Record Group 79 (National Park Service), Entry 84: Correspondence and Subject Files, 1928-59, Bx 172, Folder: "Annual Forestry Reports, 1950-58." The US National Archives (NARA), College Park, Maryland. (Location: RG 79/570/81/33/4)

Organ Pipe
850-01

	Cook	
✓	Dodd	
✓	Moore	
	Collier	
	JAN 14	1958
	Superintendent	

Box 172

Organ Pipe Cactus National Monument
Box 38
Ajo, Arizona

January 9, 1958

Memorandum

To: Regional Director, Region Three

From: Superintendent, Organ Pipe Cactus

Subject: Annual Forestry Report, 1957

Attached is the Annual Forestry Report for 1957 for Organ Pipe Cactus National Monument. Extra copies of the section on Tree Diseases are attached for forwardance to interested agencies.

James M. Eden
Superintendent

Attachments
✓Copy to: Director w/copy of
Annual Forestry
Report

ANNUAL FORESTRY REPORT

ORGAN PIPE CACTUS NATIONAL MONUMENT

1957

FIRE SEASON

The fire danger in this area was, as normal, very low during 1957. Precipitation in above normal amounts for the year lessened the very slight danger of fire occurrence and the danger of rapid spreading was not great except in a few isolated sections. No fires were reported during the year.

FIRE PRESUPPRESSION

Fire Prevention Fire prevention posters were placed on all campground bulletin boards and in the exhibit room of the Visitor Center. The dangers of the possibility of fire in the higher hazard areas were mentioned at campfire programs and at times of other visitor contacts. Open campfires were restricted to specific areas unless permission for such was first obtained from rangers.

Training No formal training in forest fire fighting was given at Organ Pipe Cactus. The Chief Ranger attended the Fire Protection Conference at Zion National Park in April and the Supervisory Park Ranger attended the annual fire school at Saguaro National Monument where he assisted in the instruction. All Monument personnel were briefed in the proper handling of various fire situations that might have been encountered in the area.

Planning and Studies Necessary additions and revisions were made to the Monument Fire Control Plan.

Physical Improvements All fire tools were inspected and overhauled. Regular inspections of equipment were made. All motorized equipment is now covered with first aid puppression equipment. Two new hose reel carts were acquired from excess property sourcesto aid in providing protection for impending physical plant expansion. A fire hydrant was installed at the site of the new Visitor Center. An indexing and maintenance record system of all fire equipment was instigated.

Equipment The following fire fighting equipment was acquired during the year:

1	Axe, fire	$ 5.48
	Batteries, radio	22.10
1	Cap, pin lug & chain	3.10
4	Extinguishers, D/C 4 lb.	68.44
1	Extinguisher, foam, 2½	14.94
1	Extinguisher, S/A 2½	18.21
	Extinguisher, charges	58.08
2	Hose, CJRL, 50'	42.00

Equipment (con't)

2	Hose, garden, 3/4"	14.98
2	Carts, Hose, fire	20.00
1	ladder, Wall, 18'	65.00
2	Nozzles, 3/4"	1.72
2	Nozzles, 1½"	89.40
1	Reducer, 2½x1½	4.60
2	Wrenches, spanner & Hy.	8.00
2	Wrenches, hydrant	11.00
2	Wrenches, spanner	3.60

BUILDING FIRE PROTECTION

The structural fire protection system was considerably improved during the year with the addition of equipment items. The inadequacy of the water conduit system to the old residential and shop area is still somewhat of a problem but it is believed to be adequate considering the anticipated relocation of the residential and maintenance areas. Sufficient first aid suppression equipment is in place and adequate second attack equipment is readied.

The new Visitor Center will be adequately covered with the receipt of additional hose now on order and with the installation of another hydrant. Adequate first aid suppression appliances are in place.

The annual and follow-up fire inspections disclosed few correctable deficiencies and these were immediately eliminated. Inadequate and poor electrical wiring in the old structures continues to be the outstanding hazard.

Fire drills and fire control sessions were held during the year at which times the prevention, characteristics, and control of fire was stressed.

