

Management Program

AN ADDENDUM
TO THE NATURAL AND CULTURAL
RESOURCE MANAGEMENT PLAN
FOR

Saguaro National Monument

Prepared by
Saguaro National Monument

NATIONAL PARK SERVICE / DEPARTMENT OF THE INTERIOR / MAY 1979

MANAGEMENT PROGRAM

An Addendum
to the Natural and Cultural
Resources Management Plan
for
Saguaro National Monument

Prepared by
Saguaro National Monument
National Park Service
Department of the Interior

May 1979

NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Saguaro National Monument, Western Region.
2. PROJECT NAME AND NUMBER: Saguaro Population Monitoring (RM-5).
3. STATEMENT OF PROBLEM: Knowledge of the status and trend of saguaro cactus populations in characteristic and topographically dissimilar habitats provides a measure of the effect of climatic change, and is necessary for management decisions and interpretation.
4. WHAT HAS BEEN DONE: Ten saguaro population study plots (4 in Tucson Mountain Unit, 6 in Rincon Mountain Unit) were established in 1975 to monitor long-term historic status and subsequent trend of the populations; thus establishing a basis for predicting the future conditions of these populations.
5. DESCRIPTION OF WORK TO BE UNDERTAKEN: Continue monitoring the study plots at five year intervals. The first five year resurvey and analysis should be scheduled for FY 1980.
6. LENGTH OF TIME NEEDED: This is a long-term investigation.
7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Management and interpretive information will be lacking on this key natural resource of the park.
8. WHAT ARE THE ALTERNATIVES:
 - a. Use data generated by opportunity research.
 - b. Use available data.
 - c. Accomplish in-house as a part of ongoing park operation.
9. PERSONNEL: Monitoring will be accomplished under contract by University of Arizona based scientists under the current direction of the Unit Leader CPSU/UA.

*no billing in
this pub*

10. ADMINISTRATION AND LOGISTICS:

<u>Funding</u>	<u>Year in Program Sequence</u>				
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>5th</u>
Personal services	2,000	0	0	0	0
Other than personal services	2,000	0	0	0	0
Grand Total	4,000				
Funds available in park base:	0	0	0	0	0
Funds requested from Regional Office:	4,000	0	0	0	0

On Form

Date Submitted:

10-237

April 1, 1979

11. REFERENCES AND CONTACTS:

- a. Unit Leader CPSU/UA.
- b. Dr. Raymond M. Turner, Research Botanist, U.S. Geological Survey, Tucson, Arizona.
- c. Dr. Stanley M. Alcorn, Plant Pathologist, University of Arizona.
- d. Publications of the Desert Botanical Laboratory, 1903-1940.
- e. Bibliography: The Saguaro Giant Cactus, by Warren F. Steenbergh, Research Scientist, Saguaro National Monument, 1974.

12. DATE OF SUBMISSION: April 1, 1979.

NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Saguaro National Monument, Western Region.
2. PROJECT NAME AND NUMBER: Climatic Monitoring (RM-7).
3. STATEMENT OF PROBLEM: The monument lacks important information on the climate in representative biotic communities. This information is necessary for wildfire management programs, understanding the fluctuations and distribution in plant and animal populations, and for natural resources research. Little is known about freezing temperatures in selected saguaro habitats. Knowledge of winter low temperatures would be invaluable for saguaro research and prediction of future population fluctuations.
4. WHAT HAS BEEN DONE: Rincon Mountain and Tucson Mountain Units daily weather records have been maintained, but not with standard weather thermometers. Discontinuous records exist for Manning Camp and Madrona Ranger Station. Some weather records were generated by saguaro cactus research in selected habitats.
5. DESCRIPTION OF WORK TO BE UNDERTAKEN: Establish weather stations in representative biotic communities. A determination must be made about the instrumentation, cost, logistics, locations and methods for maintaining continuity of data.
6. LENGTH OF TIME NEEDED: Long-term project.
7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Valuable weather data will not be obtained from representative biotic communities; especially saguaro habitats.
8. WHAT ARE THE ALTERNATIVES:
 - a. Do nothing.
 - b. Utilize fire weather data from RMU and current data generated at TMU. Maintain Rincon Mountain stations whenever practical.
 - c. Discontinue data collection.
9. PERSONNEL: Monument employees.

