



United States Department of the Interior

NATIONAL PARK SERVICE

Zion National Park
Springdale, Utah 84767

IN REPLY REFER TO:

COPY

A7615 (ZION-C)

February 20, 1996

Memorandum

To: Field Director, Intermountain Field Area
From: Superintendent, Zion National Park
Subject: Call for 1995 Supt.'s Annual Report
Reply Due: Friday, March 1, 1996

Enclosed is the requested subject report for Zion National Park for the fiscal year 1995.

Donald A. Falvey

Donald A. Falvey

Enclosure

ANNUAL NARRATIVE REPORT - FISCAL YEAR 1995

Superintendent's Overview

Visitation:

Fiscal Year 1995 was a busy year at Zion National Park. At the end of September, visitation for the calendar year had already exceeded 2 million, an increase over 6 percent from the previous year. The back country areas are receiving higher rates of visitation, stretching our ability to properly manage visitor use and preserve resources.

Resource Management:

Several significant resource management actions occurred during the fiscal year. The park's resource management plan was completed. The focus of the plan is based on ecosystem management, recognizing the needs to work beyond park boundaries to ensure resource protection. Protection of the park's ability to provide solitude was furthered by monitoring noise levels of aircraft at various locations. This data will be used as we consider alternatives for managing aerial flights. The superintendent participated in several resource-related meetings away from the park - aircraft overflight hearings sponsored by Senator McCain, served as the panel chair for the Grand Canyon National Park's Futures Forum, presented the park's progress with water rights negotiations at a workshop sponsored by the University of Utah, and attended the field hearings on Wilderness legislation sponsored by Congressman Hansen. Other resource protection activities included participation in the water rights negotiations with the State of Utah for protection of water resources above the park, coordinated the park's input for a multi-agency conservation agreement for protection of the Virgin River Spinedace, and continued efforts to effect land exchanges for inholdings.

Development:

Extensive efforts continued for implementation of a transportation system to serve the park and adjacent community. Negotiations are underway with the Zion Theater Group and the Zion Natural History Association for donation of land and funds for construction of a transit/visitor center at the park's south entrance. Over \$450,000 was received in a matching ISTE grant for construction of shuttle stops, a contact station, and signage in the Town of Springdale; ZNHA has donated \$50,000 as part of the non-federal matching funds. The Denver Service Center prepared the Comprehensive design which was approved in August.

Visitor use studies were conducted as part of the planning effort.

Congressional Contacts:

Congressional interest in the park was active during the year. Congressman Orton stayed overnight and was briefed on park issues. Numerous contacts were made with staff of Congressman Hansen and Senator Bennett.

Interagency Cooperation:

Emphasis on interagency cooperation continued this year in several areas. The superintendent and state coordinator are regular attendees at the Southern Utah Planning Authorities Council (SUPAC), an organization initiated by Governor Leavitt which included federal, state and local representatives. The superintendent also participated in the semi-annual federal managers meetings with USFS and BLM managers in the region. A state-wide coordination meeting with park superintendents and BLM district managers was also held. The park participated in sponsoring a BLM management trainee who was assigned special duties relating to inholder issues. The park hosted a couple of meetings with state park managers.

Significant Incidents:

A landslide north of the Canyon Junction blocked access to the lodge and upper canyon. This April event caused that portion of the park to be closed for six weeks. Emergency repairs were made by FHWA using ERFO funds, allowing two-way traffic to resume prior to the Memorial Day weekend. A second phase of construction is planned to effect permanent repairs.

Park staff involved in the 1993 Kolob Creek fatalities continued to provide data in support of the lawsuit filed by the survivors and relatives of the deceased. Several depositions were also taken, both in the park and at Salt Lake City.

The NPCA sponsored March For Parks event featured the opening and dedication of the newly construction Pa'rus Trail on Earth Day.

The Office of the Inspector General conducted an audit of our tunnel operations and the area designated for first amendment rights was used by SUWA under a Special Use Permit for sale of literature relating to the wilderness legislation.

Community Involvement:

The superintendent continues to serve as a member of the Springdale Planning Commission. Meetings were held with the Liaison Committee relating to the transportation system. The superintendent served as a co-host for the Town of Springdale's Candidates Night.

Concessions

Concessions Division:

On April 12, 1995 all concessions services and facilities on the Zion Canyon Scenic drive were closed when a landslide blocked the Virgin River, obliterated the road, and shut down all utilities above the slide. Three hundred guests and 150 employees were trapped at Zion Lodge until the following night. The lodge at Bryce Canyon National Park opened early to accommodate guests displaced by the slide until May 26, 1995. Concessions' employees worked on maintenance projects in the rooms, yards, and other facilities and areas. The owner of Canyon Trail Rides volunteered his employees and horses, if needed, for the evacuation purposes or for help in dealing with any problems that may be caused by the sudden closure.

Canyon Trail Rides (BZTR):

The Contract for this operation has been expired since 12/31/91. The services are still being provided by authorization of a Letter of Agreement.

The total number of rides sold this year was down 11.1 percent resulting in a 14.1 percent reduction in revenue as compared to last year. This loss is attributed to the shut-down in April and May.

This concessioner operated in a professional and completely satisfactory manner in 1995. Trail maintenance continues to exceed the requirements of the contract. The concessioner needs and is willing to build new employee quarters to replace the trailers now being used for housing. An EA is almost completed for this project, but no construction can begin until a new contract is in place.

TW Recreational Services, INC. (TWRS):

TWRS was on the market for the entire year. As of the end of FY95, the sale was still pending. It was a difficult and stressful year for all employees.

A new Employee Dining Room was completed in January, 1995. This dining room serves three major meals, with snacks, drinks, and a salad bar available all day. Employees no longer have to enter the Dining Room Kitchen, making it more usable for the employees and enhancing kitchen sanitation. The motel rooms were remodelled over the winter with new window treatments, wallpaper, carpet and bedspreads. There

were also major improvements in the kitchen which included, a Rapid Chiller, wheels on the cooks' line, and a new ice cream freezer. Significant mechanical problems plagued the tram all summer, which the concessioner responded to with concern and innovation.

TWRS statistics are kept on a calendar year basis for comparative purposes. Although the December, 1995 stats are not yet available, it appears that there will be approximately a 50 percent reduction in total income. This includes the two periods in November and December that the concessions facility was closed because of the government shut-down.

All aspects of the TWRS contract are being dealt with in a cooperative and efficient manner. The Repairs and Maintenance Program is well planned and documented. TWRS continues to respond to additional needs that occur unexpectedly throughout the year.

Zion Natural History Association (ZNHA):

The merchandising operation of the ZNHA were fully satisfactory for 1995.

Administration

Contracting, Property And Procurement:

FY 95 saw another record for total procurement volume at \$1,100,669.12, including three solicitation issued totaling \$263,412.89.

One of the contracts this year was actually for Bryce Canyon National Park, and Capitol Reef National Park. Zion Contracting office did all the contracting on this project. The Denver Office did not have the time to assist these areas and they do not have the warrant authority at the respective park areas.

A total of 691 purchase orders were issued for the three park area totaling \$948,406.74. Zion's imprest fund was utilized for \$25,359.52.

Zion has continued to make use of Third Party Drafts (TPD's) which supplements our over-used imprest and has successfully eliminated the need to issue small dollar purchase orders. For FY 95, Zion issued 600 TPD's totalling \$126,902.86.

The IMPAC Credit Card system was implemented this year. Approximately fifteen people have taken the required training. We currently have two people in the Administrative section that have their credit cards.

During FY 95, 22 Reports of Survey were approved. This dollar amount for these reports was \$1,985.00. Total number of Certificates of Unserviceable property was twenty nine reports, for a dollar figure of \$32,029.15. Two small Lot sales were held which collected \$300.00 in proceeds. Ten Transfer of Property reports were completed for a dollar amount of \$128,018.00. Total items transferred out of the park were a dollar figure of \$17,905.34. Excess reports totalled thirty three for a dollar figure of \$121,144.00. The park picked up thirty three items for a total of \$121,144.18, some of which were excess vehicles.

As of the end of 1995, personal property record showed 1590 items of Capitalized Property totalling \$2,147,760.45.

Human Resources:

Staffing:

Permanent Employees

ZION	<u>69</u>	Vacant Permanent Positions - ZION	<u>14</u>
CEBR	<u>3</u>	CEBR	<u>1</u>
PISP	<u>5</u>	PISP	<u>0</u>

There were 11 new permanent positions filled at Zion (i.e.; Museum Curator, Biologist (GIS), Archeologist, Natural Resource Specialist (Wildlife), Resource Mgmt. Support Asst., Motor Vehicle Operator, Maintenance Workers', Admin. Support Clerk, Office Automation Clerk). One new permanent position at PISP was added (i.e.; Maintenance Worker)

Term Employees

ZION	<u>35</u>
CEBR	<u>1</u>
PISP	<u>3</u>

For the 3-park area a total of 42 positions were converted from seasonal/temporary positions to TERM positions. Three (3) of these were vacated.

Temporary/Seasonal Employees

ZION	<u>49</u>
CEBR	<u>10</u>
PISP	<u>8</u>

These employees were on the new NTE 1040 hour appointments. Except for appointments at CEBR, these appointments were not lasting the full season needed at ZION and PISP.

Special Programs: Zion had two (2) YCC participants who performed tasks in a re-roofing project. Also, again this year at Zion, we had a High School SCA group here (including 1 leader & 6 students) who rebuilt fence lines on the Ponderosa Plateau and built cedar steps at Taylor Creek. Unfortunately, neither Zion or PISP received any placements from the JTPA program in 1995.

Recruitment:

Beginning in January, Zion National Park was provided additional Delegated Personnel Management Authority through GS-13 and all FWS employees (i.e.; classification, staffing, processing, employee development, employee relations).

A total of 12 Merit Promotion Vacancy Announcements, one (1) Clerical Direct Hire and 18 Recruitment Bulletins were issued by the Personnel Office.

Classification:

At Zion, the Superintendent, Assistance Superintendent and all Division Chief's positions were reclassified. All fee positions were reclassified from the Park Ranger Series to the Visitor Use Assistant series. Classification was

performed on a variety of positions (i.e.; dispatch, maintenance, research positions, etc.). Also, PROCLASS was utilized for classification purposes in many instances as well as the use of "Benchmark" position descriptions. Classification was performed for the Superintendent's position and maintenance worker's at CEBR and PISP.

Processing And Payroll:

The Personnel Office went "live" on the FPPS system in July, 1995. Over 650 personnel actions were processed which included the full-range of nature of actions. Included are 28 promotion actions, 1 temporary promotion, 3 reassignments and 4 retirements, etc, etc,.

Also, the payroll operations and coordination was taken over by the Personnel Office. One (1) position was added to perform the processing and payroll functions.

Employee Relations:

The EO Program for the 3-park area was served by the Personnel Office, a Special Emphasis Program Coordinator, Federal Women's Coordinator, and two EO Counselors.

Special Emphasis Program (SEP) activities included a seminar that was sponsored by the Federal Agency Networking Committee (FANC). Pat Fesler served as the park's SEP Coordinator and Nellie Pratt served as the park's Federal Women's Coordinator.

Statistics were up for minority hiring in the TERM and seasonal/temporary workforce.

Dual Career employment was increased in 1995.

Five (5) permanent appointments were made using the VRA authority.

During 1995, recruitment trips were made to the "Career Days" at Snow College, to a Job Fair sponsored by the Washington County School District, Dixie College and Job Service and we were represented at the 3rd annual natural resource agency camp for high school seniors which informed college-bound students about the breadth of work in resource based careers.

A "All Employees" meeting was held with representative from Job service providing information on unemployment benefits.

Financial Planning/Retirement seminars were held at the park to all interested employees.

A program at the monthly Parkwide Safety Meeting was dedicated to the Employee Assistance Program (EAP) where updates and informational brochures were handed-out.

Incentive Awards Program:

The Incentive Awards Program was served by a committee. In 1995, Special Achievement Awards were presented to 16 employees, Fast Track Awards to 13 employees, Performance Awards to 5 employees, Quality Step Increase Awards to 2 employees, and Time-Off Awards to 33 employees. Six employees were recognized with Length of Service presentations and certificates. One suggestion was received. The Eagle Award which is a park award was given to 10 employees. Nominations for the Eagle Award are provided by peers and the recognition (certificate and \$50) is awarded at the Park-wide Safety Meeting.

Budget:

Zion received at total FY95 ONPS (base) authorization of \$3,836,700. Included in this base figure was funding for FERS, Pay cost increase, Ranger Careers, Resource Professionalization, across the board increase of 2%, Frampton base increase and base increase for Curator. \$1,273,000 of our base was set aside as no-year funding. Additionally Zion received \$22,000 by transfer of funds from DSC to cover 1/3 of the salary of the Concessions Management Specialist. \$197,000 was received for the Fee Operation Program under fund 20.

Special project funding totaled \$290,200, which included projects for Curatorial Backlog, Archeological Site Monitoring, Bighorn Sheep Restoration, Mexican Spotted Owl, Peregrine Monitoring, Tamarisk Control, Revegetation and Repair/Reroofing of Housing Garages. \$7000 for the VIP program. The park also received \$13,212 in donations for the year.

In April the park experienced a major landslide in the main canyon. \$182,200 was received for clean-up and temporary repair of the road.

The FY95 Quarters Program totaled \$151,093 (including Kolob). Income from the Tunnel Escort Program was \$274,600. Income from our four Utility Reimbursables totaled \$52,506. GSA Motor Pool Reimbursable totaled \$31,474.

Zion's total FTE authorization for FY95 was 114.0. Zion's usage was 117.3.

Training:

A total of 90 off-site training courses for 170 attendees were completed for Zion. In addition, 5 employees successfully completed correspondence courses.

In-house training at Zion this year covered CPR, HIV/AIDS, Structural Fire, Helicopter Safety, Leadership Seminar, Team Building, Management and Retirement.

Interpretive Division

Personnel:

In 1995, two vacancies occurred in the permanent work force--Andrea Bornemeier transferred to Pipe Spring and Bob Wood elected an early retirement. With the increased personnel office workload and number of personnel actions, replacements on both were not realized in FY 1995.

Implementation of Ranger Careers also had a substantial impact on the Division. Position No. 1592-810, Audie Alcorn, was converted to Permanent/STF and he was promoted to the GS-9 level with duties of supervisor and interpretive coach for one-half of the staff. In addition, the Assistant Chief position was upgraded to a GS-11; and position 1592-030, Education Coordinator, now falls into the GS-5/7/9 grade level with full performance at GS-09. With the reevaluation of Zion's management staff grades, the Division Chief's position was promoted to the GS-13 level during the last quarter of 1995.

Another important personnel advance came in September when Steve Floray was hired as the full-time Curator. Funding for his position came from a special WASO account which now goes into the park base for perpetual funding. Steve is the first ever full time curator at Zion. His position is written so that he has responsibilities at PISP and CEBR in addition to his Zion duties.

The permanent staff consisted of:

Chief I & VS Denny Davies, GS-13
 ACI & VS Rich Fedorchak, GS-11
 Park Ranger position 1592-040 GS-5/7/9 (Vacant)
 Park Ranger (Enviro. Ed. Coord.) GS-5/7/9 (Vacant)
 Lead Park Ranger Audie Alcorn, GS-09 (STF)
 OA Clerk Carryn Topham, GS-318-05
 Curator, GS-1015-11, Steve Floray (hired 9/95)

Note: With the vacancies, the division used two fewer FTEs than the previous year, yet there was a net increase in the number of programs presented and visitors served.

In 1995, there were a total of 9 seasonal interpreters, 2 SCAs and a core of four dedicated volunteers who added greatly to the visitor center staffing. (NOTE: Reduction of SCA because of housing shortages.)

Program Emphasis:

- 1) Relieve the congestion at the VC desk and improve

visitor experience by conducting "orientation talks" at the relief map.

2) Focus personal service interpretation on the "compelling stories" of Zion. Staff training and coaching were conducted to develop more effective ways to communicate to park visitors who we are, what we do, why we are here and how the visitor is a part of protecting this (and all) national parks.

3) More fine-tuning of the Narrows permit procedure continued in 1995. This resulted in a more efficient "processing" of hundreds of visitors desiring to hike the narrows.

4) Continued in 1995 was upgrading the park "Visitor Guide," The Sentinel. Efforts were made to make this publication more enticing for visitors by highlighting the Table of Contents on the front page, improving the map, and moving "planning your visit" section to the centerfold map.

Also as part of this initiative, staff reorganized the display panels just inside the front doors to the Visitor Center to better serve the visitor. These changes helped improve visitor orientation and reduced repetitive questions at the desk, allowing visitors to do more of their own trip planning.

5) Upgrade visitor services at Kolob. CPI Davies worked closely with Lem Pratt and other staff members to help improve uniformed staff coverage at Kolob. From Interpretive reserves, a total of \$5,700 was made available for additional staffing at Kolob in an effort to help "mainstream" that remote section of the park.

Visitor Response:

Visitor response to the 1995 program was outstanding. Many, many comment forms and unsolicited letters thanked the park for the program effectiveness and the originality of some of the presentations. Responses came in for both the regular as well as the Junior Ranger program--all help the management staff gauge the effectiveness of the overall program.

Site Bulletins And Other Printed Media:

In 1995, efforts continued to improve, simplify, and consolidate several site bulletins. The division is responsible for the production of many pieces of park information on specific uses and/or park resources. An

estimated 15,000 written and telephone requests for written information are filled each year. Four high-use handouts were printed at ZNHA expense in quantities ranging from 6,000 to 10,000.

Junior Ranger / Educational Outreach Programs:

With the vacancy in the Jr. Ranger Program Coordinator position, the park was faced with two decisions: cancel the program or run it with carry-over staff from 1994. The staff was adamant that the program continue and they--all of them seasonals--made it work. NPS Seasonal Employee Marianne Mullen assumed the duties of acting supervisor on her arrival in May. She was assisted by ZNHA employees Julie Hancock and Jill Blumenthal.

In '95, a total of 1,609 children ages 6-12 participated in the Jr. Ranger Program. Through the Outreach Program to 10 surrounding schools, 1,738 elementary age students received environmental education classes during the Spring/Fall sessions.

Also in 1995, the assistance of the ZNHA-paid staff for both programs was formalized in a supplemental agreement to the MOA between Zion and ZNHA. Signing of the agreement is still pending.

Curatorial Management:

In 1995 Doug Cockrum was brought back for a second year under special Washington office backlog cataloging money. In the absence of a full-time person, he worked from February thru mid-August as the park curator. Full time permanent curator arrived in mid-September just prior to the close of the fiscal year to begin addressing backlogged needs at all three parks (ZION, PISP, and CEBR) resulting from years of benign neglect.

Interpretive Planning:

Through much of 1995, the interpretive staff was involved with helping to write and review the Comprehensive Interpretive Plan (CIP). The CIP is equivalent to the old Interpretive Prospectus; it is due for completion early in 1996 and covers all park-wide interpretive needs including the East Entrance and the Kolob sections of the park.

Simultaneously, the staff was heavily involved in the planning for the new Visitor Center, the shuttlebus system and the rehabilitation of the current visitor center and museum. Both planning projects were very time-consuming,

but well worth the effort in view of their potential to redefine how visitors will use and enjoy park features for the foreseeable future.

Public Information Officer:

Division Chief Denny Davies continued to handle PIO duties in addition to his other responsibilities. The park was hit with several media events in 1995. Chief among them was the April 12 Sentinel slide which closed the upper Zion Canyon for almost 7 weeks. Because many issues continue to occur that require thoughtful, informed response which can only be accomplished with a dedicated staff member, the park will need a full-time PIO sometime in the not too-distant future.

Special Events:

1995 Seasonal training featured three guest speakers. Dr. Bob Eves (SUU), J.L. Crawford and Kezia Snyder presented sessions on geology pioneer history and Zion's flora and were a highlight of the training.

The April landslide along the Zion Canyon Road provided special opportunities to interpret mass wasting and naturally occurring slides in a geologically active area. During the 6 week closure, staff developed a special exhibit and provided roving interpretation along the road.

Annual Interpretive Program Report:

A copy of 1995 summary statistical report is attached to this narrative. The report is updated annually and summarizes park staff expenditures, visitor attendance, and program costs.

Creation Of Colorado System Support Office (SSO) and the Interpretive Management Group (IMG):

In February 1995, CI Denny Davies was one of four field interpreters selected by his peers for the newly created IMG for the 31-park Colorado Plateau Cluster. The new group (plus Marie Marek of the SSO) met in May to define itself and develop a Role and Function Statement. The basic purpose of the IMG is to assist interpretive managers on the Colorado Plateau and park managers at both the Intermountain Field Area and ColoPlat SSO to function now that there are no regional offices and interpretive expertise has been drastically reduced in the NPS hierarchy.

CPI Davies believes the group will have a very positive influence on the upgrading and professionalism of interpretation under the new NPS structure and the attempts

to put decision making and management at the park level.

Zion Natural History Association:

Again in 1995, ZNHA provided funding for a summer and winter edition of the Zion Visitor Guide, called The Sentinel. The newspaper format guide underwent major redesign and reformatting to stress the sensitive nature of Zion National Park and the responsibility visitors have in helping to preserve the park. Approximately 550,000 copies of the paper were distributed. The Sentinel is critically important since it is the only piece of information (orientation, map, safety, visitor impact, etc.) available to all visitors.

In addition, ZNHA again provided funding for several thousand copies of site bulletins on specific park topics ranging from the Narrows permit system to specific information on park flora, fauna, geology, and human history.

The Association provided two full-time and three part-time summer positions for the NPS Junior Ranger program assisting the NPS acting director.

The resource management effort of the park principally was supported by ZNHA funding for research activities and employee training and travel to professional workshops.

At Pipe Spring National Monument one of the key elements of the interpretive operation is the summer living history program. Again in 1995, ZNHA provided valuable assistance through its support of the park's living history program, and farm and domestic stock supplies. The Association also funded a ranch hand position for part of the year.

Each year, at Cedar Breaks National Monument, the Association provides financial support to the park superintendent which provides library books, magazine subscriptions, and material for donation to special groups or VIP visitors.

Total direct aid to the three parks was from ZNHA was \$83,750--a significant contribution that provided much needed assistance to the three-park complex. In addition, ZNHA employees provide direct assistance to visitors by answering questions and providing suggestions on how to best use their time. The value of this donation is part of the Association's Aid to the NPS each year.

Volunteer in Parks (VIP) and Student Conservation Association (SCA) Programs:

In 1995, 147 different volunteers contributed a total of 18,968 hours of assistance to the park staff. The VIP budget for the year was \$7,000 for the very low cost of \$.37 per hour contributed. To pay for those services at the GS-5 rate would have cost \$175,300--a gain to the nation of over \$168,000. These two volunteer programs continue to be valuable additions to park operations. In addition, they also play the very strong role of giving perspective employees park experiences they would have a hard time achieving without these options.



United States Department of the Interior

NATIONAL PARK SERVICE
Zion National Park
Springdale, Utah 84767

IN REPLY REFER TO:

K2621 (ZION-I)

October 28, 1995

Memorandum

To: Director, Washington Office
Attention: Chief, Division of Interpretation

From: Superintendent, Zion National Park

Subject: Annual Interpretive Program Reports (AIPR)

Enclosed is the Interpretive Staff Update and two copies of the Annual Interpretive Program Report for Zion National Park.

(Signature)

Donald A. Falvey

STAFFING FOR ANNUAL INTERPRETIVE PROGRAMS

NPS PROGRAMMED POSITIONS: FY-95

PERMANENT POSITIONS

		<u>FTE's</u>	
		<u>Programmed</u>	<u>Actual</u>
Chief Naturalist	=	1.00	1.00
Assistant Chief Naturalist	=	1.00	1.00
Lead Park Ranger	=	0.93	0.93
Park Ranger	=	1.00	0.38
Jr. Ranger Program Director	=	1.00	0.37
Ranger/Typist (PPT)	=	0.96	0.96
Kolob Ranger (Pratt)	=	0.20	0.20
6 positions - Permanent	=	6.09	4.84

SEASONAL POSITIONS

		<u>FT</u>
		<u>Programmed</u>
4* - GS-5/7 Term positions(Rachlis, Smith, Cullings,Wendler)		3.40
1 - GS-5 Jr. Ranger Program Instructor (Mullen)		0.36
1 - GS-4 Seasonal Naturalist (Breeding)		0.52
5 - GS-5 Seasonal Naturalists (DoBell,Grimes, Leeser, Kaim, Drex)		2.35
1 - GS-5 Kolob Ranger		0.30
7 positions - Seasonal/Temporary		6.93
* Two term positions vacated one month after appointment.		

