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REPORT

WORK DIVISION ACTIVITIES

* * *

EMERGENCY RELIEF ADMINISTRATION OF ARIZONA

APRIL 1, 1934 -TO- JULY 1, 1935

ARIZONA BOARD OF PUBLIC WELFARE

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C O N T E N T S

FEDERAL EMERGENCY RELIEF ADMINISTRATION OF ARIZONA

** WORK DIVISION **

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APPENDIX

FEDERAL EMERGENCY RELIEF ADMINISTRATION

WORK DIVISION

ACTIVITIES APRIL 1, 1934 - JUNE 30, 1935

I. WORK DIVISION TRENDS

The Southwest is often referred to as the land of "manana" but the Emergency Relief Administration of Arizona belied the oft repeated phrase by organizing and swinging into action itswork division in less than twenty-four hours.

II.

a. The foregoing organization chart lists the names of the principal officers with dates of tenure of office.

b. The Work Division provided technical supervision and directed the activities of the local work units. The workers on the projects received additional supervision from the county project managers employed by the ERA of Arizona and by the project sponsors which included such governmental units as cities or counties and State Highway Department.

c. Monthly reports were made by the project managers to the director of the Work Division showing the status of the work. An estimate was made of the percentage of completion, both physical and financial.

Plans and drawings were first made in the same manneras would be necessitated if the jobs were to be let by contract. Then the Work Division officials determined the value of the proposed work from

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a financial standpoint and from the standpoint of its permanent value to the state and community. Supporting data accompanied the proposed plans and specifications.

This idea was carried out both by the state and county for state and county projects.

A proper balance was maintained between types of projects and a continuity of employment existed.

III. OPERATION OF WORK DIVISION

a. The employees were qualified for relief through the Social Service Department. The clients were slected or certified for work as before stated and a check was made with former employers through a questionnaire which is attached at conclusion of report. Specific steps were not necessary to adapt projects to the skills of available workers as all projects which were considered outstanding fitted the employment needs of relief clients in the various communities.

b. Clients from discontinued or completed projects were given preference on new projects.

c. Employables with large families were given preference in assignment of work relief jobs. Manual labor clients worked out their time in alternate weeks. Professionals worked out their time in solid blocks.

cc. Ample employment was provided to care for all work relief.

d. The standards of efficiency were maintained as nearly as possible both in quantity and quality as though it

were a contract job. For example on the road work in Williamson valley in Yavapai county the county furnished a power shovel, three tractors, tumble bugs, a blade, and twelve trucks. The labor allotment for this setup averaged forty men. The efficiency in this case was comparable with a normal contract. On the other hand, where cooperation and equipment was not so pronounced, the efficiency naturally was down--the mean efficiency would approximate 65%.

dd. Professionals had charge of Operations. The efficiency was commendable.

e. Comparison with construction jobs was used as an incentive toward maintaining and improving efficiency. Piece work included such projects assewing, painting, artcrafts, and the like. Reductions were allowed inworking hours upon completion of a given amount of work without reductions of pay. Work relief was certainly preferable to direct relief. Workers received cash instead of commodity orders; higher compensation and there was an absence of social stigma in general. A sense of useful labor and accomplishment was realized by persons on ERA of Arizona work projects.

Dismissals from work relief for inefficiency or malingering were uncommon. They were placed on commodity relief.

ee. The more sensitive or mental types suffered most intensely when forced to accept direct relief.

IV. PROJECTS

A. First, projects were studied from an engineering viewpoint to determine their practicability. When determined, satisfactory plans and specifications were initiated for such work as the construction of buildings and bridges. Projects which involved such work as street paving were done according to the Arizona Highway classification standards.

B.

a1. A total of 102 miles of highway were constructed and 1410 miles were improved and repaired.

a2. A total of 47 miles of dirt road was constructed. A good example of this type of work was that done on Highway No. 82 on that section which extends from the city limits of the Mexican border city of Nogales to the Santa Cruz River bridge. The work was begun at the summit of Jund Hill, following Proto Canyon to the bridge. The construction was entirely a project of cuts and fills.

The total length of the completed sections was 2.96 miles. Twenty-one culverts were laid totaling 916 feet of 24 inch culvert pipe; a total of 152 feet of 30-inch pipe and a total of 512 feet of 36-inch pipe were also laid.

Five concrete underpasses for cattle and other livestock were constructed. The dimensions on these were:

1 - 10' x 6' x 57'
1 - 8' x 6' x 79½'
1 - 6' x 7' x 41'
1 - 6' x 6' x 49'
1 - 6' x 6' x 37½'

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The cement used on these underpasses and culverts totaled 2,163 sacks.

A section approximately one mile in length was done on the same highway by Emergency Relief Administration of Arizona by hand methods. The rock was drilled by hand drilling methods. The material was moved to the fills in wheelbarrows and four one-and-one-half ton State Highway Trucks, which were loaded by the hand shovel method.

A total of 16,616 cubic yards of material was moved in the section on which hand labor was used exclusively.

In the section where the Highway Department provided compressors, rock drills, shovels and large trucks a total of 19,755.6 cubic yards of earth was moved. The Emergency Relief Administration of Arizona labor was also used to trim the sides of the cuts, clear the right-of-ways, build fences and set up cactus gardens along the road.

The common names for these cacti are usually Mexican or Spanish and as delightful in sound as the flowering plants are colorful. Cholla, nopal and tuna refer to the cylindrical opuntias with their edible fruits. Sahuaros are the giant cereus and the barrel cacti is known as the visnaga. There are many forms of the visnaga but the Opuntia Engelmannii with its golden yellow flowers and its purple-red fruit is the most common. The microcarpa, too, is very common in Arizona, both in the desert and foothill country.

These cactus gardens lend unusual interest to the

roads especially for the many tourists who travel the roads from the famous old mining town of Tombstone or the City of Tucson to the border towns of Nogales, Arizona, and Nogales, Sonora.

a3. An example of the gravel roads of which there was a total of 20 miles can be seen on the Yuma highway. The sandy formation of the country around Yuma causes the shoulders of the highway to be dangerously soft. The Emergency Relief Administration of Arizona workmen operated the County owned rock crusher and enough crushed rock was produced to surface a considerable mileage. It is believed that this work has averted serious accidents and saved the lives of a number of persons who would otherwise have been endangered while motoring.

a4. No macadam roads.

a5. No concrete roads.

a6. Thirty-five miles of oil road were laid by the Emergency Relief Administration of Arizona, complying with State Highway specifications.

The Emergency Relief Administrationsaved the state of Arizona approximately $100,000 on the Cashion Road project by securing 34 miles of right of way without any expenditure. Property owners realizing that no money was available for this purpose cooperated by donating land so that their road might by improved. Widening of the road has covered to date fourteen and seven-tenths miles.

TOMBSTONE

Culture and Ignorance, Religion and Murder were bosom companions in the boom town of Tombstone, which found birth in the pawing of a "Watch Dawg" mule owned by Ed. Schiefflin.

Few, if any, Federal Relief Organizations had the opportunity to work in such a richly historic town as Tombstone, Arizona.

Hundreds of tales in which law was enforced by a speedy trigger finger and a good aim have been handed down since the early 70's.

The Million Dollar Stope literally poured millions into the laps of Tombstone miners. This mine was originally owned by Nellie Cashman, whose heart was as generous as her mine.

The Crystal Palace Bar saw many a gun play, many a fortune lost or won on the turn of a roulette wheel.

The Bird Cage Theatre, built in 1881, is the most photographed building in the Southwest. Eddie Foy, Lottie Crabtree and many others who became famous on the Orpheum Circuit took repeated curtain calls in the old Bird Cage.

The Old City Hall, on which repairs were done by Federal Relief Workers, saw much frontier justice

administered.

The O.K. Corral was the scene of the famous Earp-Clanton battle of 1881.

Tombstone can boast of being the only city in the world in which a man can sit down to breakfast and read his own epithet. The Tombstone Epithet has witnessed boom days and bad days, and has continued to publish a creditable paper.

Little has been said, and little is known, about the swimming pool which was recently excavated, after having been completely forgotten for many, many years, but it is fair to believe that it was in operation during Tombstone's gala days.

Last and not least important in Tombstone's colorful history comes the famous "Boot Hill Graveyard" which was fenced and repaired by the Emergency Relief Administration of Arizona. The headstones in Boot Hill Cemetery write a dramatic finale to the lives of some of the most colorful Western pioneers.

Stewart N. Lake in his biography of "Wyatt Earp, Frontier Marshal", and Walter Noble Burns in his "Tombstone" give clear and interesting information concerning Tombstone information which will prove delightful reading to anyone interested in this town that has been playing "hide-and-seek" with ghosts for many a day.

The Cashion Highway extends west from Phoenix to the vicinity of the Agua Fria River bridge forming an important though short link in Highway No. 80. This trans-continental highway leaves Arizona's sister state, New Mexico, at Lordsburg, veering south to Douglas on the Mexican border. The road then snakes across the beautiful desert country to Tucson and on to the state capitol. After leaving Phoenix, motorists will travel over the Cashion strip and on westward, entering California at Yuma, famed as the hottest city in the United States.

The moving of 45,000 volts of "hot" transmission line, necessitated by the widening of the Cashion Highway, was one of the most dangerous undertakings of any of the Civil Works Administration or Emergency Relief Projects in Arizona and a tribute is due to the engineers on this project as not one person suffered even a minor injury.

Highway No. 80 from Nineteenth avenue in Phoenix to within 1,500 feet of the east abutment of the Agua Fria River bridge was only a two-way road and the heavy traffic was continually congested. It was important that this highway be sidened to speed and facilitate travel and insure the safety of the many persons who motored over this stretch each day, vacationing, sightseeing or bringing produce into Phoenix for shipments to markets the nation over. So the Civil Works Administration and later the Emergency Relief Administration of Arizona undertook to prepare the right of way so that a highway contract could be let to widen the present pavement to forty-four feet making it

a four-lane high speed highway.

The operations involved in widening the Cashion highway to a width of forty-four feet were great because of the fences, irrigation ditches, telephone and power lines that were on the right of way.

Culverts were extended; fences were set back to the new right of way lines and irrigation ditches and canals were relocated and dug. The excess yardage on each side of the old pavement was also removed. The telephone lines were transferred on the north side of the road back to the needed distance and the transmission lines, carrying a 45,000 voltage were removed on the south by the "Hot Stick" method as the power could not be shut off during operations.

Fourteen and seven-tenths miles of transmission line were reconstructed and the same mileage of telephone lines was also moved off of the highway right of way. The relocation and construction of 28.3 miles of irrigation ditches involved the moving of 40,950 cubic yards of excavation. Total excavation and grading on the project required the moving of 120,000 cubic yards of earth.

A total of 1,220 linear feet of corrugated galvanized iron culverts were installed and the concrete culverts were extended 1,472 linear feet.

Approximately twenty-one acres of ground were cleared of trees and grubbed. All of the bushes and trees that could be used for firewood were cut into suitable lengths for distribution

among the families on direct relief. Heavy banks too were built up along fence lines as a protection against waste water from adjacent fields.

