the Unigrid Brochure in Dutch, French, German, Italian and Japanese.
- Downloadable information including A/V, MP3 and PDF files, offered at the park's website and other venues should include wayfinding, orientation and safety messages. Pod casts or equivalent A/V files could include that information and expand into more in-depth orientation and interpretive information. See [www.parkcast.com](http://www.parkcast.com) for insight on what other parks are offering.
- A new Exhibit Design plan (already in progress) for the RMD Visitor Center would facilitate the integration of new thematic components to best enhance the visitor's experience and understanding. New exhibits could be designed to incorporate all the needed exhibit purposes into a consistent and professional design which would better meet the modern visitors' needs, engage visitors' interest more strongly, and make the best use of space. The new exhibits should also be designed to coordinate with the pre-existing, recently upgraded WNPA Sales Area and Information Desk.
- The current Slide Program at RMD is very dated and a new A/V program that compliments our new interpretive themes needs to be designed and produced.
- The Red Hills Visitor Center, completed in 1996 continues to present engaging interpretive exhibits and serves as an attractive venue for presentation of the park's feature audiovisual program. The natural history diorama recently underwent a major cleaning and makes an excellent presentation for the visitor. The video players on the reader rail of this exhibit would benefit from upgrade in technology to offer a more reliable and cleaner image to the visitor. An additional upgrade to make it more accessible for differently-abled visitors is needed as well.
- A minor revamp of the current theatre's infrastructure may be considered as workshop participants reported that the drape mechanism and some related features are operating inconsistently.
- The park should continue to update outdated wayside exhibits and develop new wayside exhibits. It is important that the park continue with its efforts to use wayside exhibits to help visitors connect with the many significant resources administered by the park. The staff of Saguaro National Park can use wayside exhibits to continue to broadcast significant

information and interpretation to the public to make their visits safe and enjoyable and to foster appreciation and advocacy for the national park and its resources. Relative to wayside exhibits, presenting these messages via well planned and appealing, high quality design, writing, and production material serves to better the prospect of effectiveness.

- It enables an efficient process of prioritizing the phasing of exhibits to meet phased availability of funding.
- The park should develop an up-to-date park wide Wayside Exhibit Plan to guide the content, scope, and implementation of future wayside exhibits. When developing this comprehensive wayside exhibit plan, an in-depth assessment of potential wayside exhibit sites would be conducted. Existing wayside exhibit installation would be evaluated along with new sites with potential for wayside exhibit interpretation. For example, etched aluminum exhibits on the Desert Ecology Trail contain references to the park as a National Monument rather than a National Park and an exhibit on that trail references 1990's population data. The existence of such errors will be clearly identified in the plan and will help park management establish priorities for wayside replacement and upgrade. The resulting plan would describe the purpose for each exhibit, identify graphics available for use, show thumbnail design concept drawings, and determine exact exhibit sizes, base styles, and locations of each exhibit. A detailed estimated budget would also be part of the plan. This plan will provide a balanced and coordinated plan that will promote the most effective use of park resources in implementing its wayside exhibit program. The proposal provides an overview of the wayside experience helping to avoid unnecessary duplication of content within the park.
- As mentioned above, an Annual Implementation Plan should be created and revised yearly. It is important to assess changes in management strategy, demographic shifts, and any new information that would modify our message to the visitor. One tool that helps to integrate inevitable change into a personal services program is the use of a matrix which assesses the best combinations of current interpretive themes or sub-themes, best locations for services, and most effective services for particular audiences. This should in turn facilitate the Park's Desired Visitor Experiences. This is also a good time to assess whether we are best utilizing our resources to produce these Desired Visitor Experiences and support management initiatives.
- All interpretive staff should participate in the Interpretive Development Program. This is the NPS primary professional training in interpretation and is critical for field level interpreters and interpretive supervisors. It will keep them abreast of the most effective interpretive methods and provide valuable insight into national policy.
- Develop a facility for educational programs and junior ranger camps in the Tucson Mountain District.