TOTAL PROGRAMMED FTE 13.02 FTE

TOTAL FTE ACTUALLY USED IN FY 95 11.01 FTE

VOLUNTEERS

VIPs contributed	2.54 FTE
2 SCA interp positions contributed	0.46 FTE
6 Jr. Ranger positions contributed	1.03 FTE
TOTAL VOLUNTEER FTE	4.03 FTE

PROGRAM MANAGEMENT AND SUPPORT - FY 95

General Management and Administration

Denny Davies	=	0.75	\$42,286
Rich Fedorchak	=	0.60	\$22,762
Audie Alcorn	=	0.20	\$5,879
Carryn Topham	=	0.80	\$16,039
Andrea Bornemeie	=	0.40	\$12,151
Lem Pratt	=	0.25	\$7,349
			<hr/>
		3.00	\$106,466

Supervision and Auditing

Denny Davies	=	0.10	\$5,638
Rich Fedorchak	=	0.20	\$7,587
Audie Alcorn	=	0.40	\$11,758
Andrea Bornemeie	=	0.25	\$7,594
Lem Pratt	=	0.10	\$2,940
			<hr/>
		1.05	\$35,518

Training

Denny Davies	=	0.05	\$2,819
Rich Fedorchak	=	0.15	\$5,691
Audie Alcorn	=	0.25	\$7,349
GS-5 Staff	=	0.02	\$373
Andrea Bornemeie	=	0.25	\$7,594
Lem Pratt	=	0.10	\$2,940
			<hr/>
		0.82	\$26,766

OTHER: Curatorial, Library, AV & Vehicle

Denny Davies	=	0.10	\$5,638
Rich Fedorchak	=	0.05	\$1,897
Audie Alcorn	=	0.15	\$4,409
Doug Cockrum	=	0.40	\$9,612
Bob Wood	=	0.10	\$2,523
Andrea Bornemeie	=	0.10	\$3,038
GS-5 Collateral Duties		0.25	\$4,851
50% of Interp Vehicle Costs		0.50	\$3,900
			<hr/>
		1.65	\$35,867

FTE

COST

TOTALS 6.52 \$204,617

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

ANNUAL INTERPRETIVE PROGRAM REPORT

PARK ORG. CODE	FISCAL YEAR	AREA
1590	1995	ZION N.P.

FUNDING FOR ANNUAL INTERPRETIVE PROGRAM

Park Interpretive Budget (ONPS) \$ 402,400 (% of Total Park ONPS Budget 10.1%)

VIP Funds \$ 680 Note: Park Authorization was \$7000.00 but only \$680.00 went to Interpretation.

Coop. Assoc. Donated Funds \$ 6000

Other Donated Funds \$ 1000

Total Funds Expended for Interpretation \$ 409,080

STAFFING FOR ANNUAL INTERPRETIVE PROGRAM

FTE's Perm. 4.84 No. Positions 5

FTE's Temp. 4.87 No. Positions 9

Total FTE's 9.71 Total Positions 14

% of Park FTE's Devoted to Interpretation 9.34 %

FTE's VIP 4.03 No. Positions 18

FTE's Other 0.47 No. Positions 1 -- Curatorial Project

complete this report, copy the information from your Program Cost and Productivity Worksheet (Part III of your report for Interpretation) to the reverse side of this form. Then send the original and one copy of this report to your Regional Chief of Interpretation by November 15. DO NOT SEND IT DIRECTLY TO WASO!

NOTE: The totals of the calculations on the worksheet on the back of this form are not expected to equal the budget allocations to the Interpretive Division that you listed above. Don't worry about making them match up.

INTEGRATED RESOURCE PROGRAMS

Program: Ecosystem Management and Monitoring

FY95 Accomplishments:

1. Wrote a section for the Resource Management Plan on ecosystem management. Defined what is meant by ecosystems and ecosystem management as part of this section. Also presented the basis for doing ecosystem management. Selected a biological (vegetation), physical (watershed) and a cultural (Anasazi sites) component and showed how ecosystem boundaries might be drawn. Explained how we are doing ecosystem-level planning at present and will expand upon this in the future.
2. Through March, represented Utah NPS units on the Utah Interagency Conservation Committee (UICC). Obtained, organized, and forwarded information from 8 Utah NPS units on T & E, and rare/endemic vegetation to the interagency committee for inclusion in a statewide conservation effort.

Program: General Management Plan

Coordinator(s): Vic Vieira, Darla Sidles

FY95 Accomplishments:

1. A \$20,000 Competitive Cooperative Research (CCR) Funding Proposal was submitted to the Intermountain Field Office for collection of initial resource baseline information as part of the VERP Process.

Program: Transportation System

Coordinator(s): Darla Sidles, Sheri Fedorčhak, Laird Naylor, Laurie Kurth

FY95 Accomplishments:

1. Phase I, involving the Bike Path, was completed in the Spring of '95. Impacts to archeological site 42Ws2864 have been mitigated. Construction activities have been monitored to prevent impacts to cultural resources, and substantial revegetation has taken place.
2. Ongoing revegetation maintenance, such as watering transplanted trees and weeding the length of the bike path, was done regularly throughout the year. Exotic thistles were prolific, requiring repeated efforts at eradication. Point line vegetation transects were installed at 5 meter intervals along the length of the bike path, to monitor exotic species influx and success of revegetation efforts. Photo monitoring was continued for the third year.
3. An EA for Phase II has been completed. This has involved cultural resource inventory and evaluation and the preparation of a mitigation plan for site 42Ws1763. The Floor of the Valley Highway has been evaluated and nominated to the National Register of Historic Places.
4. Involved with initial Transportation System meetings, provided comments and suggestions on vegetation disturbances, revegetation, and landscaping concerns as they relate to facility development and design. Assisted DSC with Plant Species list for restoration efforts associated with the Tram Maintenance facility, Discovery Center, Parking lots, and shuttle stops. Provided DSC with contact names for detailing a Revegetation Specialist and a Contract Horticulturist to the park. Coordinated Dr. Stanley Welsh's visits for Sensitive or Rare Plant species that may potentially occur within the Transportation System project area. Flagged off critical plant habitat of *Eriogonum corymbosum* var. *matthewsiae* at the Canyon Junction.
6. A breeding bird point count was conducted along the Pa'Rus Trail on June 9. Point counts were taken for 5 minutes at 9 points along the length of the trail. The idea of the breeding point count was to determine if human activities are adversely affecting birds that nest along the newly-established bike path. The trends extracted from these data should be helpful in managing human activities to help protect wildlife along this riparian corridor. The point count may be repeated annually. It must still be determined if this monitoring method should be included in the VERP process.
7. The 404 permit was completed for the bike path, and the compliance inspection with the state engineer's office was held (the EA was completed in FY94).

Program: Planning and Compliance
Coordinator(s): Jack Burns, Sheri Fedorchak

FY95 Accomplishments:

1. As a cooperative effort between Maintenance and Resource Management, the Project Review Form (PRF) was revised to effectively initiate and expedite internal review of proposed projects. It is recognized the PRF will continue to need periodic revision.
2. 17 Project Review Forms were processed.
3. Compliance with NEPA/106 continued to be performed by compliance coordinators in the natural and cultural branches of the Division.
4. A Stream Alteration Permit (Section 404) was prepared and administered for the April 1995 landslide. This addressed Phase I of the road and utility repair to be accomplished. A separate 404 permit was prepared early in FY96 for Phase II (final) repairs.
5. Combined NEPA/106 environmental assessments were completed for construction of proposed housing in Birch Creek Historic District and Phase II of the Canyon Transportation System. An extensive amount of work by the RM&R staff went into preparation of these documents.
4. In March, a NEPA/106 workshop was conducted in the park by SSO staff. Participants included NPS personnel from nearby park units and Zion staff. A representative from the Utah State Historic Preservation Office (UTSHPO) was also in attendance who served as an instructor.
 - A Preservation Planner and Historical Architect from the SHPO came to the park in November to meet with park staff for a site visit to familiarize themselves with historic resources in developed areas. Ways to streamline the 106 process was discussed for projects that are routine in nature.
6. Eleven projects were assessed using the Assessment of Effect form as part of the 106 process. Ten of these projects were determined to have "No Adverse" effect on cultural resources. One project was determined to have "No Affect" as this project was a categorical exclusion for replacement of existing utility lines.
7. A GIS Specialist, Botanist, and Wildlife Biologist were hired in the division, increasing the number of people able to lend expertise in planning and compliance.

Program: Geographic Information Systems (GIS)
Coordinator: Dan Cohan

FY95 Accomplishments:

1. Division Chiefs and other personnel attended a GIS Workshop in 1/95 at Zion.
2. Asst. Supt. and other Zion employees attended a GIS for Managers course (12/94).
3. Geologic maps to be scanned were assembled.
4. A PD was classified and a GIS Specialist was hired.
5. Cooperative Agreement with Bryce was terminated.
6. An initial assessment of data available for Zion was completed.
 - Met with Sarah Wynn at Salt Lake to look at AGRC facility and learned what data is available there.

Program: *Global Positioning Systems (GPS)*
Coordinator: *Dan Cohan*

FY95 Accomplishments:

1. *A need for GPS is established.*
2. *GPS hardware and software is acquired.*
3. *Initial GPS training session is completed.*

Program: *Museum Collections*
Coordinator(s): *Steve Floray*

FY95 Accomplishments:

1. A full time curator was hired to provide curatorial services to Zion, Pipe Spring National Monument, and Cedar Breaks National Monument.
2. The park herbarium verification, conducted by Dr. Stanley Welsh of BYU, is approximately half complete.
3. Appropriate material generated through the cultural program has been curated in a proper manner (written, photographic, and artifactual).
4. All lithic material in the collection has been evaluated and analyzed.

Program: *Information Management--Automated Reference System*
Coordinator: *Carolyn Sandlin*

FY95 Accomplishments:

1. Coordinated effort with NBS on this initiative.
2. Received PROCITE reference books from NBS.
3. ZION Resource Management references have been entered by the NBS into the system.
4. Resource Management references are organized in shelves, files, and map drawers.

Program: Research Program
Coordinator(s): Laird Naylor

FY95 Accomplishments:

1. Research needs have been prioritized for Vegetation. A team of RM&R staff from Zion and other Colorado Plateau Parks, in addition to researchers from BYU, convened in March for a Vegetation Scoping Meeting. The purpose of this meeting was to articulate Zion's vegetation needs and priorities for vegetation management. These priorities were then assigned to research, inventory and monitoring, and management actions.
2. One of the three Primary Research Priorities: "Assessing efficacy and appropriateness of alternative techniques for managing alien species" was conducted on a small scale this year by RM&R staff. Experimental exotic plant test plots were set up, comparing effectiveness of two common herbicides, Garlon 4 and Pathfinder. Additionally, the effectiveness of using a Basal spray (without cutting) for Tamarisk was compared to the traditional Cut-Stump method, in a large scale eradication effort along the North Fork of the Virgin River.
3. Research needs for baseline information were explored and are better understood.
4. Three archeological sites in the park were identified as being suitable for archeological study: 42Ws130, 42Ws203, and 42Ws1064. A fourth site on the southeast boundary was identified as a candidate, but is unrecorded at this time.
5. Eighteen researchers contributed to the 1994 Annual Investigator's Report (completed in March 1995). Collecting Permits were issued to all new and ongoing researchers in 1995 and files maintained which included proposals, budgets, progress and final reports, correspondence, etc.
7. A User Agreement Form was established for researchers staying at the Oak Creek Research Camp.
8. A donation box design was approved by park staff and will be implemented in FY96.

Program: Vegetation Management Plan
Coordinator(s): Laurie Kurth, Darla Sidles

FY 95 Accomplishments:

1. A panel of vegetation experts met in March to identify and prioritize vegetation management objectives for the park. Programs discussed included revegetation, rare and endemic species, human impacts, restoration of natural processes, and non-native species. Conference participants included vegetation experts from federal, state, academic, and private institutions.
2. Develop an outline for the vegetation management plan that reflects the strategies identified at the above meeting.
3. Vegetation program priorities were determined for research, inventory and monitoring, and management.

Program: Fire and Resource Management Programs
Coordinator: Laurie Kurth, Art Latterell

FY95 Accomplishments:

1. Hired a position jointly funded between Fire Management & Resource Management, whose responsibilities were divided between Division Clerk duties and Fire Effects Monitoring. A Fire Effects Monitoring Program was set up, and Fire Monitors from the Fire Management Division began implementation of the program.
2. A botanist was hired in the Resource Management Division to develop specific burn objectives and establish a fire effects monitoring program.
3. An archeological survey for a proposed prescribed burn at Stave Spring was conducted.
4. A portion of the East Mesa prescribed burn unit along the east boundary of the park was subjected to a management ignited prescribed fire.

Program: Communities of Special Concern
Coordinator(s): Laurie Kurth, Darla Sidles, Mary Hunnicutt

FY95 Accomplishments:

1. A railing was constructed at Weeping Rock to prevent visitors from trampling (PRAM funded).
2. Vegetation scoping session identified research needs for special vegetation communities.

Program: Administrative History
Coordinator: Jack Burns

FY95 Accomplishments:

1. In response to the '95 Consolidated Project Call, the RMP project statement that addresses the need to prepare an Administrative History was updated and submitted for consideration. Unfortunately, Zion was not selected in the ranking for CRPP to receive funding in FY96 for this project.

Program: Cultural Landscapes, Viewsheds and Structures Preservation
Coordinator(s): Jack Burns, Laird Naylor

FY95 Accomplishments:

1. The issue of evaluating cultural landscapes for National Register eligibility was brought to the park's attention during the early planning phases of the Canyon Transportation System (CTS). A reconnaissance survey (Level 1) of the areas affected by the CTS was partially completed. Watchman and South Campgrounds and the Zion Lodge entry area was determined to be not eligible for National Register listing. Documentation of this evaluation is currently underway. The UTSHPO concurred with the park's determination on eligibility in July.
2. In response to the 1995 Consolidated Call for Natural and Cultural Projects, the existing project statement for cultural landscapes was updated and submitted for consideration. Zion is currently rated as number one to receive funding in 1996 for cultural landscape inventory (CLI) in 1996.
3. Working cooperatively with the Historical Landscape Architect from the Southwest System Support Office, an inquiry was done with an academic institution (University of Arizona) to determine if any students would have an interest in working in Zion to complete the Level 1 survey. This could be done through an existing cooperative agreement between the institution and the NPS. Developing of this strategy is underway.

Program: Paleontological Resources
Coordinator: Laird Naylor

FY95 Accomplishments:

1. Park representatives reviewed and participated in an excavation of a phytosaur by the College of Eastern Utah just beyond the park's southern boundary, furthering the understanding of potential resources within the park.

Program: Quaternary Resources
Coordinator: Laird Naylor

FY95 Accomplishments:

1. A Report on the recent alluvial terraces of the North Fork and the East Fork of the Virgin River prepared by the USGS was reviewed by the park and published by the USGS.
2. Geoarcheological work at archeological site 42WWWs104 has improved understanding of the prehistoric terrace in Parunuweap Canyon.

Program: Geological Resources

Coordinator: Laird Naylor

FY95 Accomplishments:

1. Park staff attended a review session for two new maps in the St. George Basin. At this meeting, preliminary preliminary investigation of the UGS's statewide mapping program was conducted.

NATURAL RESOURCE PROGRAMS

Program: Water Resources

Coordinator: Sheri Fedorchak

1995 Strategy:

1. Supervisory Natural Resource Specialist attended the Water Resources Planning Workshop in Denver (11/94).
2. Continued coordination of graduate student (M.S.) study on stonefly biogeography. Study will be completed in 1996.
3. Floodplain mapping by the WRD was completed in two phases for the lower canyon. Currently floodplain mapping is completed for the entire section between Canyon Junction and the proposed location of the Visitor Transit Center. The site around Birch Creek was also mapped and modeled for floodplains.
4. The WRD also provided hydrological expertise to the park regarding impacts of the various alternatives to road reconstruction on natural resources.

Program: Plant Species of Special Concern

Coordinator(s): Laurie Kurth, Darla Sidles

FY95 Accomplishments:

1. Coordinated Dr. Stanley Welsh's survey for endemic plants in areas to be disturbed by the Transportation System. Identified endemic plant *Eriogonum corymbosum* var. *matthewsiae*, which was in potential area of disturbance. Its habitat was flagged off for protection throughout the construction process.
2. DNA analysis was conducted by Dr. Harvey Ballard, University of Wisconsin, for a Violet previously believed to be *Viola nephrophylla*. The results identified a significant discovery of the disjunct plant *Viola Clauseniana*.
As a result of the significance of the finding, the plant was given Category 2 status.
3. Work conducted through the Utah Interagency Conservation Committee (UICC) resulted in compilation of all Utah National Park T & E, rare and endemic vegetation concerns and priorities for Conservation Agreements.

Program: Peregrine Falcon Monitoring
Coordinator: David Sinton

FY95 Accomplishments:

1. All 13 territories in the park were monitored, and 11 of these territories produced young. From the successful eyries, 29 fledglings were counted. One territory failed, and the results at another were unknown. No new territories were discovered; however, wailing from a peregrine was heard in late August in upper Goose Creek. The territory on the Cedar Breaks NM/Dixie NF boundary was monitored by UDWR staff, but its reproductive results were unknown. Raptor monitoring was conducted one day at Pipe Spring NM to document observations and record historic nesting sites for species such as the Cooper's Hawk.
2. Potential human impacts to peregrine falcons from low-flying aircraft and technical climbing were monitored and mitigated through documentation and reporting of low-flying aircraft and technical climbing closures during the nesting season. Low-flying aircraft includes approved uses such as helicopter usage for maintenance work on repeaters on mesa tops and flights associated with fire monitoring and suppression. In these cases, pilots are informed about locations of territories and asked to avoid flying in proximity to them.
3. A final report was produced by the Biological Technician, documenting monitoring efforts and results. Additionally, a separate report was produced for the first time in Zion's history on sightings in 1995 of raptors such as accipiters (including a goshawk nest), golden eagles, and buteos.
4. A field session was held for interpretive staff at the Mountain of the Sun territory, allowing participants to view a peregrine chick in its nest through a spotting scope.
5. The Natural Resource Specialist attended the interagency peregrine falcon meeting in spring, 1995 where possible de-listing procedures were discussed and state-wide data on occupancy and productivity were compiled.
6. 1995 was the first year a term employee was hired as the Biological Technician for peregrine falcon monitoring. This same employee will conduct monitoring in FY96, allowing for continuity and enhancement within the program.

Program: Mexican Spotted Owl Inventory, Monitoring and Research
Coordinator: Mary Hunnicutt, Sheri Fedorchak

FY95 Accomplishments:

1. Twenty Mexican spotted owl territories in the park were monitored by a Biological Technician, assisted by backcountry personnel and other resource management personnel. Adult pairs were located at 9 territories. Single adults were located at 6 territories. Reproduction was observed at 3 territories, resulting in 8 fledged young. One pair fledged 3 young, and photographs were taken of the young owls. Owl pellets were collected at 3 territories. No nests were located.
2. The Interagency MSO Working Group Meeting was co-hosted by Zion NP and Kate Grandison of the USFS. Four technical presentations were made, including ones by David Willey and Sarah Riukevich, and Colorado Plateau-wide summaries were made on results of MSO surveys by the various agency representatives. Frank Howe of UDWR distributed the Utah MSO database. A field trip in falling snow was made to the Twin Canyon Territory to see a radio-tagged juvenile.
3. FY95 was the first year of funding for Zion through the Natural Resources Preservation and Protection (NRPP) program. Since Zion has the longest-standing database on MSO productivity among Colorado Plateau parks, monitoring within the park was a high priority for the overall program.

Program: Virgin spinedace
Coordinator: Mary Hunnicutt, Sheri Fedorchak

FY95 Accomplishments:

1. *The Supervisory Natural Resource Specialist served as a member of the Virgin spinedace Conservation Team and attended meetings in which the Conservation Agreement and Strategy was drafted. The Virgin spinedace Conservation Agreement was signed in April, 1995. At this time, the Virgin Spinedace has not been listed as threatened or endangered, and its conservation is directed by the Conservation Agreement and Strategy.*
2. *Virgin spinedace, as well as other native and non-native fish, in the North and East Forks of the Virgin River were sampled through electro-shocking in the fall of 1995 with the assistance of UDWR and Hardy, Addley, and Associates.*
3. *A Cooperative, Competitive Research (CCR) proposal was drafted and submitted for consideration to the Intermountain Field Area which would enable the park to conduct detailed studies on the Virgin spinedace and their prey species.*
4. *Handled Freedom of Information Act (FOIA) requests from the Sierra Club Legal Defense Fund, on behalf of the Southern Utah Wilderness Alliance, regarding documents pertaining to development of the Conservation Agreement for the Virgin spinedace.*

Program: Southwestern Willow Flycatcher Survey

Coordinator: Mary Hunnicutt

FY95 Accomplishments:

1. On June 7-8 NPS and UDWR personnel used the USFWS protocol to survey lower Parunuweap where a singing male was sighted in 1994. However, no observations were made. Results were reported to UDWR, the USFWS in Phoenix and the NPS in Flagstaff.

Program: Monitoring of Desert Tortoise

Coordinator: Mary Hunnicutt

FY95 Accomplishments:

1. *Two visits were made to the desert tortoise habitat in June and September, 1995. On both occasions, fresh tortoise sign (tracks, scat) were seen by the dens on BLM and NPS lands. During the September visit, one it was seen at the entrance to the BLM den. No signs of recent human disturbance were noted. A log was established to record results of visits to tortoise habitat. Information gathered includes date, time, weather, location of any observations, signs of human disturbance, and the names of observers.*

Program: Backcountry Management

Coordinator: Darla Sidles

FY95 Accomplishments:

1. Wrote a Competitive Cooperative Research (CCR) Proposal for \$20,000 to gather natural and cultural resource baseline information for incorporation into the VERP Process.
2. A Backcountry Campsite Monitoring Form was finalized in September. A multi-disciplined team of Backcountry and Resource Management staff devised the new form, the result of an analysis of past inventory systems, and a synthesis of the best aspects of each system. The new form was used to monitor backcountry conditions in the Narrows this autumn. Campsite inventories shall be conducted, using this new form, in LaVerkin Creek in FY96.
3. Wrote a proposal and began implementation of a Designated Campsite System for the LaVerkin Creek Drainage, including Hop Valley, Timber Creek, Bear Trap Creek, and Willis Creek. Work involved: Analysis of existing campsites, site location of designated sites, allocation of sites to adequately "distribute" use throughout the area, baseline photo documentation of selected designated sites, and campsite sign erection at each designated site. A PRAM Funding proposal was also written for \$8,000, addressing restoration and revegetation of social trails and campsites not selected for site designation.

Program: Exotic Vegetation Species
Coordinator: Laurie Kurth, Darla Sidles

FY95 Accomplishments:

1. One of the highest priorities identified during the Vegetation Scoping Session (February 1995) was the status of exotic vegetation in the park. Therefore, exotic vegetation was the focus for the '95 season.
2. A position description was prepared, and two GS-5 seasonal Biological Technicians and one SCA volunteer were hired for six-month positions.
3. A Target exotic plant species list was developed, which prioritized exotic plants in terms of their impact and threat to park resources.
4. The crew of three Bio Techs, as well as the part-time assistance of Backcountry Rangers, spent a majority of the field season identifying, mapping, and inventorying exotic plant species parkwide. Exotic plant locations, extent of range, and method of treatment were systematically documented on maps and site forms, for future inclusion into GIS.

Program: Revegetation Program
Coordinator(s): Laurie Kurth, Darla Sidles

FY95 Accomplishments:

1. Revegetation efforts for FY95 focused primarily on the Bike Path portion of the Transportation System. Continued photo documentation monitoring, consistent eradication of exotic plants, and initiation of a revegetation and visitor impacts monitoring scheme was implemented.
2. Revegetation maintenance was continued for the Eastside Co-op and Clear Creek Bridge project, begun in 1992. Eradication of exotic plants was the chief focus in FY95. Native plants have become well-established, and exotics are becoming fewer each year.
3. Smaller, one day to one week revegetation projects were completed in Kolob Canyons, Cedar Breaks and Pipe Spring.
4. The Denver Service Center has become involved with the remainder of the Transportation System revegetation. They have been put in touch with a potential local nursery supplier, as well as a Revegetation Specialist from GLAC, who will detail to Zion for preparation of a Revegetation Plan.
5. A PRAM (Preservation, Restoration, and Mitigation) funding proposal for \$8,000 was submitted for Restoration of LaVerkin Creek. These funds would be used to rehabilitate campsites and social trails that were not selected as a part of the Designated Campsite system, to begin in 1996. A partnership was developed with Ballard's Nursery. A revegetation position description was provided to the Maintenance Division.

Program: Integrated Pest Management
Coordinator(s): Laurie Kurth, Maintenance Division

FY95 Accomplishments:

1. The park responded to the 1994 Pesticide Use Log call in February. In addition, the park identified what pesticides were being proposed for use in 1995.

