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SUPERINTENDENT'S ANNUAL REPORT

JOSHUA TREE NATIONAL MONUMENT

1992



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**SUPERINTENDENT'S ANNUAL REPORT 1992
JOSHUA TREE NATIONAL MONUMENT**

INTRODUCTION

1992 was a productive and extremely busy year for Joshua Tree National Monument. The year included scoping and planning sessions for the General Management Plan, monitoring of the Eagle Mountain Landfill project proposal, and major reorganization changes in Administration and Fire Management.

Two major earthquakes hit the local area during 1992. The largest one on June 28 measured 7.6 and was classified as the largest earthquake in the world for the year of 1992. The water tank and Visitor Center at Black Rock Campground suffered structural damage. Rockslides were observed in many places throughout the park. There were no visitor nor employee injuries reported during the earthquakes. Major aftershocks were felt throughout the rest of the year.

As is often the case the weather had an impact on visitation to Joshua Tree in 1992. A very wet late spring brought out abundant wildflowers increasing park visitation. Late 1992 winter rainfall brought the year's annual total to 7.37" of rain, exceeding the average of 4.1" per year. The highest temperature recorded for the year was 109° in July and August. The lowest temperature recorded was 22° in December. The wettest month was February with 2.23" of rain and the driest months were June, September, and November with 0" of rain.



ADMINISTRATION

There was a major reorganization in the Administration Division during 1992. The reorganization was initiated by recommendations made during the Operations Evaluation conducted in October, 1991. A Management Assistant was hired to supervise Administration and Fire Management Divisions. The position was designed to last for three years to organize, train and correct problems within the two divisions. The Administrative Officer was reassigned from the Superintendent to the Management Assistant.

A number of personnel changes took affect in administration during the year. A Management Assistant was hired in March. Kathy Davis, Administrative Officer, retired at the end of the year. The Office Automation Clerk was promoted into a Budget/Fiscal Clerk position. The Personnel Assistant was promoted to the next grade in her Personnel Assistant Trainee position. The Office Automation Clerk position remained vacant due to lack of funding.

As the park grew in staff and visitation, the workload for administration steadily increased with no increase in staffing. Supply, copy machine, and utility costs continued to increase. Workspace limitations and lack of adequate funds kept administration at approximately the same level as previous years. One major change was hiring a Budget Clerk to handle the mountains of paper created by the FFS accounting program.

Management Directives (standard operating procedures) were written for procurement, procedures and policy, property management, payroll submissions, pet policy, travel policy, training policy, and computer standard operation procedures.

Budget and Finance

For the 1992 fiscal year ending September 30, 1992, Joshua Tree National Monument was allocated an operating base of \$2,251,000. \$68,684 was withdrawn for annual assessments. \$402,000 of the operating base was redistributed to offset allocation of no-year fee funding. Other funding included the following:

Miscellaneous

Incentive Awards	\$ 2,982
Mine Safeing	5,000
VIP	7,050
Environmental Education Handbook	20,000
HAER Documentation of Lost Horse Mine	40,000

Protection

ARPA	5,000
Drug Investigations	116,000
Drug Interdiction	30,000
Body Armor	3,000

FIREPRO

Presuppression	48,700
Fairshare	3,000
Permanent Staffing	64,100

Natural Resources

Inventory of Rare Bats	5,000
Air Quality	13,000
Guzzler Maintenance	2,300
Abandoned Road Revegetation Study	5,800
Bimonitoring Garden	3,000
Mine Revegetation	39,730
Nursery - Revegetation	104,734
Tortoise Study	10,500
Raven Census	5,000

Cultural Resources Cyclic

Keys Ranch Historic Preservation	54,575
Backlog Cataloging	16,500
Museum Curation	66,152
Museum Collection Preservation	8,220

Interpretive Exhibits Cyclic

Campground Panels	30,000
Keys View	5,000
Oasis of Mara Panels	5,000

Regular Cyclic

Restripe Park Roads	32,160
Replace HVAC Cottonwood & Ranger Office	10,000
Crack Seal Roads	18,000
Chip Seal Roads	424,000
Replace Road Shoulders	48,000
Moved Ranger Office	10,000

Repair/Rehab

Emergency Storm Damage	55,876
Fire Protection	6,113
Keys View Rehab	53,588
Rewire Pinto Wye	59,555
YCC Program	7,875
Keys View Railing	10,000
Hazardous Waste Disposal	2,100

Equipment Replacement

Dozer	40,043
Portable Welder	7,000
Forklift	41,250
Haulster	7,250

Fees collected at Joshua Tree totaled over \$767,000 and the cost of collections were \$160,300.

During FY92, 202 travel authorizations were processed from Joshua Tree accounts for a total of \$64,269. Three permanent relocations were also processed.

Procurement

Purchase orders decreased from the previous year due to the introduction of Third Party Drafts to the park. The Third Party Draft system started in May. By the end of FY92, 252 checks had been issued for a total of \$55,053. The Superintendent's Secretary was assigned the Third Party Draft Agent responsibilities.

33 vouchers for imprest funds were submitted for a total of \$16,668. 376 purchase orders were issued by the Purchasing Agent for a total of \$440,558.