The transmission poles ranged in height from 40 to 55 feet and were set in the ground to a depth of six to seven and a half feet, depending upon the length of the pole. A trench was dug between the new and old locations of each pole; anchors were set and the poles guyed, then slid into new positions, through the trenches. Four or five poles were trenched at a time to provide the necessary slack in the lines. After being moved they were keyed at the top and bottom. The trench was then refilled and the pole tamped in.

b1. Sidewalks: Four and one half miles of sidewalks were laid in the towns of Seligman, Springerville, Thatcher and Pima. Those in Seligman were of flagstone and those in Springerville were of stone and gravel.

b2. Trails and Paths: Twenty-six miles of trails and paths were cleared and built by relief workers. Among these are the bridle and hiking paths within the confines of the forty-acre wooded tract owned by the Northern Arizona State Fairgrounds Association at Prescott. The timbered section which lies west of the grandstand which is used for the famous Smoki Snake Dance, for the celebrated Frontier Days' Celebrations and other community gathering, is as delightful a section of mountain country as can be found in the state. Granite boulders combine with tall Ponderosa pines, scrub oak and other

evergreens to form a park of exceptional beauty.

Prescott is the summer capitol of Arizona and thousands of persons spend either their week-ends or their vacations in the cool pine-scented mountains and find those periods made even more delightful than in former years because of the easy accessibility due to the ERA of Arizona improvements in this beautiful mountain park.

c1. Bridges: Four bridges were constructed, and four were improved. Among those constructed was the Goodwin Street bridge at Prescott. This was begun on December 30, 1934 and completed on March 31, 1935. The water way will carry 5,000 cubic feet per second. A conduit runs through the bridge for ornamental lights on the four corners. Lighting standards were made of four pieces of three-quarter inch concrete reinforcing steel. As this project was begun a month later than anticipated the entire city street department of Prescott cooperated. The sidewalks were cantilevered along the side of the decks. Thirteen and a half tons of steel were used on the job, and 2,600 sacks of cement were necessary for the completion of the bridge. Maximum load, 15 tons.

c2. One large culvert was laid in Apache county.

c3. No overpasses were built.

c4. No underpasses were built.

c5. No grade crossings were undertaken.

c6. No projects for traffic control or regulation were constructed.

d1. Two cactus gardens of unusual beauty are being planted at the present time at the intersection of the Apache Trail and Highway 180, and at the intersection of Highway 180 and Highway 60. Sahuaros, Ocotillos, Bisnagas, Cholla, Opuntia Versicolor, Yuccas, Pinchushion Cacti, Arizona Rainbow, the crimson flowered Porcupine, Senito, pipe organ cactus, prickly pears, tree cactus, which is really a form of Cholla, and others of the more than one hundred varieties to be found in Arizona will be included in these parks.

B 3,4 Public Buildings Projects

a. Six schoolhouses were constructed and 47 were improved. They had a capacity of from fifty-one to five hundred children. (See chart for detailed work on Maricopa County Project).

b1. No court houses were constructed but two small ones, those at the towns of Globe and Flagstaff were improved.

b2. No municipal garages were constructed, improved or repaired.

b3. No fire houses were constructed, improved or repaired.

b4. No bus and car shelters were constructed, improved or repaired.

b5. No rest rooms were constructed, improved or repaired.

b6. The grounds around the Flagstaff armory were terraced and greatly improved. (Work can be seen in Photograph).

C. A city hall was constructed at Florence. This was constructed of adobe and pluster.

More than 1,813,800 adobes have been made and laid by the Emergency Relief Administration of Arizona putting to excellent use a method of building which has been common to Arizona since the Spanish conquests centuries ago. This work provided an occupation for hundreds of laborers.

Adobe or sun-dried brick are peculiar to the southwestern part of the United States and have been used largely throughout this section since the coming of the Spaniards centuries ago. Buildings of adobe plastered inside and out have been found to be cooler in summer and warmer in winter than a majority of buildings erected with other materials.

Adobe barracks have been constructed at Phoenix, Tucson, Yuma and Douglas Transient Camps.

The durability of these adobe buildings, even under the lash of centuries of wind and storm, is evidenced by the old Spanish Missions, such as that at Tumacacori and many other old churches which are even in a better stage of preservation, their roofs having partially protected the walls.

D. Jails: Four jails were constructed. The building erected at Payson may be cited as an example. The capacity in each of these buildings does not exceed room for fifty persons.

E. Hospitals and Public Buildings

al. The wise men could have brought no more

precious gifts to the Christ Child in Bethlehem than the Emergency Relief Administration of Arizona brought to Arizona's indigent tuberculars through the erection of the Sanitarium which replaced the old abandoned Maricopa county hospital.

Gleaming white domes and minarets are silhouetted against a desert sky of turquoise blue and in the distance range on range of mountains fade into the violet mists beyond the horizon.

Nearby are giant sahuaros, ocotillos and dozens of the other one-hundred varieties of cacti which are native to Arizona. On the surrounding farms every known vegetable which requires a subtropical climate is being raised. Melons are grown in great abundance; lettuce is shipped out by the train load and Arizona oranges and grapefruit are justly famous from coast to coast.

In this land of primitive beauty and plenty, the Civil Works Administration and the Emergency Relief Administration have built one of the most beautiful sanitariums in the Southwest, at a cost of $241,615 and required 246,237 man hours for its erection. The capacity is one hundred adults and twenty children. The building is Moorish in outline, being of the white Mediterranean type.

Climatic conditions in Arizona induce many families to migrate here for various illnesses, mainly tuberculosis. Many of these patients have come herewith only enough money secured from relatives, religious or fraternal organizations

to meet their needs for the first year of residence, then they are dependent upon the welfare organizations of this state. Maricopa county, being the Mecca of a majority of these indigent tuberculars, suffered an overwhelming need for a sanitarium.

The county authorities had been forced to place their patients in private institutions since the old county hospital became untenable.

The old county hospital which was abandoned in 1932 was woefully inadequate for the housing of tubercular patients according to welfare officials. In addition, it stood during its later years within a few feet of the stockyards of a large packing plant.

The first shovel of dirt was turned for the foundation of this magnificent building in December of 1933, under the direction of Civil Works Administration officials. Work progressed rapidly. Then the Civil Works Administration ended and the Emergency Relief Administration of Arizona restricted employment movement was started and men rotated on the job.

The building stands mosque-like and serene, inset into the desert itself, its two minarets, its patios and arches, outdoor stairway and glistening white walls reminiscent of some far off temple calling the faithful to prayer and meditation.

It does not have the appearance of a hospital as viewed from the exterior nor from within its walls which are tinted a soft green. Cheerfulness is the keynote of the rooms

and carries its message to the most disheartened of patients.

The building is divided into three units. The three being connected by walks with covered arches. The center unit is approached through a large patio. In this are to be found the waiting room, an attractive living room, dining room, light airy offices, X-ray, examination, and operating rooms, the kitchen, pantry, refrigeration rooms, service rooms, and a dining room for the staff. The second floor was designed to be used by the children and includes three wards, several baths, a diet kitchen and serving room, a sleeping porch, and a spacious room with a fireplace to be used as a play room.

The 34 x 28 foot kitchen is equipped with a large refrigerator, a huge soup kettle unit, a mechanical potato peeler, a steam cooker, roaster, steam tables, large gas range, mixing machine, food chopper, combined dish washer and sterilizer and other equipment.

There are two food storage rooms, insulated with four inches of cork set in asphalt, a diet kitchen and a small dining room for the kitchen help, immediately adjoining the central kitchen. The food storage rooms and refrigerator are cooled from a central ammonia plant in the basement.

The unit for the men and the unit for the women are exactly alike. Porches are screened on both sides. These are divided by small partitions so that only two patients share the same division. A bell and two electrical plugs, one for a bed lamp, and the other for a radio connection, are placed above

each bed. Every two patients will share dressing rooms in which have been built two closets and a dresser with a double set of drawers.

All doors are large enough to permit beds to be wheeled through.

There are no square, dust-gathering "Corners", all corners of rooms and halls having been rounded for greater sanitation and cleanliness.

Solariums, quiet rooms, and showers are also to be found in each of these sections. The woodwork and furniture is painted a powder green.

All three units have large basements.

The plant for the automatic gas heating system also is located in the basement, beneath the kitchen.

The entire building is floored with linoleum. The equipment for the hospital is new throughout.

To go through each room in the hospital and describe the many features would require many pages. There are beam-ceilinged, mural-decorated dining rooms with arched entrances, solariums, medical director's rooms, an X-ray room, a drug storage room.

Utility and beauty have been combined in the more than 26,000 square feet of sanitarium floor space.

This was an employment-giving project and does not represent the work of any private contractor, having been started when Arizona sought to meet the problem of finding

employment for some 13,000 men. The sanitarium is a hand-made article; not one piece of machinery built any part of it nor mixed any cement.

a2. Public Buildings: Eight public buildings were constructed. One for the Bureau of Plant Industry at the Southwestern Headquarters at Tucson, two museums, four municipal buildings and one public market.

(1) Bureau of Plant Industry, Tucson: The following data compiled by F. J. Crider, Regional Director of the Southwestern Nurseries of the Soil Conservation Service at Tucson is of national interest:

> "The Southwestern Nurseries of the Soil Conservation Service are an integral part of the great national program of soil conservation. They are being established primarily for the purpose of producing plant nursery stock for use on the various erosion control projects throughout the Southwest, in Arizona, New Mexico, Utah, Nevada and Southern California.
>
> "The headquarters station is located at Tucson, Arizona, four miles northeast of the City, on the University of Arizona Experiment Station Farm. Branch nursery units are being established at Safford, Arizona, Shiprock, New Mexico, and Albuquerque, New Mexico. The work at the Tucson station is being handled in cooperation with the University of Arizona, which is assisting materially in such matters as furnishing land and equipment and supplying technical services. Also the City of Tucson, through the University of Arizona, is assisting greatly in the work of the project by making available certain lands for the growing of propagation stock.
>
> "In physical development, the station has under construction an administration building providing office, laboratory and seed analytical and storage facilities; general utility unit, consisting of packing and storage rooms, seed fumiga-

tion chambers, garage and machinery quarters. Likewise, a cottage is being built for the station superintendent. As a part of the propagation and general plant facilities, a greenhouse has been constructed; also a large lath house, equipped with overhead baffle spray, and an overhead field sprinkling system.

"All of this development has been greatly facilitated by the fact that it has been possible to use labor furnished by the local office of the Federal Emergency Relief Administration.

"Plant work proper at this station consists of two general phases, the production of nursery stock and the collection of seeds in quantity of suitable, proven plants and the introduction and study of promising foreign and native plants with a view to their utilization for erosion control, forage, and other economic uses. Wherever possible, effort is made to assemble and use plants which have some specific economic value; such as forage, human food, firewood, tannin, medicine, fiber, etc., as well as being generally suitable for the control of water and wind erosion and for general revegetation purposes.

"At the present time the Tucson station is growing more than a million plants which will be available for distribution during the coming fall and spring, representing some two dozen different species. In addition, some thirty kinds, representing proven species, of which little seed stock is available, are being propagated as rapidly as possible for further increase and for distribution. Over a thousand varieties, obtained by the U. S. Department of Agriculture from foreign countries having climatic conditions similar to that of the Southwest, have been planted this season for observation. These include several hundred grasses and other forage plants secured by the recent Rostoverenlow expedition into Turkestan, Persia and Turkey. After thorough tests at the headquarters station, such plants as show promise will be planted at the different branch stations for further study and finally those surviving the acid test of practicability will be utilized on the various project areas throughout the Southwest. In this connection, plant observational areas are being established within the general vicinity of Tucson which are intended as a means of furnishing quick

readings as to the general adaptablity and behavior of plants at different elevations and under different rainfall, temperature and soil conditions."