Program: Bighorn Sheep Habitat Study
Coordinator: Sheri Fedorchak

FY95 Accomplishments:

1. Fourteen bighorn sheep were captured via net-gun and helicopter in December, 1995. Radio collars were applied to 13 animals. Biological samples were collected by wildlife veterinarians for disease studies and genetic analyses.
2. The Natural Resource Specialist and bighorn sheep graduate student attended the NRPP meeting in August, 1995 in which budget strategies were discussed for captures, translocations, disease studies, etc. Money (\$15,800) was earmarked for Zion NP to carry out the planned capture effort, conduct studies on disease and genetics, and fund graduate work on a GIS-based habitat model.
3. Bighorns were tracked intermittently throughout the year by graduate students, NPS staff, and volunteer labor to gather data for the GIS-based habitat model. Another graduate student continued work on vigilance behavior in sheep.
4. Helicopter census of bighorns was conducted using a Bureau of Reclamation pilot.

Program: Mule Deer Disease Study
Coordinator(s): Mary Hunnicutt, Sheri Fedorchak

FY95 Accomplishments:

1. Graduate student collected eye swabs and eye worms from inner eyelids of hunter-killed, road-killed and live-capture deer from southern Utah and Wyoming for the second field season and completed preliminary analyses.
2. Captured 21 live deer in Zion Canyon and analyzed blood samples and eye swabs for disease testing.
3. Began lab trials at the University of Wyoming on the transmission of keratoconjunctivitis from mule deer to domestic sheep.
 Surveyed the condition of the deer herd in Zion Canyon and recorded observations during winter months until mid-February, 1995.
5. Conducted necropsies on 9 deer which died of natural causes or human-caused injuries (automobile accidents) for disease analysis at the Wyoming State Veterinary Laboratory.

Program: Wildlife Species of Special Concern

Coordinator: Mary Hunnicutt

FY95 Accomplishments:

1. For the first time, a separate report was generated for the park on raptors other than peregrine falcons and Mexican spotted owls. All observations of accipiters, buteos, and owls in 1995 were noted and known nests were mapped. This included the first documentation of a goshawk nest which fledged 2 young in a prescribed burn unit.
2. Amphibian reproduction in Oak Creek and several other sites was studied by a volunteer who developed a monitoring protocol. The same volunteer also developed a database of all known museum records for the park and Springdale, Utah.
3. Neotropical birds were surveyed through the annual count by UDWR in Parunuweap Canyon. Retired NPS scientist Ro Wauer also began drafting a revised edition of The Birds of Zion National Park.
4. The NBS included Zion in their Colorado Plateau-wide study on small mammals by conducting 2 weeks of surveys in the summer of 1995. Hantavirus sampling was conducted as a part of the study.
5. Invertebrates: ants thought to be a non-native, pest species were collected in Zion Canyon for a researcher from the Department of Agriculture. The ants were determined to be native species. Aquatic invertebrates were intensively sampled in portions of the North and East Forks of the Virgin River and tributaries by a graduate student studying stoneflies. RM personnel and volunteers continue to collect data for the study which concludes in 1996.

Program: Air Quality Monitoring

Coordinator: Sheri Fedorchak

FY95 Accomplishments:

1. RM personnel facilitated a visit by contractors from CSU for the AQD and NPS in which all historical data on AQ monitoring was summarized for inclusion in a Colorado Plateau-wide report titled, The Status of Air Quality in National Parks and Monuments of the Colorado Plateau.
2. Ozone sampling was conducted at the headquarters weather station in FY95. The samples were shipped to a laboratory and analyses will be paid for by the Air Quality Division. AQD produced a written report in October, 1995 on preliminary results of the ozone monitoring for all participating parks.

Program: *Sound Monitoring*
Coordinator: *Sheri Fedorchak*

5-Year Vision:

Baseline data on sound has been gathered in the frontcountry and backcountry of Zion NP. Data are analyzed and have been incorporated into the VERP process for the GMP. Mitigation measures such as controlling aircraft use are in place, and sound levels are not exceeded beyond acceptable limits more than 10% of the time within one year. Places exist in the park where solitude and silence can be found.

FY95 Accomplishments:

1. Baseline data on sound levels was gathered using new technology. Sampling was done through volunteer labor and park staff support. Wes Henry supervised the project and will oversee data analyses.

Program: Cultural Resource Management Program
Coordinator(s): Jack Burns, Laird Naylor

FY95 Accomplishments:

1. While the cultural program is not fully funded through ONPS the number of FTEs in FY95 exceeded those identified in the 5-year strategy by one position. Lapse money in 1994 supplemented soft funds to extend two cultural positions in FY95. Presently, two cultural positions are fully funded through ONPS dollars.
2. Out of the Professionalization initiative, the temporary GS-7/1 archeologist position was converted to permanent, full time in February.
3. A seasonal (1040 hr.) GS-5/1 cultural technician position was created and filled in March. This appointment was changed to temporary (24/36) status later in the season.
4. The existing temporary GS-7/1 archeologist position was converted to a Term appointment in March.
5. Funding through the Cultural Cyclic program was secured to fund the two temporary positions. This was used to implement the archeological site monitoring and stabilization programs in addition to other cultural resource management activities.
6. A Cultural Resource-Management Assessment Program (CR-MAP) profile form was completed and submitted. The results of the profile included the need for 10.73 additional FTEs and 17.3 FTEs. This was based on information that identified what was needed to operate a comprehensive base funded cultural program.

Program: Archeological Site Monitoring
Coordinator(s): Matthew Betenson

FY95 Accomplishments:

1. Thirty-seven sites are intensively and formally monitored. Ten of these are monitored on a monthly basis by volunteers. Thirteen additional sites were added to the program this year, all of them to be monitored annually. An average of four sites per quarter were added to the monitoring program during the field season.
2. An annual report was prepared for monitoring conducted during FY 94, and was distributed to various surrounding area agencies for their use.
3. Most impacts noted were minor, but two rock art sites were impacted by graffiti and one reconstructed prehistoric structure was badly damaged. Law enforcement rangers investigated incidences of vandalism before they were cleaned up.
4. Visitor register boxes were installed at sites 42Ws69 and 42Ws153.

Program: Ethnographic Research
Coordinator(s): Jack Burns, Laird Naylor

FY95 Accomplishments:

1. Funds made available in 1994 for an ethnographic overview and assessment enabled field work in 1995. In addition, a number of meetings were held to discuss management issues and logistics.
2. Fieldwork consisted of interviews and site visits to selected archeological sites with tribal representatives (elders) of the Southern Paiute tribes. The park's cultural resource management specialist, who serves as the COTR for the study, accompanied researchers and tribal elders during the interviews.
3. A draft ethnographic report was submitted to the park in July. Review of the document generated a letter to the researcher addressing a number of concerns the COTR and cultural staff felt needed to be addressed.
4. In September, a meeting was held at the University of Arizona in Tucson with the researchers, COTR and the CPSSO ethnographer to discuss changes and additions needed to the ethnographic report. Due to this, a second no-cost time extension was requested by the researcher. Originally, the a final report was due September 1, 1995. An extension was granted and we hope to have a final "draft" report for review by April 30, 1996.

Program: Archeological Site Data Recovery
Coordinator(s): Laird Naylor

FY95 Accomplishments:

1. A data recovery plan for sites 42Ws104, 149, 2590, and 2804 have been prepared and approved by the park service, SHPO, and the Advisory Council. These sites are suffering from serious erosion.
2. A data recovery plan was written to address the impacts of a bus maintenance facility on site 42Ws1763.
3. A data recovery plan has been written and excavation is complete at 42Ws2864, a site in the path of construction of the Bike Path.
4. Data recovery efforts are nearing completion at 42Ws104.

Program: Inventory of Archeological Resources
Coordinator(s): Laird Naylor, Barbara Frank

FY95 Accomplishments:

1. Seven known sites have been relocated and information about them updated. Seventeen previously unrecorded sites have been identified and documented.
2. Small scale intensive surveys conducted for compliance related projects include two surveys for Phase II of the Transportation System and the Stave Spring Survey. A small survey was conducted for a private landowner adjacent to the park as part of the NAGPRA project.
3. Archeological inventory is progressing on two relatively large surveys undertaken to fulfill basic inventory needs. These are the Historic Base Map survey in Zion Canyon and a survey along the length of the East Entrance highway.
4. A large site relocation project in Parunuweap Canyon was completed. A draft National Register archeological district nomination has been prepared for the canyon by a contractor.
5. Final reports were prepared for surveys completed during FY94..

Program: American Indian Consultation Plan
Coordinator: Jack Burns

FY95 Accomplishments:

1. The Cultural Resource Program Coordinator and Cultural Resource Specialist from the Kaibab Tribe made a visit to the park to discuss the cultural program. Program components such as archeological site monitoring, site stabilization, and our Site Disclosure Policy were discussed. A tour of the Park's collection facility was also done.
2. As part of the Ethnographic Overview and Assessment study site visits to selected archeological sites were done by tribal elders, researchers and park staff.

Program: Native American Graves Protection and Repatriation Act

Coordinator: Jack Burns

FY95 Accomplishments:

1. In compliance with NAGPRA an inventory of human remains and associated funerary objects, currently curated in the park, was submitted to the CPSSO curator. This was sent on to the NAGPRA coordinator in Washington. Work on this summary included determining the provenience of the remains of six individuals housed in the park and three individuals housed at the Museum of Northern Arizona (MNA). This was done by completing a search of archival documents and field work. Three archeological sites were recorded where Native American burials were removed in the 1930s and 1960s. Two of these burials are located outside of park boundaries on private land.
2. Based on data from the summary, 29 Indian tribes were contacted providing information on what is currently housed in the park and at MNA. This was also done to initiate consultation with tribes who claim cultural affiliation with Zion and express an interest. Follow up phone calls were made to all tribes following the letter to ask if they received the letter, have an interest and to inform them money was available if they should desire to come to the park.
3. Tribal members from the Kaibab Paiute tribe were given a tour of the Park's collection facility to view what cultural material is currently stored. This was not a visit as part of NAGPRA consultation but rather as part of an orientation visit to the park to learn more about our cultural program.

Program: Cultural Resource Public Awareness and Education

Coordinator(s): Sheri Fedorchak, Matthew Betenson

FY95 Accomplishments:

1. An artifact "tool kit" was developed for educational uses. This was used as a teaching aid during Utah Prehistory Week and at a field trip for high school students.
 2. 1995 Utah Prehistory Week activities included a series of "hands-on" demonstrations for local school children demonstrating general prehistoric lifeways combined with a strong conservation message. Prehistoric subsistence techniques and skills were demonstrated for the general public, along with evening slide programs on cultural resource subjects.
 3. A slide program on the archeology of Zion was developed. This program and one on a recent stabilization project were presented to local amateur archeological chapters. Members of these organizations were encouraged to volunteer with Zion's CRM program.
 4. A cooperative effort between the National Park Service, BLM, and Forest Service CRM personnel provided a short course in archeological techniques for 100 high school students at a previously recorded site in Zion.
 5. Replied in writing and handled telephone requests for interpretive information related to resource management.
 6. Developed an interpretive/CRM liaison in which information was shared with interpreters who were seeking information for their programs.
- A half-day field session on ecological concepts was made to a Dixie High School class. This was taught in conjunction with an interpretive ranger.

YEAR END REPORT
FRONTCOUNTRY DISTRICT
1995

Law Enforcement/Dispatch

An adequate budget (or the lack thereof) continued to challenge District personnel, and forced them to again utilize "creative" and somewhat circumspect funding alternatives in order to adequately protect the visitor and resources of this park. There was only sufficient ONPS funding for four seasonal patrol and two seasonal dispatch positions, leaving three patrol and two dispatchers to be funded entirely from tunnel revenue.

With an increase in visitation of 6%, the overall case incident load continued to rise, and this year rangers responded to 3,979 incidents. An abbreviated statistical breakdown is as follows:

- 1,533 citations issued - an increase of 8% over 1994
- 38 arrests - an increase of 5% over 1994

District patrol staff investigated:

- 32 Part I crimes (up 100%)
- 283 Part II crimes (up 320%)
- 86 drug violations (up 65%)
- 16 DUI's (up 45%)
- 66 liquor law violations (up 74%)
- 478 natural resource violations (up 46%)
- 28 weapons cases (up 8%)
- 25 vandalism cases (up 56%)
- 14 burglary cases (up 1300%)

Additionally, patrol responded to:

- 1,530 service incidents (up 42%)
- 75 outside agency assists (up 44%)
- 247 medicals (up 7%)

As the above statistics attest, the park is not immune from criminal activity and it appears that this type of activity is on the rise not only regionally, but in the park as well.

Frontcountry continues to demand the most from its rangers as statistically frontcountry patrol responded to 364 cases/ranger, while the Kolob and Backcountry staff had 32 cases/ranger.

The patrol staff was perhaps our best yet. All patrol rangers had experience in NPS frontcountry patrol operations and worked very hard for the park in their efforts to protect its visitors and resources. We were able to convert one seasonal position to Subject to Furlough,

and four others to Term. The remaining three positions were 1040 hr. seasonals, a position that is two weeks to a month too short for the visitation patterns of Zion.

This year, in response to the opening of the new Pah Roos trail, frontcountry patrol was able to combine a bike patrol program with its frontcountry trail patrol program on an frequent basis from June through October. Bike patrols were carried out on the Pah Roos trail as well as in the up-canyon parking lots, picnic areas and in the campgrounds. On foot, patrol rangers covered over 100 miles of frontcountry trails.

'95 saw the retirement of the US Magistrate in Cedar City and the selection of a new Magistrate based out of St. George. This development has proven very difficult for the park from a coverage and overtime standpoint as each arrestee ties up two patrol rangers for the 4-5 hour jail trip, and another 6 hours the next day for the initial appearance in St. George. If staff is reduced in '96, we will have to begin using the Washington County jail in St. George. While this facility will cost the park \$75/night/prisoner, it will cut transport (and therefore overtime) significantly.

1995 had a variety of incidents some of which were unusual, but all of which point toward increasing threats to the park, its visitors and resources:

The first deployment of pepper gas by a patrol ranger occurred this year. In this case, a patrol ranger and county deputy were attempting to remove a combative DUI suspect from his vehicle. After repeated commands to exit the vehicle went unheeded, gas was inserted into the vehicle, and the suspect successfully removed and arrested.

Patrol rangers played a critical role in assisting the County in searching for and finally apprehending two individuals who had stolen a vehicle and then shot at a County deputy during the ensuing pursuit. This was the first time in many years that firearms had been used against a local officer and luckily the patrol car was able to stop all rounds.

A mentally disturbed individual threatened the Zion Lodge manager with a knife after being removed from employment there.

Patrol intercepted a major resource case in which German citizens were caught transporting Central American and US native plants and minerals out of the country. Many of the plants were from this area.

"Phase One" of the firearms range improvements was completed, and the park can take a measure of pride in the fact that it now has a range with fifteen pistol/revolver turning targets, and six rifle targets. Firearms qualifications were increased from twice yearly to four times a year, and monthly tactical firearms training was begun. The range is also now used by local agents for the Internal Revenue Service, and the Bureau of Land Management.

The park's annual 40 hour law enforcement refresher was again very successful and has established somewhat of a reputation for quality. This year's refresher was attended by rangers from six parks, the IRS and BLM, and utilized numerous instructors from outside agencies.

The park Dispatch Center continued to increase its professional capabilities and now has user agreements in place with BRCA, CANY, CEBR and CARE. Numerous improvements were achieved including conversion of the streamflow gauge to remote access capability, a monthly synopsis of park law enforcement activities for parkwide distribution, the establishment of a service contract for the BCI terminal, a much closer relationship with the US Magistrate's Office, revamped Lost and Found policy for Lodge items. Two of the four seasonal positions were converted to Term. Serving as the frontline for emergency operations, in this past year dispatch has also coordinated the park's response to the landslide, government shutdowns and a number of other unusual issues, simultaneously dealing with the media, park neighbors and an oftentimes angry public.

EMS and SAR

Patrol staff responded to:

- 247 EMS incidents (+7%)
- 35 Advanced Life Support cases (+9%)
- 17 Advanced Cardiac Life Support cases (+13%)
- 7 "Saves" (+40%)
- 52 ambulance transports (-18%)

Twentytwo (+22%) of the 247 EMS incidents were assists to neighboring agencies, primarily Springdale.

An EMT-Basic refresher was conducted for rangers from ZION, BRCA, CEBR and GRCA.

The Frontcountry District Ranger was elected to serve as Vice-President on the Washington County Emergency Medical Services Council. He continues to represent Southern Utah on the Utah State EMT Subcommittee.

With the assistance of Utah state funding, two automatic external defibrillators were purchased and EMT-Defibrillation certification was provided to those rangers successfully challenging the course and exam. Additionally a new EMT-Epinephrine level of certification was established for Zion's rangers as well.

Of the park's 31 (+40%) search and rescues, 18 (+28%) occurred in the frontcountry. The SAR Van was made operational, and a 40 hour Basic Technical Rescue course conducted in May. The Frontcountry District Ranger helped instruct a region-wide technical rescue course in Canyonlands NP in April, a course which was also attended by two Zion employees as students. A technical rescue refresher course was conducted in October, and since then the park's rescue team has been meeting on a monthly basis for technical rescue training.

Fee Collection

1995 was a banner year for the park's fee program. New ground was broken when the park remitted over 3 million dollars in fees collected. An overview is as follows:

- Total fees collected:
 - ▶ 3.09 million (+7%) - includes tunnel revenue
 - ▶ 2.82 million (+7%) - entrance/camping fees
- Golden Eagle Passes (+14%)
- Tunnel Escorts (+2%)
- Park Passes (+39%)
- Golden Age Passes (+10%)
- Camping (+10%)
- Entrance Fees (+6%)

The fee program was hindered by a loss of personnel this year when the supervisory park ranger transferred to GRTE and one of the two lead park rangers accepted a job in another Division here at Zion. The remaining lead fee ranger filled in as the acting supervisor from October - December.

This year the tunnel program was audited by a team from the Office of Inspector General. This team essentially validated the program as when the final report was received, they had only made recommendations for two relatively insignificant adjustments.

In response to the previous year's "Operation Safe Check", the fee program added a third party to the campground remittance process, thus further tightening what was already a very secure operation.

Other improvements included using recently acquired computer capability to design a new park pass, installing a security alarm system in Watchman Station, establishing a new and much improved Camp Host site in South Campground, and installing telephones at both Camp Host sites.

1995 BACKCOUNTRY DISTRICT
ANNUAL REPORT

The year 1995 proved to be an extremely busy year for backcountry personnel at Zion and at Kolob Canyons. With no concomitant increases in backcountry staff, backcountry rangers provided increased assistance to the Resource Management & Research, Maintenance, and Interpretive Divisions, as well as the Fire Management section of the Visitor & Resource Protection Division.

Scouts, Volunteers, VIPs, and SCAs

Backcountry personnel from Zion and Kolob Canyons met with several hundred Boy Scout leaders at roundtable meetings in St. George, Washington, Kanab, and Cedar City during the winter and spring months. The main objectives of the meetings with the scout leaders were to discuss the park's current backcountry rules and regulations and to familiarize the leaders with hiking and camping techniques designed to preserve and protect park resources. The opportunity was used to encourage scout participation in service projects within the park, as well as participation in the annual March For Parks.

Backcountry rangers worked closely with local scouts and scout leaders to accomplish a variety of service projects during the course of the year. These projects included painting Lava Point Campground garbage cans, roadside litter pickups along the Kolob Terrace Road, water bar construction on Barney's and the Taylor Creek Trails, and rehabilitation of several other backcountry trails in Kolob Canyons and Zion.

The Backcountry District Ranger worked with the National Outdoor Leadership School (NOLS) in Lander, Wyoming, to plan and coordinate a Master's course sponsored by Zion National Park. The one-week course was held in Zion in April and was attended by some sixteen participants representing several federal government land management agencies (NPS, BLM, and FS), state government land management agencies, the Boy Scouts of America, and private environmental organizations. Both the Zion backcountry ranger and the Zion-sponsored Boy Scout leader who attended were certified as NOLS Master Instructors and are now capable of providing minimum impact, leave no trace camping and hiking instruction to scouts and other Zion National Park users.

A three-day course for local youths was conducted by backcountry personnel and other local experts in July. The course included instruction in rock climbing, leave no trace hiking and camping, and backcountry travel techniques.

Backcountry personnel worked with local volunteers to help plan and coordinate the 1995 March For Parks which coincided with Earth

Day and the dedication of the New Pa'Rus Trail. The event raised about \$2,000.

Law Enforcement

Frequent law enforcement patrols, both day and night, along the Kolob Terrace Road and in other park areas with known poaching potential resulted in the prevention and detection of hunting activities within park boundaries. These illegal activities included the possession of loaded firearms, spotlighting, hunting, improper transport, and unlawful possession. Two cases were resolved in U.S. Magistrate's Court with dispositions favorable to the government and a third case is currently pending. Several other incidents resulted in violation notices being issued and fines being paid by the involved parties.

The wildlife simulator was employed at various locations along the Kolob Terrace Road during the several 1995 hunting seasons. The "word was out" regarding use of the simulator, which might help to explain why no shots were taken at it during the course of the hunting seasons. Though its deterrent effect is difficult to substantiate, knowledge of the simulator's use may have helped to convince some potential park poachers to hunt legally outside the park's boundaries.

Cooperative efforts among backcountry personnel, USFWS personnel, and Utah Wildlife Conservation Officers from Washington and Iron Counties helped to provide Zion National Park, including the Kolob Canyons area, with increased protection from illegal hunting activities.

Backcountry personnel planned, coordinated, and helped present a hunting/poaching seminar for all Zion and Cedar Breaks protection rangers. Participating in the seminar this year were two Utah Wildlife Conservation Officers, a USFWS Special Agent, an Iron County Sheriff's Deputy, and two dogs specially trained to detect and help apprehend poachers.

To help deal more effectively with increasing traffic on and along the Kolob Terrace Road, backcountry road patrol vehicles continued to be upgraded so that three backcountry vehicles are now fully equipped with law enforcement packages.

Backcountry rangers reported a total of 203 foot and horse patrols during the year 1995, an increase of 43 patrols over 1994. These patrols represent a total of 2,169 miles, 1,940 by foot and 229 on horseback, compared with a total of 1,640 foot and horse patrol miles in 1994. Some of the increase in the number of patrols can be attributed to the longer seasons worked by backcountry term and

seasonal employees in 1995.

A number of park archeological sites were monitored on a relatively frequent basis during backcountry foot patrols to detect pothunters and pothunting.

Zion backcountry rangers issued a total of 46 violation notices in 1995. Of this total, 23 were issued for resource-related violations not associated with hunting; 7 were issued for hunting/poaching and/or illegal transport of firearms; 9 were issued for traffic offenses; 2 were issued for drug-related offenses, and; 5 were issued for miscellaneous offenses. Fifty-eight courtesy tags were issued during the course of the year. Of this total, 25 were issued for resource-related offenses; 21, almost all of which involved the November and December government shutdowns, were issued for violations of closures; 8 were issued for traffic offenses, and; 4 were issued for illegal transport of firearms.

Backcountry patrols conducted by Kolob Canyons backcountry personnel increased by seven from 64 in 1994 to 71 in 1995. Sixty-seven case incident reports were filed in 1995 compared with 87 filed in 1994. This decrease can most likely be attributed to a reduction in Kolob Canyons road patrols rather than a reduction in the number of incidents which actually occurred. Most noteworthy among the incidents occurring at Kolob during the last year were a rash of car burglaries which resulted in a sizeable loss of and damage to private property.

Twenty-six violation notices and 48 courtesy tags were issued in the Kolob Canyons section of the park in 1995.

SAR and EMS

A total of 30 SARs occurred in the park in 1995, 12 of which occurred in the backcountry. One of these SARs involved a large number of youths and the participation of a large cadre of rescuers was necessary to bring the incident to a satisfactory conclusion. Backcountry personnel participated in 6 SARs which occurred in the frontcountry.

A variety of EMS incidents occurred in the backcountry ranging from relatively minor to more serious in nature. None of the backcountry EMS incidents resulted in a loss of life.

Resources Management

Both Zion and Kolob Canyons backcountry staffs were heavily involved in resource management projects throughout the summer and

fall. Funding for a portion of the salaries of backcountry term and seasonal employees was provided by the Resource Management & Research Division.

-Trails

Restoration and rehabilitation of a number of park trails was accomplished by backcountry rangers with the help of scout and other volunteer groups. Some of the trails receiving attention were Barney's, LaVerkin, Taylor Creek, West Rim, Wildcat Canyon, and Left Fork.

-Trailheads

Damage to the backcountry trailhead bulletin boards caused by weather and vandalism was repaired and outdated, damaged, and faded informational materials were replaced.

Additional small informational signs were placed at some of the less used trailheads such as Grapevine and Camp Creek. These signs contain park regulations, safety information, and a map depicting the correct trail(s) or route(s).

