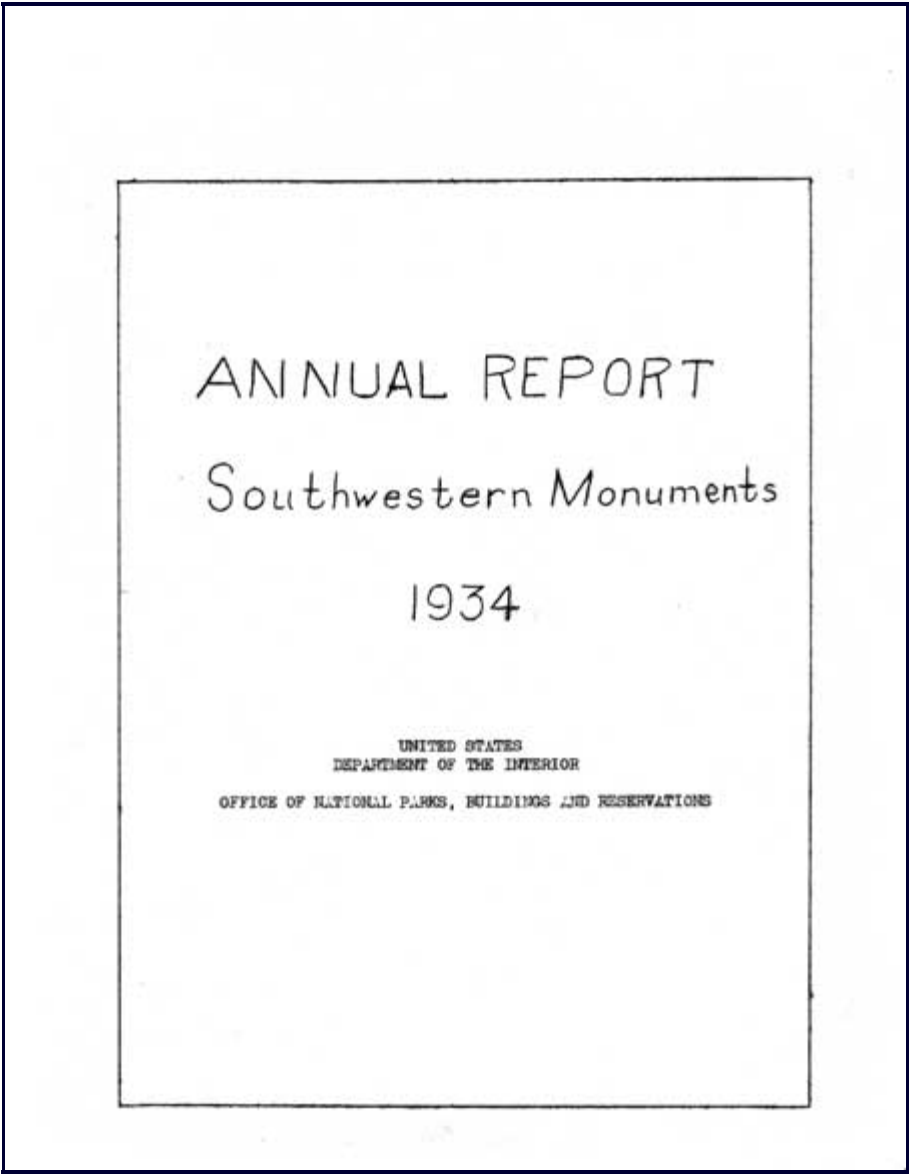




**ANNUAL REPORT**  
**SOUTHWESTERN MONUMENTS**  
**1934**



UNITED STATES  
DEPARTMENT OF THE INTERIOR

OFFICE OF NATIONAL PARKS, BUILDINGS AND RESERVATIONS

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**SOUTHWESTERN MONUMENTS**  
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ANNUAL REPORT

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## GENERAL

### Highway Construction and Improvement in District:

In the Annual Report for 1933, more than a dozen major road items of construction or improvement were listed for the Southwestern district. The past year has seen continuation and completion of those projects with a few additional ones worthy of note and which will be here listed.

a. Work has continued on U. S. Highway 89 between Phoenix and Prescott. This highway is the principal arterial between the Mexican Border, through the Rockies, to Canada. It is the main avenue of travel from the relatively low desert valleys of southern Arizona to the plateau of the northern part of the State. This road also carries most of the Arizona-Utah traffic.

b. Paving and general improvement have continued on U. S. Highway 66 on the sections both east and west of Holbrook. The unpaved gaps on this transcontinental highway are being rapidly closed. Considering the past two year period, improvement of this arterial has been remarkable.

c. For several years there has been a paved road from the Casa Grande Valley, Phoenix, and Tucson, into the rugged country about Coolidge Dam. During the past year through various special work programs, much cutting and filling have been done all of which have contributed 100 percent, to driving comfort through that scenic and rugged country.

d. In northern Arizona the road between Kayenta and Tuba City is improved and is better than it has been in years.

e. A network of minor roads about El Morro has been improved. While it has made it more pleasant and safe for visitors, it has brought a deluge of travel into El Morro such that our one lone temporary Ranger and part-time non-resident Custodian have more of a problem on their hands than they can very well handle.

f. Between Thoreau and Crownpoint, New Mexico, wonderful road improvement has resulted during the past year. There has been little improvement made in the rough 35 mile section between Crownpoint and Chaco Canyon. The road from Chaco, north to Aztec and Farmington, 65 to 75 miles, has also been much improved. Both of these roads are still, however, seasonal roads.

