

# Grand Canyon Parashant National Monument Visitor Use Reporting Plan

May 2005  
Draft

## **General Overview**

Grand Canyon-Parashant National Monument (GCPNM), a unit of the National Landscape Conservation System, was designated by Presidential Proclamation on January 11, 2000. Located in the northwest corner of Arizona, the monument is 1,054,308 acres in size. It is jointly managed by the BLM and the National Park Service (NPS), with approximately 800,000 acres of BLM land and 200,000 acres of Lake Mead National Recreation Area (NPS).

The overall purpose of the GCPNM Visitor Use Reporting Plan is to provide instructions for collecting, interpreting, and reporting data and professional estimates of visitor use for the national monument. Valid visitor use data in correlation with regular resource monitoring will enable land managers to work proactively to address impacts resulting from visitor use. These instructions are effective on the date of approval by the Monument Manager and will remain in effect until this VURP is amended.

## **Goal**

Develop a comprehensive, standardized system to collect visitor use data which provides valid information for current and future management decisions related to human/resource interaction on the AZ Strip.

## **Objectives**

1. Document the process, assumptions, and techniques that will be used to estimate and record visitor use for the area.
2. Create a standard set of forms, non-RMiS database and related formulas, that can be extrapolated into RMiS thereby restructuring the current RMiS.
3. Provide measurement tools for managing remoteness and protecting the monument objects and resources.
4. Provide management with framework for evaluating conditions and recommendations for management action.
5. Provide a collection system with capabilities to separate statistics to accommodate needs of multi-agencies and cross jurisdiction.

## **Recreation Use/Activity Overview**

The Monument's remote, open, undeveloped area and engaging scenery provides a wide array of dispersed recreation opportunities for unregulated recreation, including backcountry exploration by vehicle, hiking, backpacking, camping, picnicking, big and small game hunting, and wildlife observation. The area is contiguous to the western portion of the Grand Canyon and offers excellent scenic vistas of the canyon. Due to the dramatic changes of ecosystem

types and elevations throughout the monument, seasons of use and types of use are cyclic, changing throughout the year.

The monument has relatively few maintained roads. Those that exist are primitive and tend to be rough and rutted much of the year. This system of routes provides a variety of backcountry driving experiences and access to key destinations and features. This remote area offers the hearty, outdoor adventurer miles of unpaved and often extremely rough roads.

The monument’s current recreation management strategy is to manage transportation/access; interpretation/information; visitor use and other resource uses/users in such a way that maintains (enhances) the quality of “remoteness.” These concepts are discussed in greater detail using the Recreation Management System (ROS) in [Appendix ??](#), Managing Remoteness on the Arizona Strip.

**Visitation**

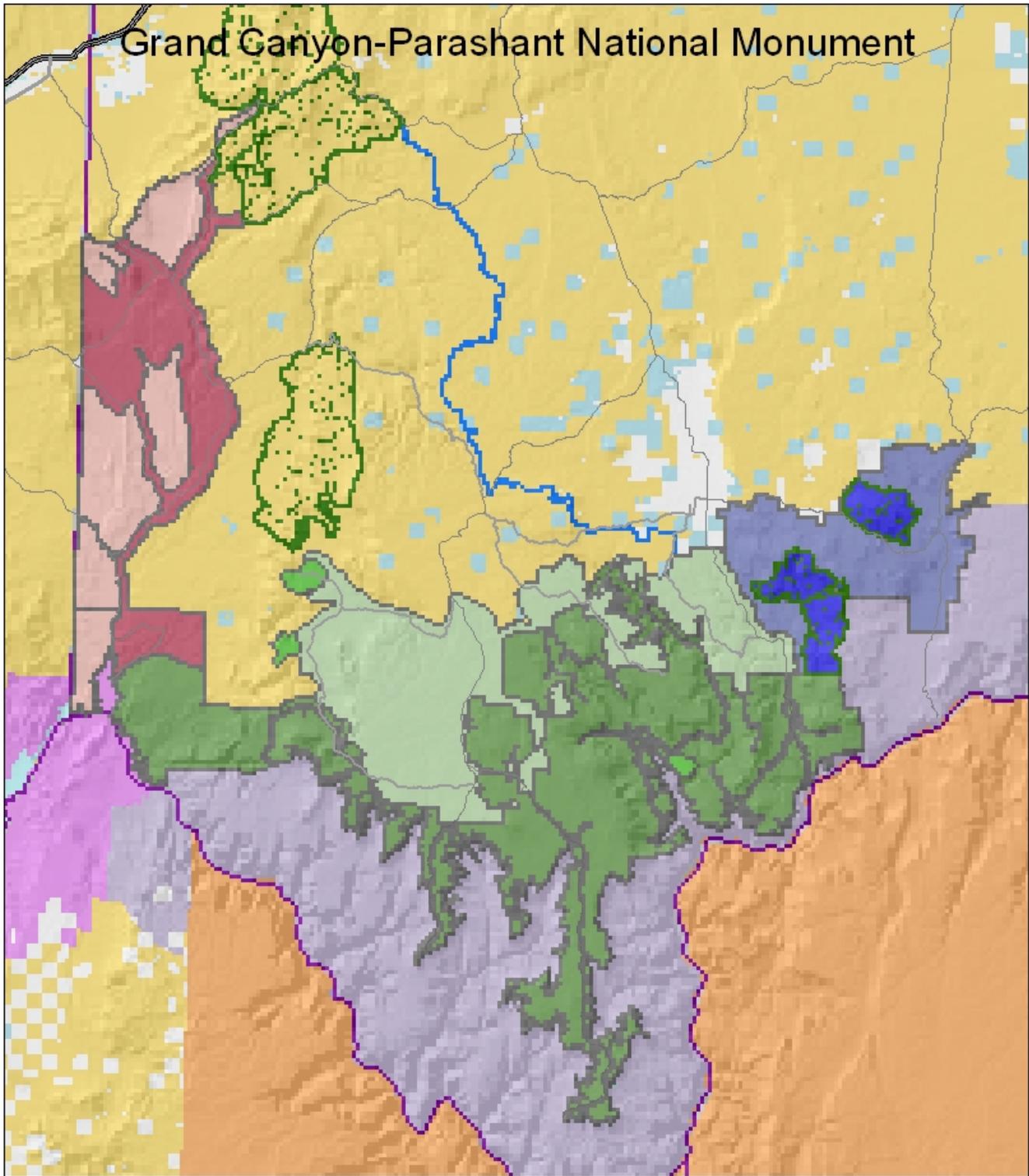
Due to the remoteness of the area, it is difficult to obtain actual numbers of visitation. Currently the estimates for visitor use are based on data collected from various traffic counters, register sheets and professional assumptions. While the figures in Table (??) are estimates based on road counters, trail registers and patrols, they represent the overall number of visitors to the area. The GNPNM Social Indicators Survey conducted by Northern Arizona University (NAU) completed June 2003, represents a descriptive analysis of a population of recreation users, non-recreational users, and surrounding community members of the GCPNM. The results are presented in Appendix C of this document. In addition, visitor use data from the Arizona Strip Interpretive Association Visitor Center, Lake Mead National Recreation Area, Grand Canyon National Park and Zion National Park contribute to the overall validity of visitor statistics.