-Routes

The Zion Narrows and the Left Fork (Subway) continued to be the two most popular park backcountry destinations. For that reason, backcountry patrols were conducted most frequently in these two areas throughout the busy season.

Two signs were placed in the Left Fork drainage to alert hikers to the "hikeout" route leading to the Left Fork Trailhead. These signs helped to reduce the number of overdue incidents which occasionally resulted when hikers inadvertently passed by the route out of the drainage and wound up hopelessly confused in the Right Fork drainage.

A three-day patrol of Parunuweap Canyon was conducted by backcountry rangers early in the season to acquaint and reacquaint personnel with this Research Natural Area presently closed to visitors. During this patrol, resource management projects, SAR training, and archeological site examinations were conducted. Old car tires which had washed into the drainage from the Mt. Carmel area years before were gathered up for eventual removal by helicopter.

-Campsites

Backcountry personnel from Zion and Kolob Canyons were heavily involved in changing the Kolob zone camping system to a designated campsite system. The new campsites were selected, measured and otherwise evaluated, and marked with Carsonite posts. The designated campsite system promises to offer increased protection for the park's resources and decreased confusion for prospective

Kolob campers.

The twelve designated Narrows campsites were monitored during the course of the year and, at the end of the season, were evaluated for adverse impacts.

-Campgrounds

The Lava Point Campground was occupied by campers 146 nights during the season and all six campsites were occupied during 19 of those nights. The campsites occupied during the season numbered 559 and the number of camper nights totaled 1,672.

The Lava Point Campground was spruced up as time and opportunity allowed. The garbage cans at each campsite and the exterior of the campground restrooms were repainted by Boy Scouts and other volunteers.

Several bear sightings in the Lava Point area resulted in increased emphasis on regular garbage collection and proper disposal by backcountry rangers. Bear notices were placed on the campground's bulletin board and campers were encouraged to maintain clean campsites.

Though there were at least two reports of bears scattering garbage at nearby cabins, the Lava Point Campground recorded only one such incident during the course of the year.

-Fencing

Fencing, which was laid down the previous fall at several locations along the Kolob Terrace Road to prevent damage by winter snows, was reerected and repaired in the spring by backcountry rangers.

Since there is no longer a park "fence crew", backcountry rangers attempted to provide maintenance personnel with park fencing help whenever possible. The park roads and trails foreman was kept apprised of fencing needs as those needs became known.

To help reduce increased unlawful four-wheeler and mountain bike intrusions into the park, particularly on the east side, recommendations were made to eliminate old "letdown" gates and replace hiker's gates with mazes. Some of these projects have been completed.

-Grazing

The District Ranger was able to assist the U.S. Solicitor in researching and obtaining all relevant titles chains existent in the Washington County Recorder's Office. The Solicitor's report, completed in the spring, answered longstanding questions regarding reserved grazing rights on certain park inholdings.

In midsummer, the Assistant United States Attorney met with Zion personnel to discuss and evaluate cattle grazing, cattle drives, and other issues relevant to Zion's backcountry.

In late fall, backcountry rangers finally located and were able to dispatch two cows in trespass in the area of Trail Canyon. Numerous unsuccessful attempts had been made to find and remove these cows.

Cattle trespass on the east side of the park ceased to present a problem in 1995 because the cattle owner, who in previous years had grazed his cattle on Ponderosa lands, decided to pasture them elsewhere.

-Vegetation

Resource management personnel were assisted by backcountry rangers with "reveg" projects along the Pa'Rus Trail and at selected frontcountry pullouts.

Backcountry personnel in Zion and Kolob Canyons helped remove Russian thistle, mullen, and other exotics from numerous locations throughout the park.

-Wildlife

Two backcountry rangers successfully completed training designed to teach them about the Mexican Spotted Owl. Subsequently, they were able to assist resource management personnel with Mexican Spotted Owl patrols. Backcountry personnel also assisted with locating and monitoring peregrine falcon nesting sites in backcountry areas.

Backcountry rangers assisted resource management personnel in capturing and tagging mule deer in Watchground Campground and along Canyon Drive.

Fire Management

Fire weather and fire lookout responsibilities were shouldered by backcountry rangers for most of the summer. The automated fire weather system became operational after midsummer.

When schedules permitted, backcountry rangers participated in prescribed burns within the park.

Interpretation

More than 5,620 interpretive hours were logged by rangers at the Kolob Canyons Visitor Center desk and more than 77 roving interpretive hours were logged during Kolob Canyons' backcountry

patrols.

One offsite geology interpretive program was presented by Kolob Canyons personnel for the Cedar City Kiwanis club.

Interpretive projects completed in 1995 included, but were not limited to, six outside exhibits, interview with Olaf Larson to obtain cultural history, upgrading the slide file, and editing park guides and travel information.

Interpretive personnel were assisted by backcountry rangers two afternoons a week issuing Narrows and other backcountry permits. From 8:00 to 9:00 each weekday morning, backcountry personnel provided assistance by answering any visitors' questions that could not be answered by interpretive personnel.

Miscellaneous

-Equipment and Supplies

Due to carryover funds from fiscal year 1994, much-needed equipment and supplies were purchased for the backcountry operation. A third backcountry patrol vehicle was fully outfitted and a fourth backcountry patrol vehicle was received in November. SAR, EMS, law enforcement, and horse tack supplies and equipment were upgraded and/or repaired, as necessary.

-Training

All backcountry personnel received extensive training inside and outside of the park. Backcountry personnel conducted training at biweekly staff meetings. This training included EMS, SAR, horse care, radar operation, wildlife simulator operation, backcountry patrol procedures, and archeological site monitoring.

Parkwide training was varied and consisted of structural and wild-land firefighting, EMS, SAR, forty-hour law enforcement refresher, firearms, leave no trace, poaching, backcountry management, mission renewal, and leadership.

Backcountry personnel also attended a number of training courses outside the park. These included SAR, two backcountry management workshops, ARPA, spotted owl, retirement, DUI, helitack, and teambuilding.

-Personnel

The number of Zion backcountry personnel remained the same as for 1994. Kolob Canyons had only one commissioned law enforcement ranger in 1995, one less than in 1994.

Three Zion backcountry seasonal rangers received term appointments

in 1995.

-Statistics

Backcountry use in Zion and Kolob Canyons continued to increase dramatically in 1995 with Kolob Canyons backcountry visitation showing the most significant increase. Kolob Canyons backcountry user nights increased from 3,990 in 1994 to 5,848 in 1995.

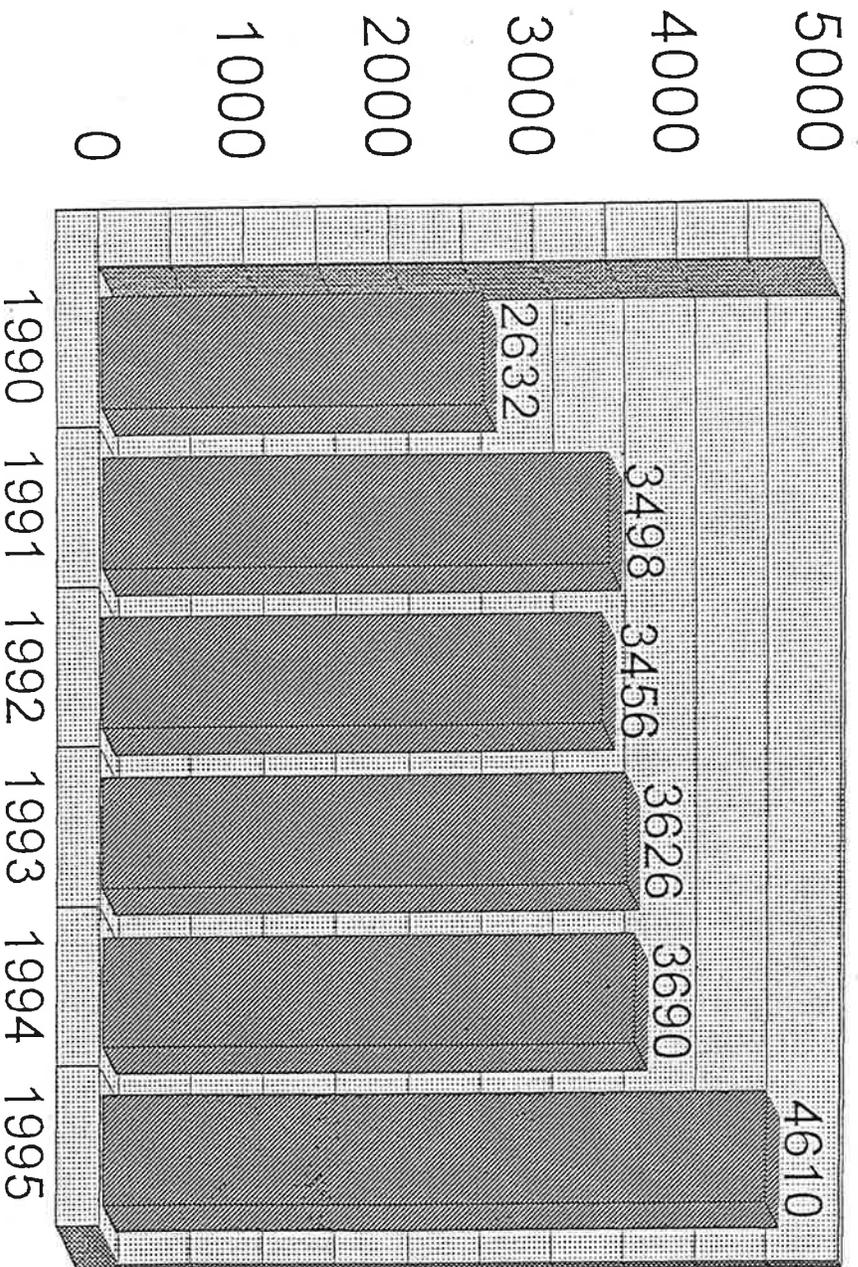
Kolob Canyons experienced a 19% increase in overall visitation in 1995.

Graphs located in the Appendix show backcountry use in Zion and Kolob Canyons during 1995.

APPENDIX

ZION NATIONAL PARK

BC Permits by Year, 1990-1995



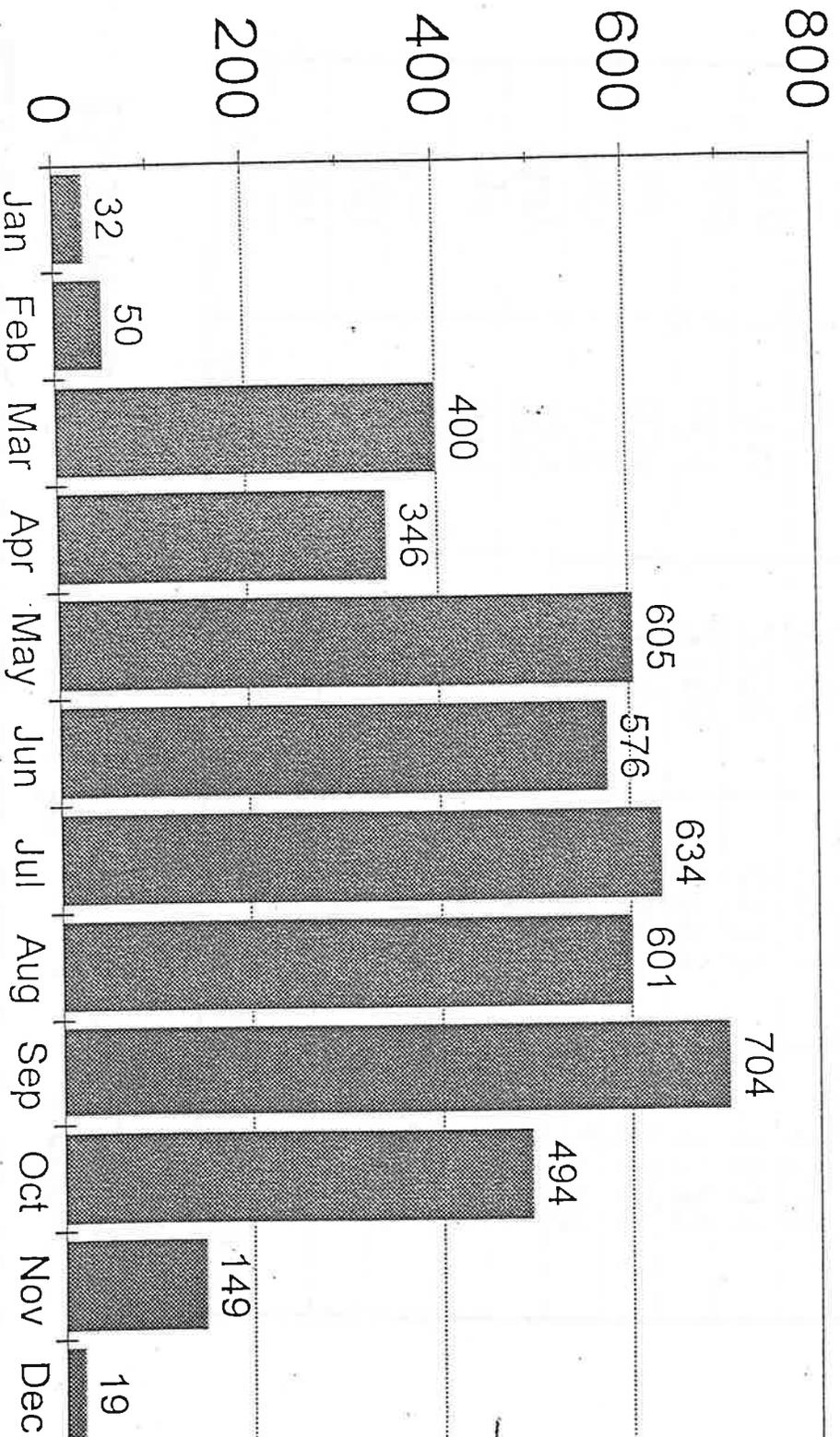
ZION NATIONAL PARK

Backcountry Use Totals, 1995

Month	Permits	Persons	User Days	User Nights
Jan	32	66	282	216
Feb	50	97	242	158
Mar	400	1032	3086	2047
Apr	346	853	2501	1634
May	605	1564	4443	2842
Jun	576	1541	4353	2778
Jul	634	2131	4341	2185
Aug	601	2199	3883	1730
Sep	704	2238	4178	1931
Oct	494	1285	3027	1744
Nov	149	302	849	549
Dec	19	34	106	74
TOTALS	4610	13342	31291	17888

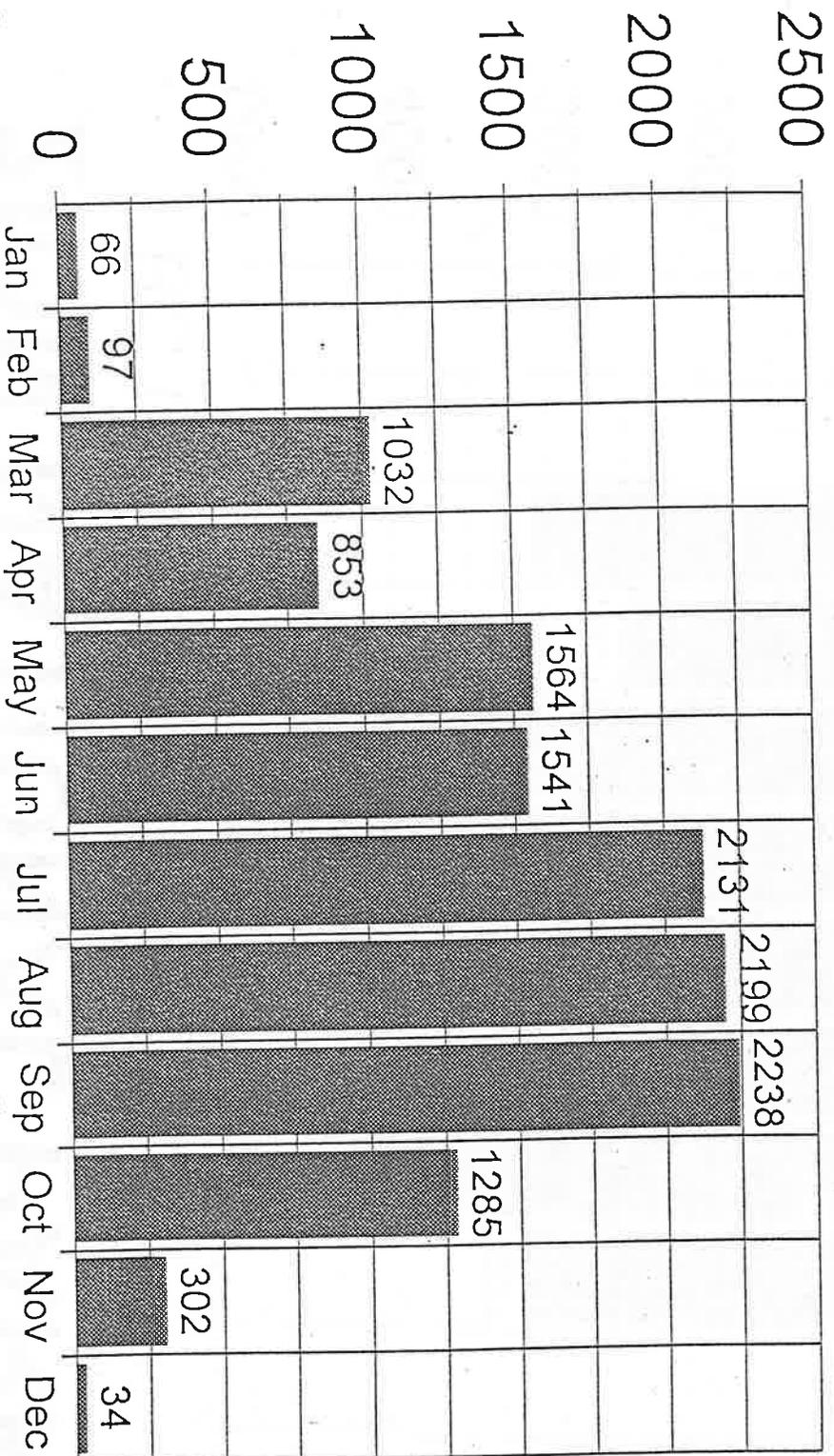
ZION NATIONAL PARK

Backcountry Permits by Month, 1995



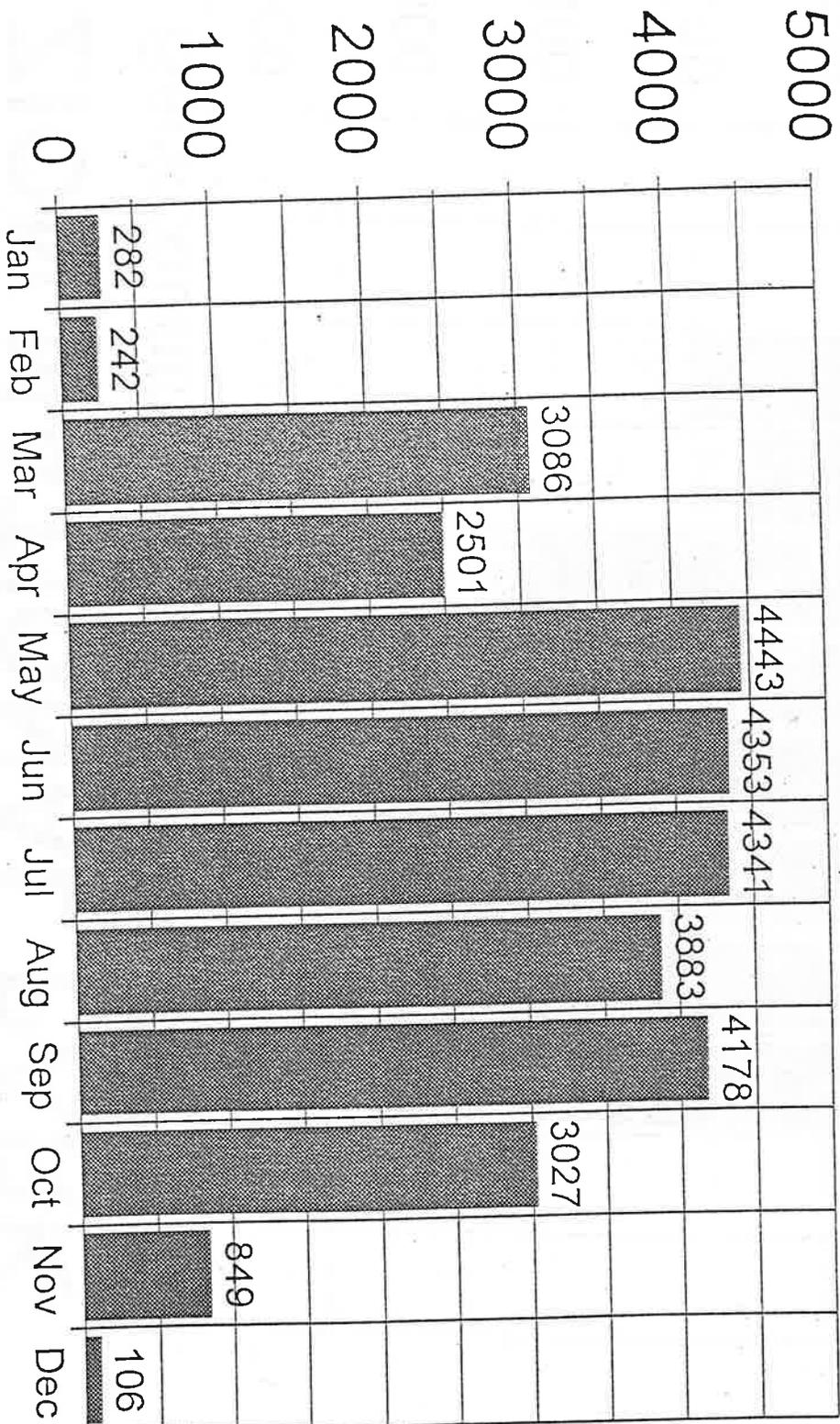
ZION NATIONAL PARK

Backcountry Persons by Month, 1995



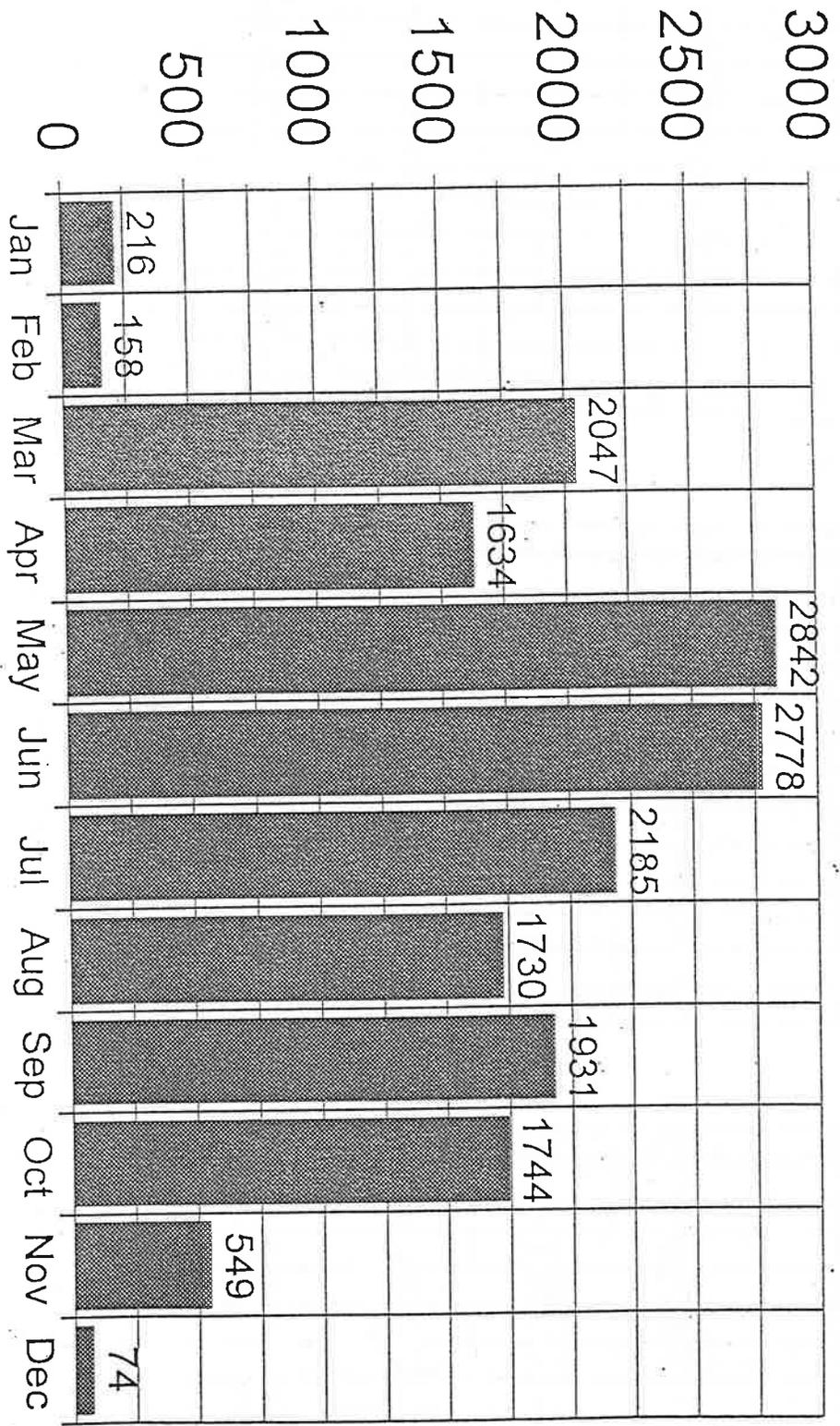
ZION NATIONAL PARK

BC User Days by Month, 1995



ZION NATIONAL PARK

BC User Nights by Month, 1995



Month	Permits	Persons	User Days	User Nights
Jan	0	0	0	0
Feb	0	0	0	0
Mar	8	16	42	26
Apr	6	20	73	53
May	15	41	123	79
Jun	16	46	128	82
Jul	11	28	78	50
Aug	8	16	43	26
Sep	15	39	111	72
Oct	9	19	53	34
Nov	3	5	14	9
Dec	0	0	0	0
TOTALS	91	230	665	431