10. ADMINISTRATION AND LOGISTICS:

<u>Funding</u>	<u>Year in Program</u>					<u>Sequence</u>
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>5th</u>	
Personal services	0	0	0	0	0	
Other than personal services	5,000	300	300	300	300	
Grand Total	6,200					
Funds available in park base:	0	0	0	0	0	
Funds requested from Regional Office:	5,000	300	300	300	300	

On Form

Date Submitted:

10-237

April 1, 1979

11. REFERENCES AND CONTACTS:

- a. Unit Leader CPSU/UA.
- b. Dr. Raymond Turner, Research Botanist, USGS.
- c. Richard A. Wood, U.S. Department of Commerce NOAA, National Weather Service Office, Tucson International Airport, Tucson, Arizona 85706.

12. DATE OF SUBMISSION: April 1, 1979.

NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Saguaro National Monument, Western Region.
2. PROJECT NAME AND NUMBER: Air Quality Monitoring (RM-8).
3. STATEMENT OF PROBLEM: The Clean Air Act Amendments of 1977 provide strong air quality protection to Saguaro National Monument (Designated Class I). In order to carry out the intent of the act, monitoring devices will be required. None exist today within the boundaries of either unit. Tucson metropolitan area is currently classified as a nonattainment area for carbon monoxide, particulates and oxidants (ozone).
4. WHAT HAS BEEN DONE: Pima County has done random monitoring at spot locations close to the park boundary. An SO₂ monitoring device was operated at the headquarters visitor center during 1976 and 1977, and the data is in the park files.
5. DESCRIPTION OF WORK TO BE UNDERTAKEN:
 - a. Determine specific categories of pollutants to be monitored.
 - b. Determine locations for monitoring devices.
 - c. Purchase and install devices.
 - d. Operate devices.
6. LENGTH OF TIME NEEDED: Six months for parts a.-c. Long-term for d.
7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Base line data and changes in air quality will be undetermined. It will be impossible to carry out the provisions of the act as specified for Class I areas.
8. WHAT ARE THE ALTERNATIVES:
 - a. Pima County or the State will monitor.
 - b. EPA will monitor.
 - c. Do not monitor.

9. PERSONNEL: To be determined.

10. ADMINISTRATION AND LOGISTICS: Undetermined at this time.

<u>Funding</u>	<u>Year in Program Sequence</u>				
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>5th</u>
Personal services	5,000	5,000	5,000	5,000	5,000
Other than personal services	20,000	3,000	3,000	2,000	2,000
Grand Total	55,000				
Funds available in park base:	0	0	0	0	0
Funds requested from Regional Office:	25,000	8,000	8,000	7,000	7,000

On Form

Date Submitted:

10-237

April 1, 1979

11. REFERENCES AND CONTACTS:

a. CAAA-77.

b. Pima County Air Quality Control District.

12. DATE OF SUBMISSION: April 1, 1979.

MANAGEMENT PROGRAM

SUMMARY

This Management Program for Saguaro National Monument is a document that proposes management and research actions, which will implement the Natural and Cultural Resources Management Plan. The Plan outlines a general long-term program designed to provide for natural and cultural resource management and research. The Management Program however, proposes specific projects to be carried out, according to availability of funds, for five years beginning with Fiscal Year 1980. The Management Program will be revised and updated approximately annually as the need arises to add new management or research projects and to reevaluate priorities.

The Management Program that follows contains:

- A list of natural and cultural resources projects (see Table of Contents).

- Natural and cultural resources project statements that serve as "blueprints" for proposed actions.

- A natural and cultural resources project programming sheet listing each project in relation to park priority, funding, and time scheduling for the five-year period.