The road improvements described on the preceding page, together with the remarkable improvements of the previous year, have been accomplished outside the limits of the monuments with Federal, State and county funds. While we like to see improvements which make travel safer and more comfortable for our visitors, on the other hand those roads are making the monuments more accessible, increasing responsibilities in public contacts and protection. Monuments that have been one-Ranger jobs are fast becoming two, three and four-man tasks.

### Resume of Weather and Climatic Conditions for the Year.

Summer heat continued unusually late in the Fall of 1933. One of the mildest winters on record prevailed over the entire Southwest. Under

ordinary winter conditions the prosecution of a Civil Works Program in the northern monuments of the district would have been impossible during December, January and February, while oftentimes weather conditions during November, March and April are intolerable for out-of-door work. The past winter, however, work continued right on through the winter months with little break because of bad weather. This was fortunate from the standpoint of the special work programs.

With one of the lightest precipitation records in decades in the region, the quantity of water impounded in the great reservoirs of the Southwest has been alarmingly small. The light precipitation of the winter months has been followed by drouth conditions in the Spring and Summer. In normal winters, much of the waters of rains and snows percolated into the ground seeping through either porous subsurface formations or through joints and fractures in the rocks. Ultimately, much of this subsurface water issues to the surface as springs which contribute to flow of streams, keeping stream flow going for months after actual precipitation has occurred. This year, however, there is a great dearth of ground waters. In turn, sources of water once prolific, are now dried up. Streams are extremely low, or have ceased flowing entirely. Ground water level has been depressed where it cannot any longer play its part in supplying a little moisture for ground cover. Desert waterholes have dried up in many parts of the district, facing the cattlemen with acute problems. Undoubtedly, Nature will record a lean annual ring in living trees for 1933-1934.

Despite all of these conditions, it seems that the stockmen of the Southwest and the Reclamation Project managers are faring better than people are in the Middle West and East Slope of the Rockies. It seems here in the Southwest, each crisis has been met by a slight amount of rainfall which has tided stockmen through with renewed hopes.

The unprecedented mildness of the winter has seemingly been followed by spring and summer of normal temperatures. As a matter of fact the intensity of heat in Southern Arizona has been a little less marked than usual.

ADMINISTRATION

The time covered by this annual report starts October 1, 1933, and ends June 30, 1934. In order to outline clearly just what personnel changes have taken place, we will first list the personnel as of October 1, 1933.

Headquarters, Southwestern Monuments, Coolidge, Arizona:

- 1. Frank Pinkley, Superintendent, Southwestern Monuments
- 2. Robert H. Rose, Assistant Park Naturalist, also officially designated as Acting Assistant Superintendent, Southwestern Monuments
- 3. Hugh M. Miller, Chief Clerk, Southwestern Monuments

Personnel of Individual Monuments:

- I. \*Eight full-time Custodians:

1. Johnwill Faris, Aztec Ruins National Monument

2. Edgar Rogers, Bandelier National Monument

3. Hilding F. Palmer, Casa Grande National Monument

4. Hurst R. Julian, Chaco Canyon National Monument

5. W. H. Smith, Gran Quivira National Monument

6. M. L. Jackson, Montezuma Castle National Monument

7. George L. Boundey, Tumacacori National Monument

\*Word "Eight" above should read "seven."

## II. Five part-time and nominal Custodians

1. Homer J. Farr, Capulin Mountain National Monument

2. E. Z. Vogt, El Morro National Monument

3. Zeke Johnson, Natural Bridges National Monument

4. John Wetherill, Navajo National Monument

5. Tom Charles, White Sands National Monument

## III. Three permanent Rangers:

1. Frank L. Fish, Casa Grande National Monument

2. Vacant until December 9, Ranger, Montezuma Castle National Monument

3. Mo. Evenstad, Tumacacori National Monument

## IV. No Ranger Naturalists

## V. Two temporary Ranger positions

1. Aztec Ruins National Monument, About May 1 to September 15, Incl.

2. El Morro National Monument, About May 1 to September 15, Incl.

## VI. One full-time laborer:

1. Leonard Heaton, Acting custodian, Pipe Spring  
National Monument

Personnel Changes and Additions:

The status of personnel stood as listed on the preceding page at the beginning of the Period October 1, 1933. Between October 1, 1933, and June 30, 1934, inclusive, the following changes and additions were made:

1. On June 22, 1934, Earl Jackson entered on duty as Custodian of Bandelier National Monument to fill the position left vacant by the death of former Custodian Edgar Rogers on October 16, 1933.
2. On December 9, 1933, Robert R. Budlong was appointed Ranger at Montezuma Castle National Monument to fill the position vacant since September 30, 1933, the last day of duty of former Ranger Hugh B. Curry.
3. On June 1, 1934, Mrs. Gay Rogers entered on duty as temporary Ranger at Aztec Ruins National Monument.
4. On June 1, 1934, Alfred Peterson entered on duty as temporary Ranger at El Morro National Monument.
5. On December 1, 1933, appointment of J. M. Turnbow as Nominal Custodian, Arches National Monument, was effective.
6. On December 1, 1933, Dr. H. S. Colton, Director of Museum of Northern Arizona, became Nominal Custodian of Wupatki National Monument.

Thus, during the period October 1, 1933 to June 30, 1934, only two positions were added, these being nominal custodial, excepted. Personnel at the close of June 30, 1934, stood:

- 3 — Headquarters personnel
- 7 — Full time Custodians
- 7 — Part-time or Nominal Custodians (Arches and Wupatki added during period.)
- 0 — Ranger Naturalists
- 2 — Temporary Ranger positions
- 1 — Full time Laborer also filling duties of Acting Custodian

The above resumes account for all actual appointments, transfers, and other personnel changes during the period indicated. In the few weeks following June 30, several changes occurred which ought to be referred to briefly at this time.

Personnel Changes Shortly After June 30, 1934:

1. On July 9, 1934, Dale S. King entered on duty as Junior Park Naturalist of the Southwestern Monuments. This position had remained vacant for considerable time because no certified eligible were available on the register of the U. S. Civil Service Commission. New Position.
2. On July 21, 1934, Thomas C. Miller, formerly Ranger at Petrified Forest

National Monument, entered on duty as Custodian of Chaco Canyon, to fill the vacancy made by the resignation of former Custodian Hurst R. Julian, effective June 30, 1934. (Existing position)

3. On July 5, 1934, temporary Ranger Charles E. Powell entered on duty at Chiricahua National Monument for about three months. Chiricahua was among five new monuments added to the Southwestern Monument System and taken over July 1, 1934. (New position)

4. On July 19, 1934, temporary Ranger Charlie R. Steen entered on duty at Tonto, another of the newly transferred monuments. (New position).

5. On July 18, 1934, temporary Ranger James W. Brewer entered on duty at Wupatki, an old monument for which we were able to squeeze out a little money for protection. (New position)

6. On about August 8, Paul Beaubien entered on duty at Walnut Canyon as new temporary Ranger. Walnut is one of the newly transferred monuments. (New position)

7. On August 1, the transfer of Robert R. Budlong to the position of Custodian, Canyon de Chelly National Monument from Ranger, Montezuma Castle was effective. (New position)

8. On August 1, transfer of Frank L. Fish to Ranger, Montezuma Castle from Ranger, Casa Grande was officially made. (Existing position)

9. On August 1, position of Ranger, Casa Grande National Monument became effective as vacant. It is expected that appointment from the Civil Service list of eligibles can be made by about August 15. (Existing position)

10. Temporary Ranger Position, Saguaro, to be filled about December, 1934, to March, 1935. Vacant at present. New Monument.

These appointments more properly belong to the next annual report, but groundwork leading to all of them was laid during the time covered herein. Too, they give a truer reflection of added responsibilities taken on by this office in personnel and administration at the start of a new report year.

### SPECIAL WORK PROGRAMS

Much important work has been accomplished during the three-quarters of a year ending June 30, 1934, as the result of several special work programs. Weather during the winter was unusually favorable for out-of-door activity. Reasonable results have been expected of these programs and the usual high quality of work has been insisted upon.

#### Emergency Conservation Work:

Early in November, 1933, an ECW Camp was established in Bandelier National Monument. Some highly valuable work has resulted and an idea of the great amount of work accomplished can be had from examining the following list:

## 1. Entrance Road.

At the time the CCC Camp came into Frijoles Canyon there was no road of any kind into the Canyon over which materials and supplies could be transported. The operator of Frijoles Canyon Lodge had constructed a cable-way from the top of the cliff to the floor of the Canyon and over this he succeeded in getting his freight and supplies down. Lumber, unassembled machinery and equipment for the establishment of the CCC Camp were all brought down via this tramway in November and December, 1933.

People visiting the Canyon came down on foot via a steep five-eighths mile trail, leaving their cars at the top. The construction of an entrance road of truck-road dimensions was the most important piece of work to be done by the CCC Camp in Bandelier. During the course of the Fall, Winter and Spring, work has progressed on this road. In December, 1933, the Civil Works Program was started and this program carried with it the project of adding ten feet of width to the 12-foot truck trail being constructed under ECW. The final outcome of this cooperative arrangement was a 22-foot road, well constructed and beautifully landscaped, from the rim to the floor of the Canyon, a distance of about two miles.