Right Fork

Month	Permits	Persons	User Days	User Nights
Jan	0	0	0	0
Feb	1	3	12	9
Mar	3	15	43	28
Apr	6	26	82	56
May	4	22	50	28
Jun	12	53	168	116
Jul	21	75	188	113
Aug	18	85	189	102
Sep	29	99	237	129
Oct	9	37	84	46
Nov	1	2	4	2
Dec	0	0	0	0
TOTALS	104	417	1057	629

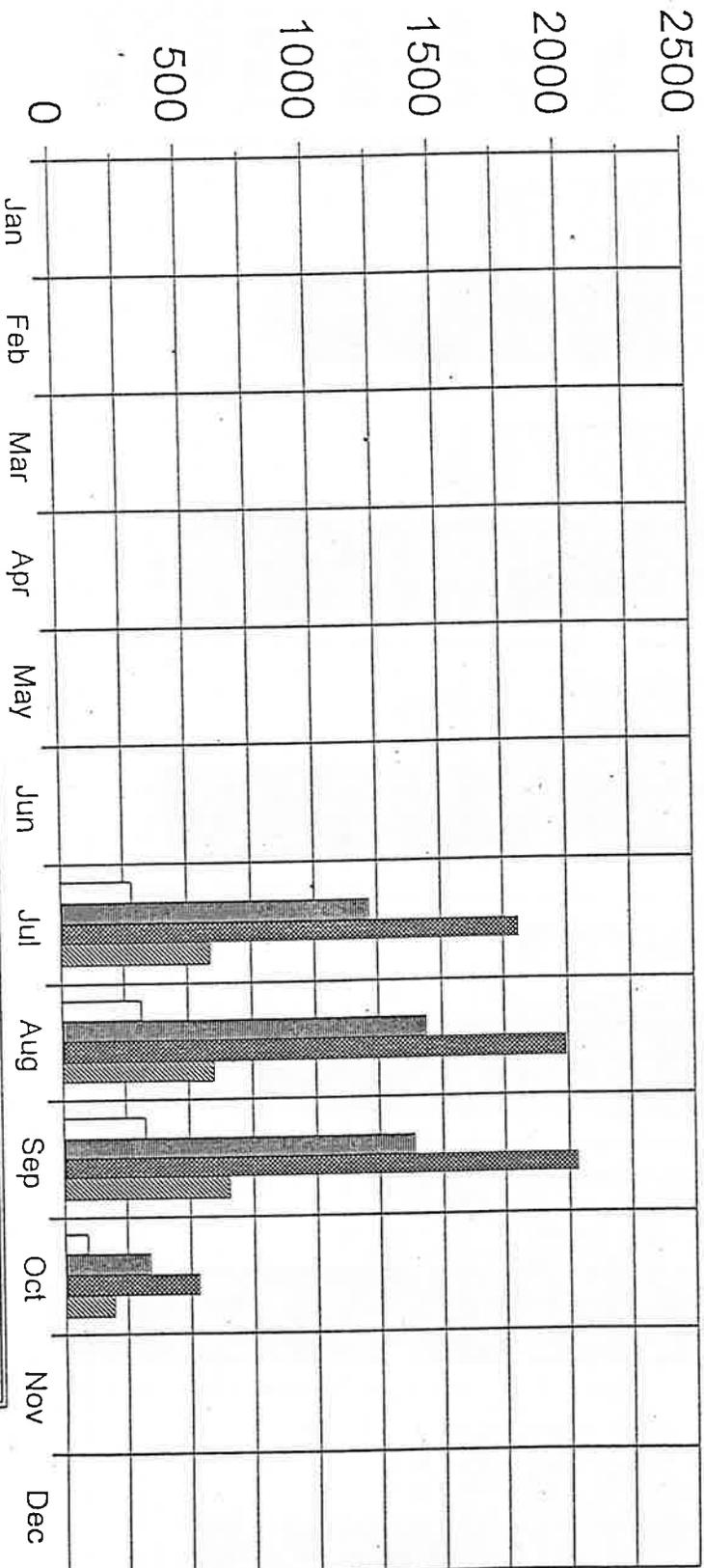
Left Fork

Month	Permits	Persons	User Days	User Nights
Jan	0	0	0	0
Feb	0	0	0	0
Mar	0	0	0	0
Apr	0	0	0	0
May	0	0	0	0
Jun	0	0	0	0
Jul	285	1216	1809	591
Aug	315	1438	1990	600
Sep	325	1385	2036	657
Oct	91	338	532	194
Nov	2	3	6	3
Dec	0	0	0	0
TOTALS	1018	4380	6373	2045

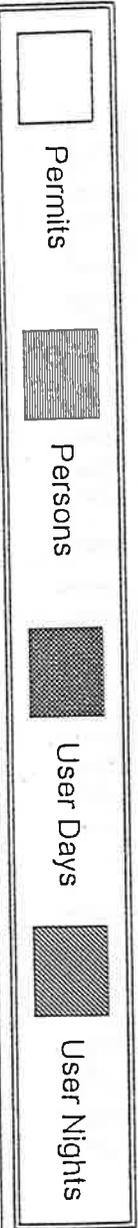
Narrows

ZION NATIONAL PARK

Narrows Use, 1995

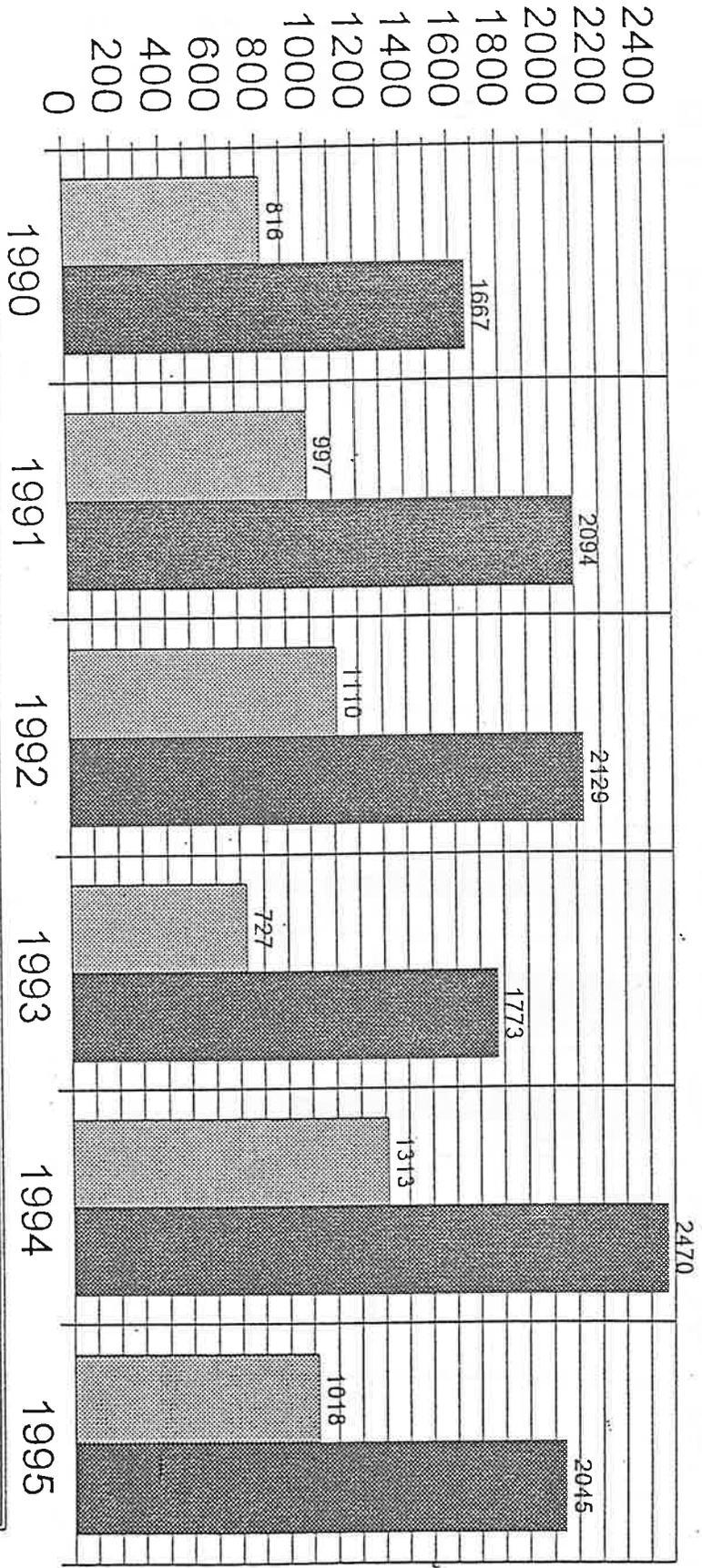


Note: The Narrows was not opened until late June due to high water caused by late snow melt.



ZION NATIONAL PARK

Narrows Use Trend - 1990-1995

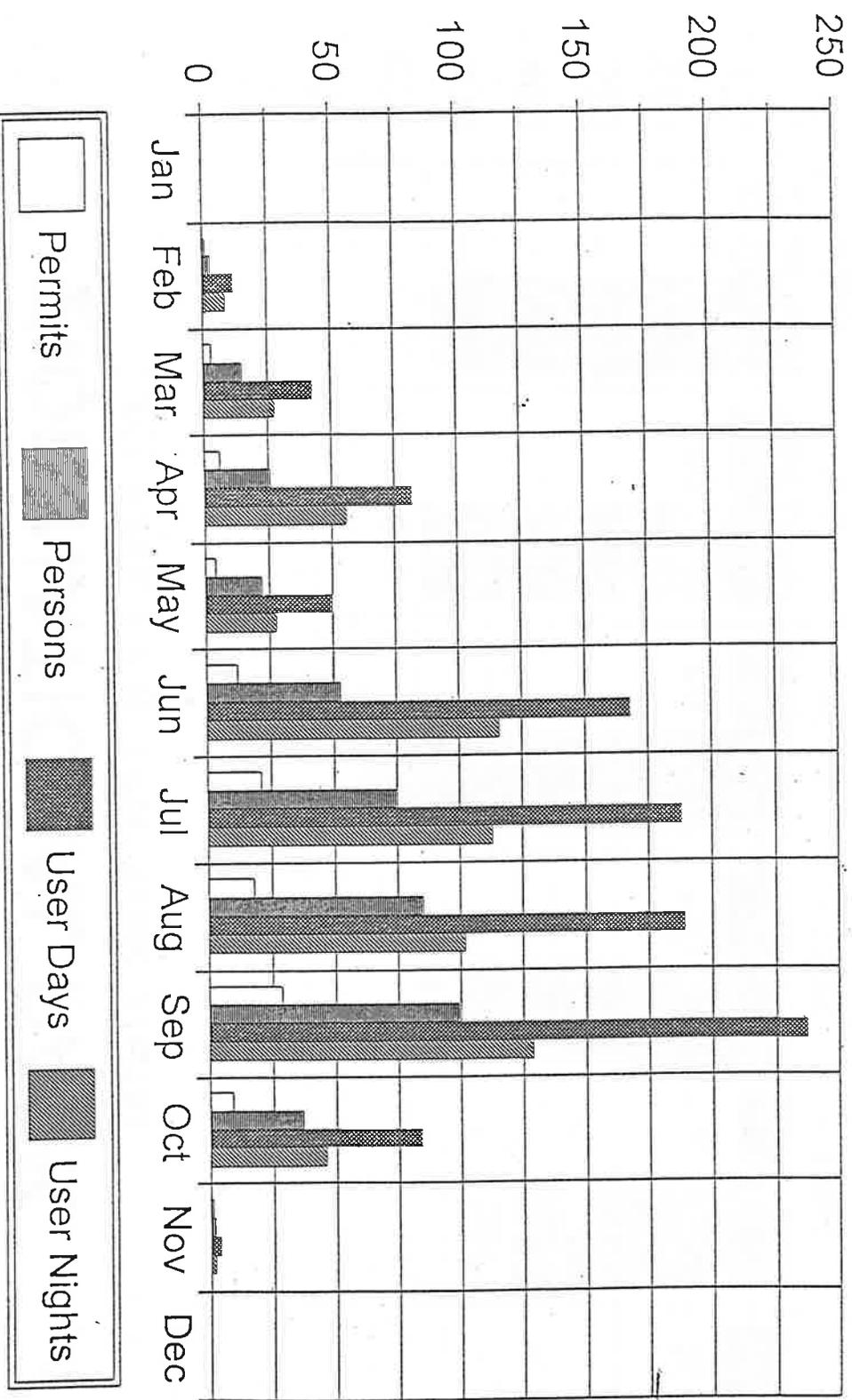


Note: In 1993 and 1995, the Narrows was not opened until late June due to high water caused by late snow melt.

■ NUMBER OF PERMITS ■ NUMBER OF USERNIGHTS

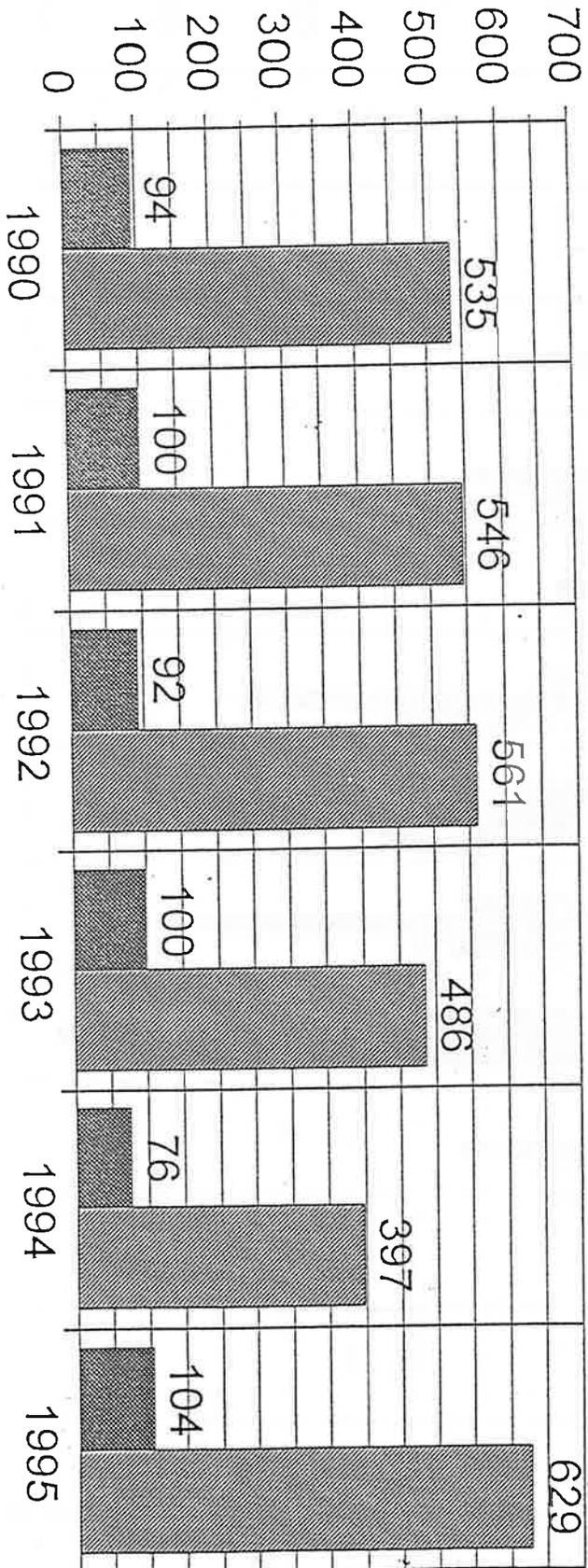
ZION NATIONAL PARK

Left Fork Use, 1995

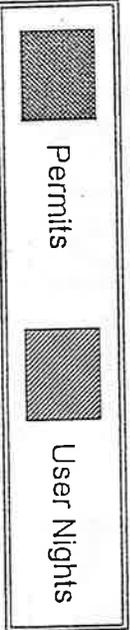


ZION NATIONAL PARK

Left Fork Five Year Use Trend

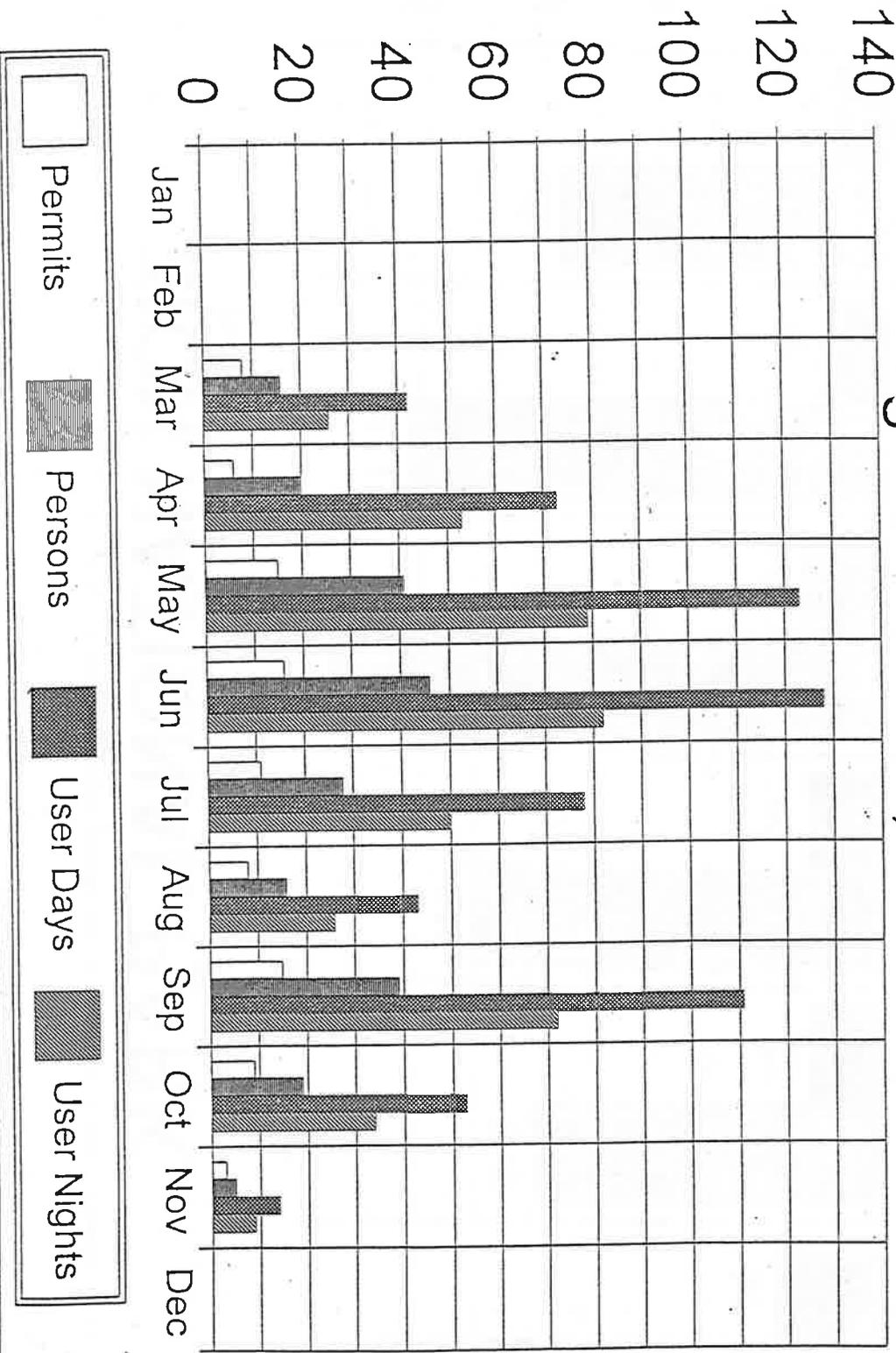


In 1994, the Left Fork remained impassable until mid-June due to high water levels.