Future estimates will be based on customized patrol logs, visitor registers at key locations, and permanent and intermittent traffic counters. Other sources of data will be incorporated from Grand Canyon National Park traffic counters and ranger patrols (Tuweep), Special Recreation Permit Use Reports, and Arizona Game and Fish Department’s Game Management Unit’s (AZGFD) [12](#) and [13b](#) records.

The GCPNM is established in the Recreation Management Information System (RMiS) (version 3.1) at the Field Office level and the Recreation Management Area level (AZ100). In order to increase accuracy of visitor use counts and to accommodate the multi-agency management of the monument, four recreation area segments have been established. Each segment serves as a distinct reporting unit of visitor use, which cumulatively will total visitation for the GCPNM. These four zones are:

Uinkaret SRMA Mt. Trumbull/Mt. Logan (Zone 1) Uinkaret Mountains (Zone 2)	Pakoon SRMA/SMA Pakoon Basin Motorized Area (Zone 1) Pakoon Wildlands (Zone 2)
Canyons and Rims SRMA/SMA Shivwitts Plateau (Zone 1) Grand Canyon Wildland (Zone 2) Historic Sites (Zone 3)	Parashant Extensive RMA





# Grand Canyon-Parashant National Monument

**Legend**

- |                        |                             |                              |
|------------------------|-----------------------------|------------------------------|
| <b>Uinkaret SRMA</b>   | <b>Pakoon SRMA</b>          | <b>Canyons and Rims SRMA</b> |
| Uinkaret Monoliths     | Pakoon Basin Mobilized Area | Hicrib Sites                 |
| Mt. Trumbull/Mt. Logan | Pakoon Wildlands            | Shawits Plateau              |
|                        |                             | Grand Canyon Wildlands       |

0 12,500 25,000 50,000 Meters

Map Created by Michelle Bailey



## Definitions

The following definitions will be used to determine the appropriate categories of data to collect and report:

1. "Visit" is the entry of any person onto lands administered by the monument. A visitor is an individual who may generate one or more visits.
2. "Visitor hour" is the presence of one or more persons in the monument for continuous, intermittent, or simultaneous periods of time aggregating one hour (one person for one hour or two persons for one-half hour each).
3. "Visitor day" is twelve visitor hours.
4. "Overnight stay" is one night stay in the monument by a visitor (a party of two visitors staying over for nights yields six overnight stays).
5. "Average-length-of-stay" the duration in hours of the average visit to a specific area, site or management unit.

## Visits

Recreation visits that are reported as public use:

1. Entries of persons onto lands or waters administered by the monument except non-recreation and non-reportable visits.

Non-recreation visits that are reported as public use:

2. Government personnel (other than monument employees)
3. Research conducted on behalf of the monument.

Non-reportable visits are not reported as public use:

1. Brief incidental entries into a park by passing traffic (vehicular or pedestrian) using monument administered grounds, roads, or walkways.
2. Employees assigned to the monument accessing the monument in connection with their duties.
3. Monument contractors, permittees, cooperating associations and their employees.
4. Persons going to and from in-holdings across parts of the monument.

## Reporting Visitation

### *BLM*

Formulas are built for sites, dispersed areas, corridor segments, and special recreation permits.

The BLM formula includes:

- Number of visits** that occur at the site
- Activities** occurring on site or in the area
- Average amount** of time participant spends during an activity
- Percent of visitors** that participate in each activity

### *NPS*

Monthly Public Use Reports will be submitted by the 15<sup>th</sup> of each month for the previous monthly reporting period. It is the responsibility of the superintendent to work with the Public Use Statistics Office to assure that an approved set of counting instructions is being used.

The contents of the Monthly Public Use Report shall contain the following applicable data:

1. **Visits** (recreational and non-recreational).
2. **Hours of use** (recreation and non-recreational) which is converted in visitor days.
3. **Overnight stays.**

The data will be entered electronically using the approved database management software. The PUSO shall provide and maintain the software and provide technical support to the park staff on the software's proper use.

## **Uinkaret SRMA Area Segment**

### I. Description

The Mount Trumbull Area Segment is roughly bounded by County Roads 5, 1530, and 717 on the north; the National Monument boundary on the east; the Grand Canyon National Park boundary and Lake Mead NRA (NPS) on the south; and Whitmore Road (BLM Road 1045) on the west. Wholly within the segment boundaries are the Mount Trumbull Wilderness, Mount Logan Wilderness, the approach to Grand Canyon NP's Toroweap area; Nampaweap Archeological site, Sawmill Historic Site, Uinkaret Site, five private land in-holdings, Mt. Trumbull Administrative buildings, and ranching allotments. This Area Segment falls within the Arizona Game Management Unit #12B.