The 12/10 foot prorating of work between ECW and CWA has made possible greater accessibility of one of the most popular and beautiful areas in the Southwest. How to construct this entrance road and yet preserve the sylvan charm of Canyon del Rite de los Frijoles, was one of the great problems. It was with some misgivings that the Press and other influential interests in New Mexico could look with favor upon construction of this road which they felt would mar some of the beauty and steal most of the charm of the area. Now that this road is constructed, and they have seen what the policies of the Park Service are, in high quality construction and preservation of scenic values, these interests are enthusiastic. At the same time, we are saying that the construction of this entrance road is one of the finest things for appreciative people that has happened, we must not forget that it has made a three to five man job out of the administration of Bandelier National Monument in order to handle it right, where formerly one man could at least furnish acceptable protectional and educational services.

## 2. Other ECW Work.

While construction of 12/22 of the entrance road was the outstanding accomplishment under ECW in Bandelier, other projects worthy of mention were completed by June 30, or were well under way. The following might be mentioned:

a. A system of trails leading from Frijoles Canyon Lodge and the proposed headquarters area, down Canyon about 1-1/2 miles to the Upper and Lower Falls of Frijoles Creek. Trails also go to the foot of the cliff near Ceremonial Cave; up Canyon to the Custodian's residence, and elsewhere about the small area of the valley floor.

b. The water supply had to be developed for the ECW Camp. This system was made such as to assure a permanent supply for all purposes in future

development of the monument.

- c. A small ECW Crew has been working on eradication of the tent caterpillar. This work has been done under advice from the Wildlife Division. Another very usefull piece of work recently done was the placing of 8,000 Black Spotted Trout in Frijoles Creek.
- d. The stone residence of the Custodian which was constructed under the Forest Service before the National Park Service took over the Monument, has been overhauled and made more commodious as an approved ECW Project. Also a barn or stable was completely overhauled and made into a guest cabin of two bedrooms which is of great value to Park Service personnel who remain at this Monument for work and inspections.
- e. Plans for fencing the detached area of Monument and construction of parking area are completed, and work will progress soon after June 30.
- f. Important clean-up under ECW has been done including removal of all unsightly fences of the concessionaire and a start was made in removing certain buildings, thus improving appearances.

A second ECW Camp came under the supervision of Southwestern Monuments in early June, 1934, when Camp SP-6-A, State Parks, came over to us as NM-2-A, and was transferred from near Tucson to the Chiricahua National Monument near Willcox. This Monument was transferred from the Forest Service on July 1, 1934, and is completely inclosed with Forest Service holdings. Thus, we handle all procurement and finances while the actual work is shared about 50-50 between Forest Service and Park Service projects. It is a pleasure to mention here the harmonious way in which the Forest Service is working with us in the handling of this camp.

The actual amount of work done by NM-2-A by June 30 was small, for most of June was required in getting organized, equipment lined up, and the men broken in to their various duties. It is well, however, here to mention the actual projects to be undertaken for which plans, maps, drawings and other data have been prepared:

- 1. Construction of about 20 miles of trails for fire protection and tourist use will be undertaken.
- 2. Plans are already approved for some three miles of telephone lines.
- 3. Construction of permanent roads and parking areas is contemplated.
- 4. Additional facilities in the way of parking areas, amphitheaters, small roads and the like, are to be provided for the great Labor Day Celebration, planned for the dedication of a new road into the Monument. This new road has been built by the Bureau of Public Roads from funds allotted the forest Service.

The Chiricahua CCC Camp is just getting organized and under way on June 30, the concluding date of this report. Coverage of all the activities of this camp more properly belong in the Annual Report for the following year and will be taken up in detail at that time.

It should be mentioned here that a topographic map of the area of the proposed Labor Day Celebration is being completed by the Branch of Engineering. This is but a part of the plan for completing a topographic map of the entire area. Topographic mapping progressed for about four months under the supervision of the Forest Service and has been turned over to the Park Service.

I believe that it will be seen from the listings under Bandelier and Chiricahua CCC Camps activities above, that some most useful work is being accomplished. Our dealings with the Army in all cases and with the Forest Service at Chiricahua have been most pleasant and cordial. The Camps are under capable project Superintendents and work is being carefully and well planned by the Branch of Engineering and of Plans and Designs. Indications point to continued smooth operation and accomplishment of useful work.

