

DEATH VALLEY NATIONAL MONUMENT

John R. White, Acting Superintendent.

T. R. Goodwin, Resident Engineer.

Thomas J. Williams, Acting Custodian.

THE PAST YEAR

The outstanding thing about Death Valley is the public misconception concerning weather and travel conditions. The weather even in midsummer is often delightful; and when in excess of 120 degrees maximum, as is frequently the case, the almost zero humidity renders the heat bearable. A considerable increase in summer travel to and through Death Valley may be expected as soon as roads are oiled and watering or information stations increased and systematized.

Owing to the fine work of all Monument employees, and particularly to the intelligently directed energy and enthusiasm of Engineer T. R. Goodwin, splendid progress was made during the first year of National Park Service administration. It is the first step that counts - and we got off on the right foot. The support given us by Chief Engineer Kittredge and all his Field Headquarters staff, and by the Chief Landscape Architect's office was of great assistance. But we could have achieved little had it not been for the fact that our permanent organization at Sequoia National Park took on the extra burden of Death Valley and handled it splendidly despite all CCC and other alphabetical expansions. Assistant Superintendent Tobin and

his whole organization - storekeeper, clerks, purchasing agent, book-keeper, etc. - made possible Death Valley success.

The best available data on past travel into the area was arrived at by consulting the officials of the Pacific Coast Borax Company who operate the Furnace Creek and Amargosa Hotels and the Furnace Creek Ranch Cabin Camp. Their estimate, based on the four or five years of operation, was about 9,000 visitors for the 1932-1933 winter season, as reported in my last annual report.

During the winter season of 1933-1934 there have been registered 22,377 at Furnace Creek Checking Station, an increase of 148.6 percent. This does not represent the true travel figures by a considerable number, as no checking was done at any other of the numerous entrances, and it is certain that a steady flow of traffic from or to Boulder Dam passed directly over the Beatty-Stove Pipe Wells Hotel route without being checked. This travel undoubtedly reached as high as 10 percent of the registered travel.

Two CCC Camps were located in Death Valley early in the fall, and with the exception of a modest of construction under PWA allotments, all in the nature of physical improvements, all the work in Death Valley was done under ECW.

The public operators, largely carried on by Pacific Coast Borax Company, were very successful both in amount of receipts and in service to the public. Expansion of certain facilities are greatly needed, and the operators are alive to the needs. They are on private land and not directly under jurisdiction of the National

Park Service, but there has been a fine spirit of cooperation and willingness to meet public demands.

There was a steady flow of official and important visitors during the season, as Death Valley is on the direct route to Boulder Dam, and with the great interest in this stupendous project and the added attraction of the delightful winter weather, Death Valley was visited either going to or coming from the Boulder Dam.

The great news interest in Death Valley led to very considerable publicity in the news print of California as well as in various periodicals. This increased the curiosity, and with the now accepted fact that roads not only leading to the Monument but within the boundaries are in greatly improved condition, will undoubtedly lead to another great increase in travel the coming season. An increase in travel of from 50 to 100 percent is expected for 1934-1935.

As no allotment of funds had been made for administration of the Monument during the past winter season, it was operated by men assigned from Sequoia National Park, Western Field Office, and the supervisory force of the two CCC camps.

ADMINISTRATIVE DIVISION

As it was evident to the Acting Superintendent that there must be an executive head continuously on duty at the Monument, arrangements were made with Chief Engineer F. A. Kittredge to assign Associate Engineer T. R. Goodwin, whose long association and experience in numerous Western parks gave the background and knowledge of detail required, and who was already quite familiar with the Death Valley area and had had a number of years experience in desert construction and maintenance.

Landscape Architect John Bergen was assigned by the Western Field Office for duty in Death Valley and was later assisted by a landscape foreman ECW.

M. French Gilman, a desert botanist of note, was carried as ECW foreman and detailed in direction of educational, naturalist and ranger activities as well as public contacts.

John M. Smith, for several years a park construction foreman and later superintendent of one of the Sequoia CCC camps, was appointed superintendent of one of the CCC camps in Death Valley but relieved from this work and made General Foreman of Construction.

One of the ECW foremen was assigned as storekeeper.

This skeleton organization, assisted by frequent visits of Superintendent White, carried out the entire administration of the monument. There was one clerk ECW who also handled all of the monument clerical work.

All accounts were carried in Sequoia National Park, and purchased and disbursements carried on by the Sequoia organization. Visits were made by Assistant Superintendent Tobin and Purchasing Clerk Oscar Eggen to assist in organizing the monument accounts and clerical work.

PROTECTIVE DIVISION

Ranger Williams, assigned from Sequoia National Park, carried out the various ranger and protective duties. He posted many directional and signs of other nature, made frequent patrols and assisted stranded or broken down tourists, handled the few cases of traffic violations and accidents, acted as relief checker of traffic, inspected camp grounds, and in some instances, where the engineer was unable to spare the time, conducted important visitors to points of interest.

It is very evident that for proper administration of Death Valley National Monument an arrangement for a considerable seasonal personnel must be made.