This Area Segment experiences the highest recreational use level and the most diverse types of recreational activities in the monument. Main access roads into the area are county road 5 and 109 and BLM road 1001. **Do they enter/exit at the same location; overnight use; any unique activities; do visitors use multiple sites; it is important to track that?**

**These would include visitor facilities; campgrounds; trailheads; potable water; interpretive and educational signs; toilets; etc.**

### II. Data collection

#### A. Data sources currently available

- Mt. Trumbull Trailhead visitor register
- Nampaweap Trailhead visitor register
- Hurricane Rim Traffic Counter on County 5
- Toroweap Traffic Counter at the junction of County 5 and 115.
- Little Toroweap Traffic counter at the junction of 5 and 717
- 109 Traffic counter at Monument border
- Grand Canyon (115) Traffic counter at the border of the Monument and GCNP

#### B. Data collection schedule

Data collection will be completed monthly to assess trends in use throughout the seasons. Weather is a predominant factor in the accessibility of the traffic counters and trail registers in this unit. Driving on wet roads will be avoided to protect the resource and provide for personnel safety.

C. Potential measures to improve visitor data collection

In order to compile a more complete record of visitor use data, modifications to the current situation will be made. Arizona Department of Game and Fish data is to be incorporated to determine if their data can provide all or part of the visitor use information on hunting activities within this segment. NPS traffic counters on county 115 at Grand Canyon National Park boundary will also help to determine the visitor use that is passing through to Toroweap overlook. Researchers, fire personnel, and ranchers will be tracked and data will be amended to both include and exclude these users for various data sets.

With two traffic counters catching all access into and out of this unit validity level for actual visitor use numbers will be high. In order to prepare a formula for locations visited during trips into the segment, trail registers taken at Nampaweap, Mt. Trumbull trailhead and Sawmill site will be used. (A prototype for the register sheet has been created and is attached in Appendix B). Typical users will be established to better accommodate general use patterns to include: hunter (mostly dispersed in and around water sources, camping overnight ...) wilderness user (hike to top of Mt. Trumbull or visits overlooks in Mt. Logan) typical day user (stops at Sawmill/Uinkaret Site, Mt. Trumbull trailhead, Nampaweap Site, Toroweap Overlook and then out through Clay Hole) and those driving through to Toroweap Overlook.

Traffic counter at Hurricane Rim will be moved closer to the segment boundary on BLM 1001 to eliminate local traffic in and out of Bundyville; and an additional traffic counter will be located at the segment boundary south of the intersection of county roads 109 and 5. The raw data taken from the three traffic counters, register sheets, patrol logs and researchers/fire/rancher data will be collected heavily for the first 6-12 months to help establish validity in formulas and typical user groups. This data will be kept in a central file database and then transferred into RMiS as necessary.

D. Visitor Use Reporting

**Formula Number:** #1

**Formula Name:** Mt. Trumbull/Mt. Logan (Zone 1)

**Formula Purpose:** To estimate the amount of wilderness use that occurs within the Mt. Trumbull and Mt. Logan Wilderness areas.

**Data entry:** Mt. Trumbull and Mt. Logan Polygons

**Data Storage:** Mt. Trumbull/Mt. Logan (Zone 1)

**RMiS Frequency:** Quarterly

**RMiS Activities, Percentages, and Visitor Hours:**

Activity	% of Visits [1]	Average Hours
Hiking/Walking/Running	100	[2] 2.00
Watching Wildlife	10	.25
Visiting Historic/Cultural Resources	75	2.00
Hunting	5	24.00

Camping	5	24.00
Horseback Riding	1	6.00
Viewing Scenery	100	4.00
Backpacking	5	[3] 24.00

**Data Sources:**

- Mt. Trumbull Trailhead visitor register

**Estimation of Visits:**

The estimation of Wilderness Use in the Uinkaret SRMA will be made based on all those who identify they used the area through trail registers, modified for estimates to Mt. Logan Wilderness.

Data Source/Visitor Registration	Number	Factor	Visits Estimated
Registered visitors Mt. Trumbull Summit Trail		(x) 1.00	
Non-Registered Factor		(x) 0.20	
Wilderness visitors to Mt Logan and Mt. Trumbull (not summit trail)		(x) 0.50	

[1] Activity use based on GCPNM Social Indicators Survey Final Report June 2003.

[2] Average hours for the hike based on average for office personnel.

[3] Average hours for backpacking based most indicated one overnight stay.

**Formula Number:** #2      **Formula Name:** Uinkaret Mountains (Zone 2)

**Formula Purpose:** To estimate the use for the areas outside wilderness in the Uinkaret SRMA; including seasons of use and types of use.

**Data Entry:** Uinkaret Mountains Polygon

**Data Storage:** Uinkaret Mountains Interface

**RMIS Frequency:** Quarterly

**RMIS Activities, Percentages, and Visitor Hours:**

Activity	% of Visits [1]	Average Hours
Sightseeing/ Driving for pleasure	68	6
Camping	55	24
Hunting	15	
Hiking/Walking/Running	66	2
Viewing Historic/Cultural Resource	60	2
Viewing Scenery	80	6
Watching Wildlife	64	.50
Viewing Rockart	57	.50

**Data Sources:**

- Nampaweap Trailhead visitor register

- Hurricane Rim Traffic Counter on County 5
- Toroweap Traffic Counter at the junction of County 5 and 115.
- Little Toroweap Traffic counter at the junction of 5 and 717
- 109 Traffic counter at Monument border

**Estimation of Visits:**

Data Source/Visitor Registration	Number	Factor	Visits Estimated
Nampaweap Trailhead visitor register		(x) 1.00	
Non-Registered Factor (Nampaweap)		(x) 0.20	
Hurricane Rim Traffic Counter		(x) 0.50 (x) 2.2	
Toroweap Traffic Counter		(x) 0.50 (x) 2.2	
Little Toroweap Traffic counter		(x) 0.50 (x) 2.2	
109 Traffic counter		(x) 0.50 (x) 2.2	

[1] Activity use based on GCPNM Social Indicators Survey Final Report June 2003.