Due to the reorganization in administration, the Personnel Assistant's backup Level I contracting warrant was returned to the regional office in December. The responsibility for this warrant will be reassigned to the new Administrative Officer in 1993.

Property

Property Officer responsibilities were assigned to the Purchasing Agent in 1992. The Property Officer attended the Western Region Property Conference in May. An annual inventory was completed in February. Another inventory was conducted in July by the Superintendent and Management Assistant. A weapons inventory was completed in July.

Two Certificates of Unserviceable Property and nine Reports of Survey were completed in 1992 with a total value of \$30,925. One sale of equipment replacement items was completed. One disposal document for excess property was sent to GSA for processing.

Much work remains to be completed on property items. Many of the new items received in the park were entered into the PROP system by the Fire Clerk. Many revisions are still needed on locations and assignment of accountable officers. A number of property items are awaiting report of surveys to be processed.

Personnel

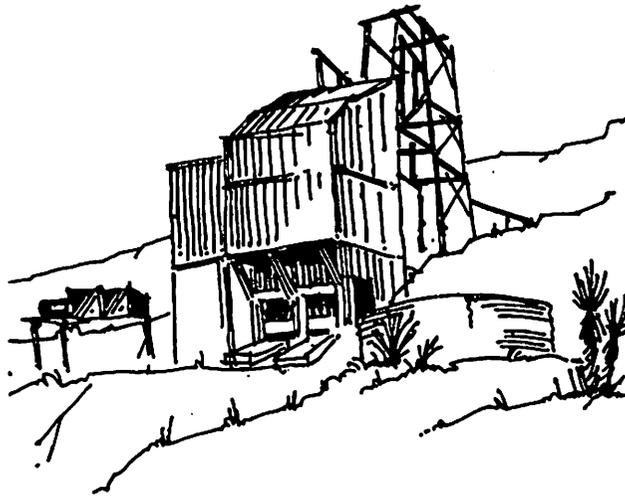
64.2 FTE's were utilized in FY92. Of this 64.2, 36.46 were permanent and 27.76 were seasonal. In FY93, 69.28 FTE's were requested. 97 positions were occupied during 1992. Staffing at Joshua Tree National Monument during 1992 consisted of the positions shown on the attached personnel roster (end of report).

Affirmative Action

Of the twelve permanent positions filled during the year, five were male (42%) and seven were female (58%). A total of 21 persons were employed seasonally and a total of 18 persons were employed as temporaries during the calendar year 1992. Of the total seasonal and temporaries, 59% were male, 41% were female, and 3% were minority.

Awards

A total of 20 awards were issued to park employees for a total of \$7,950.00.



VISITOR PROTECTION

Joshua Tree National Monument again experienced an increase in visitation. An increase of 9.2% over 1991 brought the total visitation to 1,225,246 for 1992. Overnight use increased from 251,573 in 1991 to 263,588 in 1992. Backcountry use increased from 6,196 in 1991 to 13,817 in 1992. Part of this large increase in backcountry use can be attributed to better accounting of the special use permittees. The increase in visitation has resulted in an increase in all areas of protection activities.

Law Enforcement

Statistical information on Protection Division activities:

Burglaries	6
Larcenies	41
Arson	3
Vandalism	93
Weapons Violations	29
Drunk Driving Arrests	2
Sex Offenses	1
Drug Abuse Violations	148
Liquor Laws	29
Disorderly Conduct	26
Traffic LE Incidents	133
Resource Violations	725
Number of Case Incident Reports	1303
Number of Violation Notices Issued	949
Search and Rescue Operations	35
Archaeological Protection Violations	104
Emergency Medical Service Incidents	49
Film Permits Issued	78
Special Use Permits	47

Fee Collection Operations

During 1992, the Fee Collection branch operated on a year round schedule for the first time. With the exception of Indian Cove, all stations were in service year round. Indian Cove was closed for the summer from June 14 through September 14.

Operating on a budget of \$160,300, the fee collection operation collected \$767,104.35. The benefit-cost ratio for 1992 was a \$4.79 return for every dollar spent (4.79:1 or 479%).

The fee collection income of \$767,104.35 is broken down as follows:

Single Entry Vehicles	\$459,100
Per Person/Bus/Motorcycles	11,182
Joshua Tree Pass (sold 1,681)	25,215
Golden Eagle Pass (sold 8,161)	204,025

Camping - Non Mistix 45,937
Mistix Reservations Sales 21,270

Additionally the following number of no cost passes were issued:

Golden Age 2,143
Golden Access 191



INTERPRETATION

Interpretive Programs

Interpretive activities and program attendance continued to increase in 1992. Four permanent Interpreters were on the staff for the entire year and a fifth permanent Interpreter was hired in December to fill a full time Cottonwood District program position. The seasonal Interpreters hired in October, 1991, presented programs through the first week in May 1992. The three main park visitor centers - Oasis, Cottonwood, and Black Rock were kept open all year. Visitor center contacts increased from 146,586 in 1991 to 196,101 in 1992, a 25% increase. Volunteers in the Parks and Fee Collection employees operated the Black Rock and Cottonwood Visitor Centers and Interpreters, VIPs and Natural History Association employees operated the Oasis Visitor Center. Campfire programs were presented at four of the campgrounds in the park and conducted walks were offered at ten other locations twenty times a week.

