

COPY

ANNUAL REPORT FOR 1934

1934

COPY

August 15, 1934

The Director
National Park Service
Washington D. C.

Dear Mr. Director:

There is transmitted herewith in triplicate the annual report for Zion National Park, covering the fiscal period July 1, 1933 to June 30, 1934, and administrative and construction period October 1, 1933 to June 30, 1934. A copy of the report is being sent to Field Headquarters.

Very truly yours,

P. P. Patraw
Superintendent

Inc. 1 in trip.

CC to Field Hdqts.

ZION NATIONAL PARK

Annual Report

1934

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ZION NATIONAL PARK

Annual Report

1934

GENERAL

This is the report of the administration of Zion National Park in its sixteenth year and covers the fiscal period July 1, 1933 to June 30, 1934, and the administrative and construction period from October 1, 1933 to June 30, 1934.

Zion National Park was established by act of Congress approved November 19, 1919. It is the seventeenth park, in order of establishment. Located in southwestern Utah, it was first reserved as a national monument in 1909 with the name "Mukuntuweap" which was subsequently changed to Zion. The boundaries now include 149 square miles. It is made accessible to visitors by an 18-mile road system including the famous Zion Tunnel of more than a mile length, three trails from the valley to the rim, and a system of bridle and foot trails in the valley. Hotel accommodations, of the lodge type, and transportation service are provided by Utah Parks Company, which also operates similar services in Bryce Canyon National Park, Cedar Breaks National Monument and on the North Rim of Grand Canyon National Park. A public auto campground supplied with running water, fuel wood and sanitary facilities is maintained by the Government. A new public campground of the individual campsite type is now under development, and the Utah Parks Company now has under construction a cabin camp to adjoin the new public campground at the park south entrance.

Railroad connection to the park is provided by the Utah Parks Company busses from Cedar City, on the Zion-North Rim of Grand Canyon-Bryce-Cedar Breaks loop tour, during the summer tour season, June 1 to September 30.

The lodge is open only during the summer from May 15 to October 15, but it is the intention to operate the new cabin camp continuously throughout the year. The entire park highway system is kept open throughout the year, necessitating light to heavy snow removal, depending on weather conditions during the winter.

The current year is by far the heaviest one in point of use by visitors. Complete figures are of course not available as the travel year does not end until September 30, but to the ending date for which this report is submitted (June 30) the park travel is 46.5 per cent ahead of the corresponding period last year.

This year has been an unusually busy one from an administrative standpoint, not only on account of construction and improvement by Emergency Conservation Work, Public Works and Civil Works Administration programs, but also because of additional areas having been placed under the administration of the office of the superintendent of Zion National Park. This office now administers Zion and

Bryce Canyon National Parks, and Cedar Breaks, and Timpanogas Cave National Monuments in Utah and Lehman Caves National Monument in Nevada. This office was also delegated supervisory charge of the Civil Works Administration program in Arches National Monument which was undertaken during the period from December 1933 to April 1934.

PERSONNEL

The permanent organization consists of the superintendent, assistant superintendent-engineer, park naturalist, chief ranger and two rangers, chief clerk, clerk-stenographer, storekeeper-costkeeper, a foreman and a general mechanic. Three ranger-checkers and two ranger-naturalists are employed during the summer season, their terms of appointment ranging from three to six months. Maintenance and construction forces are recruited from nearby communities when needed, on day-wage basis, their numbers varying from none to one hundred or more. There were no changes in the permanent personnel during the year.

The superintendent is also assisted by the assignment of a resident engineer from the office of the Chief Engineer and a resident architect from the Branch of Plans and Design at Field Headquarters in San Francisco during the period when much development work is in progress.

WEATHER

The park area has to some extent felt the effects of the drought which has prevailed throughout the western United States during this period, but probably not as severely as in outside regions. In the valleys themselves where permanent streams flow the effects have been minimized, but they are noticeable on the rims where springs are nearly or totally dry and the vegetation and wildlife are not in as healthy condition as formerly. There was almost a complete lack of snowfall during the winter months, and during this period when from 300 to 550 men were employed on various programs within the park there was not a single day lost on account of inclement weather. The month of January was more like spring than a winter month, as evidenced by the fact that grass took on a green color and buds began swelling on broad leaved trees. In the neighboring agricultural and horticultural regions spring was at least one month ahead of normal.

In spite of drought conditions, however, the domestic water supply of the park has been ample at all times.