TREE DISEASES

Preliminary planning for the instigation of pilot tests on the control of mistletoe on desert vegetation was completed. As soon as the area was advised that funds were available for such tests information about the necessary equipment, supplies, and technical aspects of the program were gathered. Test areas were selected and the basic system of research was worked out. Orders for the necessary equipment and chemicals have been placed. At the close of the year all is in readiness to begin the actual field work. The marking and preliminary inspection of trees is scheduled for January and the spraying of the trees for a dormant period in March or April. It is planned to apply 2,4,D and 2,4,5T in several solutions and using several spray application methods.

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SOIL AND MOISTURE CONSERVATION

The fiscal year 1957 Soil and Moisture funds of $3,000 were used for extending, strengthening, and expanding soil and moisture conservation projects started in previous years. It appears that for the present the most satisfactory results can be made through the construction of contour furrows, holding dikes, and dams on badly eroded lands. Three of the original projects were reworked during March at which time intermediate furrows were built between the existing 100' contour furrows. Furrows on the 100' contour did not prove to be sufficient to control runoff. Funds were spent on overhauling a wheeled tractor and in the purchase of a terracing machine. These two articles of equipment are proving to be a very satisfactory combination. They are used in conjunction with a small bladed tractor. The results of the continued work on eroded lands is being to become evident and it is felt that the continuation of the project is well worth while. The vegetation on the projects is beginning to show marked improvement both in amount and growth.

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Cook

JAN 10 1957

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Organ Pipe Cactus National Monument
Box 38
Ajo, Arizona

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January 8, 1956 57

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AIR MAIL

Memorandum

To: Regional Director, Region Three

From: Acting Superintendent, Organ Pipe Cactus

Subject: Annual Forestry Report - 1956, 6al

Enclosed is the Annual Forestry Report for 1956 from Organ Pipe Cactus National Monument.

(SIGNED)
John T. Mullady
Acting Superintendent

Copy to: Director - w/copy of Annual Forestry Report

Reg. 3

Bx 172

ANNUAL FORESTRY REPORT

1956

Organ Pipe Cactus National Monument

FIRE SEASON

The danger of fire spreading in this area remained very low throughout the year except in a few isolated areas where the dried annual grasses formed a continuous vegative cover over small areas. Though the area was exceptionally dry, the danger of fire spreading remained low in most of the monument because of the wide spacing of plants.

We had two, small roadside fires this year.

FIRE PRESUPPRESSION

Fire Prevention - Fire prevention posters were installed on all campground bulletin boards and in the exhibit room of the Visitor Center. High fire danger areas were mentioned at campfire programs and other visitor contacts. Open campfires were restricted to specific areas and in those areas verbal permission from a ranger was required.

Training - No formal training in forest fire fighting was given at Organ Pipe Cactus. One ranger attended the annual fire school at Saguaro National Monument. All monument personnel were briefed in the proper handling of various fire situations that they might encounter in this area.

Planning and Studies - A very complete fire plan was written for this area. This plan covered both forest and building fires. All monument personnel were required to read this plan and it was implemented by the ranger force.

Physical Improvements - The Ranger Patrol pickup was outfitted with hand tools for fire fighting. All fire tools were properly marked and repaired. One hand, dry powder and two foam extinguishers were purchased this year. We now have complete extinguisher coverage in all buildings and vehicles. A hose cart and 100 feet of new 1 1/2" fire hose were purchased this year. A shelter was constructed for the hose cart. Two new 1 1/2" stand pipes were installed and we can now get fire line to all but one residence and the Visitor Center.

Equipment - The following fire fighting equipment was acquired during the year.

1 -	Fire hose cart	$94.60
	Fire hose connections	12.90
	Building material for hose cart shelter	33.40
2 -	Hose, copper jacket rubber lined, 1 1/2", 50'	42.40
1 -	Scale for weighing extinguishers	12.45
1 -	Extinguisher, fire, dry chemical, 4 lb.	12.84
2 -	Extinguishers, foam	N/C
	Lumber for fire tool boxes	13.88
	Batteries for portable radios	22.98

BUILDING FIRE PROTECTION

With the new equipment purchased this year we have an improved but still inadequate building fire protection system. Our main problem is getting sufficient amounts of water to the various buildings for fire fighting purposes.