(2) The Sharlot Hall Museum erected at Prescott in Yavapai County was dedicated to Miss Sharlot M. Hall, who probably more than any other living woman in Arizona has worked untiringly to collect and preserve the mementos and relics of pioneer days. Prescott which was the first territorial capitol of Arizona will keep this museum open to the public. The museum was erected within the shadows of the walls of the old gubernatorial mansion which is standing and in good rpair even today.

(3) The Smoki Museum at Prescott, which was begun by Civil Works Administration and completed by the Emergency Relief Administration of Arizona, offers an unusual treat to the archaeologist and layman who is fortunate enough to visit this busy little city.

The life-giving Sun once smiled upon an ancient civilization which found rise and fall between 900 and 1300 A.D., in the vicinity of the Little Colorado. After this, sand devils played hide-and-seek in their crumbling homes. Decaying walls listened in vain for the return of their builders and passed into disappointed ruin.

Pueblo structures, once towering two and three stories high upon windswept hills, have been lashed unmercifully by the fury of the centuries. Bits of prehistoric masonry and Indian artifacts, mostly mortuary pieces, are all

that remain for the elucidation and pleasure of modern white man.

Prescott is poignantly aware of the ancient cultures which preceded its inception and the brave pioneering days. contemporary with its own growth. Its appreciation has found expression and its dreams realization in the erection of the Smoki and Sharlot Hall Museums. The former is housing the artifacts of the Prescott and Yavapai Cultures including the King, Fitzmaurice and Tuzigoot ruins; the latter will display the mementos and priceless treasures of Arizona Pioneers and early American history which will be removed from the present Governor's mansion to the new Sharlot Hall Museum. The governor's Mansion, which was restored through the wonderful work of Miss Hall will then have its furnishings just as they were in the days of the governors.

The Smoki Museum is unique among anthropological institutions, holding a place distinctly its own. Here the tall gods of Zuni meet the plumed serpents of the Hopi. Each remains authentic part and parcel of its own home and people while acknowledging with simple dignity the beliefs of its neighbor as portrayed through paintings, altars and artifacts housed within the Smoki walls. These modern representations, which are ancient too, share the museum with reminders of the once teeming life of the excavated pueblos which are now designated as King, Fitzmaurice and Tuzigoot.

The idea for this museum and laboratory was con-

ceived by the Smoki, a group of white men and women, banded together for the purpose of keeping alive the cultures of the past, and by the Archaeological Committee of the Yavapai County Chamber of Commerce. These Smoki seek to present and preserve the dances and chants of the Southwestern Indians, which are fast losing their place in hogan and pueblo as young people are weaned away through boarding school or occupations off of the reservation.

In June of each year the Smoki people produce three to five of the Indian ceremonials and chants. The sand painters of the Navajo, the Hoop dance of the Apache, the Moon Dance of the Piute, the Snake dance and Butterfly dance of the Hopi are but a few of the rites which have found place and portrayal on the Smoki programs.

The museum is made of native stone, conforming in interior appearance to the original Smoki building which in turn was patterned from early pueblo structures. The large museum room is sixty feet square. At the rear of this room is a laboratory and living quarters for the curator.

Entering the museum visitors are asked to register at one of the most unique registration desks in America. Apparently of solid flagstone, this table is hollow, permitting leg and foot space and two cupboards for storage. The top of the desk is composed of two large flat stones.

Occupying the central position in the museum is an outcropping of a sunken kiva, corresponding in each detail

to those of the Hopis. But this kiva will never witness the secret ceremonies of the smoki fraternity nor other rites, for it serves a purpose of which no ancient ever dreamed. Here, in the underground precincts, is an up-to-date oil burning heating plant. Stone and earth cover the kiva except for small ladder openings through which the heat rises to keep the large museum at a comfortable temperature.

However, a large double-mouthed fireplace has been built at one side of the room, lending a truly aboriginal atmosphere. On the semi-circular chimney Miss Kate T. Gory has painted three figures, the central one being that of the sun god. This figure in each minute detail of costume with bonnet symbolic of the sun and decorated with feathers from that king of birds, the great eagle, brings to the visitor the Indian's conception of this deity. The fire god, friend of growth, is depicted at his side to add blessings upon the white visitors who enter the precincts of the Smoki.

The fireplace itself is built in the Zuni way with a small chimney and a large mantle, for in this ancient City of Cibola the family sleep on the mantle absorbing its warmth through the cold winter nights.

Miss Gory has further contributed to the rich lore contained in the new museum by the loan of her fascinating oil painting which depicts the snake legend of

the Hopi. It concerns a journey down the Colorado river by an Indian youth eons ago, his ultimate entrance into the underworld, his contacts with the "spider woman", the test he was put to by the underworld to determine his worth, and finally the awarding to him of a particularly ugly snake for a wife, which suddenly turned into a beautiful maiden. As the legend goes, the youth returned to the upperworld with his wife and a bag of turquoise and abalone shell beads. His serpent offspring later returned to the underworld and the human offsprings became the progenitors of the present snake clan of the Hopi people.

Again the museum visitor is privileged to enjoy a rare experience for the altar on which the drama of the plumed serpent is enacted has been faithfully reproduced with the plumed serpents projecting from the walls and winding their length among the fields of the corn. Here it is that the mud heads fight with the serpents and in so doing destroy the Hopi fields.

The museum is illuminated through indirect wall pockets near the ceiling and ceiling lights for whichsoft candle glow globes are used. The ceiling itself thus brought into attractive relief is constructed of 30,000 pieces of timber representing the thatched ceilings used in the pueblos.

The seats are varied and wholly comfortable while adding materially to the appearance of the room. One wooden

pegged and hand hewn chair is an exact replica of a seat from early Zuni showing the influence of the Spanish. Hand hewn logs are shaped to curves that fit the human body and permit complete relaxation; stone seats will serve additional guests.

Encircling the room at intervals are shelves on which rest many of the large artifacts from Yavapai county prehistoric ruins. The smaller pieces such as the frog mosaics, pottery spindle whirls and small flint weapons are displayed in cases of hand chiseled wood. The shelves are hand hewsn, averaging four tiers in height and totaling at present 175 feet of space.

Interesting among the contents of the cases is a display showing the timbers used in the early pueblos and the rings, which according to the Douglass theory helped archaeologists in correctly dating the time of the first erection and additions to the pueblos. Pinon, Douglas fir, juniper, and western yellowpine each have a place in this display.

A visit to the museum is not complete until an inspection is made of the curator's quarters, which include in one, not very large, room one of the most compact and beautiful apartments that anyone could vision. The furniture is entirely hand-chiseled and stained. Among the features are the latest electric stove and frigidaire, housed in a wooden hand-carved jacket. A disappearing bed rolls

into the wall and vanishes into the main building under a most unique bit of masonry, the plumed serpent setting which occupies such an interesting place in the adjoining room.

After the visitors have circled the museum room, inspected the curator's quarters and possibly taken a glance at the laboratory, they have yet another treat in store. As they near the door they face a painting which carries in its portrayal of the Niman or Farewell Katchina all the lure, the romance, beauty and dignity of this important nine-day Hopi ceremonial.

The Katchinas are the spirits or breath-bodies of the ancient Hopis which have retained the power of good and evil action.

The Hopi year is divided into that of the named moons or cold period and that of the unnamed moons or warm period. The ceremonial year begins at a time which corresponds to our month of November. Many are the greeting ceremonies welcoming the ancients to the midst of the living, but in our July only one farewell rite is observed. This, the important and elaborate nine-day Niman Katchina, which is so beautifully depicted in Miss Cory's oil. Through this painting the museum visitors, like the honored spirits of the Hopi forefathers, are giving a hearty and regretted farewell, carrying with it a wish for the return of the departing ones.

a3. Relief Offices: Three relief offices were improved.

G. OTHER PUBLIC BUILDINGS: No other public building except those mentioned were constructed.

H. DESCRIBE PROJECTS, ETC. See a1, a2 (1) and a2 (2).

B. 7, 8, 9, 10 - SEWERS, DRAINAGE AND PUBLIC UTILITY PROJECTS

a1. Sewers: Three miles of sewer were constructed and five miles were improved.

a2. Storm Sewers: Four miles of storm sewers were repaired.

a3. Drainage Ditches: Fifteen miles of drainage ditches were dug.

a4. Irrigation Ditches: No irrigation ditches were constructed, but under Civil Works Administration, a project was begun for cleaning and lining some of the Roosevelt Irrigation District canals with gunite, a total of 1,140,000 square feet being laid. This work was carried on under Emergency Relief Administration of Arizona. An estimated twenty percent saving of water was effected as these ditches were new and in places were in a soft soil which permitted a heavy loss of water. In older ditches and canals of those dug in caliche the water loss is much less.

a5. Sewers: None improved or repaired.

b1. Water Mains: Three miles of water

mains were laid.

b3. Electric and Gas Conduits: None laid nor improved and repaired.

c1. Abattoirs: No abattoirs were constructed.

c2. Electric Light Plants: None were erected.

c4. Pumping Stations: Thirteen pumping stations were installed but none were improved or repaired. A pumping station which will bring pleasure and assured safety to thousands of persons is that over the drilled well in the Stewart Mountain recreational area. This well was drilled for the use of Arizona's first 250-man portable transient camp during the time that they beautified this area, and for the permanent use of picnickers and other persons who will motor to this beautiful site on the west bank of the Salt River. The water has been tested for purity and the well was lowered to a depth to prevent any surface contamination.

c5. Filtration Stations: None.

c6. Sewage Disposal Plants: One constructed and one repaired. (See c8)

c7. Other Utilities: None

c8. Septic Tanks: Four were constructed.

The topography and surface drainage of the city of Winslow in Northern Arizona as well as gradient for sewer disposal has long been a problem. When the first

sewer lines were laid in the earlier days the town was small and very little consideration for the future growth was given. The mains were constructed near the surface of the ground and the outfall line ended but two miles north of the city. The effluent was carried in an open ditch a quarter of a mile where it flowed into an old slough that was formerly a part of the Little Colorado river channel.

The end of the outfall line necessarily had to be under ground to maintain a grade sufficient to carry the sewage and the result was that a bad condition was created in that all the gasses were trapped in the outfall main, and could escape only through the manholes along the line. Another condition, which in recent years had developed into a serious menace, was the effluent flowing into the old slough and out onto a wide flat area from which the water either soaked into the ground or evaporated. This flat, marshy area was a fine breeding place for mosquitoes. The State Health authorities, as well as local officials, realized the hazard of the condition, but owing to the economic condition caused by the depression, the City of Winslow was financially unable to improve the condition. With the inauguration of the Civil Works and Emergency relief Administrations, application was made for the project the middle part of December, 1933.

The project consisted of the following items of construction:

High voltage power line

Extension of present outfall sewer line

Pump room and motor room

Concrete septic tank

Because of the winter season in the beginning of the Civil Works Administration program, work was first begun on the sewer line which consisted of excavating and laying 2,350 linear feet of 15" vitrified pipe. Because of the subgrade of the trench, it was only a few inches above the water table of the Little Colorado river (the channel of which is only a short distance away), double strength tile was used. Cement mortar was used for the joints and the materials were heated before the pipe was laid. Backfilling up to top of pipe was done immediately to prevent freezing. Six inches of gravel was tamped on the subgrade to assist in holding the alignment of the pipe.