The following is a summary statement of weather conditions by months during the period of this report:

Month	Mean	Mean	Mean	Max.	Min.	Prec.	Number of Days		
	Max.	Min.					Clear	P.C.	C.
October	81.5	55.1	68.3	88	46	0.25	22	2	7
November	68.4	41.5	54.9	80	28	0.45	25	2	3
December	58.5	35.9	45.7	66	19	2.27	19	4	8
January	56.3	31.9	44.1	63	24	0.89	27	3	1
February	61.7	39.1	50.4	75	31	1.60	11	5	12
March	72.4	45.8	59.0	82	36	0.27	20	9	2
April	80.1	50.5	65.3	92	32	0.40	18	8	4
May	88.5	58.9	73.7	97	42	0.05	22	2	7
June	89.2	59.5	74.4	105	45	0.36	20	8	2
	72.6	46.4	59.5	105	19	7.04	184	43	42

TRAVEL

Each of the nine months of the period of this report has established new high records of travel for the respective month and at the close of this period there had been a total of 32,935 visitors registered, as compared with 22,470 for the corresponding period of the previous year, an increase of 10,465 visitors, or 46.6 per cent. The largest travel day during this period was on Easter Sunday, April 1, when 1,250 visitors were registered, most of them coming from neighboring communities. Visitors were registered from every state, from the District of Columbia and from Alaska, Panama Canal Zone, Hawaii, Africa, Australia, Brazil, Canada, Central America, China, Egypt, England, Germany, India, Malay Islands, Mexico, New Zealand, Siam, and Japan.

The first increase in travel is attributed to several factors: first, the designation by the Secretary of the Interior of 1934 as National Park year; second, improvement of general business conditions throughout the country; third, improvement of highways; and fourth, the construction of Boulder Dam, which has now reached a stage that it is becoming an increasing attraction to visitors. It has been noted that many park visitors registered this year are persons who usually go abroad for the summer. However, during the latter months there has been a lessening in the percentage of increase in travel, presumably due to drought conditions.

The following is a monthly tabulation of visitors registered during the period of this report, with comparative figures for the corresponding months of the previous year:

Month	1934					1933	Increase	%
	Cars	Pass.	Bus	Misc.	Total			
October	1,052	2,960	1	7	2,968	1,364	1,594	113.0
November	579	1,927		5	1,932	1,141	791	70.0
December	408	1,183		2	1,185	809	377	46.0
January	380	966		1	967	618	359	58.0
February	434	1,218		12	1,230	694	536	77.0
March	749	2,278			2,278	945	1,333	141.0
April	1,614	5,822		2	5,824	3,016	2,808	93.0
May	1,818	5,391	7	1	5,399	4,604	795	17.0
June	3,499	10,921	227	4	11,152	9,250	1,902	21.0
Totals	10,831	32,666	235	34	32,935	22,470	10,465	46.6

MAINTENANCE, IMPROVEMENTS AND CONSTRUCTION

The construction program was unusually active, being assisted by three separate phases of work, Emergency Conservation Work, Public Works, and Civil Works. At one time there was a maximum of about 550 men being given employment through construction work within the park.

Maintenance

Maintenance work was light on account of absence of precipitation, but primarily on account of improvements through construction of roads and trails. All roads in the park are now hard surfaced, eliminating the necessity for frequent blading, and the maintenance of roads has consisted primarily of sweeping excess seal coat gravel over the surface to facilitate packing, and the cleaning from gutters of material sloughing from cut banks. On account of the open winter no snow removal whatever was necessary.

Light maintenance only was required on the trails for spring cleanup work. The only major maintenance work on the trail system involved during the year was on the Hidden Canyon Trail which was given a thorough going over and placed in first class condition. The replacement of an improvised wooden ladder with masonry steps was one feature of the work.

Following a fire inspection of park buildings, a considerable amount of repair work was performed, principally for removal of fire hazards. On account of expanding activities it was found necessary to partition the basement of the warehouse to provide an engineering office.

Sanitation, including maintenance of the public campground, required the continuous employment of a caretaker except during the winter period from December to March.

Construction

Public Works Roads and Trails

Major Projects

1A1,3,4 and 4B, Oil Surfacing, East Rim and South Entrance Roads. This project included some supplemental construction on the East Rim Road and the surfacing with asphalt mixed gravel of the East Rim and South Entrance Roads, 10.98 miles. Award of contract was made in October, 1933, to W. W. Clyde and Company, Springville, Utah, and the contractor began operations during the same month. The work was shut down on December 15 for the winter, at which time the project was fifty per cent complete. The contractor resumed work on the 2nd day of April, and completed on June 4. The total cost of the project was \$144,515.

Minor Projects

FP-169, Stream Protection. This project consisted of channel clearing and the construction of rock filled basket dams and of river riprapping for confining the Virgin River within a defined channel in the upper section of the valley of Zion Canyon to eliminate or minimize damage from flood waters. Work on this project similar to that done prior to the period of this report was carried forward progressively throughout the period, and the allotment of \$32,400 has been spent with the exception of a small balance. The work completed under this project consists of 1,300 lin. ft. of basket toe dam capped with heavy rock riprap at the Temple of Sinawava, and 1,742 lin. ft. of basket dam at Big Bend. This project was materially assisted by C.W.A. labor during the winter.