There should be checking at a minimum of three other points beside Furnace Creek Inn, and a constant daily patrol of at least the main highways during the traffic season. This would require four rangers and a relief man for checking, and at least one man for patrol duty, besides an Acting Chief Ranger to direct these activities. It is probable that an assignment of men now on temporary status in Sequoia National Park, for the alternate visitors' season in Death Valley would be highly satisfactory.

At the close of the monument activities on May 15 two men were appointed as caretakers of the government buildings and property at both CCC camps and the park residence area. These men

have been making patrols of the main roads also, and have already made a record for a number of rescues and probable saving of life. It should be planned that least two experienced desert men be retained in Death Valley National Monument during the summer season as a humanitarian measure, as there is a considerable amount of traffic passing over the main roads all during the summer and a car break-down or lack of water could easily be fatal.

MAINTENANCE AND CONSTRUCTION

Maintenance and construction were under direct supervision of General Foreman John M. Smith, acting of course in close cooperation under direction of the resident engineer. Building construction under PWA allotments was supervised directly by Landscape Engineer Bergen.

It must be remembered that upon the establishment of the CCC and monument forces in Death Valley National Monument there were no conveniences, improvements, dwellings, and practically no roads suitable for travel by the average visitor. What few facilities existed for public comfort and necessity were maintained by the Pacific Coast Borax Company.

In the short space of six months 200 miles of main roads and about 90 miles of secondary roads to scenic points were graded to safe and comfortable standards and constantly maintained in a good smooth travelable condition, and nine miles of the concentrated traffic area were oiled. Several miles of foot trail were constructed in scenic canyons. Nine supplies of potable water, located pretty well throughout the region, were developed and made safe, and pumps installed where gravity heads were out of the question. Four outlying camping areas were improved; the main Public Automobile Camp, at a point near Furnace Creek, was completely remodeled; and a modern comfort station and bath house with automatic hot water was constructed. A duplicate of this bath house-comfort station was

erected in the camp for monument employees. Two sewage disposal systems were completed.

A checking station and dwelling was erected at Furnace Creek entrance. At the Park Village, three small dwellings were erected to house supervisory personnel, with running water, sewage disposal, electric lighting and gas cooking facilities. Stone patios, small pools, landscape planting and roads were also constructed in this area.

At the main CCC camp and utility area the improvements were even more striking. Two permanent CCC camps were built under supervision of the monument engineer and general foreman; a 20,000 gallon capacity concrete reservoir was constructed and an ample water supply developed and piped to the reservoir. A temporary service garage, blacksmith^{shop}, wash rack, radio hut, housing for power plant, and aials, were also completed.

This great amount of work was made possible by the concentration of a large amount of equipment which would have been idle during the winter in other parks. Of heavy equipment there were loaned or purchased two 60 h.p. tractors, two 50 h.p. tractors, two 40 h.p. tractors, six 35 h.p. tractors, and two motor graders. There were also furnished six hydraulic bulldozers, five drag graders, and two drag maintainers. A very complete list of general field and shop equipment was also supplied. The distance to outside sources of assistance, and accelerated wear and tear from abrasive

dust and rough country, make it necessary to be able to handle every sort of repair and maintenance work on equipment by the monument crew.

A local telephone line was constructed, giving inter-communication between all the monument and CCC activities and the private lines of the Pacific Coast Borax Company and the Tidewater and Tonopah Railroad station. A long distance connection was started and all materials are on hand, but lack of time prevented completion. Radio telephone experiments were quite satisfactory both within the area and to outside points, and radio equipment was ordered and delivered and is awaiting installation by the contractor and the radio engineer.

EDUCATIONAL

M. French Gilman, assigned to education work, is a very exceptional desert botanist and has a fine conception of desert biological life.

At Furnace Creek Inn, Miss Katherine Ronan, the manager, gave almost nightly lantern slide talks on the region and its history and points of interest. On her request the engineer very frequently assisted in these entertainments and was present nearly every evening for informal conversations with visitors on every subject of interest. He also conducted noted visitors on trips to noted scenic and historic points almost continually.

Mr. Gilman maintained a bird and animal feeding ground near Furnace Creek Ranch and made a number of observation trips, discovering two new desert plants and compiling considerable data on the flora and fauna of the region.

A regularly assigned naturalist should be considered immediately for the winter season. He should have a good basic knowledge of geology, be versed in botany and biology, and above all things should be able to contact and address the visitors, conduct entertainments at the Public Camp Ground, Furnace Creek Ranch and at the Inn, and to plan and guide caravans to nearby attractions and points of historical interest.

ENGINEERING

Western Field Headquarters assigned four rodmen, and secured two party chiefs on ECW engineering foreman status. Two survey parties were made up from this nucleus, filled out by assignment of enrolled men. A large mileage of rough alignment was staked for reconstruction of roads on old alignment. A complete preliminary survey was made for new and improved alignment of the main road from the south monument boundary to a point about 35 miles north of Furnace Creek, a distance of 90 miles. A location survey was made for a road entirely within the monument to the famous Chloride Cliff, reducing the existing dangerous curvature and grades up to 25 percent to a maximum grade of 8 percent and easy curvature, and a saving of about 20 miles on the trip. A number of small surveys and staking of construction for buildings, water and sewer lines, and topography of utility and residence areas were also completed.