We have put more emphasis on the building fire training program this year. Two rangers attended the structural fire school given at Chiricahua National Monument. Immediately following this school we had a one day building fire school for all monument personnel with their families present for portions of the training. Periodically we had informal sessions on building fire fighting and prevention in order to keep the matter fresh in everyone's mind.

The annual and follow up building fire inspection were completed and all minor discrpancies corrected immediately. The one major hazard that we have is the poor wiring in all buildings. To correct this it would be necessary to completely rewire all buildings in the monument.

TREE DISEASES

The test and study plots we had planned for the studying of control methods on mistletoe in the monument's legumes has been postponed The mistletoe infestation is heaviest in the Palo Verde and also is found in the other legumes of the area. The legumes are the only trees of any size or number found on the desert floor and we hope that this year, with the assistance of the Rocky Mountain Forest and Range Station and the Regional Forester, we will be able to study possible control methods of the mistletoe.

SOIL AND MOISTURE CONSERVATION

The $3000 allotment for soil and moisture conservation for the fiscal year 1957 will be used for extending the small water catching and spreading furrows constructed the past year. This work will take place in three of the monument's most seriously eroded locations. We find that the work done last year has held up well but we feel that we will get better results if we make the water spreading furrows so that the cut through the natural soil is 30 inches deep. Last year we cut through the natural soil 18 inches. Each furrow is approximately 100 feet apart. The water spreading devices constructed last year held a great deal of water and definitely slowed down erosion. The plants near the furrows are doing much better than in past years.

Y2619

Cook

Organ Pipe Cactus National Monument

56 MAR 15 AM 8:42

March 11, 1956

	Cook	
✓	Dodd	
✓	Moore	
	Collier	
	Johnson	

Memorandum

To: Regional Director, Region Three

From: Superintendent, Organ Pipe Cactus

Subject: Annual Forestry Report - 1955

Thie refers to Mr. Jerome C. Miller's memorandum of March 2 calling for submission of the subject report.

During the time I have been on duty here we have not prepared annual forestry reports since the area files show that agreement was apparently reached at some time in the past that this report was not required for Organ Pipe Cactus. However, following the March 2 request a report for 1955 has been prepared and is attached. If you feel that an annual forestry report should be submitted regularly for this area please advise and we will see that it is done.

Chief Ranger Henson prepared the attached report, which I think is excellent, and he is commended for his efforts.

(SIGNED)
James M. Eden
Superintendent

Copies to: Director - w/ copy
Ann. Forestry Report.

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ANNUAL FORESTRY REPORT

1955

Organ Pipe Cactus National Monument

FIRE SEASON

Normally the danger of fire spreading in this desert country is very low because of the wide spacing of the plants. Occasionally, however, a particularly wet summer will bring out a bumper crop of annual grasses which will form a continuous vegetative cover over large areas. Such was the case this past summer and after the grass dried, the danger of fire spreading became critical over several large sections of the monument. The danger lessened somewhat after the winter rains but the dry grass still remains in many sections.

We feel very fortunate not to have had any fires in 1955.

FIRE PRESUPPRESSION

Fire Prevention - Fire prevention posters were installed on all the campground bulletin boards and the higher fire danger was mentioned in the various evening programs and in other visitor contacts. The maintenance employees were cautioned and reminded periodically about the fire situation and the resulting extra care that should be exercised.

Training - No formal training program in fire fighting was held during the past year but, in several informal discussions with the various employees, the best means of handling various fire situations in this area were pointed out. We have already held one training session this year and we intend to hold several more covering both forest and building fire fighting.

Physical Improvements - Eight additional hand dry powder fire extinguishers were purchased and installed so as to provide fire protection for all of the vehicles and buildings. Two hundred feet of 1 1/2 inch linen fire hose, a fire hose nozzle and the necessary fittings for one 1 1/2 inch stand pipe were purchased and installed. This stand pipe and hose will only provide protection for the shop and the trailer. As a temporary solution to the problem of fire protection for the rest of the buildings we purchased eight 50 ft. garden hoses and installed them at the various houses and buildings.