FP-170, South Entrance Service Roads. This project consisted of entrance road and plaza at the new south entrance camp and the grading and gravel surfacing of a service road in Oak Creek from the main highway to the Oak Creek utility area and a branch road to the Oak Creek residential area. Two reinforced concrete culverts were constructed on the Oak Creek service road at crossings of Oak Creek. At the close of the period of this report the south entrance campground section was complete, including the asphalt gravel surfacing as a part of the road contract previously mentioned, and the grading and gravel surfacing of the Oak Creek service road were completed; materials had been purchased and delivered for the two bridges and footings excavated preparatory to actual construction.

FP-171, West Rim Trail-Angel's Landing, Erosion Control and Surfacing.

FP-172, Refrigerator Canyon Trail Reconstruction. These projects involved the reconstruction of portions of the West Rim Trail from the foot to Angel's Landing and replacement of dry walls with permanent masonry walls, and improvement of drainage, and also oil surfacing. With the allotment of \$18,000 for this project the reconstruction was completed and the oil sized surfacing carried from the foot to and nearly through Refrigerator Canyon, a total distance of .96 mile. The surfacing consists of the application of emulsified asphalt to the native sand and thorough mixing for an average depth of four inches. This surfacing has proved extremely beneficial, not only in eliminating dust and difficult treading through deep sand, but also in practically eliminating damage from storm runoff.

FP-173, Valley Trails, Light Clay Surfacing. Most of the work on this project was completed in October, consisting of application of light clay binder on top of native sand on the Weeping Rock, Grotto and Emerald Pool Trails. The allotment of \$900 is practically spent at the close of the report period.

FP-174, Parking Area. This project consisted of construction of a 80-car parking area in front of the cabins at Zion Lodge and was accomplished during the months of February and March at a total cost of \$900.

FP-175, Footpaths to Camp or Building Headquarters. This project consists of grading and gravel surfacing of a footpath from the Oak Creek utility area through the Oak Creek residential area to the proposed administration building site. The project was 50% complete at the close of this period. The installation of stone curbing along the footpath in front of the residences remains to complete the project.

Public Works Physical Improvements

FP-16-17-18, Two Employees Residences and one Campground Comfort Station. Contract was awarded in May for construction of one 5-room and one 4-room residence in the Oak Creek residential area and the public comfort station in the south entrance campground, and work begun in June. The contract cost for all three buildings aggregates \$16,255.33.

FP-19, Campground Development. This project consisted of construction of 27 stone and brick fireplaces and 27 picnic tables for the like number of individual campsites developed by C.C.C. labor in the new south entrance campground. The project was completed in June.

FP-20, Sewer and Water System Development. This project consisted of development of springs at the base of West Temple, 5,400 feet of 2-inch and 3,452 feet of 3-inch cast iron supply main, construction of reinforced concrete storage reservoir and 3,920 feet of 6-inch and 600 feet of 4-inch cast iron distribution main, including necessary fire hydrants in the Oak Creek residential area, from the storage tank to the south entrance campground. All work was completed on June 30 with the exception of construction of the reservoir and the installation of supply lines within the campground itself, for which all materials were on hand.

The sewer system consists of installation of 1,048 feet of 8-inch vitrified tile main from the south entrance camp area and 355 feet of cast iron inverted syphon across the Virgin River, a disposal system of reinforced concrete septic tank 7,500 gallon capacity, and 200 feet of underground filtration trenches connected with the tank by sixty feet of 6-inch cast iron pipe. The entire sewer system as described above was completed in April and there remains on hand sufficient material to connect the campground comfort station into the sewer lines.

FP-21, Checking Station, East Entrance. This project was accomplished during the months of March and April with the exception of interior cabinet work which remains to be completed.

FP-22, Employees Quarters, East Entrance. An attempt was made to contract the construction of this building together with other buildings in the valley, resulting in bids considerably in excess of funds available. By the elimination of construction of some of the buildings authorized, sufficient funds were transferred to this allotment and construction was begun by force account in June.

FP-23, Water System, East Entrance. This project involved the construction of a 4,280 gallon concrete reservoir and 290 feet of 1½-inch and 1-inch pipeline to the east entrance ranger station, and was completed in June at a total cost of \$600. There being no water supply available near this point, the storage tank is filled by hauling water from the valley.

FP-24, Electric System, South Entrance Campground. This project consists of installation of underground conduit and of electric outlets for furnishing illumination in the south entrance campground and at the comfort station and the campfire lecture ground. All material has been ordered but no construction work started at the close of this period.