**Pakoon SRMA/SMA Area Segment**

I. Description

The Pakoon SRMA/SMA contains the Whitney administrative building (historically used as a fire lookout); one private in-holding; and Pakoon Springs Ranch. This SRMA/SMA incorporates four major portals that originate in NV with Mesquite, NV the closest city to this area unit. Visitor attractions include the Mohave Desert; Lime Kiln Mountain; Red Pockets; Tassi Ranch; Pakoon Springs; access to LAME and historic mines and other resources.

Mesquite, NV is the fastest growing city in Nevada. The Pakoon SRMA/SMA is in close proximity to this growth. With recreation potential for area residents dwindling as open space is developed, adjacent BLM lands become more valuable to visitors.

II. Data Collection

A. Data sources currently available

- Black Wash Traffic Counter located SE of Monument Boundary on Cnty Rd 113
- Whitney Pass North Traffic Counter: located S of Cnty Rd101, ?? miles east of monument boundary
- Whitney Pass South Traffic Counter:
- Lime Kiln Traffic Counter: West side of Cnty Rd 242, 9.3 miles south of Bunkerville Rd junction
- Grand Wash Traffic Counter: Located at BLM/NPS Boundary on Country Road 113
- Tassi Ranch Trail Register: Located at Tassi Ranch on the NPS side of the monument

B. Data collection schedule

Data collection will be completed monthly to assess trends in use throughout the seasons. Weather is a predominant factor in the accessibility of the traffic counters and

trail registers in this unit. Driving on wet roads will be avoided to protect the resource and provide for personnel safety.

C. Potential measures to improve visitor data collection

?? Needs work

D. Visitor use reporting

**Formula Number:** #1

**Formula Name:** Pakoon Basin Motorized (Zone 1)

**Formula Purpose:**

**Data Entry:**

**Data Storage:** Pakoon Basin Motorized

**RMIS Frequency:** Quarterly

**RMIS Activities, Percentages, and Visitor Hours:**

Activity	% of Visits [1]	Average Hours
Sightseeing/ Driving for pleasure	68	3
4-Wheel/ATV/Motorcycle on Roads	30	4
Camping	10	40
Hunting	15	48
Primitive Hiking	5	4
Mountain Bike Riding	2	4

[1] Activity use based on GCPNM Social Indicators Survey Final Report June 2003.

**Data Sources:**

**Estimation of Visits - BLM:**

Data Source/Visitor Registration	Number	Factor	Visits Estimated
Black Wash Traffic Counter		(x) 0.50 (x) 2.2	
Whitney Pass North Traffic Counter		(x) 0.50 (x) 2.2	
Whitney Pass South Traffic Counter		(x) 0.50 (x) 2.2	
Lime Kiln Traffic Counter		(x) 0.50 (x) 2.2	

**Estimation of Visits - NPS:**

Data Source/Visitor Registration	Number	Factor	Visits Estimated
Grand Wash Traffic Counter		(x) 0.50 (x) 2.2	
Tassi Ranch Trail Register		(x) 1.00	
Non-Registered Factor (Tassi)		(x) 0.20	

**Formula Number:** #2

**Formula Name:** Pakoon Wildlands (Zone 2)

**Formula Purpose:**

**Data Entry:**

**Data Storage:**

**RMIS Frequency:** Quarterly

**RMIS Activities, Percentages, and Visitor Hours:**

Activity	% of Visits [1]	Average Hours
Hiking	80	
Backpacking	5	
Hunting	10	
Photography	15	
Camping	15	

**Data Sources:**

**Estimation of Visits:**

Data Source/Visitor Registration	Number	Factor	Visits Estimated

[1] Activity use based on GCPNM Social Indicators Survey Final Report June 2003.

**Canyons and Rims SRMA/SMA Area Segment**

I. Description

The Canyons and Rims SRMA/SMA portion would be an area identified for intensive recreation management due to it’s distinctive, highly visible, or otherwise outstanding resource attractions; it’s potential to provide structured recreation opportunities in response to demonstrated national or regional recreation-tourism demand; it’s potential for moderate investments in facilities and visitor assistance; the potential for it’s niches to serve national and regional recreation-tourism markets; and it’s potential to emphasize meeting demand for specific activity, experience, and benefit opportunities provided through these superlative natural and cultural settings.

The Canyons and Rims SRMA/SMA contains the majority of NPS lands within the Monument. This SRMA/SMA includes Snap Point; Dellenbaugh administrative site; Twin Point; Kelly Point; Whitmore Canyon Point; Parashant Canyon; and Whitmore Canyon. The area includes outstanding overlooks into the Grand Canyon.

II. Data Collection

A. Data sources currently available

- Twin Point Traffic Counter

- Kelly Point Traffic Counter
- Dellenbaugh Trail Register
- Waring Ranch Trail Register
- Twin Point Trail Register

**B. Data collection schedule**

Data collection will be completed monthly to assess trends in use throughout the seasons. Weather is a predominant factor in the accessibility of the traffic counters and trail registers in this unit. Driving on wet roads will be avoided to protect the resource and provide for personnel safety.