The trench averaged six feet in depth and contained 1,500 cubic yards of excavation. Six manholes were constructed along the 2,350 feet of pipe line. Two and a half miles of high voltage power line was constructed to operate the electrically driven pumps. This line also provides electricity for the people of Bushman Acres.

The pump and motor room was constructed as a part of the septic tank. There were 1,100 cubic yards of

excavation in the combined tank and pump room. Because of the shallow depth to the water table level, the pump room was placed under the wet excavation and the effluent pumped into the tank which allows it to finally run out by gravity, the pump room dimensions being 12' x 16', whereas the tank is 42' x 96'.

Four feet of water was encountered in the pump room excavation and great difficulty was encountered in keeping the water out of the cofferdam, as no heavy pumping equipment was available. The septic tank proper is 40' x 95' inside demensions with a division wall running lengthwise through the center, making two separate units so that one side can be utilized while the other is being cleaned.

The 12" pipes carry the effluent from the tank out onto the flat area which formerly held the old outfall. The tank is covered with a wooden roof which in turn is covered with 45# asbestos roofing paper and that covered with a light layer of sand, which is oild to prevent blowing away.

The tank and pump room contains 250 cubic yards of concrete and 10,000 # of reinforcing steel. The motors are 3 HP 3 phase, 60 cycle 440 volts. The pumps are 5" suction, 4" discharge, vertical centrifugal type, and are direct connected to the motors.

The motors are controlled by float switches and

work automatically.

c9. Number of Sanitary Privies Constructed: 150; improved and repaired, none.

c10. Car Tracks Removed or Otherwise Disposed Of: Yes. Grand Avenue in Phoenix.

8. 11 and 12 - CONSTRUCTION AND REPAIR OF RECREATIONAL FACILITIES

a. Grandstands: Four were constructed and three were repaired.

1. Concrete Stadia: Three constructed and none repaired (See f1)

2. Steel and Wooden Grandstand: One constructed at Miami, Arizona

3. Open Air Theatres and Amphitheatres: Three constructed but none repaired or improved. Among these was the amphitheatre built for the municipal park at Safford, Arizona. Prior to the completion of this project Safford and its surrounding terrtory had no place of suitable size for community gatherings of any kind. The amphitheatre is built at the edge of a cement flooring. The flooring is large enough to permit its use as two standard size tennis courts, as a dance pavilion accommodating 450 couples, or as a floor

on which seats may be placed for an audience listening to addresses or witnessing other programs. A swimming pool and wading pool form a part of this project.

4. Other: None.

The approximate total capacity of 1 to 4 is 25,200 persons.

b. Playgrounds: Four children's playgrounds were constructed. Among these was that at the Horace Mann school at Bisbee. The grounds were graded and leveled and a retaining wall was built.

c. Large Parks: One was built with a capacity of approximately 1,500 persons. The outstanding example of this work was done at Safford, Arizona, where a suitable acreage was landscaped, a swimming pool, wading pool and amphitheatre were built. Total acreage 1 to 2 is 250.

d. Athletic Fields Constructed: Fifteen athletic fields were constructed and two were repaired.

1. Combination Fields: Two. An example of this work is the ball park in Morenci which was enlarged to establish a track and athletic field, a baseball diamond and a football field. Stone bleachers were also built.

2. Baseball Fields: Five.

3. Football Fields: Two. These are included under athletic fields.

4. Track fields: None.

5. Tennis courts: Six tennis courts were built, and two were repaired.

6. Other Courts: No other courts were built.

7. Other types of fields: None

Approximate capacity 1 to 7 is 12,000 persons.

e. Golf Courses: Three were constructed, and four were repaired. One splendid grass course was laid in southern Arizona for Bisbee and its adjoining communities. Another good course and club house were erected at Winslow in the northern part of the state. The building has an overall dimension of 125' x 70', exclusive of the garage and walled patio. Adobe brick is the building material being used with native stone foundation. An experimental kiln was operated for the burning of handmade tile for the roof and interior decorations. All timber and trusses are hand hewed and hand carved. All inside doors and facings are covered with tooled steer hide. An effort was made through this work to school laborers, who had no opportunity to learn a trade, in wood work, masonry, carpentry and other useful trades.

Total Acreage for these courses was 60.

f. Other Recreational Grounds:

1. Rodeo Grounds: The Northern Arizona State Fair Park Association owned forty acres adjoining the city limits northwest of Prescott. A part of the ground had been

cleared and part remained covered with eroded granite boulders, pine and cedar trees, and an undergrowth of scrub oak. With the cooperation of the University of Arizona, an architect was secured to landscape this acreage, stressing the natural beauty of the setting and developing the grounds into one of the finest recreational areas in the Southwest.

First, a six-foot Page Cyclone fence was built around the entire tract to protect the property and facilitate the handling of the thousands of people who attend the rodeo and fair.

The old wooden grandstand which had suffered from wind and storm and the action of termites was then dismantled and excavations started for the new statium.

The hillside of solid granite was terraced with rubble masonry for seats and aisles, thus avoiding the high material cost of a steel reinforced concrete structure.

Sand and gravel for concrete were obtained by relief labor from several adjacent dry stream beds. The cement used in the construction of the stadium totaled 2,400 sacks; the structural steel and galvanized corrugated iron roofing weighed 275,000 pounds.

The roofing carries a five-year continuing bond covering guarantee of the steel fabricators against snow and wind pressure of 60 pounds per square foot.

Any damage to the structure from this source is to be rebuilt by the fabricators.

A half mile track, circling the centre field, involved the excavation of 7,500 cubic yards of material and placing 18,000 cubic yards of fill.

The supervision and equipment to handle this part of the project was furnished by the Yavapai County Highway Department. Contributions consisted of rental and repairs on a three-quarter yard gasoline shovel, four tractors, two compressors, two five-yard crawler wagons, two rotary fresnos, two jack hammers and necessary drill steel, air compressor, seven 1½ ton dump trucks, two road graders and one concrete mixer, together with two foremen and the necessary shovel operators, tractor drivers, truck drivers and powder men.

2. Race Tracks: None

3. Rifle Ranges: A new pistol range is being built in the papago park with a cement target pit and stone pit house. A stone wall has been laid, 12' high and 100' in length, banked with 12' of dirt. Automatic targets were erected here with firing stations at 15, 25 and 50 yards. These stations will be 100' long and 12' wide and extend above ground parallel with the targets. In addition, another firing station of 125 yards will be built on this range for small rifle

practice.

4. Tourist Parks: One constructed and one repaired, the first was the Geronimo Park at Apache and the second is the National Monument which saw the first territorial governmental activities. This is situated in Navajo County in the northern part of the state.

5. Other Grounds: None.

g. Winter Sports Constructed: None.

h. Swimming Pools: Four were constructed. Two were repaired.

1. Gila Bend: The swimming pool, located on the Gila Bend school ground, is 30' wide and 60' long, ranging in depth from three to nine feet. The pool is constructed of heavily reinforced concrete with ladders on each side built of steel tubing for entering and leaving pool. Dressing rooms and shower baths are built on one side of the pool. A launder takes care of overflow water, keeping the pool free from leaves and other debris. The grounds at the school were graded for irrigation, fenced with rabbit wire and trees and shrubs planted. Playground equipment was installed. Water is provided from a heavy duty pumping system.

2. Safford, Arizona: This pool is modern in every

respect, being constructed to eliminate any possibility of contagion or infection. To enter the pool, a swimmer must pass through a shower, which runs continuously, and a foot bath, eighteen inches deep and six feet in length. A launder also borders the pool, taking care of all floating foreign matters and excess water as it splashes over the sides; thus the pool is kept almost completely free from leaves, sticks and other refuse, without clogging the drain.

Water is obtained from a well drilled near the pool. Approximately 200,000 gallons of water are needed to fill the pool and the pumping equipment is such that this can be accomplished within five hours after draining. The pool is built on an elevation and the water drained from it is used to irrigate the lawn.

All persons enter the pool enclosure through the south gate. The spectators pass on to a six-foot promenade which circles the pool. The bathers pass by the caretaker's desk, check their valuables and pass into either the women's or men's dressing rooms; then through the showers and walk in a chemical solution which eliminated the spreading of athletes foot, which was reported to be prevalent

in this community.

Wading Pools: One.

1. Safford, Arizona, sunk a wading pool, twenty four feet in diameter and eighteen inches in depth near the main pool and is supplied with water from the same pump. Arrangements are such that the water is changed every twelve hours.

A photograph included in this report shows the pool shortly after it was completed; since that time the ground adjacent to it has been sodded and fenced in so that the children can be safely left by the older brothers, sisters or parents when they too wish to enjoy a plunge in the larger pool

I. Recreation Buildings: Five recreation buildings were improved and repaired.

1. Auditoriums: None.

2. Gymnasiums: One gymnasium was constructed and one repaired.

3. Park Buildings: Two park buildings were constructed and two were repaired.

4. Fair Buildings: Furnishing employment for an estimated 250 men daily and the completed work representing an expenditure of approximately $100,000 for labor and materials, the general development project of the Arizona State Fair Grounds at Phoenix is now under

way.

The work is being handled under the Emergency Relief Administration of Arizona with the cooperation of the state government. Present plans call for the building of a new and modern grandstand of reinforced concrete, remodeling and beautifying all present buildings. An adobe wall will be constructed on the east and north sides of the ground. Sidewalks will be laid and roads graveled. The ground will be leveled and the present one-half mile race track lengthened to five-eights of a mile.

The new grandstand will be built on the site of the one destroyed by fire last winter. It will extend 554 feet north and south; the back, facing west, will be 55 feet in height with 19 rows of seats sloping downward to the east side and will accommodate 10,000 people. In addition to the row of seats, plans call for 62 boxes and a governor's box. Five modernistic entrance ways will be included.

The plant, when work is completed, is expected to be one of the Southwest's most attractive fair grounds with a track that is second to none.

All labor is supplied by the Emergency Relief Administration of Arizona and the materials by the board of directors of state institutions.

Excavation and construction have begun. The

pouring of 310 yards of concrete footing completes this part of the work. The pouring of forms for concrete footing which totaled 962 linear feet is also completed. 1680 square feet of forms for grandstand walls represents 15 percent completion. The 125 steel dowells set for columns is 100 percent completed.

89,460 square feet of the 5/8 mile automobile track has been graded entailing the moving of 4400 cubic yards of earth for cut and fill. The unfinished grade on the track to date is 99,000 square feet.

A total of 73,407 adobe bricks out of a total of 1,063,800 have been made. 40,300 of these have been put in storage. Forty-one forms for grills have been made. One form for clay modeling has been made. These forms are used for the handsome figures done in partial relief for the beautifiention of the stadium. There will be 20 of these models representing five different scenes. They will be approximately five feet in height. The photograph illustrates work being done.

6885 bars of old iron have been straightened. 444 concrete grills have been poured. 6/8 of the grill reinforcements have been bent. 2010 cubic yards have been excavated for adobe walls. 134 feet of concrete pipe has been laid for the track. 41 yards of concrete has been poured for the adobe walls. 136 concrete track markers have been made. All of these figures represent work done

to July 13, 1935.

5. Dance Halls: None.

6. Combination Community Recreation Halls: None.

7. Bath Houses: Three bath houses were constructed.

8. Zoos: None.

9. Other Recreation: Six other recreation buildings were constructed and two were repaired.

The approximate total capacity, 1-8 inclusive, is 1,150.

j. All Other Recreation Facilities Constructed: None.