Equipment - The following pieces of fire fighting equipment were purchased during the past year:

8 -	Extinguisher, Fire, Dry chemical, 4 lb @ 12.45	$99.60
4 -	Hose, linen, 1 1/2 inch, 50 ft.	76.00
1 -	Nozzle, Fire hose, 1/2" & 1/4" tips	33.07

Box 172

Building Fire Protection

In spite of the improvements we have made toward providing fire protection for the government buildings and equipment here, we still have an inadequate system. We have ordered additional fittings in order to install two more stand pipes. These stand pipes along with the portable hose box we have constructed for our 200 ft. of hose should enable us to provide much better fire protection. We still plan to build hose houses at each of the stand pipes and to purchase the necessary hose to place in them. We have PCP's on the above items but, until funds become available, we are doing the best we can.

Tree Diseases

Many of the desert trees, principally the various legumes, are infested with mistletoe. In order to determine the extent of the damage being done to the plants and also in order to test various hormone spray control measures to be used on individual trees in the visitor use areas, we plan to initiate, with the help of the Regional Forester and Dr. Lake Gill of the Rocky Mountain Forest and Range Experiment Station, a few study and test plots.

Soil and Moisture Conservation

The $3000 allotment for Soil and Moisture Conservation for this year was spent in constructing small catching and spreading contour furrows in some of the most badly eroded sections of the monument. These furrows were made with the grader and are about 100 feet apart. Three critical areas totalling approximately 1,200 acres were treated in this manner and we feel certain they will prove effective in halting the accelerated erosion in those areas. The winter rains were so light that we still don't know how they will stand up and how they will function. We will know more about their value after the summer rains.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

Bx 172

PRELIMINARY REPORT OF FOREST PROTECTION REQUIREMENTS

FOR

ORGAN PIPE CACTUS NATIONAL MONUMENT

1941

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U. S. GOVERNMENT PRINTING OFFICE 6—8215

PRELIMINARY REPORT OF FOREST PROTECTION REQUIREMENTS

FOR

ORGAN PIPE CACTUS NATIONAL MONUMENT

Prepared by

Regional Forester V. W. Saari

National Park Service
Region Three

Santa Fe, New Mexico

October, 1941

PRELIMINARY REPORT OF FOREST PROTECTION REQUIREMENTS FOR ORGAN PIPE CACTUS NATIONAL MONUMENT

THE AREA

Organ Pipe Cactus National Monument is located in the south central section of Arizona. It is bounded on the south by the Republic of Mexico, on the east by the Papago Indian Reservation. The Growler Mountains extend into the area from the northwest and the Agua Dulce Mountains extend into the area from the southwest. The crest of the Ajo Mountain range forms the east boundary of the monument and hence the entire western slopes of the Ajo Mountains are in the monument. The Puerto Blanco Mountains are located in the approximate center of the monument and are entirely contained therein. The total acreage is 330,670 acres and, therefore, Organ Pipe Cactus National Monument is the third largest National Park Service area in Region Three.

VEGETATION CONDITIONS

Practically the entire area is vegetated. It is said to be the finest desert area in the United States containing a greater variety of desert vegetation than is present at either Joshua Tree National Monument or Death Valley. It is the only area in the United States containing both the Organ Pipe and Senita cacti. Its Saguaro stands are much more extensive and only slightly less spectacular than at Saguaro National Monument. It contains some of the largest ironwood, palo verde,

and mesquite stands, both with regard to size of individual trees and stand density, that the writer has ever seen.

The Organ Pipe cactus is by no means the characteristic vegetation type of the area. The Organ Pipe cacti are usually confined to well drained southern and southwestern exposures, whereas extensive stands of Saguaro, Mesquite, ironwood, and palo verde may be found distributed generally throughout the area. Extensive Cholla stands, many of which contain trees of arborescent size, add greatly to the interest of the landscape. The Senita cacti are probably entirely confined to isolated stands located near the southern boundary of the area.

Of considerable significance is the abundance of reproduction present among all species of desert flora. This is especially noticeable in connection with Saguaro reproduction, of which there is a great abundance at Organ Pipe Cactus National Monument, whereas at Saguaro National Monument reproduction of this species is practically non-existant.