There are approximately 500 miles of existing traversable roads within the monument boundaries, and several approach road problems of great importance. There is need and work immediately for at least three engineering parties to investigate these problems and make preliminary surveys, and there should be an assignment of three capable party chiefs and the same number of transitmen, with transportation supplied, the balance of the personnel to be filled out from the enrolled men available.

The policy should be to go very slowly with new road development, and it will take years to make the engineering studies alone.

LAND PROBLEMS

It became immediately apparent that the boundaries as at present constituted are very unsatisfactory for the proper administration, protection or enjoyment of the area. Death Valley as a geographical unit extends about 35 miles south of the south boundary and nearly an equal distance north of the north boundary. On both east and west the boundary follows the general crest of the ranges and leaves out the great scenic and historical areas on the west slope of the Panamint Range and very desirable scenic attractions on the Amargosa side of the eastern boundary range. Of great importance is the protection of mountain sheep and other wild life in these mountain areas, which is badly handicapped by the location of the present boundaries.

There are within the monument itself several private holdings that should be acquired. A notable example is the Navarez property located just east of the monument utility area, which contains one of the best water supplies in the region and is so located that hydro electric power can be developed in sufficient quantity to furnish ample supply of electric current for all development at present contemplated.

The question of private holdings is one that will require study and negotiations. There have been mining claims patented all through the area. Many of these, to avoid taxation, have never been recorded. It would be possible to make a private sale or transfer

of these lands to the detriment of the conducting of the monument. There are also two sections in each townsite of State School Lands and a great number of tax sale lots at present held by the State. Some definite arrangement should be made with the State to prevent any of this property from passing into undesirable private ownership.

A further complication is the established right of Indians to patent lands on which they have at any time established residence. There is already an apparent tendency among the nomadic Indians in the area to lay claim to lands containing the scarce and valuable springs and water holes. Allowing them to patent these points means endless friction over water supplies, and in the end the necessity of acquiring their patents to prevent their being sold for speculative purposes.

CCC ACTIVITIES

Without the assignment of CCC camps to Death Valley National Monument there could have been no real development of the area for public use and enjoyment.

Two camps were located early in October in the so called Cow Creek area four miles north of Furnace Creek. It became apparent to the resident engineer that to fit in properly with the development and construction, men and equipment should be considered as a battalion rather than individual units.

As J. M. Smith, the superintendent of one camp, had been assigned to general duties, an acting camp superintendent was appointed from the list of ECW foremen, and the same step was taken in the other camp, to which no permanent superintendent was appointed. While each company preserved its separate identity from the army administration standpoint, and the camp buildings were grouped in two separated areas, a general warehouse and service garage for use of both camps was constructed and all clerical work handled in the single monument office building. Equipment was assigned to the relative importance of the projects rather than by companies, and even foremen and operators were transferred about when necessity required.

The results were extremely satisfactory, and a very large amount of work accomplished which was commented on by both the army and the CCC officials who came in contact with the camps.

Recreation was a very serious problem, and the monument administration took a great part of this responsibility not necessarily its burden, to further to the greatest possible degree recreation and entertainment of the enrollees. Trips were made with trucks assigned to the camps, to Los Angeles and Boulder Dam, and weekly to Beatty and Death Valley Junction. Moving picture and other entertainment was furnished in the camp three times each week, and boxing, baseball, volley ball and basketball fostered between the companies.

The morale of the men was exceptionally high. Enrolled men were necessarily used as tractor, bulldozer and grader operators as well as in such technical work as stone building, wall and well construction, laying of water mains and sewer lines and constructing concrete structures. The results were thoroughly satisfactory and the men themselves as a general rule took great pride in their accomplishments.

There was almost no sickness, and only a few accidents in line of duty; one man was killed in a traffic accident while driving his own car.

WILD LIFE

No count of wild life was attempted. Of the larger animals a band of seven sheep was seen by the resident engineer in the vicinity of Willow Springs, and the general foreman saw more than a dozen in one band in Titus Canyon. Coyotes were frequently observed in the neighborhood of the camp garbage pits. Desert swifts or kit fox were numerous and often seen in the evening. The wild burro was present in bands pretty well all over the area and in the various canyons. Several chuckawallas were seen in the late spring, and several other varieties of lizards were very plentiful after February. No diamond back rattlesnakes were reported, but several instances of the appearance of horned rattlesnakes or sidewinders were reported from different areas, even in the CCC camp itself.

Migratory wild life was abundant, especially around the pools at Furnace Creek Ranch, at Eagle Borax pools, Saratoga Springs pond and around Grapevine Springs. There were also surprisingly numerous varieties of native birds apparently making their home in the various mesquite thickets, particularly around Furnace Creek Ranch and at Park Village and in most of the higher canyons in the surrounding mountains.

The spring blooming of desert wild flowers was greatly retarded by lack of spring rains. In the passes leading into the valley and several of the canyons, blooms were numerous but late.

A fine forest of Joshua trees was located by the resident

engineer in the high pass leading to the Race Track, an area little known and seldom visited on account of the difficulties of the trip.