B. 16 - CONSERVATION OF FISH AND GAME: None.

B. 13 and 14 - WATERWAY AND FLOOD CONTROL PROJECTS INCLUDING WATER CONSERVATION IN DROUGHT AREAS: Seventeen constructed.

a1. Levees Constructed: Twelve miles improved and repaired.

a2. Riprap Wall: Eighteen miles constructed.

a3. Retaining Wall: (Cubic yds. of concrete used) None.

b1. Streams Cleared: Fifteen miles were cleared.

b2. Rivers Dredged: None.

c1. Bulkheads Constructed: One-quarter mile of pile bulkheads were constructed on the

Little Colorado River. The pile revetments were driven into place by a home-made pile driver.

d1. Dams Constructed: 700 Ft. Check Dams--Sabino Canyon. Concrete in Dams: 800 Yards.

It is hoped that the Sabino Canyon development may later be considered as a whole. This will include the construction of a dam some 3½ miles above the present picnic grounds in the canyon. This dam will serve five purposes: Recreation, Flood Control, Water Conservation, Auxiliary Power and Water Supply. However, the Emergency Relief Administration of Arizona has been concerned with the construction of a roadway and the building of check dams. This roadway serves as an inlet into a beautiful recreation area. It may also be used for carrying material to the dam site as that project is approved.

The Pima county board of supervisors applied to the FERA for this project and this project and work is now going on under Project No. 10-B2-63 (Pima County Project No. RK-70). Under this project it is proposed to build the 3½ miles of road above referred to, first, for the purpose of getting materials to the dam and, second, for a road to the recreational area to be developed above the dam.

In considering the location of such a road, it was decided to build the road up the bottom of the canyon at an elevation sufficient to complete the road at all times

above flood water. Crossing the dam from time to time where the natural topography makes it necessary, there will be constructed eleven check dams between the picnic area and the main dam site. Each one of these dams will create a pool sufficiently large for bathing, fishing and other recreational uses.

Between the dams there are many natural spots which can be developed for camp grounds and picnic areas and in effect the completion of this road means the developing of 3½ miles of recreational area up the canyon.

Each check dam is designed as a whole as a spillway section. The dams are dipped in the center so that in times of flood the water will pass over the check dam as a natural spillway.

Dams are designed to take care of approximately three times the recorded instantaneous run-off in Sabino Canyon.

Covered spillways are provided in each dam to take care of the normal flow. Dams are constructed of heavy masonry. The first two dams were constructed of solid masonry, but this design was discarded on subsequent dams in favor of heavy masonry outside walls between three and four feet in thickness with a rock field in the center and a concrete slab over the top. The height of these dams is such that there is practically no overturning moment and it is considered that they are designed to take care of any

floods which may occur with an ample factor of safety.

During the construction stage during the past winter there have been floods of more than three feet over the dams which were completed. Four dams have been completed at the present time and work is being done on the remaining seven.

el. Harbors Constructed: None.

fl. Waterway and Flood Control Projects: Three flood control projects were constructed. Santa Cruz River which flows through the city of Tucson has proved trencherous from time to time inundating crops, pastures and city streets. Prior to the flood control work done by the Emergency Relief Administration of Arizona, Santa Cruz waters at high tide threatened to cut through the county highway between Tucson and the San Xavier Mission. In 1933 a report was made by the irrigation department of the University of Arizona stressing the vital need of flood control on this river. This report was extremely helpful to the relief engineers who through intensive study developed many new ideas which were utilized in carrying out this project.

The river banks were protected from flood currents at critical points by means of permanent and semi-permanent types of protective work and the realignment of the main channel in such a manner that the Santa Cruz river would in the future occupy a fixed

and permanent channel. Work under the project was begun November 24, 1933, and completed March 1, 1934. An average of approximately three hundred men were employed daily. Approximately five miles of river were treated. This area extended from the Papago Indian Reservation line north to the Congress Street Bridge in Tucson.

Six long pilot channels were constructed across the more severe bends. Current was deflected into these channels by means of revetments. Revetments were constructed of automobile frames in places where the pressure was excessive. Another type of revetment constructed was of double and triple lines of hog wire fence; posts were of boiler tubes filled with cement.

The current was deflected away from the river bends by means of boiler tubes and hog wire fences placed in such a manner that a build-up of silt and a permanent bank would result behind them. The major principle followed on the work was to place revetments in such a manner that the river current would do the greater portion of its own cutting. This eliminated a great deal of unnecessary labor. Projecting points were shaken up with dynamite so that they would be carried away by the first heavy flood. All heavy bends were protected with tree planting behind the revetments. Trees were also planted along the entire river at points where it was desirable to maintain and hold existing banks. A recent survey

indicates that about ninety-five percent of the trees have taken root and are growing.

The result should be a well controlled river throughout its entire length with the elimination of practically all erosion. There have been two small runoffs in the river since the completion of the work and considerable build-up has already been started behind the revetments.

The following is an estimate of work completed:

Miles of river treated.....	5
Cubic yards of earth dykes.....	28,966
Three inch boiler tubes driven.....	8,334
Linear feet of 48" hog wire.....	27,644
Linear feet of 12½ gage barb wire, galvanized.....	163,515
Linear feet of old cable used in auto frame revetments.....	4,066
Trees planted.....	9,527
Automobile frames in revetments.....	910

The work under this project has proven successful in most instances and it is estimated that taking the project as a whole, the work is better than 95% effective. Roughly speaking, it may be stated that the channel has been straightened through the entire district treated, practically all severe erosion has been stopped and hundreds of acres of land have been reclaimed and in a few years will be available for cultivation.

f2. Wells Dug: Eleven wells have been dug.

f3. Lakes Constructed: Sullivan Lake was constructed in Yavapai county. The purpose of the lake is three-fold: Recreational, flood control and to supply

water for live stock. The lake will be stocked with game fish. Adjacent territory will be landscaped. It is anticipated that the lake will cover approximately seventy-five acres when filled. It is located in Chino Valley and is approximately twenty miles from Prescott.

B 15 - LANDSCAPING, GRADING, EROSION CONTROL:

a1. Trees Planted: The Highway Department furnished the trees.

a2. Shrubs: The Highway Department furnished shrubs.

a3. Ground Landscaped: Forty acres have been improved.

a4. Highways Beautified: Nine miles.

b1. Erosion Control Projects: There has been one new project and twelve have been improved.

b2. Square Miles Protected: Thirty-eight square miles.

b3. Acres Plough-listed in Drought Area: None.

b4. Acres of Terracing: Three acres of terracing were made at the Maricopa County Hospital.

c1. Earth Moved in Grading Projects: Approximately 1,300,000.

d1. Number of Other Projects: None.

B 17, 18, 19. ERADICATION AND CONTROL OF PESTS AND DISEASE BEARERS:

a1. Rats Trapped and Killed: None.

a2. Jack Rabbits Killed: 15,280 in Cochise County. 494 were wounded and got away.

b1. Poisonous Plants Eradicated: Loco Weed.

c1. Pest and Disease Bearer Eradication: Gophers.

B 20 - OTHER PROJECTS ON PUBLIC PROPERTY:

a1. Airports Constructed: None. Four were improved and repaired.

a2. Airport Buildings Constructed: Three. The Douglas International Airport, the Tucson Municipal Airport and Nogales Airport.

a3. Emergency Landing Fields: None.

b1. Poor Farms: Under the Civil Works Administration, four adobe buildings were constructed for the poor farm in Mohave County. This project was completed by the Work Division of the Emergency Relief Administration of Arizona.

b2. Poor Farm Acreage: None.

b3. Military and Naval Reservations, Etc.: One improved.

b4. Acreage Improved: Two acres.

c1. Other Public Property Projects: None

C 1, 2, 3, 4, 5 - PROJECTS TO PROVIDE HOUSING: None.

c1. Number of houses built for subsistence Homesteads: None.

d1. Number of Houses Demolished: None.

e1. Number of Other Housing Projects (Specify): None.

D 1 - MAKING OF CLOTHES:

a1. Number of Sewing Rooms: Thirty Two.

b1. Men's Suits made: Three thousand, three hundred and thirty.

b2. Women's Dresses Made: Seventeen thousand, six hundred eight.

b3. Boy's Suits Made: Seven Thousand, six hundred sixty-two.

b4. Girl's Dresses Made: Ten thousand, three hundred seventy-five.

b5. Overcoats Made: Five hundred twenty-eight.

b6. Windbreakers Made: None.

b7. Small Articles Made: (Handkerchiefs, etc.) Five thousand, seven hundred seventy-five.

b8. Other Articles of Clothing Made: (Specify) see D5, c1 and c5.

D 2 - CANNING AND PRESERVING OF FOOD:

a1. Number of Canning Centers: Thirteen.

Maricopa	6
Graham	2
Greenlee	1
Gila	1
Yavapai	1
Navajo	2

a2. Number of Other Food Preservation Centers: None.

b1. Number of Cans of Meat: One hundred forty-five thousand.

b2. Number of Cans of Vegetables: One hundred thirty-four thousand, seventeen.

b3. Number of Cans of Fruit: Seven thousand, sixty-seven.

b4. Pounds of Other Foods Preserved: (dehydrating, etc.) None.

D 3 - GARDEN PROJECTS: Six. In connection with the work of rural rehabilitation in Southern Navajo County it was found advisable to consider the entire agricultural area as a unit. This involved a long time planning program in which the department found it necessary to aid in three ways aside from loans to individuals.

Assistance was given in securing P.W.A. aid for construction of a dam to stabilize the water supply for irrigable lands; arrangements have been made to form a local cooperative marketing association and a loan was made to this cooperative group to install a canning unit to care for surplus food products.

The canning unit located at Snowflake represents an investment of $3,300 ready to turn over to the cooperative. The real property consists of a six room brick building with one and a quarter acres of land. This building, a former school building of brick was completely repaired and stuccoed with the aid of labor from the Emergency Relief Administration and now represents a value far in excess of the cost of the total installation.

Full canning equipment with retorts heated by gas have been installed and complete provision for rigid sanitary operation has been made. Office facilities, grading, sorting and storage rooms are part of the plant and as it has been turned over to the community group, it now furnishes a community center for the efficient

handling of all phases of truck gardening enterprise.

D 4 - PRODUCTION OF FUEL: Yes.

a1. Cords of Wood Cut: 1,000 cords.

b1. Cubic Yards of Peat Cut: None

c1. Tons of Coal Mined: None

d1. Tons of Other Fuel Produced (Specify): None.

D 5 - PRODUCTION OF HOUSEHOLD GOODS:

a1. Number of brooms, mops, etc. made: None.

b1. Number of pots and Pans, etc., Made:

c1. Number of Pillow Cases Made: 29,945.

c2. Yards of Towelling Made: 51,316 Huck Towels
36,000 Terry Towels

c3. Yards of Sheeting Made: 125,327.

c4. Number of Mattresses Made: 11,016.

d1. Pounds of Soap Made: None

e1. Units of Other Household Goods Made: None.

D 6 - PRODUCTION OF CONSTRUCTION MATERIALS:

a1. Thousands of brick made: 1,213,800 adobe made.

b1. Yards of Tile Made: 50,000.

c1. Feet of Lumber Cut: None.

d1. Units of Other Materials Produced (Specify): None.

D 7 - OTHER PRODUCTION PROJECTS: None.