The following is a list of the more common plants observed within the area:

Organ Pipe Cactus	(Lemairocereus thurberi)
Saguaro	(Carnegia gigantea)
Senita	(Lophocereus shottii)
Palo Verde	(Parkinsonia macrophylla)
Ironwood	(Olneya tesota)
Mesquite	(Prosopis velutina)
Live oak	(Quercus chrysolepsis)
Vauquelinia	(V. corymbosa)
Smoke tree	(Dalea sp.)

Desert Willow	(Chilopsis linearis)
Insienso	(Encilia farinosa)
Burroweed	(Franceria sp.)
Cholla	(Opuntia sp.)
Ocotillo	(Fouquieria splendens)
Catclaw	(Acacia greggi)
Creosote bush	(Covillea tridentata)
Jojobe	(Simondsia chinensis)

FOREST PROTECTION

The protection of vegetation in the Organ Pipe Cactus National Monument is concerned mainly with fire prevention and suppression, tree or plant disease control, and the prevention of damage through unwise human use.

Fires

Because of its recent establishment as a national monument, no fire statistics have been maintained for the area and therefore no definite statements can be made regarding past fire occurrence. Numerous fire scars were noted, however, and with the restriction of grazing by domestic stock and the increase in visitation, both fire hazards and fire risks in the area are bound to increase.

At the present time, because of unusually abundant precipitation this year, lush growth of grasses and weeds form a continuous ground cover connecting the various vegetation types together. Given the right conditions of relative humidity, wind velocity, and fuel moisture, the possibility of fires covering hundreds of acres in the monument are decidedly not beyond the realm of probability. Should extensive fires of the nature described occur, the reason for the monument would cease to

exist because the fires would destroy the botanical and biological values that make the area of national significance.

The protection of the area at the present time is a difficult problem, because there is only one man available to handle all of the protection and administration work of the area. It is therefore recommended that at least one more permanent ranger be assigned to the area at the earliest possible date who should be assigned to patrol duty almost exclusively.

Fire Danger

The fire danger in the area is moderate to high because of long periods of drouth which may prevail for a year at a time with no appreciable rainfall. Similarly, one cloudburst may provide more rain than ordinarily occurs over a period of one or more years. The soil, apparently, is quite fertile and the presence of abundant moisture for a period of only two or three months will result in a lush growth of grass and weeds not usually associated with desert areas.

As the area becomes better known and facilities are provided for the public to see the most interesting vegetation types, it will be necessary for them to traverse narrow one-rut roads which are lined with dry grasses on either side, thus greatly increasing the smoker fire problem.

FIRE TOOLS AND EQUIPMENT

At the present time there are no fire tools of any type available in the monument. It is recommended that a 6-man fire tool box similar

to the one shown in Region Three Drawing P.G.2020 be built for the custodian's pick up. The standard box doubtless will have to be modified somewhat to fit the existing arrangement of water and gas tanks on the pickup. The following is a list of the kind, quantity, and cost of the tools, to equip the fire tool box, which are believed to be most useful in connection with fire suppression work at the monument:

Kind	Quantity	Cost
Shovels, LHRP (Lady type)	3	$ 4.00
Fire swatters	3	6.00
Kortick tools	2	5.00
Back Pack Pump (Smith Indian, 90-G)	1	7.50
Pulaski tools	2	5.00
Canteens, 1-gal	4	3.50
First Aid Kit	1	2.00
Axe, DB, 3½#	1	2.00
Material for box	1	10.00
Total		$ 45.00

It is believed that by modifying the Standard Region Three 6-man Fire Tool Box slightly, it can be built onto the custodian's pickup and thus provide a supply of tools for the maximum number of men that probably can be mustered in present circumstances for fire suppression. As the development of the area warrants, additional 6-man and 20-man standard fire tool box units can be provided.

Fire Prevention

Inasmuch as the custodian is absent from the monument on administrative and other matters a considerable part of the time, every effort should be made to prevent fires from being started and, therefore, it is

felt that fire warning signs should be posted at strategic places in the monument.