Civil Works Administration:

Early in December, 1933, word was received that Civil Works projects proposed in November, had been authorized for a great many Southwestern Monuments. The work approved in November was such that a large percentage of the funds would be paid out for actual labor since the whole program's ulterior purpose was relief of distress and suffering among the needy. Again, to get a complete picture of what was accomplished under CWA, a listing of projects will help:

1. Aztec National Monument (CWA)

- a. A new boundary fence was constructed.
- b. Interior network of unsightly fences was removed.
- c. Debris was removed from the Great Kiva, and other general clean-up.
- d. The Abrams Barn, an eyesore for years, was moved off the Monument to a much less conspicuous spot.
- e. A parking area, less pavement, was constructed and low walls about the area completed.
- f. Attractive entrance gates to the Parking Area were finished.
- g. A most important program of indexing the Museum collection and repair and restoration of pottery and other artifacts, was done under Archeological Reconnaissance. On date of June 30, these projects which were continued under Public Works, were not wholly completed.

A "siege" of Civil Works providing for a vast amount of labor, was one of the needs of Aztec Ruins in order to improve the general appearance of the premises. The Civil Works resulted in remarkable improvements along these lines.

## 2. Arches National Monument (CWA)

a. Little was known about the scientific features of this National Monument and the Archaeological Reconnaissance program carried out there included a complete survey of what the Monument had to offer to the Public. This program included exploration in Geology, Archaeology, some Botany and other sciences. Organization and other matters were handled through Zion National Park.

## 3. Bandelier National Monument (CWA)

a. The 12-foot ECW road from the rim down to the floor of the Canyon was increased in width by 10 feet under the CWA. This has been described more fully under ECW work.

b. Weeds and dirt were cleaned from Community House Ruin and measured drawings were made under the Archeological Reconnaissance set-up.

c. Certain cliff paintings in a Cavate Dwelling were cleaned up and provided with a front glass for protection.

d. Actual work on installation of water system was done.

## 4. Capulin Mountain National Monument (CWA)

a. "Rim Trail" and "Crater Trail" were started.

b. About 1,000 feet of campground road were built, fireplaces were installed for campers and a campground laid out by grading and levelling.

c. Road to summit surveyed, re-graded and drained.

d. Part of boundary survey completed.

## 5. Canyon de Chelly National Monument (CWA)

a. Under CWA at Canyon de Chelly, a fine piece of work in making a contour map was done. A contour map is always a basic need which is felt before any future planning can be done. A beautiful job was done by the party.

## 6. Casa Grande National Monument (CWA)

a. Repairs to ruins walls and grading for drainage improvement in Compound A.

b. About one-quarter mile of telephone line conduited.

c. Entrance road landscaped, about one-half mile.

d. Erosion control along highway fence line, over one mile.

e. Small excavation project under Archaeological

Reconnaissance.

f. Trees trimmed; miscellaneous grading, drainage.

#### 7. Chaco Canyon National Monument (CWA)

a. An extremely rough section, about one-half mile, on "Rock Hill" made safely passable.

b. Revetment work done back, of Pueblo del Arroyo.

c. Under Archeological Reconnaissance, museum cataloguing, drainage of ruins of Chetro Ketl; test pits for underground seepage determination; repair of ruins walls; and survey of cliff face for pictographs and storage cavities, were done.

d. Road repairs and improvement of all approaches were also accomplished. A boundary survey was partially completed.

#### 8. El Morro National Monument (CWA)

a. Construction of check dams, erosion dams and fills, and a lot of fire hazard clean-up was done.

b. A fine trail over the top of El Morro including important ruins on the summit, was constructed, with exception of some finishing up done under later work.

c. A topographic map of the entire area was completed.

d. Survey of Archaeological ruins made.

As a result of this erosion control work and landscaping, which has been followed by planting of grass and other vegetation, fine improvement has resulted at El Morro. This work was much needed and will be of lasting value.

#### 9. Gran Quivira National Monument (CWA)

a. The rough grading and leveling of a parking area was done, while entrance road location was determined and the preliminary grading, draining and alignment were accomplished.

#### 10. Montezuma Castle National Monument (CWA)

a. Construction of one-half mile of entrance road. Grading, drainage and improvement of alignment were included.

b. Plans and profiles for Beaver Creek Revetment were made.

c. An important project under Archaeological Reconnaissance was completed opening up ruins and recovering valuable museum materials

d. A curbing of stone was completed about the parking area.

#### 11. Navajo National Monument (CWA)

- a. About 12 miles of trail were partially reconstructed.
- b. Excavation and repair of Betatakin was done.
- c. Turkey Cave excavation and repair partly completed.

#### 12. Pipe Spring National Monument (CWA)

- a. Under CWA, clean-up, reconstruction of three-quarters of a mile of road, building of fence and cattle guard and removal of unsightly buildings, were the important projects completed.

#### 13. Tumacacori National Monument (CWA)

- a. Old Mission foundations needing repair badly were given attention. Badly needed drainage of water away from adobe walls was completed. Walls and roof were repaired. Research on location ancient walls carried out.
- b. Construction of a part of the walls about the grounds was done and continued under later work programs.