Civil Works

The Civil Works program was completely organized in December with 198 men, most of whom were drawn from the neighboring counties of Washington, Kane, Iron and Garfield. A few technical and specially skilled men were drawn from more distant points. The work crews were employed for thirty hours per week until January 20 when the allowable time was reduced to fifteen hours per week per man, with the exception of those on the archaeological research work who were in camp, and of certain supervisory, for whom thirty hours per week was permitted. A later order caused the reduction of the number of men permitted to be employed at the rate of eleven per cent per week, with the result that the program tapered off to a finish on April 26.

The following were the authorized projects worked on by Civil Works crews:

Stream protection, consisting of assisting Public Works crews in the construction of basket dams and bank riprapping to increase the total quantity of work accomplished.

Rock quarry. Under this project work was accomplished consisting of construction of a roadway to a rock quarry on public domain immediately outside the park and the quarrying of rock for stream protection, curbing, and building construction.

East Rim Trail. This project included improvement of the East Rim Trail for a distance of 2,600 feet, consisting of reconstruction of retaining walls and improvement of drainage.

Archaeological Research, Parunuweap Canyon and Vicinity. A crew of fifteen men was employed on this work and camped at the mouth of Parunuweap Canyon. Surface survey of certain archaeological sites, the establishment of a base line, and the mapping of the sites tied into this base line were accomplished. One site on private land outside the park was completely excavated and a small amount of test excavation was performed on other sites. A total of 35 sites was surveyed in this region.

Topographic Mapping. A total area of 75 acres within Zion Canyon was mapped under this project, mostly at two foot interval contours, and a base line was run from the south park boundary up the valley to the Temple of Sinawava, and monuments installed.

Emergency Conservation Work

Zion National Park Camp NP-1 at Blue Springs, north of the park, was evacuated on October 3 and moved to the south entrance area in Zion National

Park where camp NP-2 was established for the winter. Camp consisted of four 52-man barracks, a mess hall, administration and recreation building, a wash house, latrine, and clothes drying building, all of frame construction erected under supervision of the Army, and of a tool house, gas station and a toilet and shower building constructed under Park supervision.

Shortly after the move, Company No. 962 was filled to the strength of 212 enrolled men by transfers of personnel from companies demobilized elsewhere in the state. The supervisory crew employed by the Park Service included one project superintendent, ten foremen, one mechanic and one clerk.

Evacuation of camp NP-2 and movement of the company to a newly established camp NP-3 at Bryce Canyon National Park were accomplished on May 11.

Much valuable improvement work was carried on during the period the camp was in Zion National Park. The following are the units of construction performed, as taken from the complete reports previously rendered on Emergency Conservation Work:

- 2,400 ft. of trail from highway at east portal of tunnel to the top of the Great Arch.
- 2.5 miles of irrigation ditch improved and 2.6 miles of irrigation laterals constructed in the south entrance campground.
- 11 miles of roadside cleanup.
- Campground development in south entrance area, including .74 mile of campground roads and construction of 27 individual campsites.
- 50 acres of planting in the south entrance area and some planting in other areas of the park.
- 3 miles of telephone line constructed.
- 6 miles of boundary fence constructed on the west and south boundaries.
- 12,000 cubic yards of backfill on exposed basket dams.
- Stone work for construction of new warehouse in Oak Creek utility area was 75 per cent completed.
- 7,500 cubic yards of excavation for grading building sites in Oak Creek utility and residential areas.
- Construction of new checking station at the south boundary.
- Eradication of poison ivy and other poisonous plants from the trails on the floor of the valley.

On account of excellent weather conditions prevailing throughout the period, no working time was lost, and in our opinion the quantity and quality of work accomplished were above the average.

IMPROVEMENT OF NEARBY HIGHWAYS

Last year's report mentions the construction of a section of the Harrisburg Bench-Hurricane cutoff from highway U.S.91 to the Virgin River. Subsequently a contract was awarded for the construction of a concrete bridge across the Virgin River. The bridge was completed in March, but there still remains the construction of about three miles from the bridge to Hurricane before this route can be recommended for tourist travel.

Contract was awarded by the State and work started in February for the construction of the 7-mile section of road from LaVerkin Junction to Dalton Wash joining the oil surfaced highway at the point of beginning and a standard gravel surfaced highway at the point of terminus. Contract has also been awarded for three bridges on this route, and work is in progress. As the park travel season advanced the condition of detours on this section became the subject of more and more complaints by arriving motorists. An application of oil to reduce dust was placed over the detours which improved them to some extent. At the close of the period of this report the rough grading was about complete with the exception of the last section up the Hurricane Fault and most of the roadway was prepared to receive gravel surfacing.

Contract was awarded and work begun in March on the construction of a 7-mile section on highway No. 89 over Sevier Summit and was nearly completed by June 30. This section is important as a part of the connecting link between Zion and Bryce Canyon National Parks.