**C. Potential measures to improve visitor data collection**

?? Needs work

**D. Visitor use reporting**

**Formula Number:** #1      **Formula Name:** Shivwitts Plateau (Zone 1)

**Formula Purpose:**

**Data Entry:**

**Data Storage:** Shivwitts Plateau

**RMIS Frequency:** Quarterly

**RMIS Activities, Percentages, and Visitor Hours:**

Activity	% of Visits [1]	Average Hours
Sightseeing/ Driving for pleasure		
Camping		
Hunting		
Hiking/Walking/Running		
Viewing Historic/Cultural Resource		
Viewing Scenery		
Watching Wildlife		
Viewing Rockart		

**Data Sources:**

**Estimation of Visits:**

Data Source/Visitor Registration	Number	Factor	Visits Estimated

[1] Activity use based on GCPNM Social Indicators Survey Final Report June 2003.

**Formula Number:** #2      **Formula Name:** Grand Canyon Wildlands (Zone 2)

**Formula Purpose:**

**Data Entry:**

**Data Storage:**

**RMIS Frequency:** Quarterly

**RMIS Activities, Percentages, and Visitor Hours:**

Activity	% of Visits [1]	Average Hours
Sightseeing/ Driving for pleasure		
Camping		
Hunting		
Hiking/Walking/Running		
Viewing Historic/Cultural Resource		
Viewing Scenery		
Watching Wildlife		
Viewing Rockart		

**Data Sources:**

**Estimation of Visits:**

Data Source/Visitor Registration	Number	Factor	Visits Estimated

[1] Activity use based on GCPNM Social Indicators Survey Final Report June 2003.

**Formula Number:** #3      **Formula Name:** Historic Sites (Zone 3)

**Formula Purpose:**

**Data Entry:**

**Data Storage:**

**RMIS Frequency:** Quarterly

**RMIS Activities, Percentages, and Visitor Hours:**

Activity	% of Visits [1]	Average Hours
Sightseeing/ Driving for pleasure		
Camping		
Hunting		
Hiking/Walking/Running		

Viewing Historic/Cultural Resource		
Viewing Scenery		
Watching Wildlife		
Viewing Rockart		

**Data Sources:**

**Estimation of Visits:**

Data Source/Visitor Registration	Number	Factor	Visits Estimated

[1] Activity use based on GCPNM Social Indicators Survey Final Report June 2003.

- Sustainable Motorized
  - Vehicle Exploring (OHV, ATV, Motorcycle)
  - Camping
  - Hunting
  - Primitive Hiking
  - Scenic Overlooks
  - Bar Ten 'Dude' Ranch (River trip)
- Wildland and Canyon Country
  - Hiking
  - Backpacking
  - Hunting
  - Photography
  - Camping
  - Canyoneering
  - Lookouts
- Historic Interest
  - Vehicle Exploring (OHV, ATV, Motorcycle)
  - Camping
  - Hunting
  - Primitive Hiking
  - Visiting Historic Sites

**Extensive Recreation Management Unit**

I. Description

II. Data Collection

- A. Data sources currently available
- B. Data collection schedule
- C. Potential measures to improve visitor data collection
- D. Visitor use reporting
  - Driving for pleasure
  - Hiking
  - Visiting Historic Sites
  - Sightseeing
  - Hunting
  - Camping

III. Implementation

**Prepared By:**

\_\_\_\_\_  
Michelle Bailey  
Grand Canyon-Parashant National Monument  
Outdoor Recreation Planner

\_\_\_\_\_  
Date

**Recommended for Implementation and Approved By:**

\_\_\_\_\_  
Dennis Curtis  
Grand Canyon-Parashant National Monument  
Monument Manager (BLM)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Darla Sidles  
Grand Canyon-Parashant National Monument  
Monument Superintendent (NPS)

\_\_\_\_\_  
Date

**Grand Canyon Prashant National Monument  
Wilderness Monitoring Report Form**

Wilderness Name

Observer

Type of monitoring – (drop down) hiking, horseback, vehicle

Estimated percentage of wilderness observed – (open answer) 3 characters

**Naturalness**

Signs of Motorized Trespass - (drop down) Y or N

Do wilderness signs need to be installed or replaced (drop down) Y or N

Exotic, invasive or noxious plants (drop down) Y or N

What kind – (open answer) 60 characters text

**Primitive Unconfined Recreation and Solitude**

Wilderness Visitors Observed (within boundary of wilderness) – (drop down) Y or N

How many? – (open answer) 2 characters

Type of visitor use – (drop down) hiking, backpacking, horsepacking, hunting, camping

Visitors along boundaries or at trailheads observed? – (drop down) Y or N

Type of visitor use - (drop down) Driving for pleasure, camping, hunting, hiking, mountain bike riding, viewing cultural sites

Field Work Completed – (drop down) barriers constructed, barriers maintained, weeds removed, trash removal, campsite clean-up, sign installed, other

Comments – note if the barrier is in good condition or needs to be replaced, I will add a field for this later

# memorandum

Observer \_\_\_\_\_

DATE: \_\_\_\_\_

SUBJECT: Wilderness Monitoring Report

TO: \_\_\_\_\_

Wilderness Name:

Observation Date:

What was observed:

- Use of motor vehicles in wilderness
- Use of mechanized equipment in wilderness
- Other (nothing, evidence of vehicle use, recent maintenance activity, people, missing boundary signs, low flying aircraft, wildlife, vandalism, etc.)

Explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Location of observation: \_\_\_\_\_

Was a person(s) identified? If so, who: \_\_\_\_\_

\_\_\_\_\_

Vehicle(s) Licence #: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

Was anyone contacted: What was said: \_\_\_\_\_

\_\_\_\_\_

Recommendation for corrective action: \_\_\_\_\_

\_\_\_\_\_

General Remarks: \_\_\_\_\_

Incident Number \_\_\_\_\_

OPTIONAL  
FORM NO.10

(REV. 4-  
01) ASFO

ARIZONA STATE PARKS  
Arizona State Committee On Trails  
Volunteer Trail Monitoring Form

Trail Name or Number : \_\_\_\_\_

Method of Travel:

Foot \_\_\_\_\_

Horseback \_\_\_\_\_

Mtn. Bike \_\_\_\_\_

Other \_\_\_\_\_

Date: \_\_\_\_\_

Report completed by \_\_\_\_\_

Address: \_\_\_\_\_

Phone: (    ) \_\_\_\_\_

Fax: (    ) \_\_\_\_\_

E-mail Address: \_\_\_\_\_

**TRAIL MONITORING REPORT**

*Please answer the following questions about the trail. Use the page from the Arizona State Trails System Guide (if available) to identify any needed corrections, observations, or general notes.*

1. Is the following information about the trail accurate as described? (if using guide)

	YES	NO
Trail Distance	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty	<input type="checkbox"/>	<input type="checkbox"/>
Trailhead Parking	<input type="checkbox"/>	<input type="checkbox"/>
Comments:	_____	

2. Did you observe any of the following:

	YES	NO
Litter	<input type="checkbox"/>	<input type="checkbox"/>
Vandalism	<input type="checkbox"/>	<input type="checkbox"/>
Shortcutting	<input type="checkbox"/>	<input type="checkbox"/>
Social Trails	<input type="checkbox"/>	<input type="checkbox"/>
Target Shooting	<input type="checkbox"/>	<input type="checkbox"/>
Woodcutting	<input type="checkbox"/>	<input type="checkbox"/>
Other concerns:	_____	

3. To the best of your ability, please describe and estimate the trail conditions for the following items.

**A. Trail Width Average**

\_\_\_ 0 - 2 feet \_\_\_ 2 - 4 feet \_\_\_ 4+ feet

**B. Trail Surface Type (check all that apply)**

Rocky	<input type="checkbox"/>	Paved	<input type="checkbox"/>
Sandy	<input type="checkbox"/>	Dry Wash	<input type="checkbox"/>
Firm	<input type="checkbox"/>	Clay	<input type="checkbox"/>
Soft	<input type="checkbox"/>	Wet	<input type="checkbox"/>
Gravel	<input type="checkbox"/>	Other	<input type="checkbox"/>

**C. Trail Tread Condition**

Good  Fair  Poor  Unsafe

**D. Predominate Trail Grade**

Level  Moderate  Steep  Other

**E. Trail Obstructions**

	YES	NO
Large Fallen Rocks	<input type="checkbox"/>	<input type="checkbox"/>
Fallen Trees	<input type="checkbox"/>	<input type="checkbox"/>
Overgrown Vegetation	<input type="checkbox"/>	<input type="checkbox"/>
Other _____		

**F. Trail Drainage**

	YES	NO
Trail erosion occurring	<input type="checkbox"/>	<input type="checkbox"/>
Drainage structures working	<input type="checkbox"/>	<input type="checkbox"/>
Drainage structures need cleaning	<input type="checkbox"/>	<input type="checkbox"/>
Drainage structures need repaired	<input type="checkbox"/>	<input type="checkbox"/>

**G. Trail Signage**

	YES	NO
Adequate Amount	<input type="checkbox"/>	<input type="checkbox"/>
Adequate Information	<input type="checkbox"/>	<input type="checkbox"/>
Damaged	<input type="checkbox"/>	<input type="checkbox"/>
Comments _____		

**H. Trailhead Conditions**

	YES	NO
Restroom available	<input type="checkbox"/>	<input type="checkbox"/>
4 wheel drive only access	<input type="checkbox"/>	<input type="checkbox"/>
High clearance needed	<input type="checkbox"/>	<input type="checkbox"/>
Other concerns : _____		

5. Please provide any additional comments you have regarding the trail, access, trail conditions or safety concerns: \_\_\_\_\_

6. Would you be interested in volunteering for trail maintenance work on this or other trails? \_\_\_\_\_

7. Would you be interested in attending trail assessment or maintenance training? \_\_\_\_\_

**THANK YOU!**

We appreciate your time in helping to ensure the quality and safety of trails within the State Trails System.

Mail completed forms to: Recreational Trails Cdntr  
Arizona State Parks 1300 W. Washington St  
Phoenix, AZ 85007

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TO:  
Recreational Trails Coordinator  
Arizona State Parks  
1300 W. Washington St  
Phoenix, AZ 85007

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A Comprehensive Recreation Impact Monitoring System  
Dispersed Sites/Backcountry Sites  
for the Arizona Strip District  
Bureau of Land Management (Revised: May 25, 2006)

This Proposal Includes the Following Areas:

Arizona Strip Field Office  
Vermilion Cliffs National Monument  
Grand Canyon-Parashant National Monument  
(Including National Park Service Areas)

Proposed Work

This project focuses on the development and maintenance of an on-going, comprehensive recreation impact monitoring system for the Arizona Strip District of the Bureau of Land Management (BLM) and Lake Mead National Recreation Area within GCPNM boundaries of the National Park Service. Specific resource areas to be included in the proposal include:

- 1). Arizona Strip Field Office (BLM);
- 2). Vermilion Cliffs National Monument (BLM); and
- 3). Grand Canyon Parashant National Monument (BLM and NPS).

This project is based on the planning approach entitled the Limits of Acceptable Change (LAC). While LAC includes nine detailed steps, there are four basic implementation concepts relevant to the wildland recreation planning process:

1. Specification of acceptable and achievable resource and social conditions. (Basically, what do you want in the area or on the site?)
2. Analysis of the relationship between existing conditions and those judged acceptable. (What do you currently have in the area or on the site? This includes baseline inventory data and how does baseline compare with desired conditions?)
3. Identification of management actions judged to best achieve desired conditions. (What do you need to do to get to your desired conditions? This includes recreation management prescriptions such as education, permits, allocations, site rehabilitation, user fees, and law enforcement, to name a few.)
4. A program of monitoring and evaluating management effectiveness. (How do you know when resource change occurs?)