#### 14. White Sands National Monument (CWA)

- a. The highway was surveyed into the Monument, plans and profiles prepared, and the stretch, nine miles approximately, was plated with sandy clay.
- b. Parking Area was graded and comfort stations constructed.
- c. The area was mapped for special features and the boundaries determined. A number of test wells were put down and good water found in about half of them.

Much useful work was accomplished under CWA considering the fact that cutting off "other than labor" funds temporarily from time to time and the unexpected tapering program at the last had to be contended with. All in all, the CWA program was rather caught short all around and difficulty in carrying out well planned projects to completion was encountered. Fortunately under FERA and Public Works some of the work left somewhat incomplete is being finished satisfactorily.

#### Public Works Administration:

##### 1. Aztec Ruins National Monument

The new museum provided at Aztec under Public Works will soon be contracted and actual work started. Unfortunately, to come within the money, one entire wing of the structure, it seems, will have to be left out.

- b. Repair and restoration have progressed on the Great Kiva. This work was done under the direction of Archaeologist Earl

Morris, loaned by the Carnegie Institution to our Service, and is going to be most spectacular from standpoint of visitors.

c. Banked dirt against ruins walls has been removed, the walls repaired and some capping for protection done.

d. The drainage ditch, draining the Pueblo, has been completed.

e. Cataloguing and renovating museum collection started under CWA has been carried toward completion under PWA.

## 2. Capulin Mountain National Monument

a. The Rim and Crater trails began under CWA are being completed under public Works.

## 3. Casa Grande National Monument

a. Under Public Works at this Monument, a residence is being built and adobe walls constructed about the Administration Building. Headquarters personnel for Southwestern Monuments being also located here, building needs are still two to three houses short of being met.

## 4. Chaco Canyon National Monument

a. Fencing of the Monument. Control of the Monument against grazing is a primary necessity in any program of erosion control.

## 5. Gran Quivira National Monument

a. Under Public Works the Entrance Road and the parking area are being completed. These were begun under CWA.

## 6. Montezuma Castle National Monument

a. Garage and implement shed construction will see begin.

b. Sewer system and disposal plant planned.

c. Trails plans and profiles have been made; water investigations carried on and proposed N. E. boundary change surveyed.

## 7. Tumacacori National Monument

a. The ornamental gateway and Parking Area are being built at Tumacacori under Public Works. Some adobe wall construction began under other programs are also being built to give all walls, fences, parking areas, etc. a finished appearance.

Federal Relief Administration:

FERA crews have been working in several monuments since the end of the CWA program. The following resume will show that much useful work is being done through FERA set-ups.

- 1. At Capulin, the fencing of the Monument is going on under FERA work. Parking Area is being re-graded.
- 2. Casa Grande is running a gang on making adobes, trimming and cleaning up trees and shrubs; also fencing is progressing.
- 3. At Montezuma, FERA men are aiding in Revetment construction and other work.
- 4. At Tumacacori the FERA crew is repairing a residence and assisting in finishing adobe wall construction.
- 5. At Chaco Canyon, FERA men are doing ruins draining and general clean-up.

FERA is making possible clean-up on projects carried out under Public and Civil Works. While working only for a living wage, excellent results are being obtained. The men are anxious to work and the work being done is resulting in permanent improvement of the monuments. It is a source of pleasure to see at first hand how men prefer to work diligently and honestly for a living than to have relief given as a dole.

Emergency Roads and Trails Funds:

Projects at Pipe Spring, White Sands, El Morro and Chiricahua National Monuments are to be set up under these funds. Since on June 30 nothing was known of this set-up, it will be reported upon in detail next year.

NEW MONUMENTS

On October 1, 1933, the beginning of the period covered in this report on activities in Southwestern Monuments, there were twenty monuments in the System. Several months prior to June 30, 1934, we received notice that five more, formerly under the U. S. Forest Service, would be added, bringing the total to 25. In the left column below are listed Monuments in the system through the three-quarters year ending June 30, 1934; in the right column are those officially added July 1, 1934:

| Southwestern Monuments before<br>addition of Forest Service Monuments |                      | Monuments Transferred,<br>effective July 1, 1934 |
|-----------------------------------------------------------------------|----------------------|--------------------------------------------------|
| 1. Arches                                                             | 11. Hovenweep        | 21. Chiricahua                                   |
| 2. Aztec Ruins                                                        | 12. Montezuma Castle | 22. Sunset Crater                                |
| 3. Bandelier                                                          | 13. Natural Bridges  | 23. Gila Cliff Dwellings                         |
| 4. Capulin                                                            | 14. Navajo           | 24. Saguaro                                      |
| 5. Casa Grande                                                        | 15. Pipe Spring      | 25. Tonto                                        |
| 6. Canyon de Chelly                                                   | 16. Tumacacori       | 26. Walnut Canyon                                |
| *7. Chiricahua                                                        | 17. Rainbow Bridge   |                                                  |
| 8. Gran Quivira                                                       | 18. White Sands      |                                                  |
| 9. Chaco Canyon                                                       | 19. Wupatki          |                                                  |

10. El Morro

20. Yucca House

\*Omit

### MINOR PROJECTS, CURRENT REPAIRS, MAINTENANCE

Routine maintenance has been kept up during the year at those monuments having considerable travel and resident Rangers and Custodians. These items include repairs to buildings; fuel and oil for electric systems; maintenance and operation of Government owned cars and other equipment; upkeep of roads, trails, campground facilities and signs; and other items.