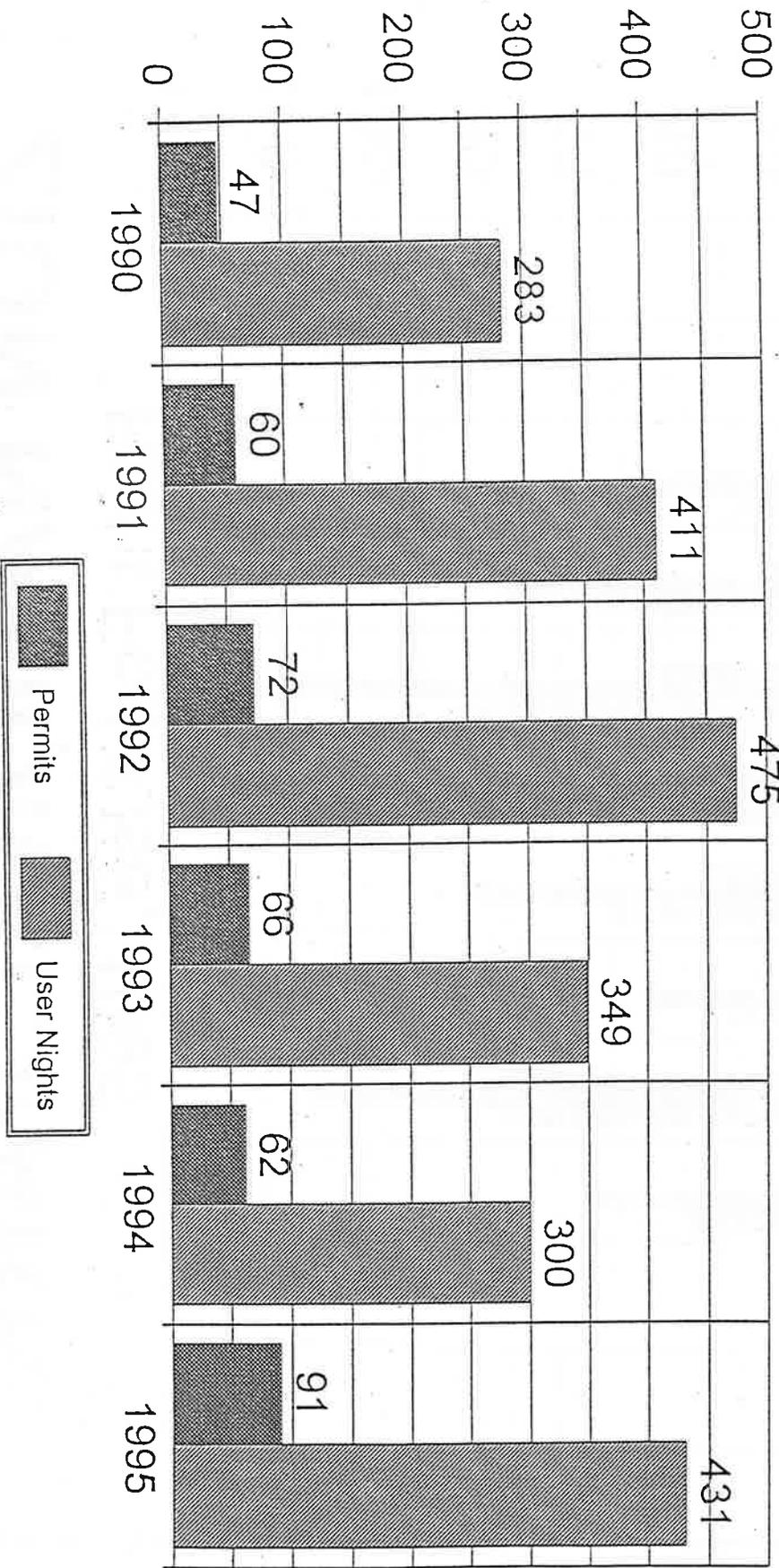
ZION NATIONAL PARK

Right Fork Use, 1995



ZION NATIONAL PARK

Right Fork Five Year Use Trend



East Rim Trail

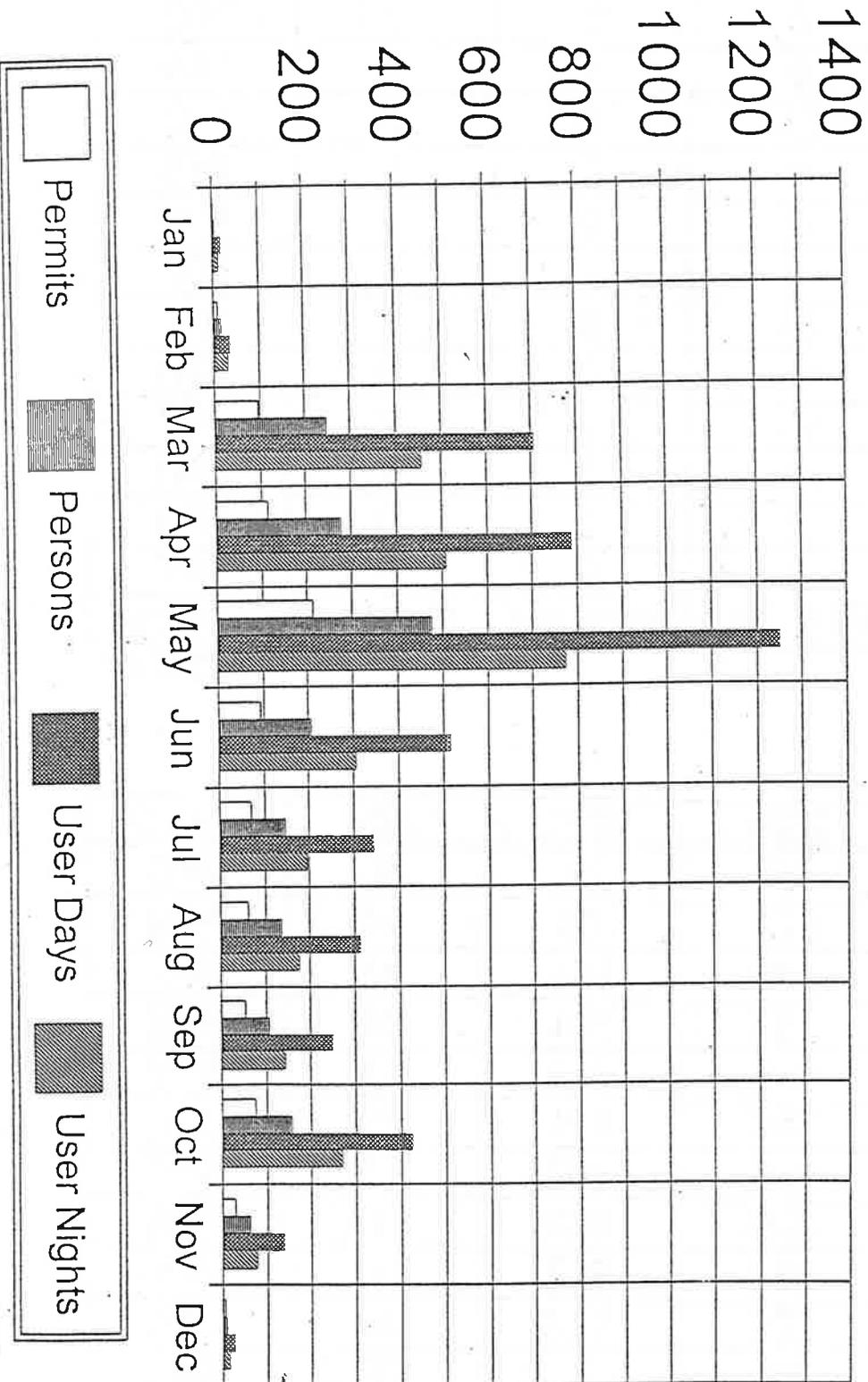
Month	Permits	Persons	User Days	User Nights
Jan	3	6	19	13
Feb	10	17	38	33
Mar	97	251	707	458
Apr	115	278	790	509
May	214	478	1251	774
Jun	93	207	515	306
Jul	69	148	345	196
Aug	62	137	314	176
Sep	55	108	252	144
Oct	74	158	427	270
Nov	29	62	139	77
Dec	6	12	28	16
TOTALS	827	1862	4825	2972

East Side

Month	Permits	Persons	User Days	User Nights
Jan	0	0	0	0
Feb	0	0	0	0
Mar	1	2	4	2
Apr	4	7	15	8
May	3	9	18	9
Jun	3	5	10	5
Jul	1	1	2	1
Aug	0	0	0	0
Sep	1	2	4	2
Oct	1	3	12	9
Nov	1	1	5	4
Dec	0	0	0	0
TOTALS	15	30	70	40

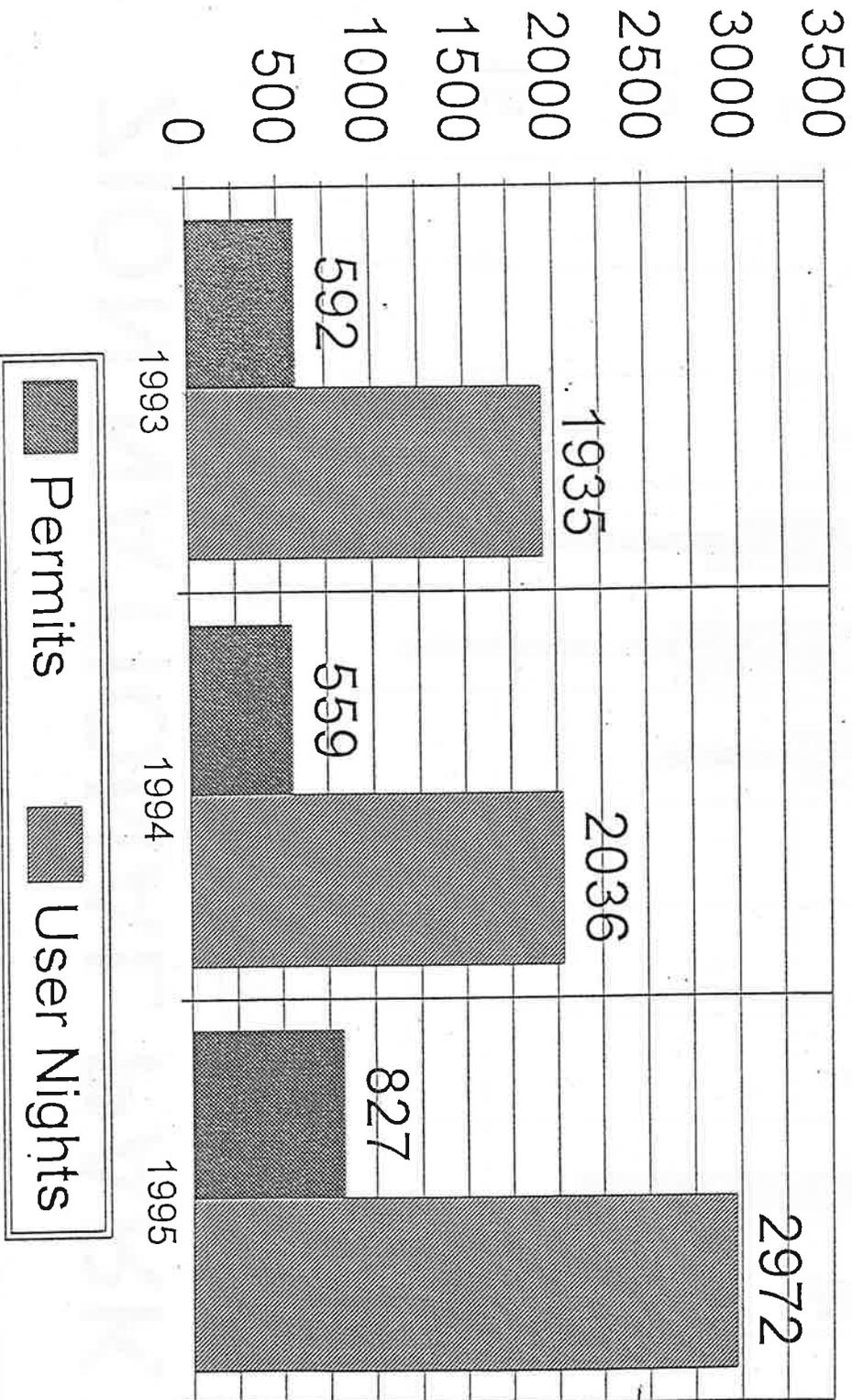
ZION NATIONAL PARK

East Rim Use, 1995



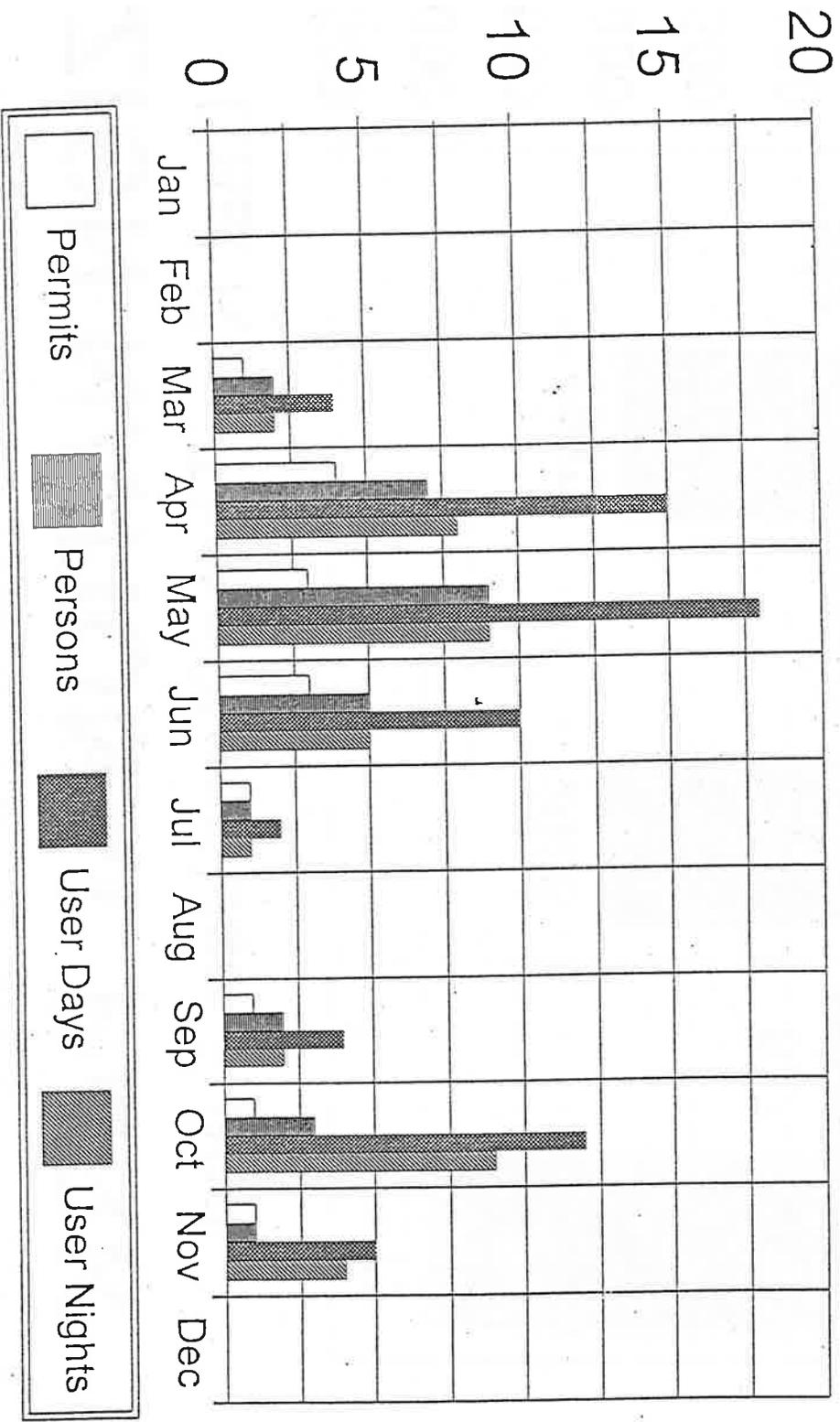
ZION NATIONAL PARK

East Rim Three Year Use Trend



ZION NATIONAL PARK

East Side Use, 1995



West Rim Trail

Month	Permits	Persons	User Days	User Nights
Jan	6	13	31	18
Feb	1	1	3	2
Mar	43	104	307	200
Apr	42	84	228	143
May	36	115	328	216
Jun	165	489	1364	878
Jul	89	215	607	393
Aug	82	196	486	287
Sep	103	245	586	339
Oct	101	252	621	364
Nov	27	65	175	111
Dec	7	12	41	29
TOTALS	702	1791	4777	2980

Wildcat

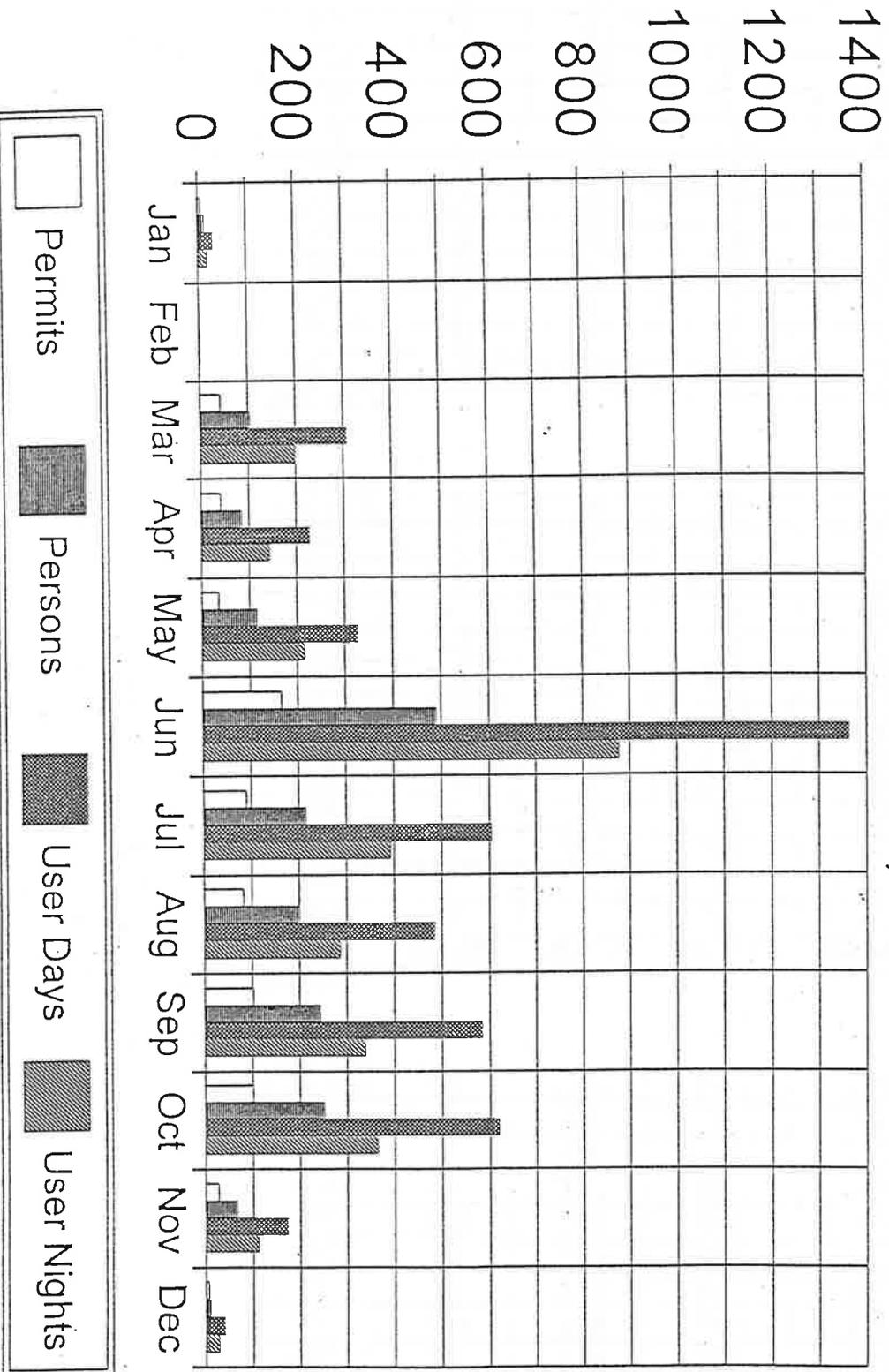
Month	Permits	Persons	User Days	User Nights
Jan	2	4	21	17
Feb	1	2	6	4
Mar	5	220	25	16
Apr	5	12	32	20
May	18	57	161	104
Jun	30	78	199	121
Jul	16	43	106	61
Aug	18	58	127	70
Sep	18	35	76	41
Oct	12	34	74	41
Nov	3	6	21	15
Dec	0	0	0	0
TOTALS	128	549	848	510

Hop Valley

Month	Permits	Persons	User Days	User Nights
Jan	0	0	0	0
Feb	0	0	0	0
Mar	24	60	186	126
Apr	22	64	184	121
May	27	86	234	148
Jun	21	50	155	106
Jul	14	47	127	62
Aug	14	27	61	40
Sep	13	25	67	41
Oct	8	31	88	57
Nov	5	12	38	26
Dec	0	0	0	0
TOTALS	148	402	1140	727