LAC postulates that all users are consumptive users and that resource impacts are the inevitable result of site use. While human impacts may change the

nature of a site, the amount of change tolerated on any site is a managerial decision. It has been demonstrated that informed managerial decisions allow for the creation of sustainable recreation environments; however, effective decisions can only be made within an informed framework of social and physical site data collection. Monitoring programs, inventories, and standards are all critical to resource managers who make and justify their resource decisions and managerial directives to policy makers and a diversity of publics.

It is assumed that the number and extent of physical human impacts on any recreation site is a useful indicator of both visitor behaviors and visitor numbers. Furthermore, it is assumed that a variety of indicators or variables can be developed to measure the physical impacts. Finally, it is postulated that valid and reliable data collected on-site will enable managers to make informed decisions regarding future site management alternatives and potential recreation management prescriptions. This project extends beyond baseline data collection, in most cases, to an on-going monitoring program to determine longitudinal trend analysis related to on-site changes due to human use in the backcountry and dispersed areas of the Arizona Strip.

This comprehensive monitoring project builds upon recreation impact work (inventories and monitoring) completed to-date for the Arizona Strip Field Office (since 1995) and the Grand Canyon-Parashant National Monument (since 2002)(See Table 1). The project proposes to develop and implement a comprehensive recreation impact monitoring program (including variables, on-site data collection, and data analysis and reporting) for the Arizona Strip Field Office, Vermilion Cliffs National Monument, and the Grand Canyon-Parashant National Monument (BLM and NPS). The above areas may be further split into Special Recreation Management Areas (SRMAs) or Extensive Recreation Management Areas (ERMAs). Project work includes, as follows:

- 1). Inventories (Updated regularly based on site needs and use changes);
- 2). Monitoring (On a scheduled basis based on site needs);
- 3). Monitoring Standards (Adaptable to managerial needs and site conditions);
- 4). Data Analysis and Reporting (On an annual basis including a hard copy report, presentations, and additional reports as requested); and
- 5). A Web-Based Monitoring Management Tool to assist in determining significant site/resource changes and to evaluate the need for recreation management prescriptions.

Project Contributions to the Objectives of the CESU:

- 1). To provide a basis for high-quality scientific research and technical assistance to the implementation of adaptive recreation management.
- 2). To ensure objectivity and independence in evaluating the status of recreational impacts on resource areas.
- 3). To recreate an on-going, effective, and efficient partnership between NAU and the federal agencies to include: Arizona Strip Field Office, Vermilion cliffs National Monument, and Grand Canyon-Parashant National Monument.
- 4). To enable undergraduate and graduate students to interact with federal agency personnel and to experience on-the-ground recreation resource management.
- 5). To assist BLM and NPS managers in the efficient management of inventorying and monitoring systems.

Table 1: Recreation Impact Work Completed  
On the Arizona Strip Field Office, Vermilion Cliffs National Monument, and  
Grand Canyon-Parashant National Monument Since 1995

Grand Canyon-Parashant National Monument

Recreation Inventory:	Completed 2002	\$20,000
Recreation Monitoring:	Completed 2004/05	\$6,000
Monitoring Standards:	Completed 2005	No Cost

Vermilion Cliffs National Monument

Recreation Inventory:		
Coyote Buttes North	Completed 2003	\$400
Coyote Buttes South	Completed 2003	\$400
The Tee Pees	Completed 2003	\$400
Paria Canyon	Completed 1999	\$1,200
Paria Plateau	Completed 2003	\$10,500
Ferry Swail	Completed 2004	\$1,600
Recreation Monitoring:		
Coyote Buttes North	Completed 2006	\$400
Coyote Buttes South	Completed 2006	\$400
The Tee Pees	Completed 2006	\$400
Paria Canyon	Completed 2005	\$1,000
Paria Plateau	Not Completed	
Ferry Swail	Not Completed	
Monitoring Standards	Completed 2005	No Cost

## Arizona Strip Field Office

### Recreation Inventory:

House Rock Valley/Marble Canyon	Not Completed	
Kanab Creek Wilderness (Backcountry)	Completed 2002	\$1,000
Kanab Creek Wilderness (Boundaries)	Completed 2006	\$1,900
Other Dispersed Areas	Not Completed	

### Recreation Monitoring:

House Rock Valley/Marble Canyon	Not Completed	
Kanab Creek Wilderness (Backcountry)	Completed 2004	\$1,600 (USFS)
Kanab Creek Wilderness (Boundaries)	Integrated with Backcountry & Dispersed Monitoring	
Other Dispersed Areas	Not Completed	

Monitoring Standards	Completed 2005	No Cost
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Web-Based Monitoring Management Tool	In Development	\$2,000
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## Primary Goals of the Project

- 1). To develop a comprehensive recreation impact monitoring program for the Arizona Strip Field Office, Vermilion Cliffs National Monument, and Grand Canyon-Parashant National Monument:
  - A. Inventories on a regularly occurring basis;
  - B. Monitoring on a scheduled format, and
  - C. A web-based monitoring management tool to provide EASY access to the inventory/monitoring information and to determine when on-site assessment has exceeded standards or to track critical site variables.
- 2). To develop a recreation impact inventory/monitoring program which provides the Arizona Strip Field Office, Vermilion Cliffs National Monument, and Grand Canyon-Parashant National Monument, with the appropriate resource information in a valid, reliable, and timely manner in order for site managers to make decisions regarding recreation land use prescriptions.

## Final Product

The project will result in the following deliverables for the Arizona Strip Field Office, Vermilion Cliffs National Monument, and Grand Canyon-Parashant National Monument:

- 1). Monitoring and inventory schedules for all areas identified by the BLM and NPS.
- 2). Monitoring variables/forms specifically designed to assess the resource areas identified.
- 3). Monitoring standards which are specific, adjustable, and provide appropriate resource change information.
- 4). On-site data collection with an emphasis on validity, reliability, and economic feasibility by NAU personnel.
- 5). GIS coordinates, as appropriate, for all sites with correction assistance from Arizona Strip District's GIS personnel.
- 6). Digital images, as appropriate, for sites.
- 7). Data analysis and reporting on a yearly schedule including a hard copy report and presentation. In addition, annual reports submitted to NPS as required by the CESU.
- 8). A web-based monitoring management tool developed by Tim Carley which stores all inventory/monitoring data and generates on-going reports related to variables which exceed standards or are of critical importance to the

agency.