PUBLIC SERVICE OPERATOR

Zion Lodge was closed on October 15 and reopened on May 11. The plan of operation of the lodge was changed from the American to the European plan at the beginning of the current season. Since opening for this year patronage has been sixty to one hundred per cent ahead of the previous year, which is better than the proportionate increase in travel.

Contract was awarded by the park operator, Utah Parks Company, in May for the construction of the first unit of a cabin camp for the park, located in the south entrance area. Units to be constructed consist of a central cafeteria building, comfort station, shower building, laundry, filling station, and twelve standard housekeeping cabins, and the moving and remodeling of eight standard lodge cabins.

It is planned that this camp will be operated throughout the year, which will make this completely an all-year park.

ACTIVITIES OF OTHER AGENCIES

The Bureau of Public Roads supervised the contract for supplemental construction and asphalt gravel surfacing of project LA1,3,4 and 4B, and their engineering representative was resident in the park throughout the period except from the middle of December to the first of April while contract operations were closed down.

A park employee continued to serve as cooperative observer for the U. S. Weather Bureau, and another employee recorded the Virgin River gage for the Geological Survey.

EDUCATIONAL ACTIVITIES

The nine months period herein reported upon has been devoted largely to establishing a sound foundation of scientific knowledge and an adequate equipment to interpret such knowledge to the visiting public during the summer months. Neither of these objectives can be obtained in one season (or many seasons), but progress has been made as outlined below.

A. Collection of scientific knowledge.

1. Archaeology. A C.W.A. crew of fifteen men, headed by Ben W. Wetherill spent four months in field study of the Parunuweap Canyon region, surveying some 33 sites (embracing Basket Maker III to Pueblo II or III), and collecting representative sherds. Although laboratory work is yet to be completed on this project, it has already added materially to our museum exhibits and lecture material.

2. Zoology. Bird and mammal study collections were increased to 29 birds and 106 mammals. Increased knowledge of distribution and life histories has greatly aided lecture and guide work. A year ago there was practically no accurate information on either birds or animals, whereas now there has been published a mammal check list of 45 species, and material for a list of 123 birds is shaping up for publication.

3. Botany. Mrs. Patraw has kindly consented to contribute her spare time to enlarging and revising the plant check list of Zion. This is of necessity a slow task, but already 30 new species have been added to the previous list prepared by Dr. Woodbury.

A vegetative type map of Zion was made during April and May by Forest Technician T. B. Blair.

B. Betterment of interpretative methods

1. The lantern slide collection was increased by addition of 146 new colored slides, and a new projection machine was purchased. In previous years we had only enough slides for one lecture, which was repeated monotonously with an old projection machine that invariably blurred every picture. Public reaction to the new equipment is very gratifying.

2. Museum exhibits were improved by addition of a large 5'x10' relief model of Zion Park (scale 8"=1 mi.) made at the Berkeley laboratory by C.W.A. labor. Habitat groups of birds and animals were also started, but await completion of electric installations.

3. Nature Notes were improved as to content and illustrations, and were changed to a bi-monthly issuance. The first five volumes were indexed.

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Ranger-naturalist and guide service was started informally on March 23 and full program began on May 15. A total of 13,383 contacts were made, which is an increase over the same period last year of 53 per cent (8,730 contacts in May and June last year).

In addition to park contacts, the following institutions were contacted during winter months, either through conferences with scientists and faculty, or lectures to students: Branch Agricultural College, Cedar City, Utah; Brigham Young University, Provo, Utah; University of Utah, Salt Lake City, Utah; Museum of Vertebrate Zoology, Berkeley, California; Dixie College, St. George, Utah; and High Schools at St. George and Cedar City.

PROTECTION

The protection force consisted of a chief ranger who devoted his time to Zion, Bryce and Cedar Breaks, two permanent park rangers and three seasonal rangers. The chief ranger also supervises campground maintenance.

The south entrance checking station was operated continuously through this period and the east entrance station from October 1 to 19 and from April 15 to the end of the period. The collection of the entrance fee of \$1 per car was discontinued on December 2 and resumed on April 2.

The boundaries of the park were kept under patrol during the hunting season (October 20-30). No cases of trespass were observed within the park.

Violations of park regulations observed during the period of this report were of minor nature only, for which appropriate disciplinary measures were taken without reference to court, with the exception of three arrests within the park accomplished by the county sheriff with the assistance of the ranger force, one person for theft and two for illegal transportation of liquor.

There were six automobile accidents recorded within the park, of which only one might be considered serious, in which a woman received a broken leg and back injuries. While riding on the runningboard of a car driven by her daughter, she slipped and fell under the car and a rear wheel passed over her legs and back.