E 1,2,3,4,5,6 - PUBLIC WELFARE PROJECTS:

a1. Number of Public Health Nurses: Graduate

33, 14 clinics.

a2. Number of People Aided: 5,744.

a3. Number of Home Nurses: 39 Non-graduate Nurses and 170 other women doing health work.

a4. Number of People Aided: 10,171 Homes.

b1. Number of School Lunch Programs: 45.

b2. Number of children fed: 4,593 weekly.

b3. Number of other Lunch Programs: None.

b4. Number of People Fed: None.

b5. Number of Nutrition Lectures and Demonstrations: None.

b6. Number of Other Public Health Campaigns: Feeding undernourished children. Class work and attending institute and convention, Children's Health Camps, 14 Health Surveys of school children (sanitation, eye, ear, throat, tuberculosis).

c2. Number of People affected: 3,756.

c3. Number of Wassermann tests given: 2,964.

c4. Number of blood examinations made: 379.

c5. Number of Routine Medical Examinations: 5,871.

c6. Number of Special Tests and Examinations: None.

Were any of these public welfare projects carried on in cooperation with medical organizations or public health authorities? Yes.

What was the attitude of these bodies in regard to usefulness and value of the work done? Good.

d1. Number of Projects for Supervising Play, Etc.,: Six.

d2. Number of People affected: 2,000.

e1. Number of Other Welfare Projects: Eight Community Centers, Preventorium, Sanitarium.

F 1 - PUBLIC EDUCATION, ARTS AND RESEARCH:

a1. Number of Teachers: (Not including any employed in emergency education program) None.

b1. Federal Surveys: The Study of Transient Bureau Service Cases was instituted at the Phoenix Transient Camp, March 15, 1934, under the direction of Mary N. Hawes, Field Representative, Bureau of Research and Statistics FERA and continued until June 30th, 1935.

The purpose of the Study was to determine and tabulate the occupational types, and their general histories, as well as the migratory trend of the persons applying for relief at Federal Transient Centers. This was accomplished by personal interrogation of all applicants, both unattached and family groups. The Phoenix Camp was selected, together with twelve other cities in the United States, because of its favorable geographic location for a study of this nature.

As the result of an unusually careful filling out of Form TR-10 by the staff of the Study, there is available at the Phoenix Transient Center a comprehensive and correct occupational and migratory history of all clients received there since the inception of this study.

During the months of February and March, 1935, a

special "Casual and Migratory Survey" was made by the staff and in June a spot survey of "Legal Settlement of Transients" in the Camps of Phoenix, Yuma and Tucson, Arizona. This required the interviewing of nearly three hundred transients at the three different camps.

The Emergency Relief Administration transient camps in Arizona number nine and are located at Phoenix, Tucson, Douglas, Yuma, Fort Mohave, Tripp Canyon, Ash Canyon, Nogales and Prescott, with housing facilities for 5,200 men.

Two camps, Nogales and Fort Mohave, offer specialized programs. Nogales, Arizona, situated on the Mexican border, directly across the international line from Nogales, Sonora, has quarters for men over forty years of age. At this camp there is a tubercular infirmary, with a capacity for 150 patients, which offers treatment for transients suffering from this illness.

The Fort Mohave camp, which is near Kingman, is for young men and boys under twenty-five years of age. Here, the transient boys are given an opportunity for either educational or vocational training, depending upon their bent, ability and former education.

Fort Mohave, formerly a unit of the U. S. Indian Service and used as a day school, is admirably

suited for this purpose. Classes are given in regular high school subjects, enabling boys to complete their high school education. An effort is being made to conduct this work as an extension from the Kingman High School; this would permit these young men graduation from an accredited high school, qualifying them to enter institutions of higher learning if they so desire in the future.

Phoenix, Tucson and Yuma have garden projects of 30, 40 and 30 acres, respectively, from which they secure vegetables for their own use and for some of the relief families in their communities.

b2. State and Local Surveys: None.

b3. Research Projects and Surveys other than Statistical and Sociological: None.

b4. Traffic Surveys: Two traffic surveys were made. One at Douglas and another at Phoenix. The period of observation extended for eight weeks. Thousands of cars were checked and clocked with stop watches. The surveys were undertaken strictly as a fact finding measure although certain conclusions may be readily arrived at from the facts. Some interesting facts were brought out in the Douglas report, such as: Sixty percent of the cars were speeding; only twenty-four percent made complete stops at stop signs; only fifteen percent

gave clear signals when checked on turning. Other infractions were minor. As a result of the survey in Douglas, traffic ordinances were revised and the streets have been made safer.

c1. Watercolors Painted: None.

c2. Oils: None.

c3. Drawings, Etchings, Etc.: None.

c4. Frescoes, Murals: Murals were painted on the walls of the men's dining room and the women's dining room at the Maricopa County Welfare Hospital. A majority of these were done by David Owing and are representative examples of this type of art. Two of the most beautiful murals are those depicting the justly famous Grand Canyon of Arizona and the scene representing the pioneers coming into the desert country.

c5. Statues: One.

c6. Other Art Projects and Units Produced: None.

d1. List Main Types of Clerical Projects and Give Numbers of Each: A majority of the counties have clerical projects. There were four public service projects, these were at a Courthouse, the Capitol, libraries, etc.

d2. Institutions Aided: University of Arizona.

d3. Safety Campaigns, Campaigns for Instructions in First Aid, Etc., Estimates of Their value: A vigorous safety program for the State of Arizona was inaugurated.

by the late Thomas Cowperthwaite, State Director of Safety, at the very inception of the Emergency Relief Administration. Albert Tallon, the present Director of Safety, due to his efficient and scientific safety methods, gained from years of study and experience in safety work, brought this campaign to a very successful conclusion.

The Safety Director at all times was accorded 100% cooperation from F. M. Warner, State Administrator, and Thomas B. Rice, Director of the Work Division. Mr. Rice was well acquainted with safety methods and the existing conditions, and had his entire staff of county project managers act as safety inspectors. This arrangement proved to be quite beneficial in conducting the safety program.

A continuous safety campaign for the prevention of accidents was waged throughout the entire Emergency Relief Administration program. This was effected through the efforts of the Safety Director and his inspectors. The Safety Director inspected all work projects at frequent intervals, conducted safety meetings and distributed numerous bulletins, posters and reports among the foremen and others in charge of workmen. First-aid classes were also conducted in parts of the state.

The value of the safety work, while it saved many thousands of dollars to the organization and employees, is inestimable insofar as the saving of human lives

and suffering was concerned.

Arizona had a frequency rating of 15.5 (based on 1,000,000 man-hour shifts), with no total permanent disability cases and only one fatality.

School patrols were conducted in Gila and Maricopa counties, in the cities of Globe and Phoenix. Men were stationed at crossings to safeguard the lives of children on the main arteries. In Maricopa county, 32,000 children attending 60 schools were guided through the 9 months of the school term of last season without experiencing an accident of any kind. This record was accomplished by 185 patrolmen working 73,432 man-hours.

el. Symphony Orchestras: The Mexican Orchestra of Tucson is receiving wide acclaim from radio fans in the entire southwest. This is an Emergency Relief Administration of Arizona project which is aiding Pima county to solve its alien relief problems.

The leader of the orchestra is a former director of the Mexican military orchestra in Mexico City and a musician of unusual talent and ability. Many of his men cannot read a note of music yet they play by ear as well or better than many orchestra members can from written music.

The orchestra was organized to give these men an opportunity to continue their normal occupations. They have provided Tucson and Southwestern radio fans with

many hours of pleasure. Among the persons whose lives have been made a bit happier through this work are the patients of the various hospitals and sanitariums at Tucson where the orchestra has played.

Concerts are presented regularly in county and state institutions such as the Children's Tubercular Hospital, the Pima County Hospital, the Arizona Children's Home and the Veterans' Hospital.

Sunday night programs are played in one of the public parks and once each week the musicians broadcast from the Fox theater prior to the opening of the afternoon movie program.

The orchestra leader is a mexican citizen who left Mexico 15 years ago following a change in the political regime of his country. He has been recognized for his musical talent and at present, with the assistance of a member of the orchestra, is reducing to writing many of the old Mexican airs and melodies as they are pieced together and put in form by these musicians. If an old melody is recalled by members, the score is written.

e2. Dance Orchestras: Two

e3. Other Orchestras: One

e4. Total Size of all Audiences: Several Thousand.

e5. Number of Community Sings; Etc.: Yes.

e6. Number of People Participating: Approx-

imately 5,000.

e7. Number of Other Music Projects: Orchestras (see B9).

e8. Number of Persons Participating or Affected: 4,000.

f1. Number of Acting Companies: Several.

f2. Number of Performances given: 14. The Casa Grande Players not only gave performances but also made sets for their stage. These sets showed considerable talent on the part of the players, much enthusiasm and careful planning.

f3. Total size of Audience: 5,000.

g2. Number of Libraries aided In All Ways: 16 units aided.

g3. Number of Library extension services: None.

g4. Number of persons served: Patrons of 16 Units.

h1. Number of Other Education, Art & Research Projects:

(a) Arizona Population Survey: A population survey of the State of Arizona was organized and launched under Federal Emergency Relief sponsorhip last September.

This survey had for its announced objective the procurement of information relative to the shift in population since the last federal census was taken in 1930;

the vocational and educational status of the population; data on unemployment conditions, and other statistical information that various units of the state government have vitally needed in the past for planning purposes.

The statistical tables comprise eight classifications as follows:

1. Age and sex distribution of all classes of population.

2. Wards. Age and sex of children, showing placement by legal or extra-legal agencies; and payment or non-payment of board and room.

3. Condition of unemployment by age, sex and length of time unemployed.

4. School attendance, 18 years and under.

5. Age, sex and number of persons gainfully employed by character of work.

6. Population, 8-16 years not attending school, race, color, nativity and sex.

7. Grade completed in school by race, nativity, for persons 19 years of age and over.

8. Retardation table by race, nativity, color and sex for all persons of school age (6-16) and from grades 1-8.

(b) Copper Project: An outstanding copper project was conducted at Tucson. Copper work was also done at Globe. The workers furnished their own copper and the Emergency Relief Administration of Arizona supplied an instructor. This work was exhibited in the statewide Emergency Relief Administration of Arizona exhibit at Prescott and in Phoenix, and received much favorable

comment both verbally and in state publications.

(c) Rug Projects: The most attractive rugs were made in Yavapai County. These included hooked rugs, braided rugs and woven paper rugs. The designs on a number of these rugs were typically Western, showing the Yucca, various state flowers, old Yavapai county cattle brands and cowboy regalia. These were exhibited at the Century of Progress Exposition at Chicago, and also at a meeting of prominent labor workers in the South, among those present being Miss Frances L. Perkins, Secretary of Labor.

(d) Archaeological Projects: The most prominent archaeological project was the excavation of the Tuzigoot in Yavapai county near Clarkdale. Four hundred and twenty-nine burials were uncovered. Hundreds of pottery sherds, hundreds of pieces of jewelry and hundreds of stone implements were excavated from this large pueblo. A complete article on this project was submitted to Washington in the book "Outstanding Projects of Arizona". The artifacts from Tuzigoot are housed at the present time in a temporary museum. It is hoped that a permanent, fireproof, stone edification may be erected this next year.