### Proposed Implementation Schedule

January, 2005	Initial Project Proposal
Summer, 2005	Monitoring Standards Workshop
Fall, 2005	Project Work
Spring/Fall 2006	Project Work
Spring/Fall 2007	Project Work
Spring/Fall 2008	Project Work
Spring/Fall 2009	Project Work
Spring/Fall 2010	Project Work
	Final Project Summary/Workshop

### Inventory/Monitoring Protocols

Due to the comprehensive nature of this project, three methodological protocols must be established:

1. Inventory Protocol (Backcountry or Dispersed),
2. Dispersed Monitoring Protocol, and
3. Backcountry Monitoring Protocol.

#### 1). Inventory Protocol Overview

Inventory projects focus on "baseline" recreation impact data collection in the form of a "Rapid Site Inventory (RSI)". An RSI is a "quick, snap-shot" of a site without quantitative analysis of the impacts. The assessment is focused on presence/absence of impacts and requires a maximum of 10 minutes on-site to complete the assessment. The objective of an RSI is to obtain as many sites as possible (in the 90-95% range of site capture) in any area prescribed for study. The RSI forms the basis from which the on-going physical impact monitoring program can be developed. As opposed to the RSI, the on-going monitoring program is a quantitative assessment of recreational physical impacts.

In an inventory program, it is assumed that the number, type, and extent of physical human impacts on a recreation site is a useful indicator of both visitor behaviors and visitor numbers. Based upon physical impact information (in combination with social information and managerial expertise), site managers have the ability to formulate recreation management prescriptions for a site (such as education, outreach, allocations, fees, limits, group size numbers, site closure, site rehabilitation, rest-rotation of sites, etc.). A representative copy of a

INVENTORY FORM is attached to this proposal.

2). Dispersed Monitoring Protocol Overview

Monitoring systems are based on longitudinal analysis of data collected on a sample of sites over time. The concept includes identification of "indicator sites" and repeated monitoring of these sites to determine resource base changes related to recreational use. Dispersed monitoring systems build upon Rapid Site Inventories and when combined with the Visitor Use Reporting Plan assist in creating a sustaining recreational experience for visitors to Arizona Strip District and Grand Canyon-Parashant National Monument. The project will use a quantitative monitoring approach using current techniques and procedures with a data dictionary developed to the specifications of the BLM. In the monitoring system, a sample of long-term sites will be established within the each area for monitoring comparisons over time periods.

**Monitoring Sites:** The following protocol will be followed when collection on-site monitoring data:

- 1). All site clusters or event sites, as identified in the most recent RSI or as encountered in the field, will be identified for monitoring as a Recreation Node (site).
- 2). All extremely impacted sites, as identified in the most recent RSI or as encountered in the field, will be identified for monitoring as a Recreation Node (site).
- 3). All heavily impacted sites, as identified in the most recent RSI or as encountered in the field, will be identified for monitoring as a Recreation Node (site).
- 4). At least 50% of all medium/slight/unimpacted sites, as identified in the most recent RSI or as encountered in the field, will be identified for monitoring as a Recreation Node (site).

Dispersed monitoring systems will include a variety of variable forms such as:

- 1). Road Descriptor Form (completed for each road),
- 2). Off Road Impact Form (tally type form completed for each road),
- 3). Recreation Node Impact Form (completed for each recreation site),
- 4). Climbing Impact Form (completed for each site), and
- 5). Other forms/variables may be developed as appropriate for the resource base being monitored. The goal is to collect appropriate

information on "indicator sites" to track recreation-caused changes to the resource base. In addition, data collection techniques may be revised to meet the most current approaches in the field.

A representative copy of a DISPERSED MONITORING FORM is attached to this proposal.

### 3). Backcountry Monitoring Protocol Overview

Based on the most recent RSI, a set of indicator sites will be established to track human impacts longitudinally across the monitoring horizon. In the backcountry, as in the dispersed areas, all extremely or heavily impacted sites, as indicated by the most recent RSI, will be included in the monitoring system. In addition, at least 50% of all moderately or slightly impacted sites will be included. Criterion for including moderately or slightly impacted sites include: relocation potential of the site, the ability of the site to reflect user changes in the backcountry area, any special circumstances or site variables (such as cultural features or inherent site conditions) that give cause for additional site concerns.

A representative copy of a BACKCOUNTRY MONITORING FORM is attached to this proposal.

**Note:** Additional forms/variables may be developed as appropriate for the resource base being monitored. The goal is to collect appropriate information on "indicator sites" to track recreation-caused changes to the resource base. In addition, data collection techniques may be revised to meet the most current approaches in the field.

## BLM Responsibilities

- 1). NAU may have access to BLM vehicles for on-site data collection as available and appropriate. NAU may have access to ATV's for on-site data collection as available and appropriate and following ATV training certification.
- 2). BLM will assist with field information, maps, GIS equipment (as available), and site locations during data collection.
- 3). BLM may provide access to BLM administrative areas during data collection as available and appropriate.

## NAU Responsibilities

- 1). Coordination and communication of data collection periods.
- 2). Development of the on-site monitoring systems to include: on-site data collection techniques, data forms/variables, and a data collection dictionary based on BLM/NPS specifications.
- 3). On-site data collection of recreational impacts as per the agreed upon schedule and protection of the integrity of the data following collection.
- 4). Data compilation and analysis in an Access database and posted to the web-based monitoring management tool.
- 5). Oral and written reports to BLM/NPS.
- 6). Responsibility and accountability for any BLM furnished supplies and materials such as: vehicles, ATV's, and radios.

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