

**Sonoran Desert National Monument
Recreation Impact Monitoring System**
(July 3, 2007; Revised July 9, 2007)

Purpose

The Sonoran Desert National Monument (SDNM) was established on January 17, 2001 as a “magnificent example of untrammled Sonoran desert landscape”. The monument is managed by the Bureau of Land Management (BLM), Phoenix Field Office. The SDNM staff is in the process of completing the land use plan to determine how the area will be best managed to ensure this desert landscape is not compromised. Subsequent activity and monitoring plans will be established, as well, to implement these management decisions once the plan is approved.

This project is based on the planning approach known as the *Limits of Acceptable Change* (LAC). LAC postulates that all users are consumptive users of the resource-base and that resource impacts are the inevitable result of site use. While recreational impacts may change the nature of a site, the amount of change tolerated on any site is a managerial decision. It is further assumed that informed managerial decisions may allow for sustainable recreation environments and that appropriate managerial decisions can only be made within a framework developed from baseline data inventories (completed for the SDNM in 2003), subsequent implementation of an on-site recreational impact monitoring system (implemented in 2005 and 2006), and specific topical research questions.

This project will build on the 2005-2007 recreation impact monitoring work and focus on activities which support, clarify, and increase usability of the monitoring data and on activities which apply the data to the larger question of “how to conceptualize wildland recreation management on the urban fringe of a large metropolitan area”

This project will include the following work activities:

- 1). Production of a GIS map using both the inventory and monitoring data to enable a visual representation of site distribution and impact distribution. This is particularly of interest in terms of (a) off road impacts and (b) shooting impacts.
- 2). A recreation impact inventory of the backcountry areas within SDNM. All impact indicators and areas are at the discretion of the BLM. It is anticipated that a standard backcountry impact form will be used as a starting point.
- 3). Upgrading of the web-based data management system under the direction of Tim Carley. This upgrade will allow for additional individual analysis of the current data base and flexibility on the part of the agency in both use and management.
- 4). Initial support of a Master’s thesis (Tim Dealy) focusing on wildland recreation

management at the urban fringe. Initial activities will investigate the following: (a) identification of urban fringe impacts and their significance/intensity, (b) distribution of urban fringe impacts across SDNM, and (c) mapping of the current level of penetration of urban fringe impacts into the Monument (with an eye towards tracking rates and levels of penetration in the future).

Goals of the Project

- 1). Continue to develop useful techniques and approaches to data collected at SDNM related to recreation impacts (inventory and monitoring data).
- 2). To begin to document and investigate the range and significance of urban fringe impacts on a wildland recreation area including establishment of photo points.
- 3). To extend the assessment of recreation impacts into the backcountry for future reference related to use increases or activity changes.

Final Product (Deliverables)

The project will include the following products:

- 1). An upgraded website data base for SDNM accessible to agency personnel at <http://recfusion.timcarley.com/recmgtapp>.
- 2). A GIS map of recreation impact work to-date on SDNM to the specifications of the BLM (in terms of variables).
- 3). An initial report on the status and significance of urban fringe recreation impacts.
- 4). A report on the recreation impacts of the backcountry areas of SDNM.

Proposed Implementation Schedule

July, 2007	Project Proposal and Contract Initiation
September-October, 2007	GIS Recreation Impact Map Development
September-November, 2007	Data base upgrading and development
September, 2007 - May, 2008	Urban Fringe Impact Analysis: -Literature Review -Impact Descriptions -Significance and Intensity of Impacts -Distribution of Impacts -Penetration of Urban Fringe impacts into SDNM
November-January, 2007	Backcountry Recreation Impact Assessment