The following is a breakdown of programs offered and the number of visitors contacted:

Visitor Centers	196,101
Tours and Walks	2,545
Talks (NPS and VIP)	7,256
Environmental Education	4,812
Fee Interpretive Tours (Association)	1,834
Community Group Presentations (15)	622
Roving Contacts	2,545
Special Programs (4)	930

Radio Programs

Three minute public service announcements were offered twice a week during the Spring, Fall and Winter on two local stations. One 45 minute special program was done on the local KDHI Focus program. A fifteen minute special program for American Cable network was also done and one special fifteen minute program was conducted for a Palm Springs talk radio station.

Bus Tours

With the increases we have been experiencing in commercial bus tour groups the park began attempts this year to fit into their schedules and provide interpretive guides for bus groups. A number of special tours were presented.

Environmental Education

In addition to the environmental education programs offered to the schools both on and off-site, the park staff conducted a Teacher

Workshop for the Coachella Valley School District, participated in an Educators Fair in Palm Springs, attended a Coachella Valley Teachers' Reception at the Palm Springs Desert Museum, and participated in Curriculum Development Sessions with the Science and Social Studies Teachers from Morongo Unified School District and from the Coachella Unified School District.

Construction on an environmental education center at Black Rock was started the end of the year. One of the campground restrooms is being reconstructed and will consist of two offices and a conference room. This center will be fully functional in 1993.

Exhibit Cyclic and Rehabilitation Projects

Exhibit Cyclic funds were obtained for the development of campground waysides and Keys View waysides. Planning and design work was done on 27 waysides. The project is continuing into FY93 with \$30,000.00 available for production costs.

Funding was obtained for the production of nature trail signs on the Barker Dam Nature Trail. These signs were installed in June 1992. Artwork and design was also completed and the anodized aluminum signs completed for Cottonwood and Hidden Valley nature trails. Text, artwork and design was completed for the Oasis of Mara nature trail signs and the materials were sent to the sign company.

Funding for three cultural resources interpretive signs was obtained from the Western Region Cultural Resources Division. Texts, artwork and layouts were sent to the sign company for production.

Interpretive Planning

In the summer, an Interpretive Prospectus for Joshua Tree National Monument was started. Three work trips were completed during the year. Interpretive Planner Linda Finn from the Harpers Ferry Center lead the team with Lynne Nakata from the Western Regional Office and Park staff participating. Initially audiovisual and exhibit staff from HFC also participated. Initial planning was done in coordination with the General Management Plan process. Wayside planning was also addressed during the IP planning.

10-238's for all Interpretive Division projects were updated during the year for resubmission with various requests for projects. These project proposals reflected the GMP and IP planning and priorities, including new visitor center and rehabilitation proposals.

Cooperating Association

The Joshua Tree Natural History Association provided important temporary and part time seasonal employment assistance. This included information/sales desk employees, one Environmental Education Specialist position, and three part time Historic Tour Guides for the Keys Ranch tours. The Association also provided funds for the stipend of a Student Conservation Association employee, allowing Joshua Tree to hire two SCAs this year. During 1992, the Joshua Tree Natural History Association continued to grow, with an all time high in gross income, topping \$235,549.00. Approximately \$43,495.00 went to aide the National Park Service. The Association also provided \$3,700.00 for the printing of two editions of the park newspaper during the year.

Public Affairs

The park Interpretive staff made increased efforts to get into the local communities this year. Talks were presented to Chamber of Commerce groups in Yucca Valley, Twentynine Palms and Joshua Tree. A program was presented to the Economic Development Commission of the Morongo Basin. Efforts were made to keep the local organizations and community leaders up to date on the activities and concerns of Joshua Tree National Monument. We also increased our participation in the previously mentioned radio broadcasts. Staff members participated in the local Pioneer Days Parade in Twentynine Palms and the Grubstakes Parade in Yucca Valley. In addition to getting out regularly scheduled press releases on interpretive program activities an increased number of special press releases were also produced.

Joshua Tree developed a special exhibit for the Patton Museum and assisted with two special commemorations during the year, a fifty year anniversary and a Veteran's Day celebration.

Volunteers in the Parks

The Volunteers in the Parks program expanded during 1992. 549 VIPs donated over 28,000 hours this year. A couple of large special groups swelled these numbers on weekend cleanup projects. The VIPs performing interpretive, campst and resource management projects this year doubled from last year. Two Student Conservation Aides worked at Joshua Tree for Interpretation. Programs were presented by VIPs at Black Rock Campground, Indian Cove, and Cottonwood. Once a month star talks were presented at Hidden Valley by a local Astronomy club. Campground Hosts were assigned at six of the monument campgrounds during the year. The Joshua Tree Search and Rescue team utilized over 20 VIPs this year. A new group of horse mounted backcountry VIPs continued to cover the backcountry and help out with hauling materials for special projects.

A Special Education class from Coachella High School began working on a Spanish translation of our park brochure this fall. It will be ready for use in February 1993.



RESOURCES MANAGEMENT

Organization

In January of 1992 the responsibilities for management of cultural resources were added to the Division of Resources Management. The division is currently organized with branches for cultural resources, vegetation, and wildlife/physical sciences. The first permanent position for cultural resources was filled this year as a GS-09 cultural resources specialist.