## Tier 2 ~ Very Important

- Park Brochures are a recognizable and desired method for visitors to receive their initial introduction to the park and its resources. Saguaro's park brochure, produced by Harper Ferry Center (HFC), provides an overview of the park story and effective orientation in both English and in

Spanish, but it is due for a re-vamp which should integrate new thematic material and changes in visitor opportunities.

- The planning team recommends that audience evaluation be conducted as part of any new media development. Many of the media elements in the park are old, and visitors are more diverse than in the past. It would be valuable to conduct front-end evaluation to determine what visitors already know and what they might like to experience in the park; formative evaluation to test proposed exhibit concepts before final production; and summative evaluation to fine-tune the exhibits after installation. Evaluation will increase the cost of exhibit development, but will probably add value during the life of the exhibits by insuring that visitors' needs are being met. Appended below is an HFC document on exhibit evaluation.
- The Cactus Gardens in both Districts should be re-vamped and better maintained, as they are one of the first things visitors encounter before entering the Visitor Center. It was felt that many people utilize the Cactus Gardens and then don't go inside the buildings, so it may be helpful to have materials that encourage visitors to go inside the Visitor Centers after experiencing the Cactus Gardens.
- An Exhibit Design Plan for the Red Hills Visitor Center should be completed which compliments a Visitor Center Schematic Plan or other method that assesses visitor flow through the VC area. This plan would also confirm which Themes could best be presented in this venue and would help anticipate changes needed to upgrade these exhibits when the park deems that necessary.
- Enhance cooperation and coordination with our local partners to include off-site exhibits and displays at regional parks and tourism centers, enhanced coordination with the Arizona Sonora Desert Museum, better cooperation with Tucson Mountain Park, at Gilbert Ray Campground and in the Gates Pass area. Additionally enhanced interaction with our other close cooperators and regional education partners.
- Based on the results of this plan a Long Term Staffing Assessment should be completed to anticipate future needs, integrate changes suggested in this plan and support attendant increases in funding.
- Roving or informal interpretation should be provided throughout the Park, though the staff must provide different opportunities that compliment those offered by other interpretive media. Workshop participants emphasized that an increase in personal contacts at trailheads in both districts would be beneficial.
- The Volunteer in Parks Program could be greatly enhanced by establishing a dedicated NPS supervisor, better VIP accommodations, and with an increase in VIP funding. Continued outreach to those volunteers interested in these historical events could produce benefits in research and the availability of alternatives to ranger led interpretation. More ability to enhance the participation of local volunteers would be beneficial as well. Workshop participants felt that the public particularly benefited from contacts with volunteers at the Visitors Centers and the Volunteer Horse Patrol.

- Assessment of the effectiveness of our interpretive techniques and services is critical to maintaining positive visitor experiences and providing rationale for our programs. These assessments can include supervisory assessments of effectiveness, more formal outcome based assessment, a correlation of visitor inputs, and formal demographic studies. The rubric based assessment method utilized in the Interpretive Development Plan, while not addressing “supervisory concerns” does give great insight into whether a particular service is effective in creating interpretive opportunities for our visitors. Outcome based evaluative methods would be effective as well.
- The team was impressed with the Park’s Environmental Education Program and encourages continuation and expansion of this program. However, the efforts parkwide need to be consolidated and coordinated for enhanced efficiency and the program will require dedicated FTE to keep the program effective and relevant.