Another project which promises to be important in archaeological discoveries, is that of the Gila Pueblo, which is located near the city limits of Globe. It is anticipated that approximately one hundred rooms will be uncovered here. Artifacts and burials excavated at

the present time tend to show that this project will be rich in archaeological information. This belongs to the latter pueblo period, approximately 1250 to 1350 A.D., while Tuzigoot belonged to the first open pueblo period, dated approximately 900 to 1300 A.D.

h2. Number of Institutions Aided: Six.

h3. Number of persons affected: 947.

H. TOOL AND SUNDRY EQUIPMENT PROJECTS: 14. Had one in each county.

6. SPECIAL WORK DIVISION ACTIVITIES:

A. WOMEN'S WORK:

The Director of Women's Work handled all correspondence from counties, complaints and reports regarding women's work projects. She supervised purchasing orders from county women's projects cooperating with the State Work Division Director and Director of Surplus Commodities with respect to factories, sewing rooms, canneries etc., made inspection trips and planned women's projects.

Maricopa was the only county in the state which has employed a person in the special capacity of Director of Women's Work. All the other counties are under the supervision of the administrator of that county aided by professional workers acting in supervisory capacities in sewing rooms, etc.

B. SELF-HELP COOPERATIVES: None.

C. LABOR RELATIONS: The Arizona Industrial Commission adjusted wage rates and budgets.

WAGE RATES

	Per Hour
Accountants	$ .66 2/3 - 1.16 2/3
Architect (Draftsman registered)	1.08
Assistant Resident Engineer	.96+
Blacksmith	1.00
Blacksmith (Helper)	.87½
Blademan (Oil Laydown)	.75
Bookkeepers	.66 2/3 - 1.00
Bricklayer	1.25
Brick Moulder	.75
Brick Setter	.75
Brick Yard Foreman	1.00
Carpenter	1.00
Carpenter Helper	.50
Caterpillar Operator	.75
Cement Finisher	1.00
Cement Pipe Yard Foreman	.91
Cement Pipe Yard Labor	.50
Chainman	.53
Clerks	.50
Chief Draftsman	1.08
Common Laborer (Unskilled)	.50
Compressor Operator	.75
Concrete Laborer	.50
Concrete Pointer	1.00
Crusher Operator	.68 3/4
Draftsman	.72+ - .84+
Dragline Operator	1.00
Driller (Machine)	.68 3/4
Driller (Hand)	.50
Dry Rock Wall Man	.68
Electrician	1.00
Electrician Helper	.50
Electrician Superintendent	1.08
Elevator Construction Man	1.00
File Clerks	.66 2/3 - .90
Foreman	.91+
Glazier	1.00
Grader Operator (Motor)	.73¾
Groundman	.75
Hod Carrier	.75
Interior Decorator	1.00
Iron Worker	1.25
Jackhammer Operator	.68 3/4
Laboratory Assistant	.63 .69 .75
Lathers	1.00

Leaderman (Straw Boss)	$ .60
Man & Team	.90
Levelman	.67+
Marble Setter	1.25
Mechanic	1.00
Mixer Operator	.62½
Oiler	.62½
Oiler Spreader Operator	.75
Ornamental Iron Worker	1.12½
Painter	1.00
Paper Hanger	1.00
Pile Driver Engineer	1.00
Pile Driver Man	.75
Plant Operator	1.00
Plasterer	1.12½
Plumbers	1.25
Powderman	1.00
Reinforcing Steel Men	1.00
Resident Engineer	1.08+
Rodman	.58
Roller Operator	.75
Roofer	1.00
Sanitary Inspector	.91
Semi-skilled grade	.70
Sheet Metal Worker	1.00
Shovel Operator	1.00
Skilled Labor Grade	1.00
Skilled Labor Foreman	1.08
Stakeman	.48+
Steam Fitters	1.25
Steel Setter	1.00
Stenographers	.66 2/3 - 1.16 2/3
Stonemason	1.25
Sub-Foreman	.75
Sub-Timekeeper	.65
Superintendent of Construction	37.50 per week
Timekeeper	.77
Tool Dresser	.87
Tool Dresser Helper	.75
Transmission Lineman	1.00
Transitman	.72+ - .84+
Transportation Dispatcher	.91
Truck Driver	.68 3/4
Typist	.66 2/3 - .90
Warehouseman	.80
Watchman	.50
Welder	1.00

Working Hours: Seven.

Strikes: Four.

Grievances and adjustments: Several. Unemployed organizations, relations with labor unions, methods of handling complaints and complaint committees were handled by the Arizona Industrial Commission.

D - SAFETY: See F-d3.

E - COMMODITY DISTRIBUTION: Fourteen counties constitute the sub-divisions which go to make up the state of Arizona and it was through the fourteen different County Welfare Boards that direct distribution of relief commodities to the recipients was accomplished. In each of the counties, at the headquarters of the county welfare board, a control for the distribution of commodities was created. This control or head was held responsible to the state office for commodities shipped to them and all commodities were issued by the county units to recipients on F.S.R.C. form No. 217 (Commissary Requisition Receipt).

Commodity Distribution points were so established in the different counties of the state that each section of the state was covered and commodities were available to all who desired to call for them. No deliveries of commodities, with the exception of mattresses, was made to the home of recipients.

Commodity Distribution was in part a Work Division Function. All labor that could be done by Work Relief was handled in that manner. This constituted the receipt, storage, and distribution of commodities.

Office work such as weekly and montly reports, keeping of records and auditing of distribution slips was also a part of Work Relief.

The use and distribution of commodity relief and surplus commodities was so arranged that a maximum amount of benefit would be obtained. In many cases weekly distributions were made so that the entire month's issue was divided and the recipients were assured of a weekly issue. As stated above commodities were available to all persons certified and if they did not receive same it was because of their failure to call for them. Distribution of fresh beef in February, 1935, reached 97 percent of the case load and a 97½ percentage was reflected in the distribution of canned beef for June, 1935. No wholesale facilities were used either in direct issue to recipients or in moving bulk commodities.

The office of the state Director of Commodity Distribution is maintained at the central warehouse in Phoenix. This warehouse comprises approximately 10,000 cubic feet of refrigeration space and 21,000 square feet of non-refrigeration storage. Shipments are in most cases routed through this warehouse where distribution to the county units is made by two, three-ton trucks owned and operated by our Commodity Distribution Department.

Cattle for Arizona Indian Reservations ordered on F.S.R.C. Form 10 amounted to 2,020 head. Of this amount 944 head were accepted at the different agencies while 966 head were re-shipped to the packing plant for processing into fresh beef and distributed through Commodity Distribution. 110 head were lost in shipping.

Two thousand dollars were expended for the purchase of Garden Seed which was distributed through Commodity Distribution.

The preventing of spoilage of perishable commodities in this extreme hot weather was one of the hardest problems. The loss of commodities from spoilage was not noticeable due to the fact that perishable commodities were held in our central warehouse under refrigeration and issued to county distribution points in small lots. No loss of life has occurred from the use of commodities and only four complaints of illness have been received, these being minor cases.

The following figures show disbursement of commodities under F.S.R.C., State and Work Division, from April 1, 1934 to July 1, 1935 and commodities on hand at last date.

COMMODITIES	DISTRIBUTED	On Hand July 1, 1935
Beans, Pinto	150,060 Lbs.	0
Beef, Canned	1,264,979 Lbs.	294,900
Beef, Fresh	2,939,144 Lbs.	0
Beef Tongue, Heart, Liver, Tails	168,363 Lbs.	0

COMMODITIES	DISTRIBUTED	On Hand July 1, 1935
Beef, Jerked	6,144 Lbs.	2,215
Butter	368,292 Lbs.	0
Cereal Food	120,096 Lbs.	0
Cheese	128,267 Lbs.	0
Eggs	63,755 Doz.	0
Flour	258,093 Lbs.	0
Goat, canned	778,659 Lbs.	0
Goat, fresh	97,582 Lbs.	0
Lard	118,069 Lbs.	0
Milk Evaporated	171,738 Lbs.	2,262
Mutton, Canned	200,202 Lbs.	3,198
Mutton, Fresh	39,034 Lbs.	0
Pork, Salt	22,472 Lbs.	0
Pork, Smoked	1,157,617 Lbs.	0
Rice	199,154 Lbs.	910
Sugar	59,943 Lbs.	57
Veal, Fresh Milk	9,218 Lbs.	0
Veal, Canned	128,698 Lbs.	4,713
Veal, Frozen	589,864 Lbs.	0
Wood	354 Cords	12
Coal	3,457 Tons	5
Lime	30 Tons	0
Hay	132 Bales	1,218
Goat Skins, tanned	0 Each	58
Cattle Hides	1 Each	5,275
Goat Skins	1,046 Each	59,211
Sheep Pelts	4,712 Each	23,126
Ticking	192,895 Yards	57,306
Leather Coats	485 Each	43
Blankets, Cotton	7,200 Each	0
Comforter Covering	408,588 Yards	48,462
Cotton, Baled	573,472 Lbs.	0
Cotton, Batting	97,490 Lbs.	0
Toweling, Terry	53,289 Yards	4,015
Toweling, Huck	71,870 Yards	29,903
Sheeting, 90 Inch	48,699 Yards	0
Sheeting, 63 Inch	22,307 Yards	0
Sheeting, 45 Inch	54,221 Yards	0
Towels, Huck	40,397 Each	11,419
Towels, Terry	29,390 Each	8,610
Comforters	20,177 Each	3,551
Mattresses	10,135 Each	881
Pads, Cot	368 Each	3
Pillow Cases	26,278 Each	3,667
Sheets, Single	5,053 Each	658
Sheets, double	16,757 Each	902
Dresses	13,940 Each	3,668
Underwear--Shorts, Bloomers	9,414 Each	1,914
Gowns	2,758 Each	495

Pajamas	1,499	Each	277
Shirts	1,966	Each	608
Slips	5,855	Each	1,317
Overalls, Coveralls	2,692	Each	638
Rompers	290	Each	85
Diapers	4,062	Each	1,235
Layettes	598	Each	45
Baby Blankets & Quilts	434	Each	197
Skirts, Blouses, Suit Coats, Suits	2,044	Each	313
Pants	1,280	Each	617
Miscellaneous garments	4,359	Each	1,416
Vegetables, fresh	2,609,624	Lbs.	5,477
Fruits, fresh	19,500	Lbs.	0
Vegetables, canned	253,294	Lbs.	103,670
Jams, fruits and Juice, canned	16,862	Lbs.	5,943
Soups, canned	6,085	Lbs.	116
Pickles, Sauce, Canned	6,479	Lbs.	4,315
Meat, canned Miscellaneous	18,774	Lbs.	0*
Meat, canned Miscellaneous	0	Lbs.	0**

* 1,466 Lbs. transferred to Canned Meat General, June 1, 1935

** 649 Lbs. transferred on warehouse receipt to Federal Surplus Relief Corporation in June, 1935.

1,337,793 Lbs. Canned Beef held in storage for Federal Surplus Relief Corporation.

76,287 Yards of Natural Ticking dyed for use in Work Project Sewing Rooms.

Projects for Commodity Distribution: None.

7. RELATIONS WITH OTHER E.R.A. DIVISIONS. SPECIAL PROGRAMS

A. DROUGHT RELIEF AND CATTLE DISPOSITION: The fresh meat program conducted under the Drought Relief Cattle operations included the slaughtering of 15,369 head. 12,053 head produced 2,876,395 pounds of fresh meat. 267 head produced 8,740 pounds of jerky. The fresh meat and jerky distributed, plus 1,045 head which were canned, showed a total cost of only .03027 cents per pound, and justifies the

accentuation placed upon obtaining the maximum fresh meat distribution, as against the high cost of canning by the Livestock Distribution Committee. 98% of the total relief load in the state of Arizona received fresh meat. Non-relief cases such as widows with pensions or welfare relief, qualified for surplus commodities, though not for direct relief. These persons plus those on direct relief receiving fresh meat, totaled 84,304.