There was one rescue party led by the ranger force to assist two C.C.C. boys down from the top of West Temple. Three boys had climbed the Temple the previous day and with their inadequate equipment only one was able to descend, the other two remaining on top until the rescue party reached them the following day. The first recorded ascent of West Temple was accomplished by two Springdale boys in November, 1933, and the ascent by these three C.C.C. boys was the second.

There were no forest fires within the park during the period of this report, and only one building fire. The latter was a canvas tent and the fire was soon extinguished with the aid of chemical extinguishers and water.

FORESTRY AND WILDLIFE

Deer within the park are more numerous than heretofore, which is evidence that they are increasing in numbers under protection and that they have learned that the park is a sanctuary and few drift outside. It is believed that the point has been reached where there are as many deer within Zion Canyon as the range here will support. Of course this is not true of the whole park area, and only of this one area. We have record of six deer having been taken in the vicinity of the park during the hunting season.

Evidence of cougars within the park is more readily observed, indicating perhaps they are somewhat on the increase. However, they do not come into the valley of Zion Canyon, which is one of the factors assisting in the increase of the deer population here. One cougar was trapped in February near Springdale outside the park boundaries.

Further studies are needed to determine the condition of the band of mountain sheep which ranges on the east rim behind Bridge Mountain. The semi-tame mountain sheep occasionally returns to headquarters area.

Drought conditions adversely but not seriously affected both vegetation and wildlife. The deer do not seem to be in as good condition this summer as usual.

Because of dry weather the tent caterpillar defoliators were unusually bad this spring. Difficulty was experienced in obtaining a rented sprayer, which delayed the beginning of spraying three or four valuable days, so that these operations were made less effective. It was necessary to perform two separate spraying operations this year. With the purchase in June of our own spraying equipment from Forest Protection funds, we are now better prepared to handle caterpillars in the future.

The preparation of a vegetative type map of the park was accomplished during April and May by Forest Technician T. B. Flair detailed from the Berkeley office.

It is pleasing to report that in the face of dry weather there have been no vegetative fires in the park during the report period.

LANDS

The only changes in land status within the park is one of transfer of ownership of a parcel of private land, and the acceptance by the Secretary of the Interior of Utah State Road Commission's instrument relinquishing title to a section of road right-of-way.

OFFICIAL VISITS AND INSPECTIONS

Official visits were received from the following officers:

- October - Chief Field Naturalist Ansel F. Hall, National Park Service, and Senior Entomologist J. M. Miller of the Bureau of Entomology, Berkeley, California.
 Brigadier General Pegram Whitworth, Commander, Fort Douglas Civilian Conservation Corps.
 L. M. Winsor, Irrigation Engineer, Bureau of Agricultural Engineering.
- February - Chief Engineer Frank A. Kittredge, National Park Service.
- March - Park Naturalist Bert Harrell, Yosemite National Park.
 Wildlife Supervisor David H. Madsen, National Park Service, and Game Expert Randall Turnbow, Utah State Game Commission.
 Entomologist Donald Delson, National Park Service.
- March to June - Forest Technician T. B. Blair, National Park Service
- April - Superintendent O. A. Tomlinson, National Park Service.
 C. P. Russell, Assistant Field Naturalist, National Park Service
 Benj. Glassberg, Western Regional Representative, C.W.A., Denver.
 J. H. Rayburn, Director, Works Division, E.R.A., Salt Lake City.
 B. J. Finch, District Engineer, Bureau of Public Roads, Ogden.
- May - Chief Architect T. C. Vint, National Park Service.
 Charles H. Brill, Chief, Mails and Files Division, N.P.S., Washington.
 Supt. John B. White, Sequoia National Park.
 Sanitary Engineer H. B. Herman, Public Health Service, San Francisco.
 Miss A. P. Hopper, Assistant Manager 15th Civil Service District, Denver.
- June - R. C. Jennings, Assistant Chief, Branch of Operations, N.P.S.
 Secretary of Agriculture Wallace; L. I. Hawes, Deputy Chief, Bureau of Public Roads, San Francisco; and W. W. McLaughlin, Bureau of Agricultural Engineering.
 Assistant Forester G. M. Granger, Forest Service, Washington D.C.
 Dr. C. L. Foraling, Director of Intermountain Forest Experiment Station, Ogden.
 Resident Landscape Architect Harry Langley was in the park at various times throughout the period.