### **Tier 3 ~ Very Beneficial**

- Assure that up-to-date orientation information is available at our partners’ sites and related tourist contact points. Local airports, visitor information centers, libraries, other agency offices, and military offices were mentioned in the workshops.
- Review external printed and electronic tourism literature promoting Saguaro and associated sites to assure that it is accurate, appropriate, and up to date.
- Develop an assessment of where visitors are going and what they are doing to help with future planning processes for new exhibits, area access and structures.
- A Visitor Center Schematic Plan should be developed for TMD (RMD’s will be ongoing). This plan would specify visitor experience opportunities for this facility, more specifically relate Interpretive Themes to particular exhibit designs and content, create bubble diagrams or floor plans, a visitor walkthrough narrative, and provide three dimensional views of any proposed new exhibits or modifications to the existing exhibits, theatres, or information desk. Access and lighting would also be addressed. This plan will inform any decisions to be made on exhibit and facility upgrades over the life of the plan.
- An expansion of the RMD Visitor Center, as specified in the current GMP’s Preferred Alternative, would provide additional office and exhibit space which could greatly benefit visitor experience in this facility with more usable space being available for personal and non-personal Interpretation.
- Workshop participants and park staff universally lobbied for the development of a Podcast development program that would provide portable, downloadable, upgradeable A/V programs for on and off-site visitors. Providing multiple options for downloading these productions, from the web or at downloading stations within the park, would provide expanded opportunities for visitor understanding and may enhance the recruitment of new park visitors from under-represented groups.

In addition, for visitors who are visually impaired, a new audio tour in the Podcast format could include developed **audio descriptions**, like those now being used in major museums and in theatrical performances. Audio description would not only narrate the text of the wayside and describe the graphics seen on the panels, but also describe the third dimension of any wayside — the surrounding view that started the need to tell the story.

- Workshop participants encouraged the establishment of a Field Institute which could enhance participation with our partners, benefit particular sub-groups of visitors including educators and special populations, and encourage our tour group partners to embrace accurate, professional interpretation.
- Provide Familiarization Tours for travel writers and local media partners to engage a wider audience. This could also strengthen relationships with our business partners including the park concessionaire and business permittees.
- More storage and working space is desperately needed by the Interpretive Staff in both Districts. An improvement in office and storage space would enhance efficiency and morale.
- Develop the Madrona Area for visitor use and establish Ranger Led Hikes and related programs.
- Establish a Senior Ranger Program which would operate along the line of the Junior Ranger Program, but offer visitors of this age group programs, projects, and opportunities crafted toward their interests and abilities. One possible opportunity may be the development of an Accessibility Hiking Trail in TMD.
- Develop a variety of interpretive experiences to serve the disabled and aging population who are not likely to explore farther on their own.

Cactus Flowers.  
NPS photo.



# Appendix

## Knowing Your Audiences

### The Role of Evaluation in Exhibit Planning and Design

Over the past thirty years it has become increasingly evident that exhibitions of all kinds and in a variety of venues (including visitor centers) can significantly benefit from the use of a variety of evaluation activities carried out during the development process. A recent bibliography lists over 600 studies that have demonstrated the value of getting inputs from target audience members to help inform decisions about both the content and presentation methods being considered, thus avoiding serious and costly mistakes discovered only after the work has been completed.

Traditionally, there are three stages during which formal visitor studies are conducted.

1. **Front-End Evaluation:** during conceptual planning when themes, story lines, and program ideas are being considered;
2. **Formative Evaluation:** during early fabrication of exhibits when mock-up testing can be carried out;
3. **Summative/Remedial Evaluation:** conducted after final installation, when the total “package” can be evaluated and final adjustments can be made.

Front-end evaluation concentrates on getting input from potential visitors by means of interviews and/or focus groups, to find out what kinds of information they need and would like to know, and how this information could be presented in a meaningful, interesting, and cost-effective way. Misconceptions about the subject matter are also revealed at this stage, often leading to specific content and presentation elements designed to counter them.

Formative evaluation is intended to “catch” design and/or content problems before they become a part of the final exhibition, when they are often difficult and expensive to “fix.” Especially critical to test at the mock-up stage are interactive exhibits, where feedback from users almost always reveals flaws or weaknesses in the program that can be easily corrected.