Planning

In December, 1992, the Resources Management Plan was revised to the new Service-wide standards including combined cultural and natural resources elements. This process included a multi-disciplinary scoping session hosted at the CPSU at UNLV.

Research Conducted

Several significant research projects were conducted in the Monument this year. Contracts were developed for research involving a survey of rare bats, a raven census, as well as initiation of a biological effects of rock climbing study. The bat and raven survey were in response to a proposed landfill in the Eagle Mountains. The climbing study is part of a three part research effort to examine resources impacts from recreational activities including rock climbing. Monument staff completed a tortoise study to examine the influence of existing roads in Hidden Valley. This study was in support of the General Management Planning effort.

In addition to these NPS funded research efforts, twelve unsolicited research projects were conducted by a diversity of scientists interested in areas ranging from seismic studies to cricket taxonomy.

Cooperative Park Studies Units

As mentioned earlier, the CPSU at UNLV hosted a scoping session in support of the Resources Management Plan revision. Additionally, the CPSU at UNLV supervised an Archeological Resources Survey contract conducted by Dr. Claude Warren. Additionally, the UNLV unit leader has assisted in development of an interagency proposal for mitigation of impacts to Bighorn Sheep in the Eagle Mountains. This population could be impacted by the proposed Eagle Mountain Landfill.

External Threats

Although the Eagle Mountain Landfill proposal has been around for several years, 1992 saw several significant developments in this

potential threat. The Final EIS was released and the Riverside Board of Supervisors voted to allow the project to proceed through the permitting process. The Park Service, and the Monument in particular, have played major roles in the development of mitigations for protection of monument resources in this document.

In December, the Marine Corps announced the initiation of an EIS for a base expansion proposal. The Monument participated in the scoping sessions outlining NPS concerns for protection of Monument resources.

Resources Monitoring

Desert Tortoise Monitoring: during this season, the 1 km² Borrow Site in the Pinto Basin was monitored for a second year. The number of tagged tortoises there was increased from 47 in 1991 to 77. In addition, we also added two new 1 km² study sites and sampled each one 10 times. There are now four, permanent, 1 km² sites in the monument.

A remote sensing video camera system was added to the bighorn sheep program in 1992. This unit was used at Stubbe Springs to monitor bighorn sheep use of the water source.

Nursery Operations

The Center for Arid Lands Restoration completed roadside revegetation projects at sites in Cottonwood Canyon and several roadside sites in Quail Basin. Plants that were planted in previous years were monitored for survival and growth. Research was conducted on seed imprinting, a direct seeding method. Experimental plots were set up to investigate imprinting as a revegetation technique for the 200 miles of old road scars in Joshua Tree.

Cooperative agreements included contracts with Lake Mead National Recreation Area, California State Parks, and the U.S. Forest Service for production of native plants for restoration efforts on other agency lands. A contract with the U.S. Bureau of Mines included vegetation research on abandoned mined lands within Joshua Tree National Monument. The contract also included completing an annotated bibliography focusing on desert mine revegetation.

Plants were provided to University of California at Los Angeles for scientific research. The Center for Arid Lands Restoration was the host to a researcher from the Kuwait Institute of Scientific Research for three weeks. The Center trained the researcher in the propagation, transplanting, and monitoring of native desert vegetation.

Air Quality/Minerals Management

Ozone was monitored continuously at the Lost Horse Ranger Station site as in previous years. This year, data capture reliability averaged 80%. This could have been well over 90% if a major equipment failure had not happened in September. Visibility and particulate monitoring were short term programs that both terminated during the year.

In 1992, 12 mine sites were sampled for presence of residual toxic substances, most especially cyanide in tailings piles. The analyses, conducted by the US Division of Mines in Reno, Nevada, indicated that levels of cyanide and mercury were below critical levels and should pose no public or environmental hazard. We continued to stress mine safety and will do what we can to safe mines when possible. Additionally, working with the state mines office, Joshua Tree served as a test for a new down-hole camera system. The Lost Horse mine was used to lower a video camera system into the vertical shaft to assess the problem of side failure at this site.

Cultural Resources

Archeology - Part 1 (field survey) of Joshua Tree's archeological survey Phase 1, under the direction of Dr. Claude Warren, PhD, from the CPSU at UNLV, has been completed; 98 transects were mapped, recorded and photographically documented. Part 2 - site registration, analysis, and report are currently underway.

A ceramic anthropomorphic (female) figurine was recovered by the park. It was removed from Joshua Tree several years ago by rock climbers. It was returned to the park by Dr. Frank Fenenga and Bob Brown from California State University, Long Beach.

The stabilization of Keys Ranch buildings was started through special Operations Evaluation funding. Buildings completed were the store house, school house, machine shed, Disney building, tack shed (roof only), main house interior (partial living room only), main house exterior (partial roof only), hopper, water tower, winch, and vegetation clearing (fire hazard).

The park's second Historic American Engineering Record Project, the Lost Horse mill and mine site was completed. A team of three architects and one historian spent 10 weeks rendering and documenting the history of the site. Nine architectural drawings and a historical report were submitted to the park for review before submission to the Library of Congress.