Detection

At the present time there are no lookouts or other specific structures for fire detection purposes and until the need for such structures is indicated by future development and use, fire detection will have to be secured by patrol and through arrangements with local ranchers and other persons regularly traveling in the monument and possibly through cooperation with airlines, if any are flown over the area.

Accessibility

The monument is bisected by the Ajo-Sonoyta highway, running north and south, which, it is understood, will be graded and paved in the near future. Other important roads are: a one track desert road between Bates Well and Quitobaquito and a road eastward connecting Quitobaquito with the main Ajo-Sonoyta highway. Many old roads exist providing access to within a few miles of any point in the monument. No new road construction for fire protection purposes is deemed necessary but it will doubtless be desirable to mark and maintain some of the existing one track desert roads that are strategically located for fire suppression purposes.

Water

With the exception of Quitobaquito Spring, there are no large sources of developed water on the area. Several water sources do

exist which have been developed by local ranchers, such as the Bates Well, the Del Poso Well, and one or two others.

Fire Protection Planning

To aid in working up a final fire protection plan for the area, it is recommended that the custodian on his regular patrols gather data for the preparation of a limited fire atlas for the area which should include a travel time map, fire hazard map, and physical improvements map showing the location of existing roads and trails useful in fire protection, locations of water, and locations of personnel which may be available for fire suppression purposes.

INSECT PEST AND TREE DISEASE CONTROL

No insect infestations of any consequence were noted in the area but a bacterial rot similar to the one currently epidemic at Saguaro National Monument is present on the Saguaro, Organ Pipe, and Senita cacti.

The disease on the Saguaro here is apparently much less serious than at Saguaro National Monument. While it occurs generally throughout Organ Pipe Cactus National Monument, it has not, as yet, resulted in serious mortality. The old stands along the main north-south road are probably the most heavily infected of any within the monument.

In general, the Organ Pipe cactus seems to be less healthy than the Saguaro cactus. It is affected with a disease similar to the

condition found in the Saguaro. Recently killed stems and dead plants were conspicuous in all the Organ Pipe stands observed.

The Senita cacti observed showed a diseased condition in their oldest stems. The younger stems did not appear to be infected and no entire plants or groups of plants were found to be killed. In view of the serious epidemic conditions prevailing in the Saguaro stands at Saguaro National Monument, careful observations should be maintained of the cactus stands within this monument to prevent any epidemics of the nature now occurring at Saguaro becoming started at Organ Pipe.

GRAZING

In addition to the cattle being grazed on the monument through restricted use permits, considerable over grazing and damage is being wrought by wild burros and horses which apparently cross over into the monument from the Mexican side. It is therefore recommended that all possible steps be taken toward fencing the south boundary of the monument.

Regional Forester.

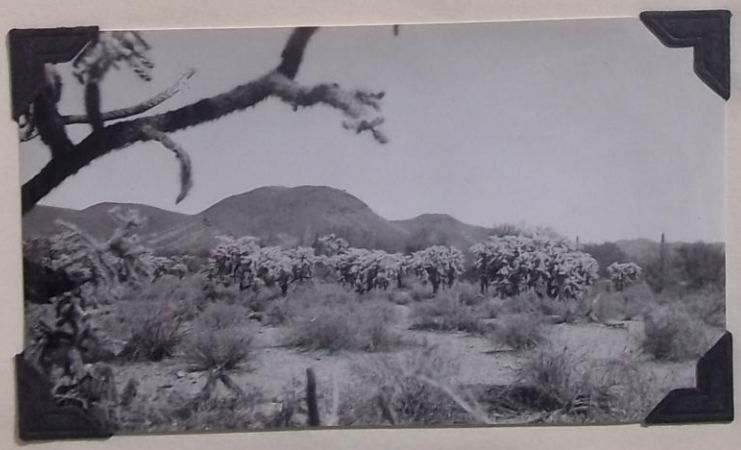
s:s

Organ Pipe Cactus, Mesquite, Palo Verde, Ironwood

Senita Cactus
Compare with Organ Pipe above

Bx 172

Cholla
Note arborescent size



Typical Cholla Stand

Diseased Organ Pipe Cactus

Non-infected Organ Pipe Cactus