RECEIPTS AND EXPENDITURES

Receipts

Automobile entrance fees	\$14,352.00
Grazing fees	45.65
Business concessions	100.00
Miscellaneous	41.70
	<u>\$14,539.35</u>
Deposited in U. S. Treasury to credit of Miscellaneous Receipts	\$14,026.35

Expenditures

Zion National Park, 1954

Administrative, Protection and Maintenance	\$ 32,099.91	
Equipment	<u>345.70</u>	
Total		\$ 32,445.61

Forest Protection and Fire Prevention 750.60

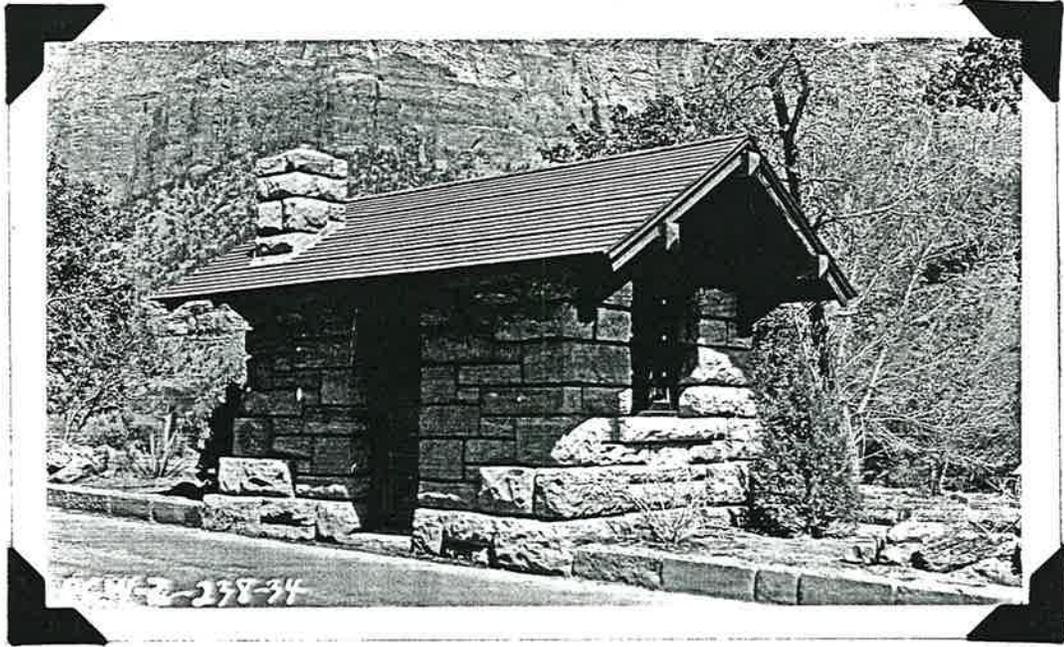
National Industrial Recovery, Interior, Nat. Parks, 1933-35

Roads and Trails	\$211,274.43	
Buildings and Reservations	<u>50,963.11</u>	
Total		262,237.54