Four historical architects from the Western Regional Office began work updating the park's List of Classified Structures. Possible additions to the list are: El Dorado mine road system; Hexahedron mine road system and house; Keys Ranch main house well; Keys Ranch

adobe mine; Keys Ranch 1 stamp mill; Keys cemetery; Keys Ranch winch; Keys Ranch Joshua tree sculpture; Johnny Lang's grave; Worth Bagley stone; Ohlson house dam; Ohlson house well; Ryan Ranch concrete trough; Ryan Ranch water tank; Lost Horse well masonry (stone) tank.

A historian from the Denver Service Center spent two weeks researching the park's historic roads for nomination to the National Register.

Two full-time and one part-time temporary employees were hired out of Backlog Cataloging and Cultural Cyclic funding for museum curation. Their work resulted in 1066 catalog cards submitted to the National Catalog. The monument loaned a total of 87 museum objects to four exhibitions at Palm Springs Desert Museum, Twentynine Palms Historical Society, University of California at Riverside art gallery, and Twentynine Palms Art Guild gallery. Research use of the museum collections totaled 23 (10 in park and 13 outside). Total number of visitors to the museum collections was 192.

Design of the new museum collection facility and research center was finalized with the assistance of the Regional Curator and architects from the Western Regional office.

The monument met its requirements for compliance with the Native American Graves Protection and Repatriation Act. The remains of 11 to 12 individuals and their associated funerary objects (26,970 items) were repatriated to local tribal bands. 28 tribal bands were consulted representing Cahuilla, Chemehuevi, Serrano, Mohave, Colorado River Indian Tribes, Quechan, Diegueno, Maricopa, and Paiute.



FIRE MANAGEMENT

The 1992 fire season was noteworthy in many respects. The Black Rock Interagency Fire Center (BRIFC) was fully operational between the National Park Service and the Bureau of Land Management. Station construction was completed with the addition of a new flagpole, hose rack, washing machine and storage shelves in the upper fire cache. The dedication ceremonies on July 16 were attended by over 75 persons from throughout the National Park Service, BLM and local fire agencies and businesses.

The interagency staffing of the station with one administrative manager and interchangeable engine crew members provided greater depth and efficiency for both agencies. During the June 28 earthquake fires local communities were assisted by an engine staffed with NPS, BLM and emergency hire firefighters while our regular fire crew was on an off-Park fire assignment to North Zone.

The majority of the fire crew returned from 1991 and continued to improve their skills through formal training prior to the start of the active fire season. Joshua Tree National Monument sponsored Jack Franklin to attend the Crafton Hills College Firefighter I Academy. He is the first NPS firefighter to graduate from that program.

NPS firefighters were trained on the maintenance and operation of both NPS Model 60/61 engines and BLM Model 5 apparatus during the jointly sponsored Department of Interior Engine Academy in May. This cross training proved beneficial during an interagency task force assignment in August when NPS and BLM were teamed on structure protection during the wildland/urban interface fires in Calaveras County.

This was the first year that emergency hire firefighters were utilized to their fullest to protect the Monument during periods of very high to extreme fire danger and to back fill for committed regular firefighters. Our regular suppression resources were supplemented for an additional 27 days during peak activity potential with another engine module staffed by AD and off duty firefighters.

The automatic dispatch plan initiated by the Federal Interagency Communications Center worked when needed to provide coverage to the Monument when both the BLM and NPS crews were committed. On several occasions the Apple Valley BLM or the Hole in the Wall BLM engine was sent to BRIFC on a preplanned move up without a specific request.

The 1987 Fire Management Plan was completely revised and updated to reflect the recommendations of the Interagency Fire Policy Review Team. It was approved on October 26 and will allow Park fire staff to manage lightning caused fires as a natural process under certain

conditions. Meetings were conducted with our cooperators, local community and the affected air pollution control districts. Each group indicated their full support of the program.

A fire effects study on Joshua Tree mortality and the seasonal effects of prescribed fire began with the establishment of study plots installed at the Nolina Cove prescribed fire site. This will be an on-going cooperative venture with the USFS Pacific Southwest Research Station (Riverside Fire Lab) until 1997. Fire effects monitoring plots which meet the requirements of the Western Region Fire Monitoring Handbook were also installed at Nolina Cove and a funding request to perform the burn was approved for FY93.

The fire management program at Joshua Tree was reorganized in March. All fire activities, including structural fire protection were managed under one division with a dedicated full-time Fire Management Officer and a permanent full-time program clerk who was hired in May. The Management Assistant was assigned to oversee the program.

A remote automatic weather station (RAWS) was placed on line at the Lost Horse Ranger Station. Accurate weather data was collected year-round and this information was utilized by other agencies such as the National Weather Service, Bureau of Land Management, US Forest Service, California Department of Forestry and Fire Protection and the Western Region Climate Center. The RAWS unit replaced an obsolete manual station which had to be monitored on a daily basis by park staff during fire season. Reported burning indices were far more consistent with the surrounding fire weather stations in 1992 than in past years.

The fire training plan was completed and specific positions with fire management duties were identified. Wildland fire qualifications were targeted in order to implement the revised fire plan. All employees requesting fire training courses were selected during the interagency fire training nomination meeting in September.