### EDUCATIONAL SERVICES

#### General:

During the year no new museum buildings have been constructed, though some advances have been made in improving displays in existing buildings. More adequate cases have been constructed for the collections at Casa Grande; valuable items have been added to the museum materials at Tumacacori and Pipe Spring. Under CWA much valuable material was procured for Montezuma Castle.

Field Division of Education Headquarters at Berkeley constructed two models depicting various cremation burial customs of the Hohokom for the museum at Casa Grande. These exhibits are on display and are very successful. The new museum building at Aztec Ruins is to be contracted shortly after June 30, and exhibits for this building have been worked upon in the Berkeley laboratories. A fine general plan has been worked out for the Aztec exhibits. As soon as the building is completed, exhibits will have been already planned for installation. Unfortunately, only a part of the Aztec Museum building as originally planned, can be built with the available funds.

#### Specialized Nature of Ranger Duties:

Permanent and Temporary Rangers continue to deliver high-class educational service among the Southwestern Monuments despite the fact that in most National Parks, this purely educational work is handled by Ranger Naturalists. The classification of Rangers and Temporary Rangers doing exclusively educational work should, it seems, be changed to Ranger Naturalist or Junior Park Naturalist. A \$1680 per annum Temporary Ranger in the Monuments delivers the same service as given by the \$1860 Ranger Naturalists or \$2,000 Junior Park Naturalists in the National Parks.

Monuments giving museum lectures and field trips, or both, remain about the same as last year. Shortly after July 1, 1934, however, guide and lecture services will also be established at Tonto, Chiricahua, Wupatki, Walnut Canyon and Saguaro National Monuments—Monuments to which Temporary Ranger positions have been allowed after the beginning of the fiscal year.

#### Basic Protectional and Educational Needs Lacking:

Improved roads in the district bring important problems to the fore, especially along lines of protection from vandalism. Wupatki, Tonto, Chiricahua, Navajo, El Morro, White Sands and Canyon de Chelly, are some of the Monuments needing basic year 'round protection. These needs for protection are not arising particularly as the result of advertising on our part, or any developments over which we have direct control. State and County agencies are improving the roads leading to the Southwest's wonder spots, making these places accessible where once they were isolated and comparatively unknown. It ought to be here emphasized that the last two years have been intensifying these problems. With budget limitations forbidding calling for adequate personnel, even where most acute need exists, it is impossible to meet these basic, initial steps, in protection and service. More and more criticism by scientists and the public can be expected of our Service as more and more feeder roads are constructed or improved, multiplying our problems of protection against vandalism.

Educational Services at Individual Monuments:

Museum and Field Trip Services

- 1. Petrified Forest (Independent Unit)
- 2. Casa Grande
- 3. Chaco Canyon (Ruins used as museum)
- 4. Aztec Ruins (Ruins rooms as museum)
- 5. Gran Quivira (Old Mission room with collection)
- 6. Montezuma Castle (Museum in Store)
- 7. Tumacacori (Collection in Mission room)
- 8. Pipe Spring (Pioneer articles in Fort)

Field Trips Only

- 1. Bandelier (Seasonal)
- 2. White Sands (Occasional)
- 3. Canyon de Chelly (Occasional)
- 4. Capulin Mountain (Occasional)
- 5. Navajo (Occasional)
- 6. Wupatki (Occasional)"
- 7. El Morro (Seasonal)

EQUIPMENT

Leading items of equipment added include: 1. Five "Electrolux" refrigerators for monuments so isolated that ice deliveries are hard to make; 2. Hecograph for headquarters office; 3. Several typewriters and other office items; 4. Some ice boxes, electric refrigerators and stoves for several residences over the system.

SPECIAL OCCASIONS

The annual Easter Sunrise services sponsored by the churches of Casa Grande Valley, were held at Compound B at Casa Grande National Monument again this year. These services are very impressive and are becoming somewhat of a tradition.

Preparations are now being made by civic organizations looking toward the proposed Labor Day Celebration in Chiricahua National Monument.

Advance estimates place the attendance at 8,000.

The national monuments are annually becoming more popular meeting places for conventions, University classes and associations. These assemblies are always greatly interested in lectures and field trips on ruins being included as an important part of their programs.

SPECIAL VISITORS

Looking over the register of visitors for the year, we find the following of interest and note; this is but a partial list.