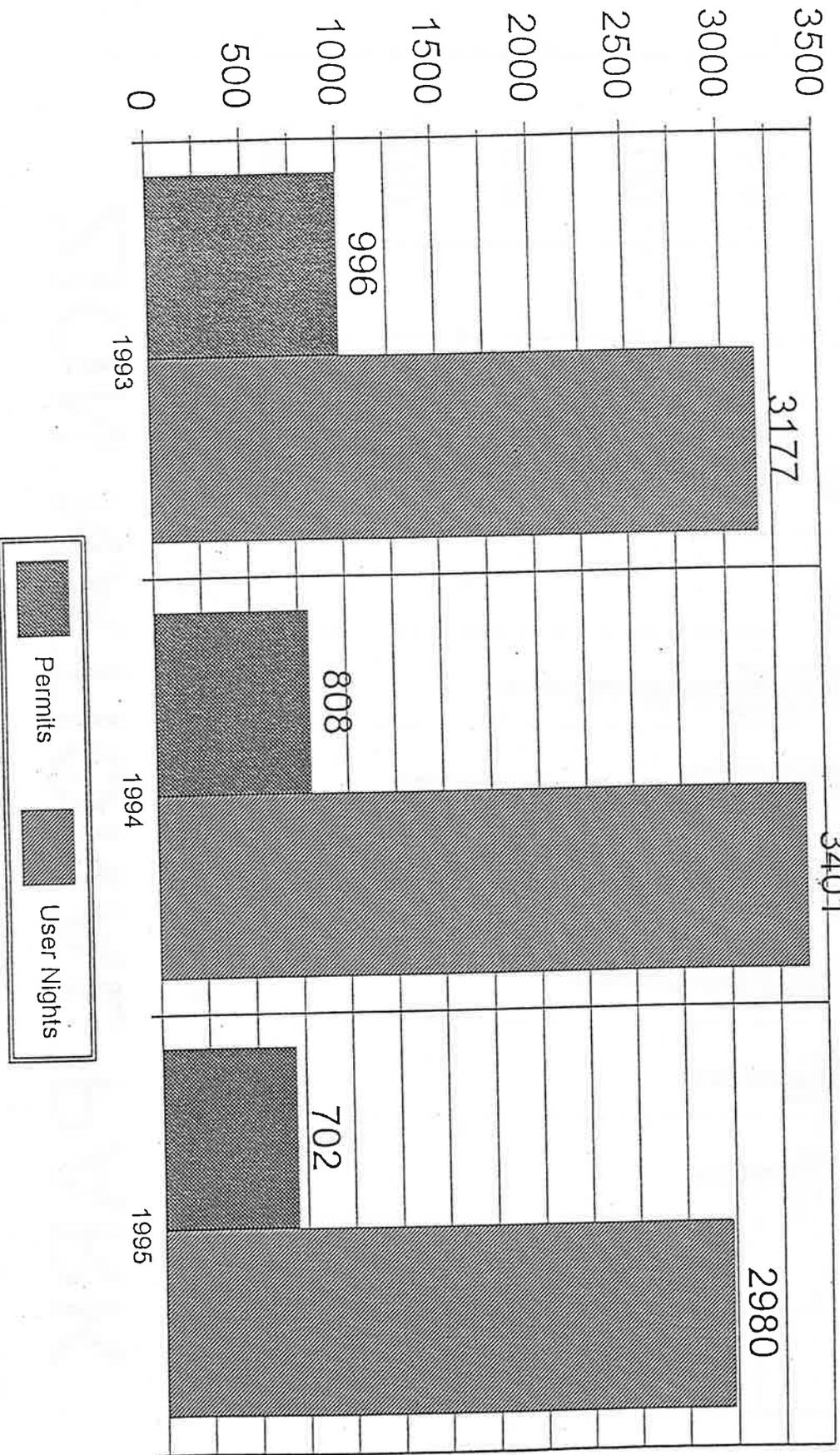
ZION NATIONAL PARK

West Rim Use, 1995



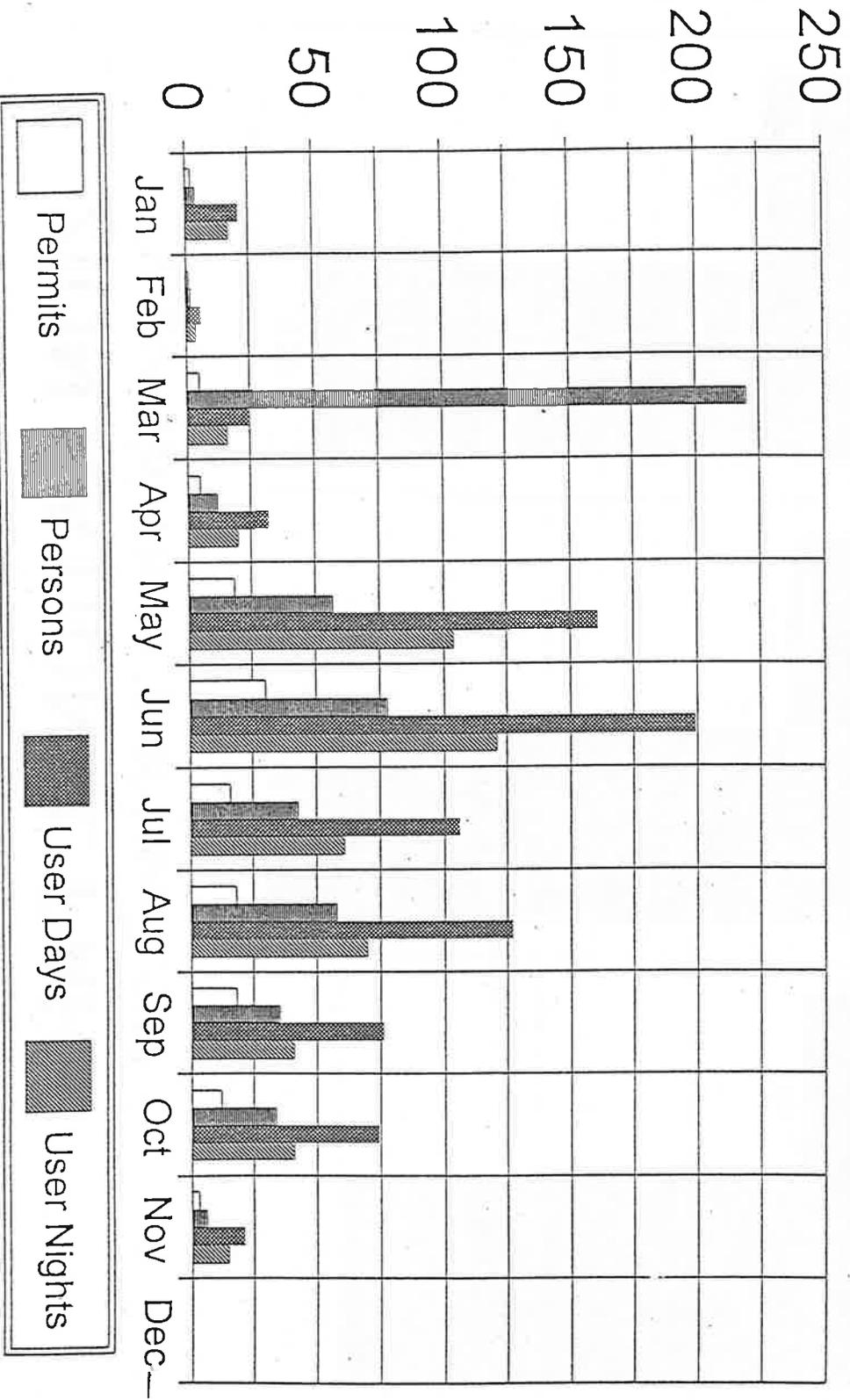
ZION NATIONAL PARK

West Rim Three Year Use Trend



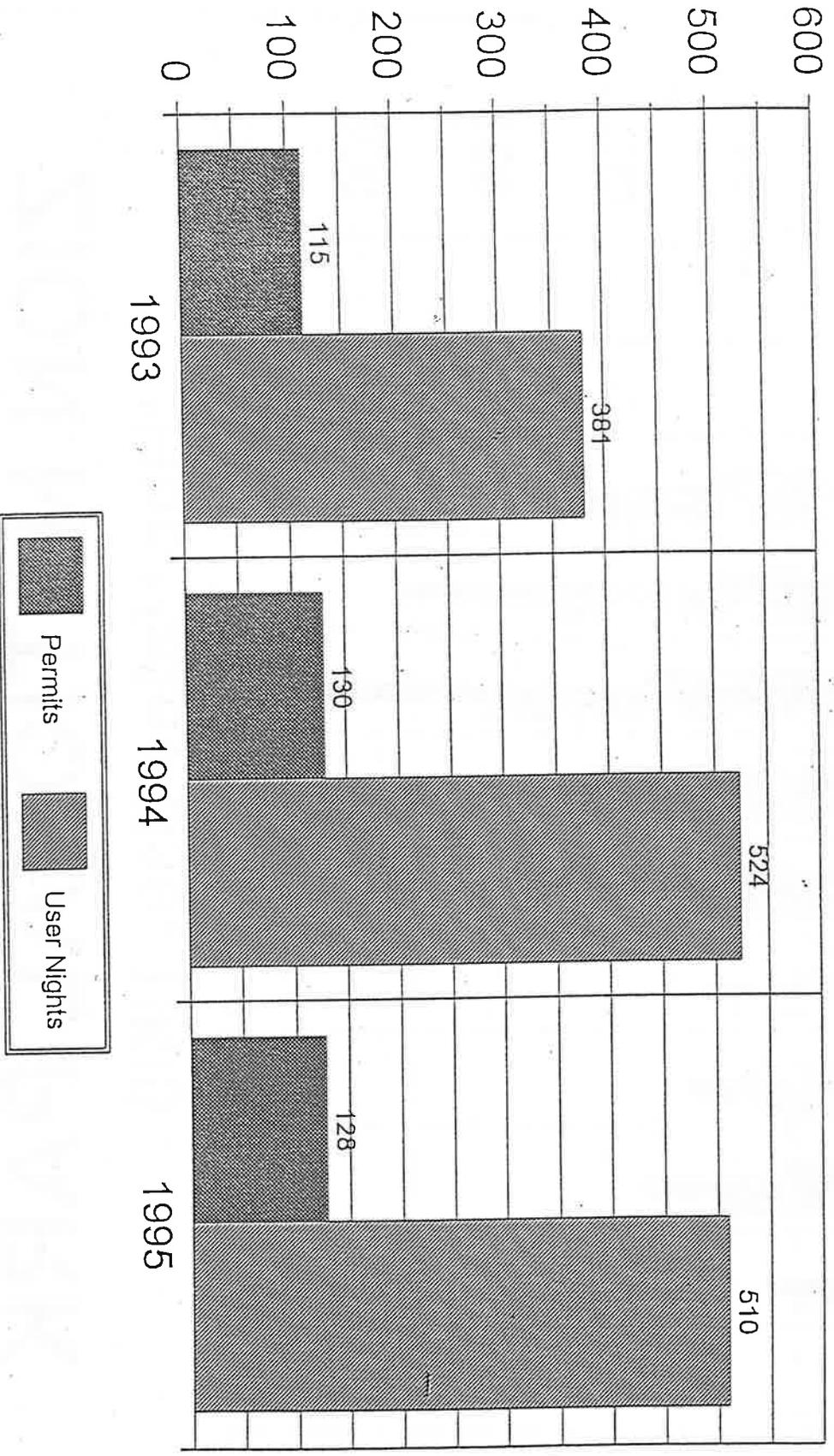
ZION NATIONAL PARK

Wildcat Canyon Use, 1995



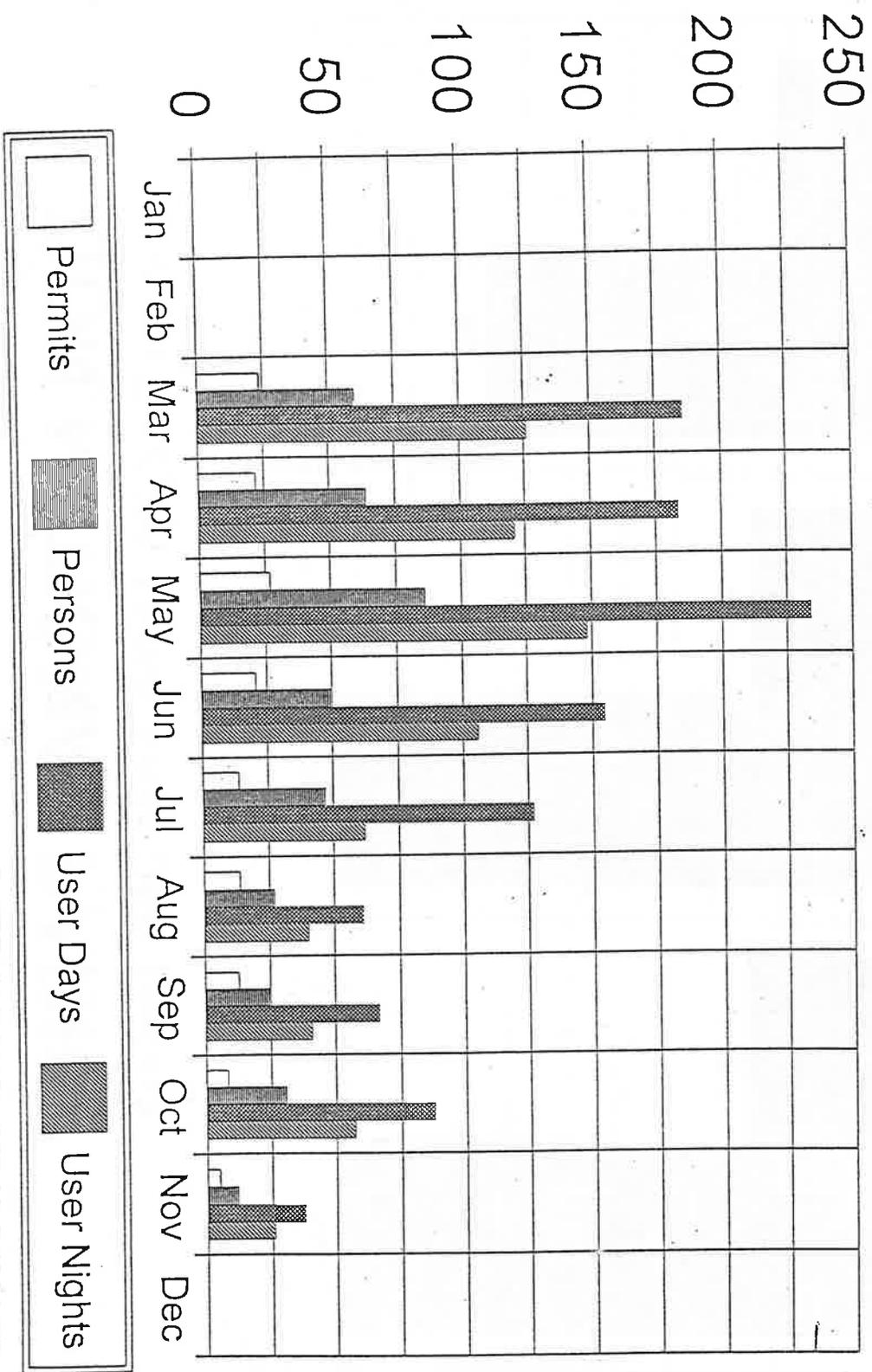
ZION NATIONAL PARK

Wildcat Canyon Three Year Use Trend



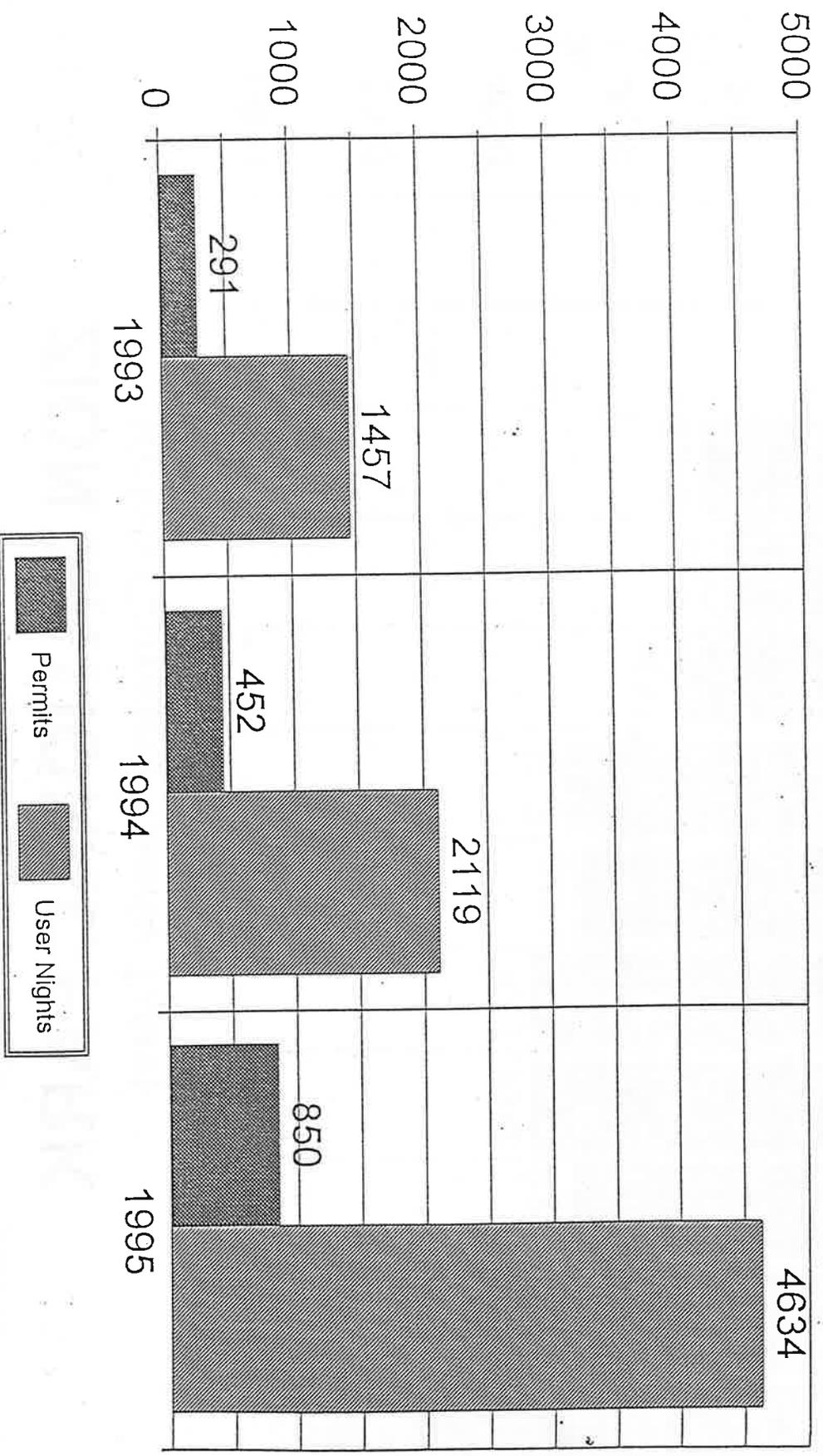
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Hop Valley Use, 1995



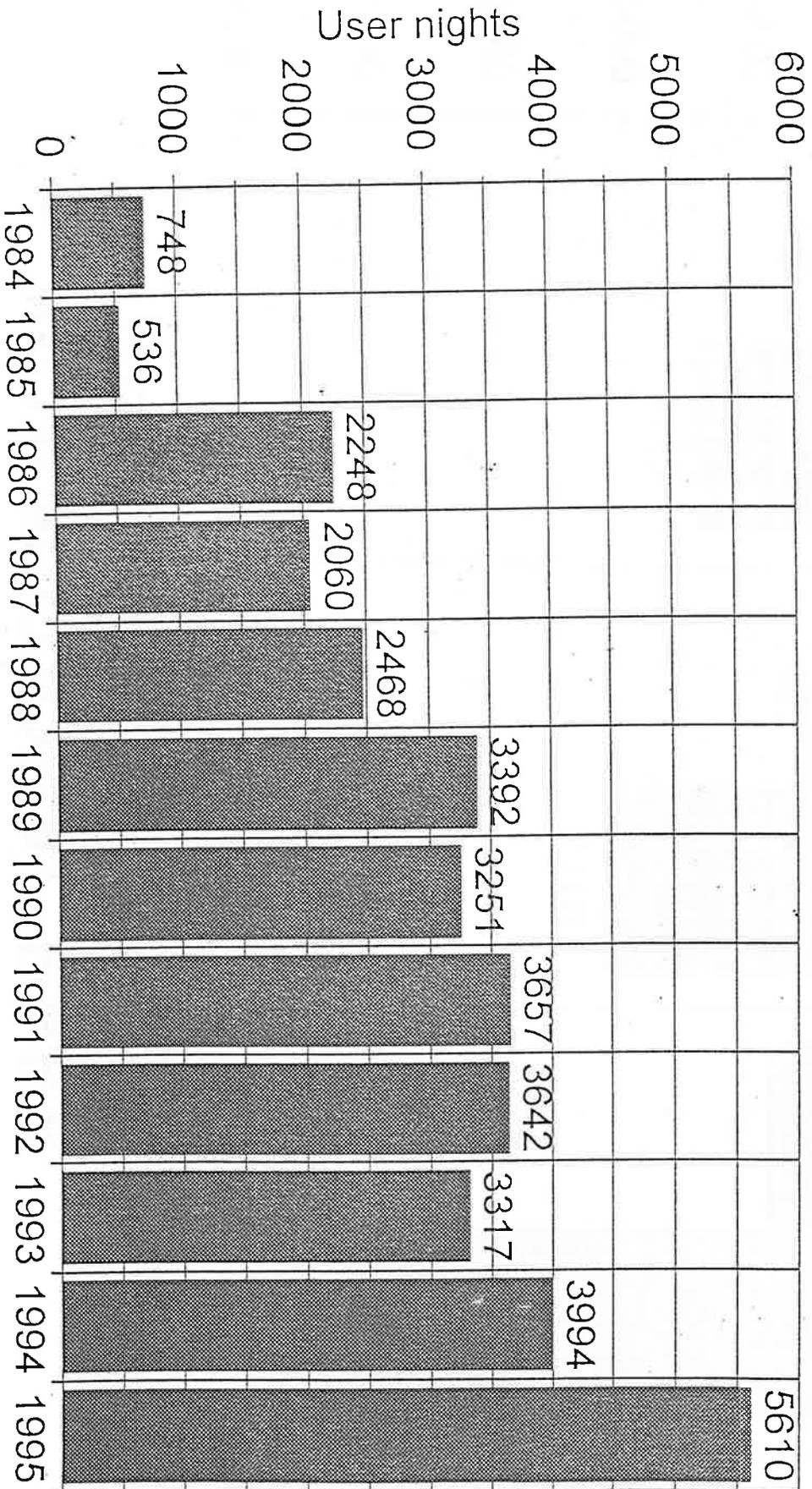
ZION NATIONAL PARK

Hop Valley Three Year Use Trend



ZION NATIONAL PARK

Kolob Canyons Yearly Trend



La Verkin

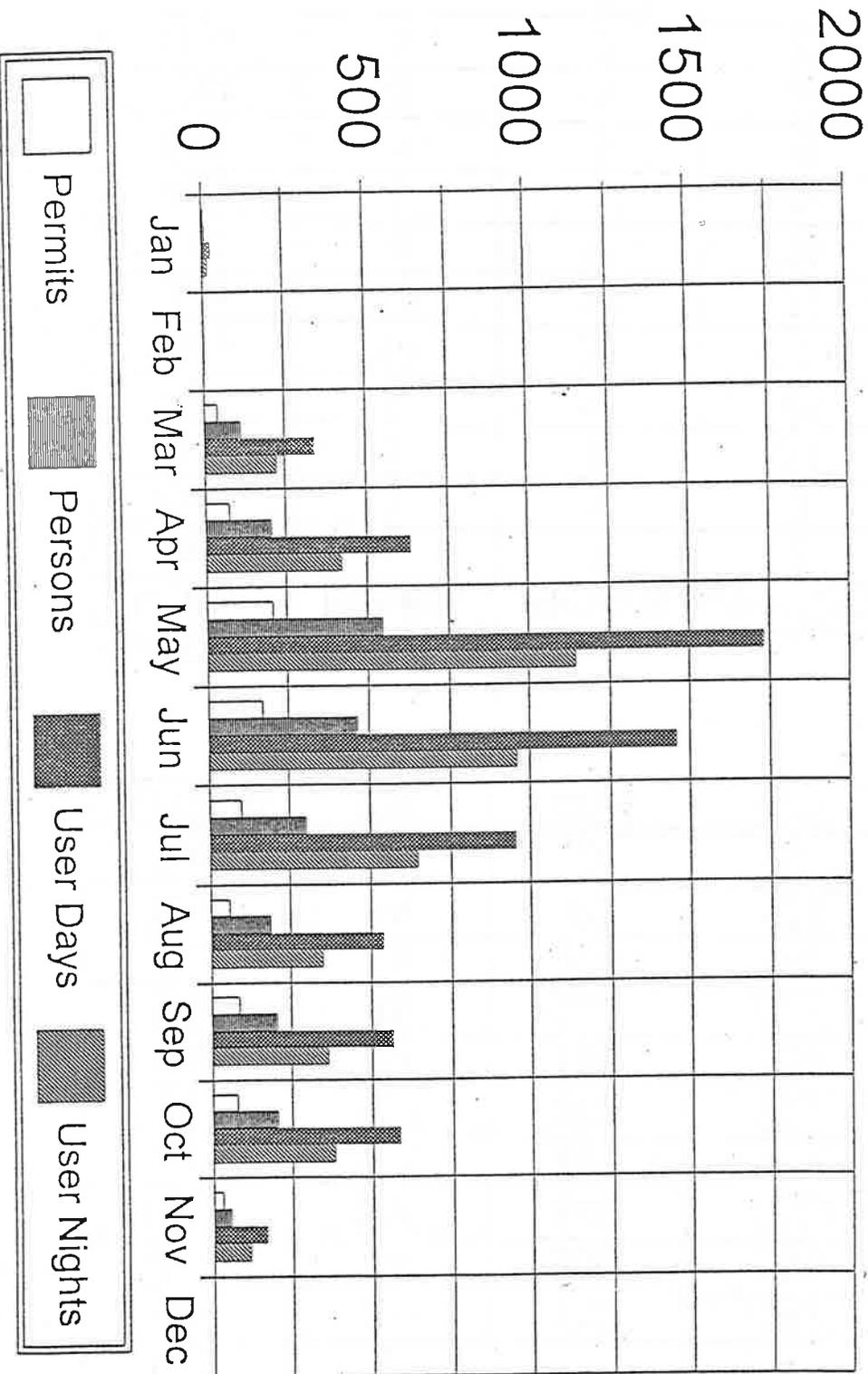
Month	Permits	Persons	User Days	User Nights
Jan	5	10	29	19
Feb	1	1	4	3
Mar	39	113	342	225
Apr	74	203	636	422
May	205	549	1733	1146
Jun	171	465	1456	959
Jul	101	303	953	647
Aug	59	188	539	350
Sep	88	203	567	366
Oct	78	204	585	383
Nov	29	55	169	114
Dec	0	0	0	0
TOTALS	850	2294	7013	4634

Kolob Finger Canyons

Month	Permits	Persons	User Days	User Nights
Jan	1	1	2	1
Feb	1	1	2	1
Mar	3	9	21	14
Apr	5	16	43	27
May	16	38	111	73
Jun	13	27	77	46
Jul	4	11	26	15
Aug	6	17	40	24
Sep	1	3	6	3
Oct	6	9	26	17
Nov	3	7	23	16
Dec	1	2	14	12
TOTALS	60	141	391	249