The fire crew actively participated in 3 technical high angle evacuations and one helicopter rescue of injured rock climbers and continued to train as members of the Park search and rescue team.

MAINTENANCE

Planned Activities

Maintenance planning activities were initiated with the 10-238 process for cyclic and repair rehabilitation projects. Estimates were developed on the maintenance management system and submitted for requested funding. Plans and specifications were then developed and submitted to the Regional Office for advertisement and contract award. Twelve projects were funded as listed below from twenty or more requested.

Special funding requests were submitted for earthquake damage at Black Rock Canyon and emergency storm damage to the road stream crossings in Cottonwood Canyon.

In-house planning activities were accomplished for each project and incorporated into the budget. Special funding for Keys Ranch required a detailed approach because of the historical structures. Clearances for archeological and historical projects were approved before any work started on the projects.

The Maintenance Division accomplished over \$776,101 in project work during 1992. Listed below is a breakdown of the projects.

Cyclic

Chip/Seal 25 miles of Park Routes 11 and 12	\$424,000
Crack Seal Park Routes 11 and 12	18,000
Restripe Park Roads	32,160
Replace HVAC, Cottonwood Visitor Center and Headquarters Ranger Building	10,000

Repair/Rehabilitation

YCC Program	7,875
Rewire Maintenance Shop, Pinto Wye	59,555
Replace Sidewalks, Keys View & Oasis of Mara	98,588
Emergency Storm Damage	55,876
Fire Protection, Park General	6,113
Replace Road Shoulder	48,000
Move Ranger Building	10,000
Replace Railings at Keys View & Cottonwood	10,000

Equipment Replacement

The Monument received \$95,543 and purchased a John Deere 450 dozer, Case four wheel drive forklift, Lincoln portable welder, and one Daihatsu utility vehicle.

Buildings and Utilities Projects

In conjunction with the support provided by maintenance for the projects listed above the division accomplished "in house" projects listed below.

1. Installation of two VIP trailer pads at Cottonwood and one at Headquarters, including all utilities.
2. Renovation of the last old maintenance shop bay at headquarters to rooms for administration, ranger lock-up storage and exercise room.
3. Preparation for moving Ranger building, utility installation and relocation.
4. Renovation and stabilization of the school house, ore hopper, Wall Street Mill, tack shed (barrel), and other structures at Keys Ranch.
5. Support projects such as electrical wire installation and plumbing on the Arid Lands Nursery.

Roads & Trails Projects

1. Preparation of the handicapped site at Keys View.
2. Installation of signs along Highway 62.
3. Crack sealing 20 miles of Routes 11 & 12, parking lots at Headquarters, Black Rock Canyon, and 49 Palms.
4. Removal of brush at Keys Ranch.
5. Repair of road shoulders parkwide with 2,000 tons class II base material.
6. Removal of hazard trees along Routes 11 & 13.
7. Grading of entire park road system two times.
8. Supervision of 7 YCC enrollees.

YCC Projects

1. Environmental education field trips which included Park orientation, Keys Ranch, nursery and Patton museum tour, Desert Queen Mine safety with DSC, desert survival and others (14 trips).
2. Replaced interpretative signs at Barker Dam Trail, and moved and cemented in approximately 2 ton of rock. Reconstructed

areas for visitor safety. Replaced temporary signing for Hidden Valley Nature Trail (27 signs).

3. Constructed water bars at Ryan Mountain Trail and Mastadon Peak. Realigned Arch Rock, Cholla Cactus Garden, and Oasis of Mara with rock. Reconstructed approximately 35 ft. of stone steps to eliminate wash out hazard at Cottonwood Visitor Center Trail. Realigned trail and rebuilt rock wall to eliminate social trail and cutting by water run off (5,808 linear ft.).
4. Cut 215 ft. of steel pipe, mostly by hack saw and hauled it to Chiraco Summit.
5. Back filled Desert Queen Mine shafts with approximately 5 tons of rock.
6. Cut brush from face and 15 ft. back from upper, middle, and lower Keys dams.

Other Projects

Two other projects, Replace Visitor Center Roof at Black Rock Canyon, and the Museum Curatorial Building at Headquarters were funded but not awarded in FY92.

VIP Projects

1. A Boy Scout troop painted picnic tables at Black Rock Canyon campground.
2. Marines jackhammered foundations in preparation for removal of building and other debris from the monument property at Baseline and Adobe Streets.

SAFETY

Accidents Summary

During 1992, there were 68 documented accidents/incidents. Of these 68 incidents, 34 were visitor related and primarily attributable to untrained, inexperienced, and/or inattentive individuals climbing or scrambling on various rock formations within the Monument. 11 were visitor related motor vehicle accidents. Speed still seems to be the primary contributing factor in these motor vehicle accidents.

Employee accidents during this time period numbered 23. 10 of these were motor vehicle accidents, a majority of which were low speed backing collisions resulting in property damage. The remaining 13 incidents were employee arm, back, and elbow strains and dust and chemicals in the eyes.

Training included safety awareness and accident preventive training. The Safety Officer brought together the park safety committee and informed and trained the committee as to their responsibilities. During the year training facilities and instructors as well as testing facilities and technicians at the Marine Corps Air Ground Combat Center were utilized to help meet the needs of the park employees regarding federally mandated programs, such as hearing threshold data for the Hearing Conservation Program and instruction on the Federal Hazard Communication Training Program.