In a comprehensive evaluation program, the conduct of summative/remedial studies often reveal problems that were not, or could not be, identified during the earlier stages of development. For example, crowd-flow problems are often revealed only when the actual configuration of all the elements of the exhibition are in place. Similarly, orientation and signage problems become “obvious” at this point, and can often be corrected by relatively minor adjustments to wording and/or placement.

The media evaluation process requires the planning team to identify the intended exhibit target audience in terms of their ages, educational levels, and levels of entering knowledge of the subject matter of the exhibit. The team must also have clearly defined objectives – both cognitive and affective. Cognitive objectives relate to the intended impact of the exhibit on the target audience in terms of knowledge of the subject matter (e.g., facts, concepts, controversies, comparisons). Affective objectives relate to the intended impact of the exhibit on visitors’ beliefs, interests, feelings, and attitudes as related to the exhibit content. These explicit and agreed-to objectives guide not only the way the exhibit is tested at the formative and summative/remedial stages, but the entire exhibit development process, including

decisions about content, sequence, media, interpretation, and presentation techniques.

*From the personal writings of evaluator Dr. Harris H. Shettel, Rockville, Maryland, and used by his permission. Edited by Neil Mackay, Harpers Ferry Center, Media Services and Interpretive Media Institute*

### **Professional organizations**

The following professional organizations are concerned with exhibit evaluation and can provide additional information on the subject:

#### **Committee on Audience Research and Evaluation (CARE)**

American Association of Museums (AAM)

1575 Eye Street, NW, Suite 400

Washington, DC 20005

tel.: (202) 289-1818

<http://www.aam-us.org/index.htm>

CARE publishes *Current Trends in Audience Research and Evaluation*, and the *Directory of Evaluators*

#### **Visitor Studies Association (VSA)**

8175-A Sheridan Blvd., Suite 362

Arvada, CO 80003-1928

303-467-2200

303-467-0064 fax

<http://www.visitorstudies.org/>

VSA publishes *Visitor Studies Today*

#### **American Evaluation Association**

American Evaluation Association

16 Sconticut Neck Rd #290

Fairhaven MA 02719

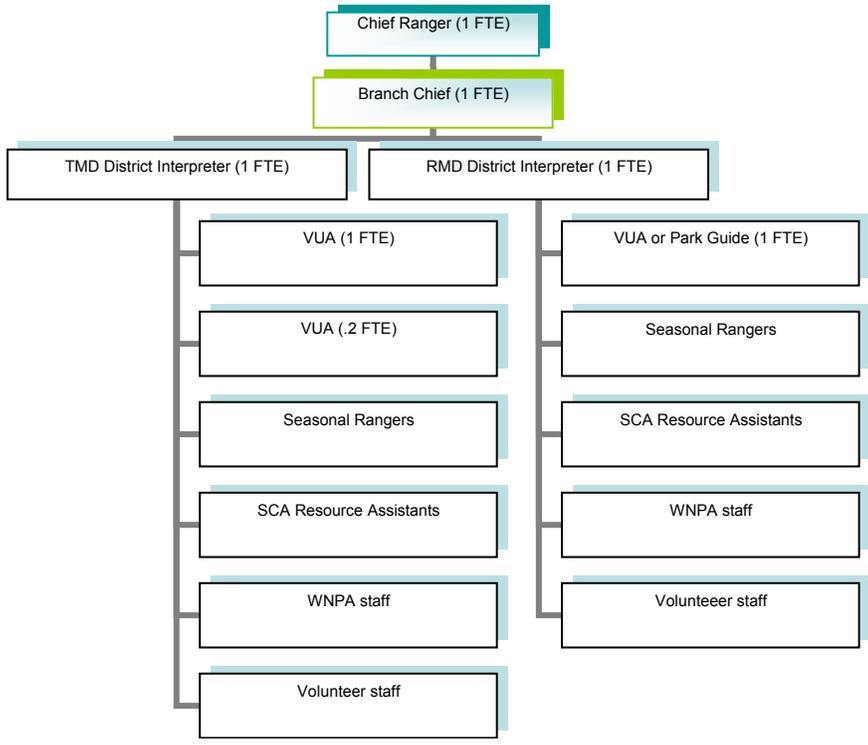
Phone/fax 888-232-2275 (toll free in US and some Canada)