- a. Secretary of Agriculture Wallace at Casa Grande
- b. General John J. Pershing at Tumacacori
- c. Governor B. B. Moeur at Casa Grande
- d. Fred Harvey, visitor at Gran Quivira
- e. Dr. H. A. Kelly, benefactor Johns Hopkins University, at Montezuma.
- f. Governor Hockenhull of New Mexico, at White Sands
- g. Charles Collier, Assistant Indian Commissioner, at Chaco
- h. Dr. and Mrs. Alexander Goetz of Germany (Working with Einstein and Millikan) at Chaco
- i. Dr. R. H. Forbes, formerly Director University of Arizona Agricultural Experiment Station, at Casa Grande
- j. Dr. A. V. Kidder, famous Archaeologist, at several Monuments
- k. Mr. H. S. Gladwin, Director of Gila Pueblo, at several Monuments
- l. Dr. H. S. Colton, Director, Museum of Northern Arizona, at several Monuments
- m. Dr. A. E. Douglass, famous Tree Ring expert and astronomer, and
- n. Dr. Byron C. Cummings, Dep't. Archaeology, both of the University of Arizona, visitors at one or more Monuments.
- o. Dr. Homer LeRoy Shantz, President, University of Arizona, visitor at Casa Grande, Saguaro and other monuments.
- p. Numerous officials of the National Park Service.
- q. Lastly, but not least, Former Director of the National Park Service, Horace M. Albright, visitor at several monuments.

SCIENTIFIC EXPEDITIONS

1. The Museum of Northern Arizona continued excavations under permit at Wupatki.
2. The School of American Research and the University of New Mexico are continuing the work in Chaco Canyon.
3. The Rainbow Bridge-Monument Valley Expedition under direction of Chief of Field Division of Education, Ansel F. Hall, are again in the field (summer '34)
4. Several Archaeological Reconnaissance projects described elsewhere under the section on Civil Works Administration have been achieved. Reports on work completed have been prepared, making the results of permanent value.

CONCLUSIONS

Looking back over the period ending June 30 covered by this resume, improvements that have been made as the result of the special work projects occur as among the most important accomplishments. Through these work programs, certain types of work such as clean-up, removing old, unsightly buildings, fences, etc., grading for drainage, landscaping, improvements in roads, trails existing buildings and other facilities, and construction of parking areas have been accomplished. Under Archaeological Reconnaissance, valuable work, contributing to the information available for visitors, has been done. Museum collections have been augmented.

A highly valuable contribution not related to these special work programs has been made by Mr. Carl A. Mooseberg of Sacaton, Arizona. A fine collection of pottery, cremation burials, thick walled vessels and other artifacts have been deposited in the Museum at Casa Grande National Monument by Mr. Mooseberg. This collection, together with the Los Angeles Museum's Van Bergen collection, are the heart of the finest and most complete collection in existence on the particular culture represented in the Casa Grande.

Recommendation and Closing:

In considering the most urgent needs of the immediate future, the following stand out:

1. Increasing of personnel at monuments now partially manned to meet the demands for educational and protectional services.
2. Providing from one to several men at famous monuments (like Navajo and others) that at present have urgent problems and which do not even have one man to protect them and to guide visitors.
3. Providing at least six museums and administration buildings that have been urgently needed for the past several years, together with additional ones for which need has arisen with the transfer of new monuments and the increased assessability of others.

4. Residence facilities have been needed and new needs are arising in monuments that have been without any residences, and at others where an additional several houses are needed to fill existing housing problems.

TRAVEL FIGURES

By Monuments  
For the Period October 1, 1933, to June 30, 1934

| Monument                           | Number of Visitors |
|------------------------------------|--------------------|
| Arches National Monument           | 320*               |
| Aztec Ruins National Monument      | 4,594              |
| Bandelier National Monument        | 3,000*             |
| Canyon de Chelly National Monument | 400*               |
| Capulin National Monument          | 10,000*            |
| Casa Grande National Monument      | 19,314             |
| Chaco Canyon National Monument     | 4,000*             |
| Chiricahua National Monument       | 12,000*            |
| El Morro National Monument         | 2,000*             |
| Gila Cliff Dwellings               | 100*               |
| Gran Quivira National Monument     | 2,886              |
| Hovenweep National Monument        | 300*               |
| Montezuma Castle National Monument | 10,030             |
| Natural Bridges National Monument  | 460*               |
| Navajo National Monument           | 300*               |
| Pipe Spring National Monument      | 5,454              |
| Rainbow Bridge National Monument   | 250*               |
| Saguaro National Monument          | 6,000*             |
| Sunset Crater National Monument    | 3,500*             |
| Tonto National Monument            | 4,000*             |
| Tumacacori National Monument       | 9,900              |
| White Sands National Monument      | 12,000*            |
| Walnut Canyon National Monument    | 7,500*             |
| Wupatki National Monument          | 1,100*             |
| Yucca House National Monument      | 250*               |
| Total                              | 119,658            |

\*Estimated