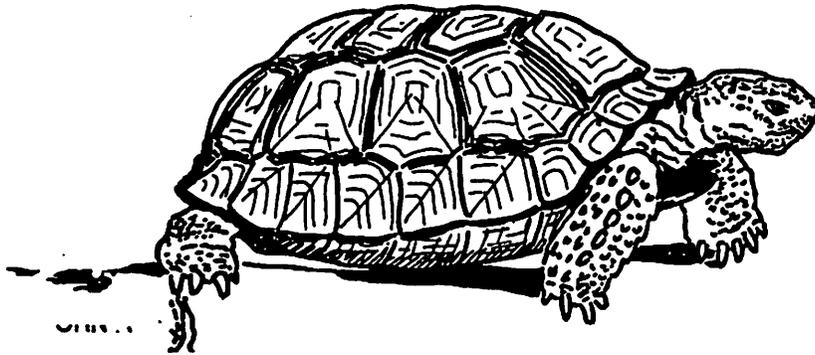
Safety Projects

All projects in the park were related to safety in one way or another. Well planned and well executed projects were almost always an asset to the safety of the employees and visitors alike. Some projects that were specifically safety related were:

1. Removal of cabinets in administrative offices at Park Headquarters that were showing signs of instability as well as required an individual to climb to utilize them.
2. Hand railings at Cottonwood spring and two locations at Keys View were replaced with funds received from the region safety account. These new railings will eliminate the hazard associated with the continual breakage of the old railings.
3. Traffic markings and park road centerline were repainted utilizing day labor and contract labor. Cross walks were added at park route locations where hiking trails cross the roads as well as signing was added to warn motorist of the cross walks.
4. The old swimming pool area at Black Rock Campground was

refilled and compacted to eliminate the holes at the surface created by the settling of previous fill in the area.

5. Chimneys throughout the park were swept to eliminate the chance of chimney fires.
6. Brush was removed from shoulders and campground intersections along park route 11 to improve visibility around corners for signs and for motorists exiting campgrounds.



Personnel Roster - Calendar Year 1992

<u>NAME</u>	<u>POSITION</u>	<u>EOD</u>	<u>TRANSFER TERMINATION RESIGNATION DATE</u>
<u>ADMINISTRATION</u>			
David Moore	Superintendent	(1991)	----
Kathleen Billings	Supv. Programs Spec.	03/08/92	----
Dottie Clements	Secretary	(1984)	----
Kathryn Davis	Administrative Officer	(1971)	12/31/92
Rebecca Patterson	Personnel Assistant	(1990)	----
Beverly Briggs	Purchasing Agent	(1985)	----
Eunice Sibert	Office Automation Clerk	(1990)	09/06/92
Eunice Sibert	Budget/Fiscal Clerk	09/06/92	----
<u>FIRE MANAGEMENT</u>			
Thomas Patterson	Fire Management Officer	(1990)	----
Carol Henson	Fire Program Clerk	05/17/92	----
Terry Tilford	LD Park Ranger (Seasonal)	05/03/92	09/19/92
Daniel Madden	Park Ranger (Seasonal)	05/31/92	09/19/92
Jeremy Monroe	Park Ranger (Seasonal)	05/17/92	09/19/92
Jack Franklin	Park Ranger (Seasonal)	05/17/92	09/19/92
Robert Green	Park Ranger (Seasonal)	05/17/92	09/19/92
<u>INTERPRETATION</u>			
William Truesdell	Chief of Interpretation	(1981)	----
Carol Peterson	Supv. Park Ranger	(1990)	----
Arthur Webster	Supv. Park Ranger	(1991)	----
Elizabeth Van Zandt	Park Ranger	12/13/92	----
Jimmy Pritchett	Park Ranger	(1989)	----
Ruby Newton	Park Ranger (Temp.)	(1991)	----
Laureen Lentz	Park Ranger (Temp.)	05/17/92	----
Deanne Chatterton	Info. Recept. (Temp.)	12/27/92	----
Ronald Shoemaker	Park Ranger (Seasonal)	(1991)	05/02/92
Susan Franz	Park Ranger (Seasonal)	(1991)	05/02/92
Lori Duke	Info. Recept. (Temp.)	08/09/92	09/11/92
<u>VISITOR PROTECTION</u>			
D. Paul Henry	Chief Park Ranger	(1983)	----
Tandra Waldrop	Admin/Fiscal Clerk	01/26/92	----
Kip Knapp	Supv. Park Ranger	(1990)	----
Todd Swain	Park Ranger	(1990)	----