Contracted with Tovrea Packing Company.

The Work Division had complete administrative responsibility.

Amount of Work Relief Labor used in constructing facilities, in processing, etc.: None.

Number of Plants and Installations by Work Division for Processing: None.

Average Employees Per Plant: None. Disposition made of equipment and facilities: None.

TANNERY: A Tannery is being erected by the Work Division Emergency Relief Administration of Arizona at Prescott, Arizona. This will have a capacity of 250 goat or sheep skins per day or 125 cattle sides. With a small expenditure the present capacity can be doubled.

Eight-eight thousand hides and skins, green salted and dry, are now owned by the Emergency Relief Administration of Arizona are stored in Prescott, as a result of the Drought Cattle Relief Program. It is anticipated that the

Tannery will be completed within six weeks. The exact type of leather to be produced will depend on the thickness and character of the skin. At the present time the contemplated idea is to use cattle hides for women's and children's sole leather and for repair work. Also for lace leather.

The wool from the sheep skins and the hair from the goats will be clipped and scoured on the premises. In the beginning this work will be done by hand. Some of the sheep skins will not be clipped but will be used for fleece lined coats. It is anticipated that lined and unlined jackets and work gloves will be made by women relief workers from the finished products, this would employ approximately fifty persons and create a new industry.

This Tannery is the only industry of its kind in the State of Arizona and when operated to capacity should employ 50 men daily. Arizona is one of the most important sheep, goat and cattle stated in the Union. Consequently, the erection of a tannery is a project of material promise.

Hides coming into a tannery are either green salted or dry. The green salted skins or hides must soak from two to three days in water before they are in condition for the removal of the hair. Dry hides require more soaking.

Until recent times, six to nine months were

required for the tanning of a hide. Modern methods have reduced this process to from three to five weeks.

After a skin or hide is soaked it is run through a fleshing machine. The hair is then removed in paddle vats. After this the skin is re-fleshed. The hide is next put into a second paddle vat to bate. Chemicals emzimes are used to remove the epidermis.

The next step in tanning is to pickle the hides in sulphuric acid, alum and salt. Chrome tan which is the most modern method will be used. After a hide or skin is tanned it is shaved, then fat-liquored. After the skins are thus softened the leather is placed in a sawdust bed to prepare it for tacking, so that it will dry uniformly. The skins are then staked until the required pliability is attained.

In conclusion, the hides or skins are buffed, finished on a table, measured and distributed for various purposes.

Another type of drought relief work dealt with municipalities which were suffering from insufficient water for city use. Prescott, Williams and Flagstaff were three of the cities affected.

In Flagstaff 192 feet of 4 inch water main was laid on West Aspen Street. The Abineau springs project saved the city of Prescott an amount estimated at $100,000. The regular water supply from the inner

basin in the vicinity of the San Francisco Peaks was so depleted that it was necessary to ship sixteen to eighteen tank cars of water to Flagstaff from the neighboring city of Winslow each day.

An extension of 25,000 feet of pipe line was built from the end of the inner basin line sixteen miles north of Flagstaff to Abineau Springs on the north side of San Francisco mountain. The altitude of the Abineau Srpings water supply is approximately 11,500 feet while that of Flagstaff is 6,868 feet. Six inch and eight inch pipe was laid. This carried approximately two million gallons of water per day. This water comes from snow fed springs.

A second project known as the River de Flag Water Development Project supplements the Abineau springs work with as much as 50,000 gallons of water. The perforated pipe lines are fed by water seepage. This water then flows into the city pump. The River de Flag water is used only in cases of emergency.

B. Flood Relief: None.

C. Transients:

Work Division responsibility was the designing and technical supervision of constructions projects.

Use of Transients on Work Projects: None on resident Emergency Relief Administration of Arizona Projects, but hundreds of men used on Transient Projects.

Transient Camps and Shelters: Buildings were designed and technical supervision provided during construction.

D. Education: Educational assistance in training workers and construction of facilities for educational program: None.

E. Rural Rehabilitation: Administrative relations: None.

Construction for Rural Rehabilitation: Yes. Designed and constructed buildings. Work in general with and for Rural Rehabilitation Division: Construction.

F. Social Service: Cooperated with Social Service Division.

G. Research Division: Malta Fever Research work by Ryder and Stroud, also Census.

H. F.S.R.C. Activities: Administrative relations: None. Work done for Commodities Distribution STC: Commodities were distributed under supervision of Work Division.

I. Public Relations: Publicity Director employed in January, 1935. Roll bound reports with work progress photographs were made on "Children's Health Camps in Arizona", "The Transient Division in Arizona", and "Outstanding Projects in Arizona, Book I". The present report is also being made by the Publicity Director and is being illustrated with photographs from the state photographic shop

which is a part of the Publicity Department. Both are a part of the Work Division.

Articles were published in magazines and newspapers; both cooperated splendidly. Material was obtained from engineering reports and personal inspection. A monthly magazine, "El Sahuaro", was issued. Reporters were appointed in each county, who made monthly reports through material given them by administrators and project managers.

8. STATISTICAL SUMMARY OF PROJECTS:

Category	Started	Abandoned	Completed	Unfinished
A-Planning Projects	5		1	4
B-1-2-3-4-Projects on Roads, Bridges, Streets, Etc.	191		43	148
B-3-4-Public Bldgs. Projects	87		39	48
B-7-8-9-10-Sewers, Drainage and Public Utility Projects	50		18	32
B-11-12-Recreational Facilities	56		29	27
B-16-Conservation, Fish and game	-		-	-
B-13-14-Waterways, Flood Control	27		12	15
B-15-Landscaping, Grading Erosion Control	72		24	48
B-17-18-19-Eradication & Control of Pests, Poisonous Plants	3	(Rabbits, Gophers) (Loco Weed)	1	2
B-20-Other Public Property Projects	2			2
C-1-2-3-4-Housing Projects	-		-	-
D-1-Making Cloghes	15	Continuous		
D-2-Canning Projects	6	Continuous		
D-3-Garden Projects	6	Continuous		
D-4-Production of Food.	1	(Beef Jerkie)	1	
D-5-Production of Household goods	11	(mattresses, Etc.)		11

CATAGORY	STARTED	ABANDONED	COMPLETED	UNFINISHED
D-6-Production of Building Materials....	1	(Adobe.....	1	
D-7-Other Production Projects.....	6	.....(Fuel)	(Continuous).....	
E-1-6-Public Welfare Projects.....	53		26	27..
F-1-8-Public Education Art, Research.....	99		50	49..
H- Tool & Sundry Equipment.....	14	.....(Continuous.....		
TOTAL.....	705		245	413..

CWA PROJECTS INCOMPLETE AT END OF CWA AND COMPLETED BY ERA

(does not include Administration or Tool & Sundry Equipment)

"B" Public Property Projects.	No. Projects Taken Over	No. Projects Completed	Percent Completed
B-1-New Const. of Roads Streets, Hwys., Side-Walks, gutters, etc.....	10	6	60%
B-2-Repairs to Roads, Streets, Hwys. Side-walks, gutters, Etc.....	32	10	31%
B-3-New Const. of Public Buildings.....	8	8	100%
B-4-Repairs & Reconst. Public Buildings.....	9	4	44%
B-5-New Const. Bridges, Grade Crossings, Etc.....	2	2	100%
B-7-New Const. Sewers, drainage sanitation.....	9	3	33%
B-8-Repairs Sewers, drainage sanitation.....	3	3	100%
B-9-New Const. of Gas, Electric, Water works, Public Utilities.....	2	2	100%

	No. Projects Taken Over	No. Projects Completed	Percent Completed
B-11-New Const. Recreational Facilities	21	14	66%
B-12-Repair & Reconstruction Recreational Facilities	5	4	80%
B-13-New Const. Water Ways levees, flood control, etc.	7	3	43%
B-15-Landscaping, grading, erosion control, parks, airport, Etc.	7	6	85%
TOTAL "B" PROJECTS	115	65	56%
"D" Production & Distribution of Goods:			
D-1-Clothing, Sewing of garments	5	1	20%
TOTAL "D" PROJECTS	5	1 (4 continuous)	20%
"E" Public Welfare:			
E-1-Nursing	2	(continuous)	
E-2-Nutritional	2	(continuous)	
E-5-Safety Campaigns-- Traffic Controls	2	(continuous)	
TOTAL "E" PROJECTS	6	(continuous)	
"F" Public Education, Arts & Research:			
F-2- Research & Special Surveys	1		
F-4- Records & Clerical Work	4	1	25%
TOTAL "F" PROJECTS	5	1	20%
TOTAL "ALL" PROJECTS	131	67	51%

The following perspectives, floor plans and preliminary sketches show plans drawn by the Work Division of the Emergency Relief Administration of Arizona for buildings for the Transient, Social Service and Rural Rehabilitation Divisions and the County Organizations.

Form W-1

STATE DEPARTMENT OF PUBLIC WELFARE, _____ COUNTY

This Form To Be Used For Semi-Skilled and Skilled Labor Only.

THIS INFORMATION IS NECESSARY TO COMPLETE YOUR RECORD, and with the exception of your signature, should be printed. Please fill out and return. DO NOT GIVE INFORMATION CONCERNING PWA, RFC, CWA or ERA WORK.

1. Name (Print it) _____
   Address _____ (Age) _____
2. How long did you attend grade school _____ Years Completed.
   High School _____ Years Completed.
3. College _____ Years Completed. Degrees Received _____
4. Special Vocational Training _____

5. Last Private Employer _____
   Address _____
6. What was the nature of his business _____
7. Who was your foreman _____ Your Salary _____
8. Exactly what did you do _____ Date You Began _____
9. Date you Left _____ Why did you leave _____

10. Private Employer before the last _____
    Address _____
11. What was the nature of his business _____
12. Who was your foreman _____ Your Salary _____
13. Exactly what did you do _____ Date you began _____
14. Date you left _____ Why did you leave _____

15. At what occupation have you worked longest in the last ten years _____
16. What is your alternate occupation _____
17. Did you ever belong to a Professional Organization, if so, which one _____
18. Did you ever belong to a Union, if so, which one _____

19. Have you any physical disability, if so, what _____

20. Will it prevent you from following your regular occupation

Sign your name here:

_____

Date _____ 193__.

S-1030

Form N-2

_____ COUNTY BOARD OF PUBLIC WELFARE

_____ City Date _____

In Re: Name _____

Last Foreman _____

Last Department _____

Last Occupation _____

Last Date Worked _____

The family of the above has come to our attention because of unemployment.

Mr. _____ states that he was in your employ from _____ to _____.

Will you kindly give me the following information:

What were the exact dates of employment _____

Regular or irregular _____

Nature of work (semi-skilled or skilled) _____

Job classification (kind of work) _____

Weekly wages _____

Did you pay him same rate as other employers on same class of job _____

Was work satisfactory _____

Reasons for leaving _____

Would you consider re-employing _____

Your courtesy in returning answers to these questions will be very much appreciated and the information will be held in strict confidence if you so desire.

Very truly yours,

Answered by _____
Title

Date _____ 193 _____

_____
Project Manager

S-1030 Append.