Emergency Conservation Fund, FD-570, Zion 19,372.27

Civil Works Administration Funds, Zion 35,865.20

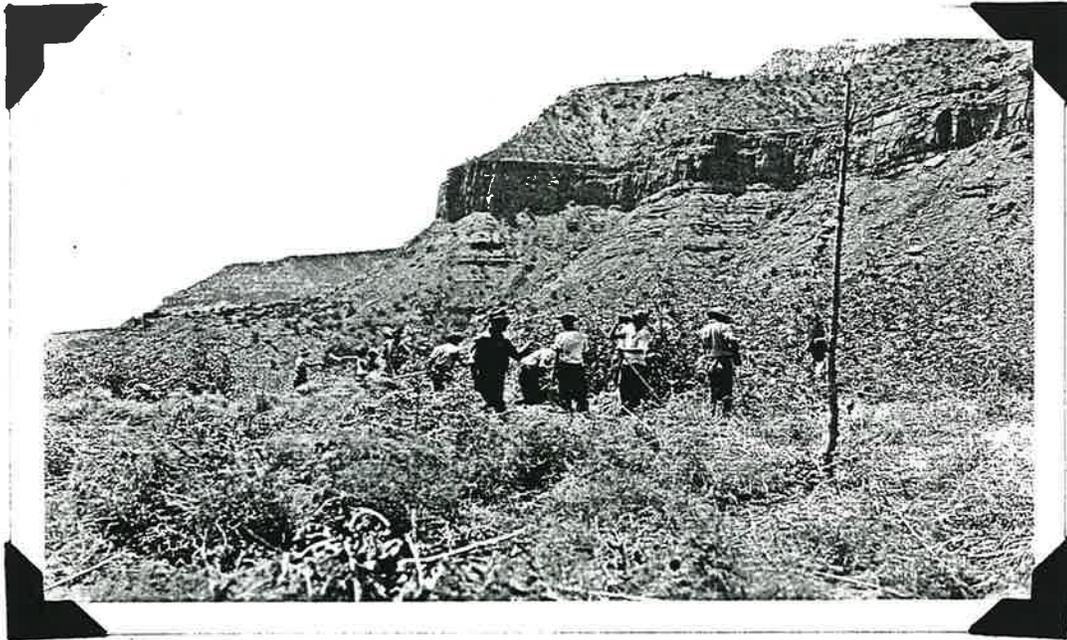
Total expenditures \$330,671.22



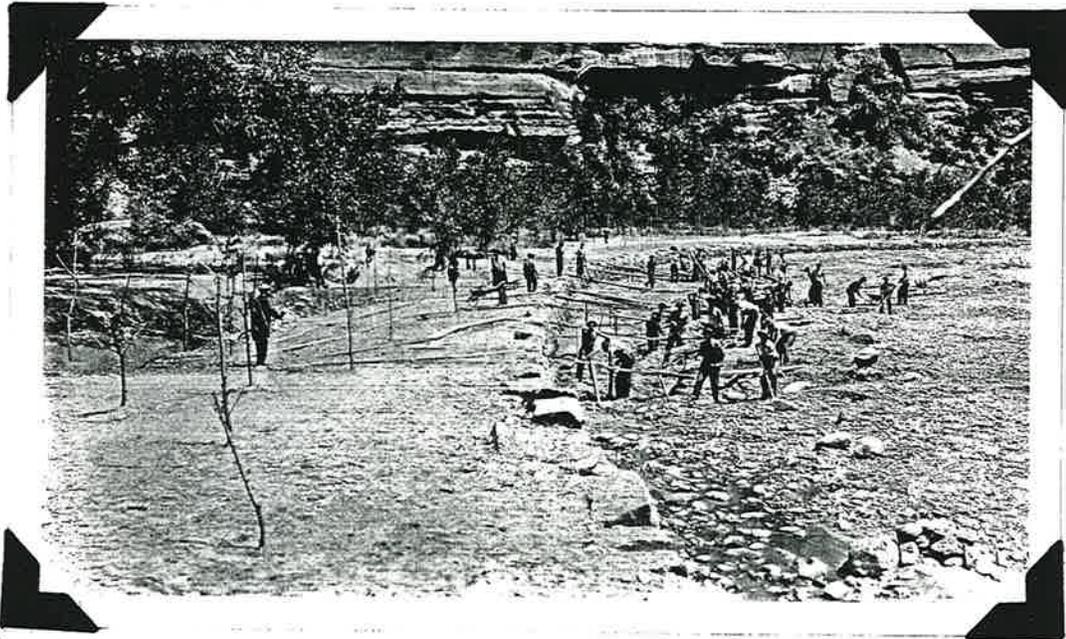
South entrance checking station, constructed by ECW labor.



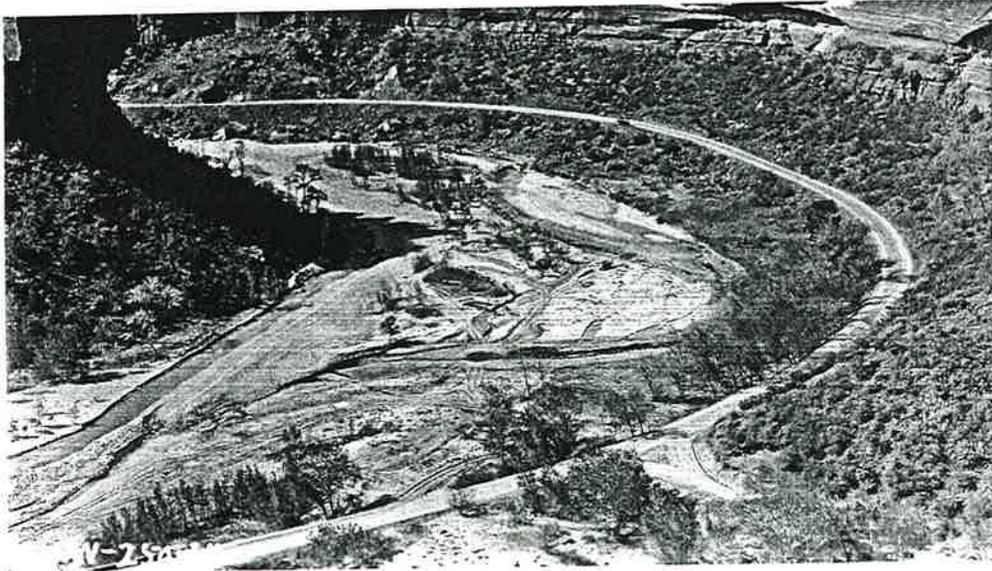
Spraying broadleaf trees for control of tent caterpillars.



CCC boys cleaning up noxious weeds, south entrance.



Stream protection, E.C.W. Backfilling behind wall at Temple of Sinawava.



Completed channel change and basket dams at Big Bend.
Public Works and C.W.A.



South Entrance service road. Public Works.



A-337-34

Excavated prehistoric ruin, Archaeological Research, C.W.A.