Mike Brinkmeyer	Supv. Park Ranger	(1988)	04/18/92
Albert De La Garza	Park Ranger	09/06/92	----
Jeff Ohlfs	Park Ranger	(1990)	----
Deborah Brenchley	Supv. Park Ranger	06/14/92	----
Karl Pearson	Park Ranger	(1990)	04/04/92
Colin Smith	Park Ranger	07/26/92	----
Bill DeBus	Supv. Park Ranger	(1989)	----
Joni DeBus	Park Ranger (Temp.)	(1989)	----
Gary Garrett	Park Ranger (Temp.)	04/21/92	----
James Youngblood	Park Ranger (Temp.)	(1990)	01/26/92
Robert Baker	Park Ranger (Temp.)	(1990)	04/17/92
Tim Bertrand	Park Ranger (Temp.)	(1988)	05/31/92
Tim Bertrand	Park Ranger (Temp.)	07/05/92	10/17/92
Mike Grayson	Park Ranger (Temp.)	(1990)	----
Jeff Rickerl	Park Ranger (Seasonal)	(1991)	06/13/92
Nina Burnell	Park Ranger (Seasonal)	(1991)	06/27/92
Nina Burnell	Park Ranger (Temp.)	06/28/92	----
David Trevino	Park Ranger (Seasonal)	10/04/92	----
Jeff Rickerl	Park Ranger (Seasonal)	10/04/92	----
Martin Johnson	Park Ranger (Seasonal)	10/18/92	----
Deanne Chatterton	Park Ranger (Seasonal)	02/09/92	05/02/92
Raymond Donovan	Park Ranger (Temp.)	(1991)	05/30/92
Richard Reyes	Park Ranger (Seasonal)	(1991)	07/11/92
Richard Reyes	Park Ranger (Temp.)	07/12/92	----
Joan Jackson	Park Ranger (Seasonal)	09/01/92	----
John Brunkhardt	Park Ranger (Seasonal)	09/20/92	----
Eric Beck	Park Ranger (Seasonal)	08/30/92	----
Gloria Gillette	Park Ranger (Seasonal)	09/13/92	----
Cathy Bussey	Park Ranger (Seasonal)	10/04/92	----
Alta Blietz	Park Ranger (Temp.)	(1990)	----
Linda Charlton	Park Ranger (Temp.)	(1989)	----

MAINTENANCE

Curtis Mossestad	Chief of Maintenance	(1990)	----
Marie Lewis	Admin. Assistant	(1987)	----
Daral Bowe	Maint. Mech. Foreman	(1988)	----
Ray Morcilio	LD. Eng. Eq. Opr.	(1980)	----
Barbara Thompson	Motor Vehicle Operator	(1987)	----
Michael Addington	Maintenance Worker	(1991)	----
John Ford	Maint. Mech. Foreman	(1986)	12/12/92
Ray Moore	Maintenance Mechanic	(1990)	11/13/92
Cesar Garcia	Maintenance Worker	(1988)	----
Elena Wolsfeld	Maintenance Worker	(1990)	----
Ernest Bennett	Maintenance Worker	(1990)	----
Gilbert Moreno	LD. Maint. Worker	03/08/92	----
James Newton	Maintenance Mechanic	12/27/92	----
Keith Stevens	Maintenance Worker	(1990)	----
Chris Monroe	Mtr. Veh. Opr. (Temp.)	(1990)	----
Dick Capps	Mtr. Veh. Opr. (Seasonal)	05/03/92	06/27/92
Dick Capps	Maint. Wrkr. (Temp.)	06/29/92	----
Alexander Newman	Laborer (Seasonal)	05/17/92	09/04/92

Michael Flock	Maint. Wrkr. (Seasonal)	08/02/92	----
David Deere	Maint. Wrkr. (Seasonal)	08/02/92	----

RESOURCES MANAGEMENT

Robert Moon	Chief of Resources Mgmt.	(1980)	----
Mark Holden	Supvy. Park Ranger	06/14/92	----
Jerome Freilich	Ecologist	(1991)	----
Mark Heuston	Physical Sci. Tech.	(1987)	12/26/92
Rosalie Pepito	Museum Tech. (Temp.)	(1989)	07/25/92
Rosalie Pepito	Museum Specialist	07/26/92	----
Cecilia Garry	Bio. Sci. Tech. (Temp.)	(1991)	----
Carol Miller	Bio. Sci. Tech. (Temp.)	(1991)	----
Sarah Chaney	Biological Tech. (Temp.)	(1991)	03/21/02
Daniel Madden	Laborer (Seasonal)	01/26/92	05/30/92
Danielle Barr	Laborer (Seasonal)	01/26/92	05/16/92
Terry Tilford	Laborer (Temp.)	01/26/92	05/02/92
Michael Gilmore	Laborer (Seasonal)	01/26/92	09/25/92
Lulu Chye	Museum Tech. (Temp.)	(1991)	02/17/92
Deanne Chatterton	Biological Aid (Temp.)	05/03/92	09/30/92
Gail Heveron	Biological Aid (Temp.)	05/03/92	09/30/92
Elena Robisch	Biological Aid (Temp.)	05/17/92	08/14/92
Danielle Tilford	Biological Tech. (Temp.)	05/17/92	----
Harry Colby	Biological Aid (Temp.)	(1991)	09/30/92
Jack Misraje	Biological Aid (Temp.)	07/06/92	08/28/92
Stephanie Stephens	Museum Aid (Temp.)	08/02/92	----
Tracie Hampton	Museum Aid (Temp.)	08/02/92	----
Melanie Spoo	Museum Tech. (Temp.)	08/23/92	----
Chris Collins	Bio. Sci. Tech. (Temp.)	08/23/92	----