<http://www.eval.org/>

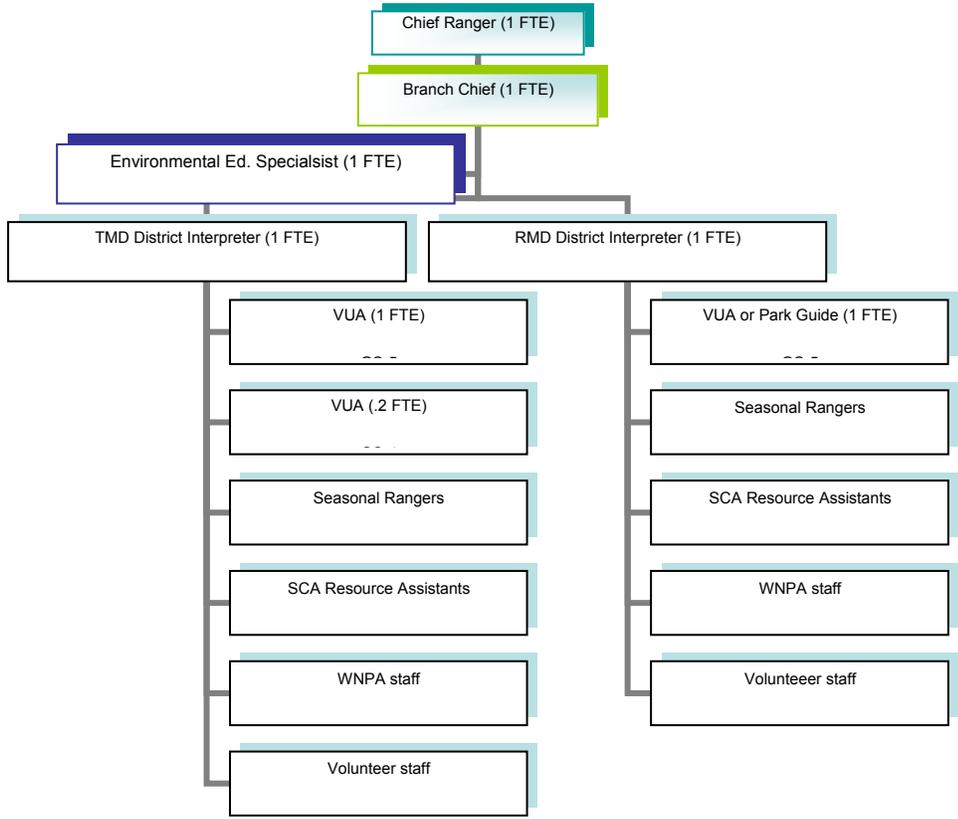
AEA publishes *American Journal of Evaluation* (published three times/year).

# Desired Future Organizations

## CORE Operations Organization – November 2005



## CORE Operations Organization with addition of an Environmental Education Specialist – November 2005



## Special Populations Guidance

Harpers Ferry Center has recently revised the Programmatic Accessibility Guidelines for NPS Interpretive Media. It clarifies how to provide programmatic access to people with disabilities and those from special populations. The document is written for media specialists, interpreters, rangers, superintendents, and other National Park Service employees and contractors who approve or develop interpretive media and programs. It provides guidance regarding personal services programs, audiovisual programs, audio tours, exhibits, publications, and web-based media. Topics include:

- **Highlights of the new Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines (ABAAS), which takes the place of the Uniform Federal Accessibility Standards (UFAS).**
- **New chapters on the laws, regulations, and policies that govern accessibility interpretive media.**
- **Useful links to laws and best practices in accessible media.**
- **Park and Harpers Ferry Center accountability for accessible media.**
- **The latest pictographs and links for pictograph downloads**
- **How to plan and scope for accessibility.**
- **Accessibility for web-based media.**
- **Updates on new technology.**
- **How to prepare a report or document so that computers can read the text content aloud.**
- **How parks can get the word out about their accessible sites and programs.**
- **Lots of diagrams to help NPS employees and contractors understand the specifications.**

Successful programmatic accessibility begins with comprehensive parkwide interpretive planning so that all media and personal services can work together. Where one may not be accessible to all persons, other services can fill the gaps. Early recognition of, and sensitivity to, accessibility issues will result in the most successful visitor experience.

The new guidelines are available now in PDF format at [www.nps.gov/hfc](http://www.nps.gov/hfc).

# Wayside Exhibit, Bulletin Board and Sign Examples

Low-profile  
22" w x 18" h

**Title** - 84 point  
NPS Rawlinson  
Medium  
set on one line

**Main Text** - 30/42 point  
NPS Rawlinson Book

**Caption** - 22/30 point  
NPS Rawlinson Book

**Diagram labels**  
18/32 point  
Frutiger Bold and  
Frutiger

**Labels** - 20 point  
NPS Rawlinson Book  
set on one line

Park Identification

Trash Bag Dispenser & Regulations

Campsite ID & Permit Holder

Park Identification Area Map & Brochure Holder

Temporary Posting Bulletin Board

**Upright Trailhead**  
36" w x 48" h

**Title** - 144 point NPS  
Rawlinson Medium set  
on one line

**Main Text** - 36/46 point  
NPS Rawlinson Book  
(aligned to baseline  
grid). Use Medium  
when reversing white  
text from a dark  
background

**Caption** - 24/32 point  
NPS Rawlinson Medium  
(use Book for black text  
on light backgrounds)

Use Frutiger for map  
labels following the  
Wayside Exhibit Map  
Standards

**Lilly Bluff Trails**

A Wild and Scenic River designation refers to more than free-flowing water down a stream channel. It includes the high bluffs, sculpted cliffs, and the lush forested slopes that creep to the edge of the stream flow, which is placid in summer and torrent in winter and spring here. The four trails that lead to the heights and depths of the river gorge offer many habitats to explore and see sun-baked outcrops of the bluff, sheer cliffs, moist-rich forests, intermittent cascading creeks, expansive meadow fields, exposed gravelbars, deep river pools, and shallow ditches. Enjoy the wildflowers in season. Listen for birds. Watch for wildlife.

*In every walk with nature  
one receives far more than he seeks.*  
John Muir

**Overlook Trail**  
This 0.5-mile trail leads you to the highest vantage of Lilly Bluff on the north side of Clear Creek. The trail is a mix of steep, rocky slopes of the river gorge. The trail is a mix of steep, rocky slopes of the river gorge. The trail is a mix of steep, rocky slopes of the river gorge.

**Paint Trail**  
The 1.5-mile round-trip trail leads to the top of Lilly Bluff. The trail is a mix of steep, rocky slopes of the river gorge. The trail is a mix of steep, rocky slopes of the river gorge.

**Deluge Trail**  
This 1.5-mile round-trip trail leads to the top of Lilly Bluff. The trail is a mix of steep, rocky slopes of the river gorge. The trail is a mix of steep, rocky slopes of the river gorge.

**Becker Trail**  
The 1.5-mile round-trip trail leads to the top of Lilly Bluff. The trail is a mix of steep, rocky slopes of the river gorge. The trail is a mix of steep, rocky slopes of the river gorge.

**You Are Here Lilly Bluff**

**CLEAR CREEK**  
**OSED RIVER**

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## **Proposed Sub-Theme Topics**

The following are proposed Interpretive Sub-Theme topics for Interpreters to consider when designing personal and non-personal services:

- Invasive Species
- Night Skies
- Light Pollution
- Desert Adaptation

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