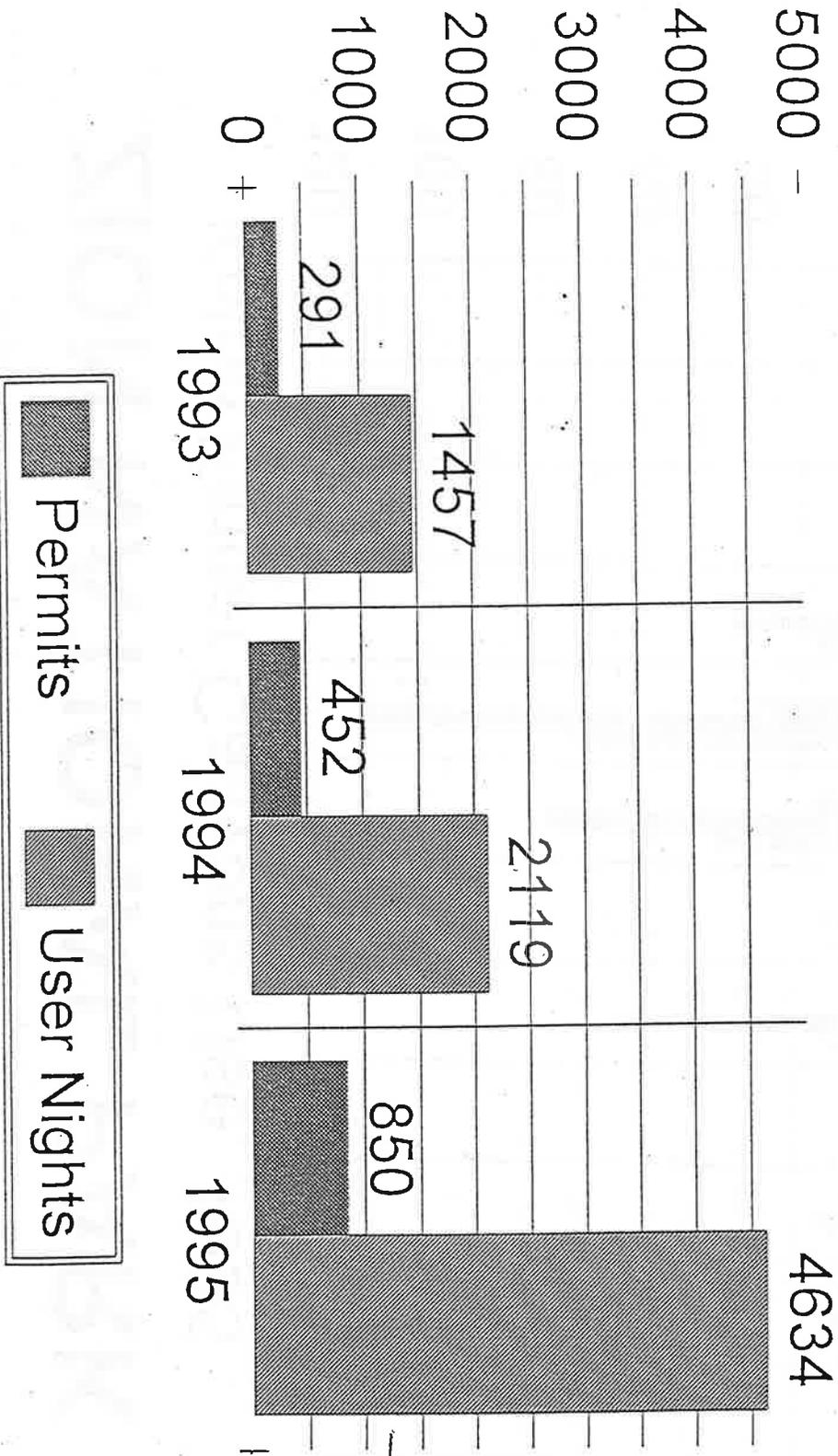
ZION NATIONAL PARK

La Verkin Creek Use 1995



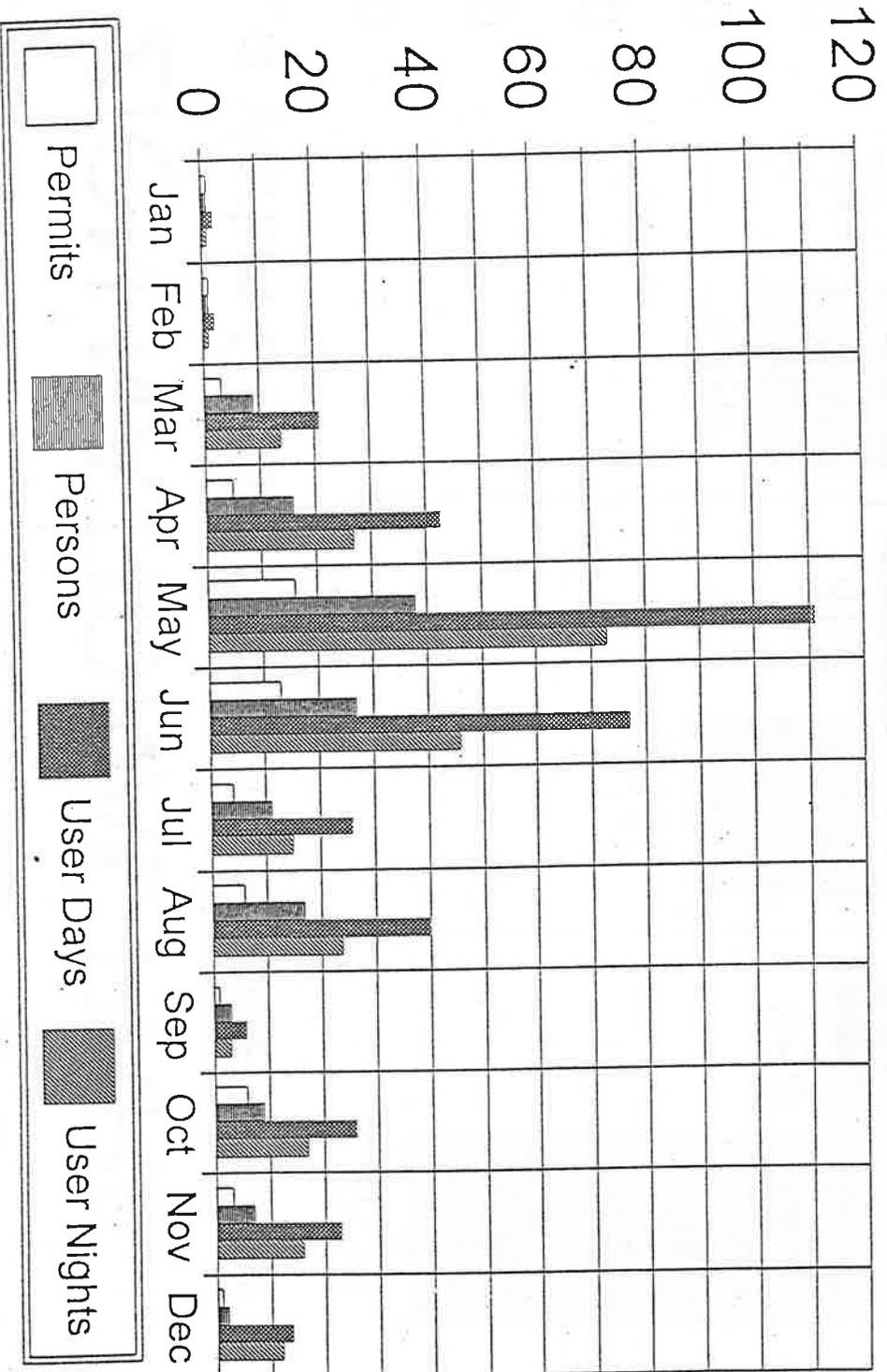
ZION NATIONAL PARK

La Verkin Creek Three Year Use Trend



ZION NATIONAL PARK

Kolob Finger Canyons Use, 1995



Chinle

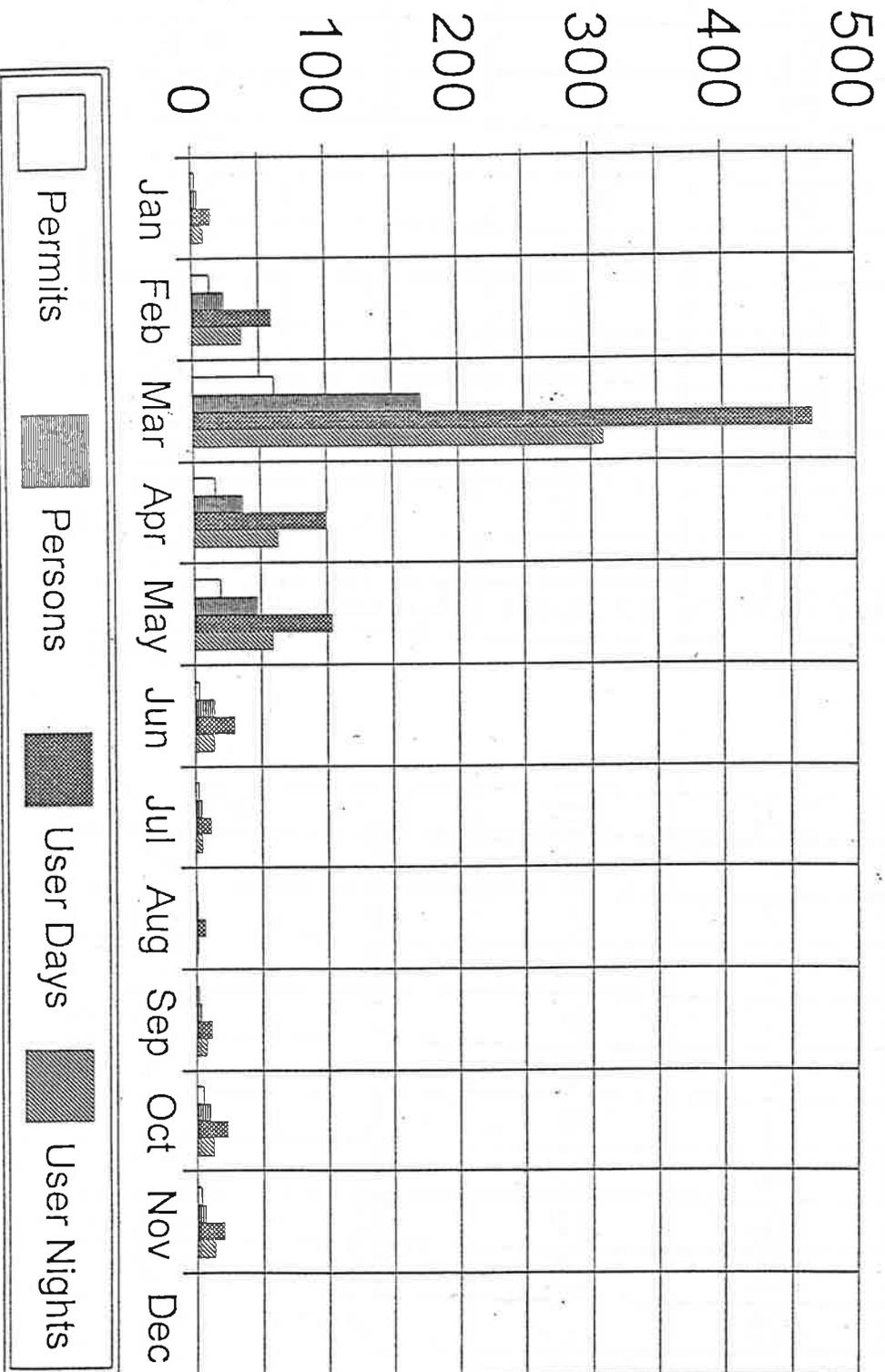
Month	Permits	Persons	User Days	User Nights
Jan	3	6	15	9
Feb	13	24	60	37
Mar	61	172	467	310
Apr	16	37	100	63
May	20	47	104	59
Jun	4	15	30	15
Jul	3	6	12	6
Aug	1	2	7	2
Sep	2	4	12	8
Oct	6	11	24	13
Nov	4	7	21	14
Dec	0	0	0	0
TOTALS	133	331	852	536

Coalpits

Month	Permits	Persons	User Days	User Nights
Jan	4	9	20	11
Feb	12	28	65	37
Mar	25	78	284	195
Apr	21	55	153	98
May	40	106	288	182
Jun	22	49	101	50
Jul	8	16	32	16
Aug	7	18	36	18
Sep	8	15	32	13
Oct	8	12	44	32
Nov	3	4	10	6
Dec	2	4	10	8
TOTALS	160	394	1075	666

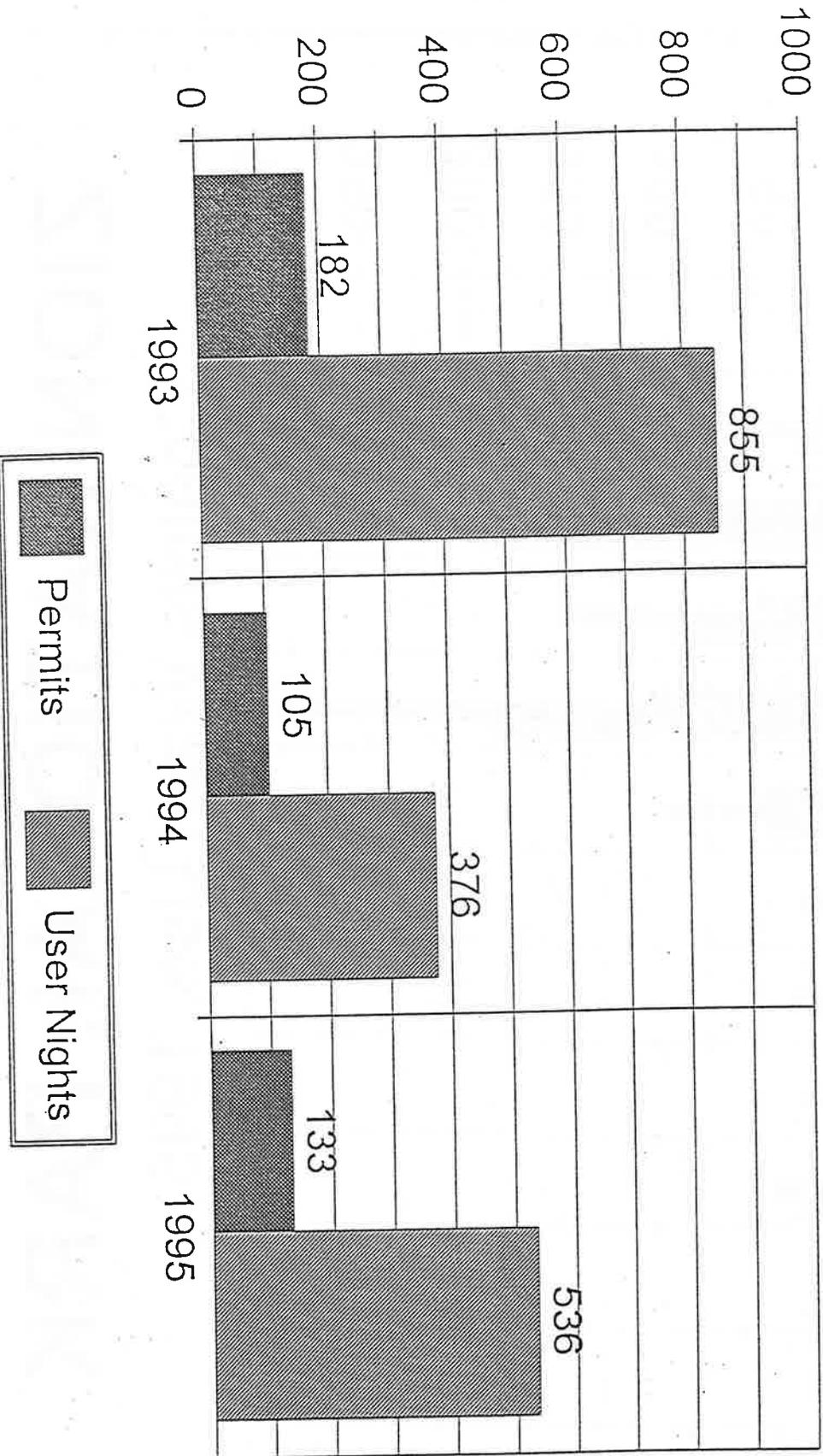
ZION NATIONAL PARK

Chinle Trail Use, 1995



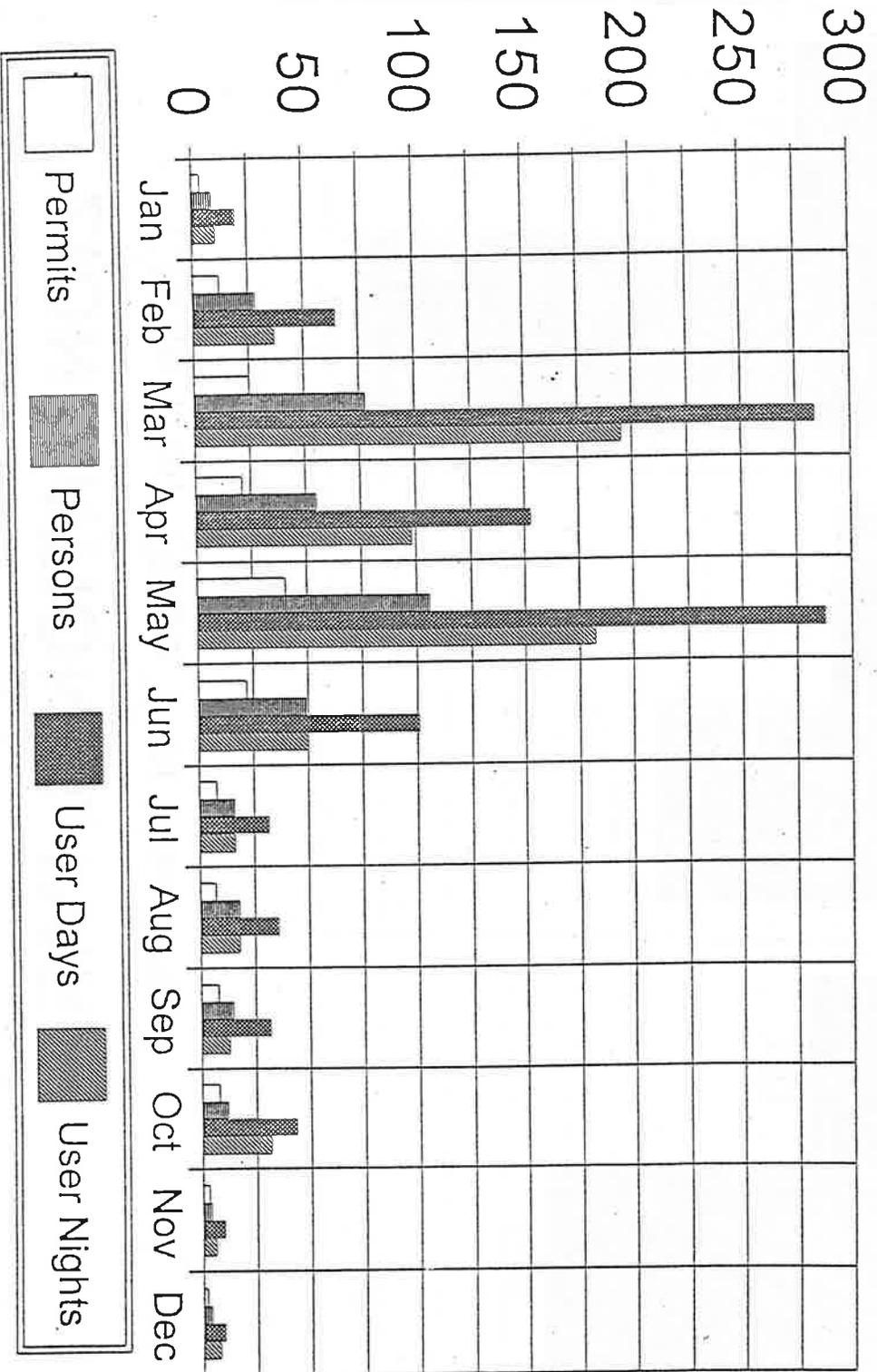
ZION NATIONAL PARK

Chinle Trail Three Year Use Trend



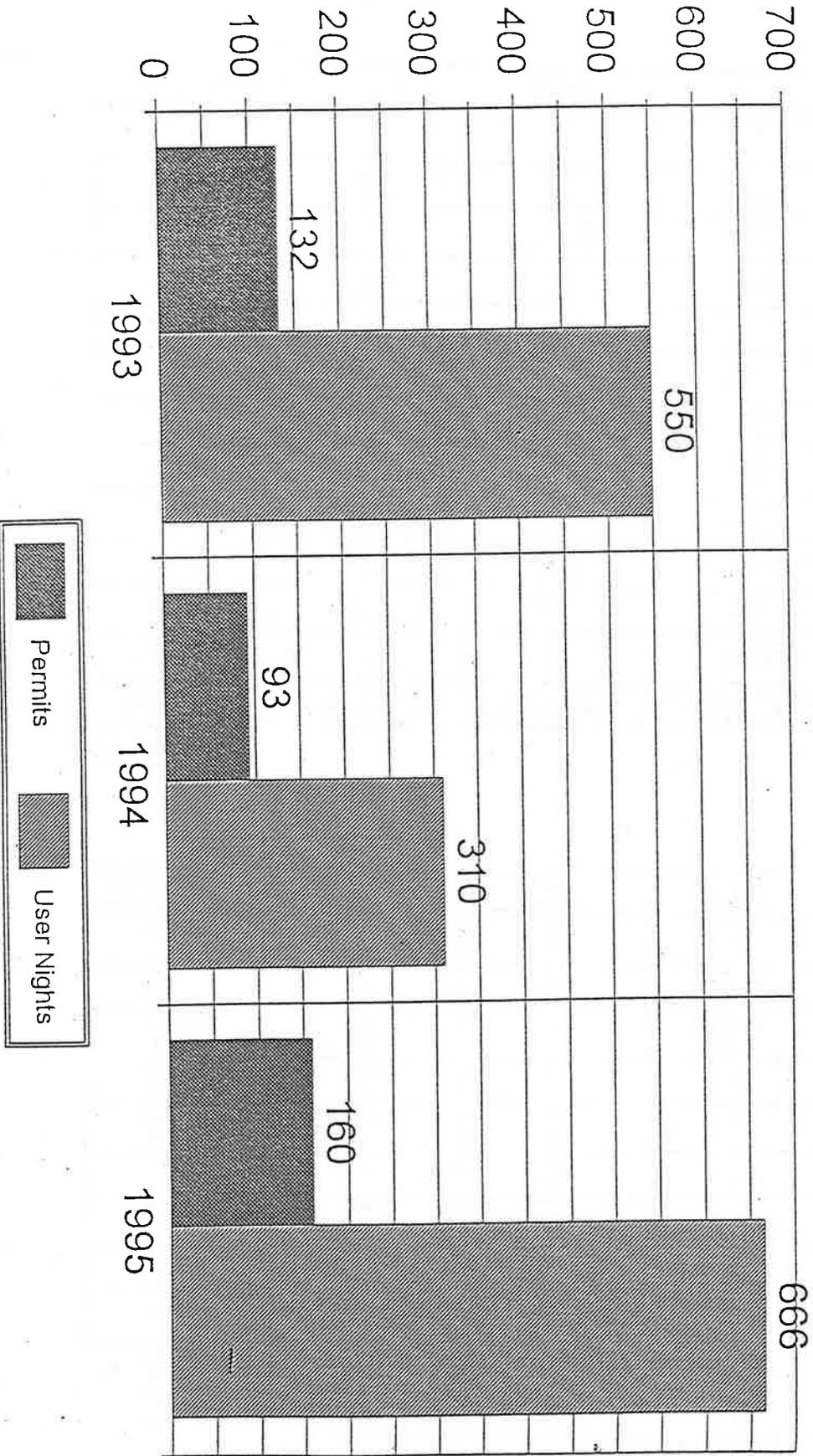
ZION NATIONAL PARK

Coalpits Wash Use, 1995



ZION NATIONAL PARK

Coalpits Wash Three Year Use Trend



Routes

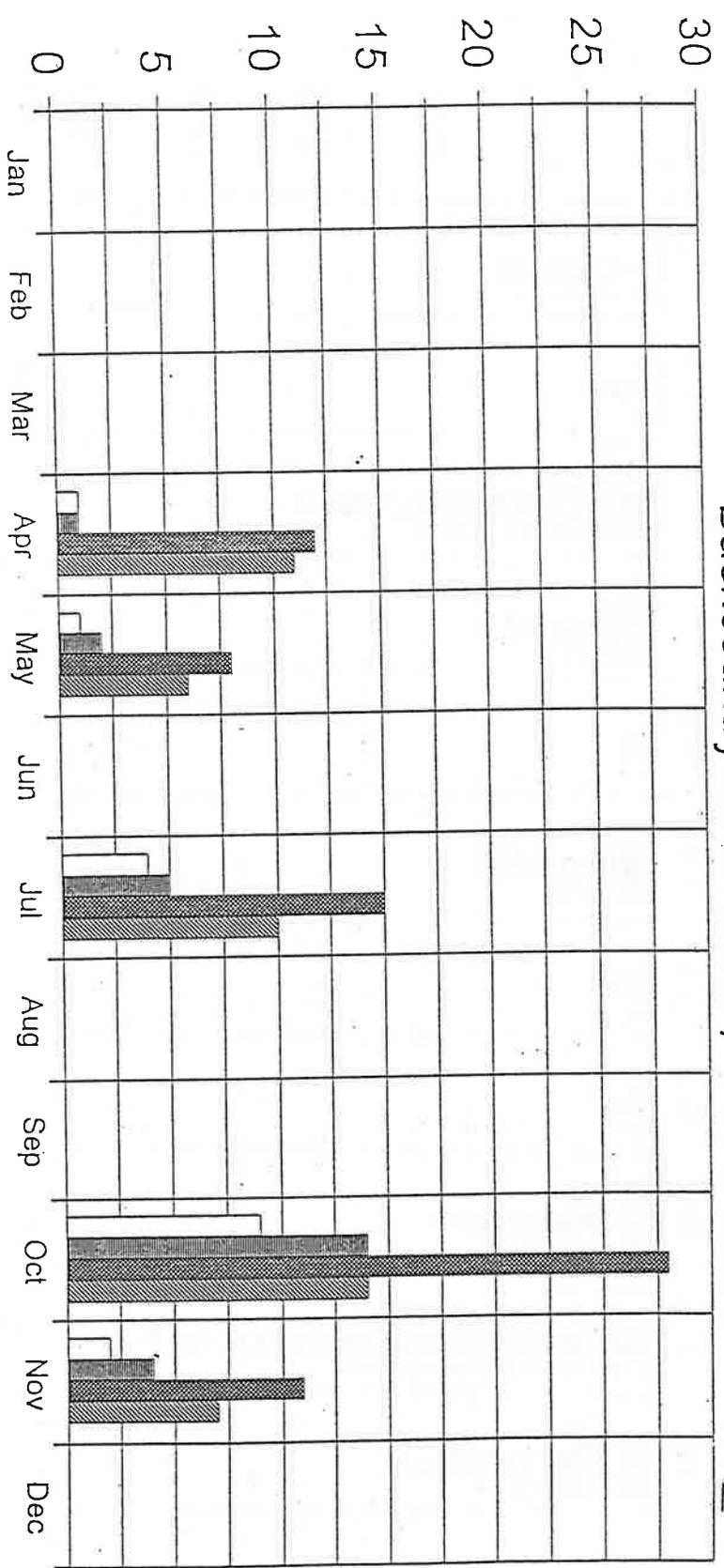
Month	Permits	Persons	User Days	User Nights
Jan	0	0	0	0
Feb	0	0	0	0
Mar	0	0	0	0
Apr	1	1	12	11
May	1	2	8	6
Jun	0	0	0	0
Jul	4	5	15	10
Aug	0	0	0	0
Sep	0	0	0	0
Oct	9	14	28	14
Nov	2	4	11	7
Dec	0	0	0	0
TOTALS	17	26	74	48

Climbing

Month	Permits	Persons	User Days	User Nights
Jan	8	17	145	128
Feb	10	20	52	32
Mar	56	105	314	209
Apr	29	50	153	103
May	6	14	34	18
Jun	26	57	150	94
Jul	8	17	41	24
Aug	8	17	51	35
Sep	39	75	192	116
Oct	82	163	429	270
Nov	37	69	213	145
Dec	3	4	13	9
TOTALS	312	608	1787	1183

ZION NATIONAL PARK

Backcountry Routes Use, 1995

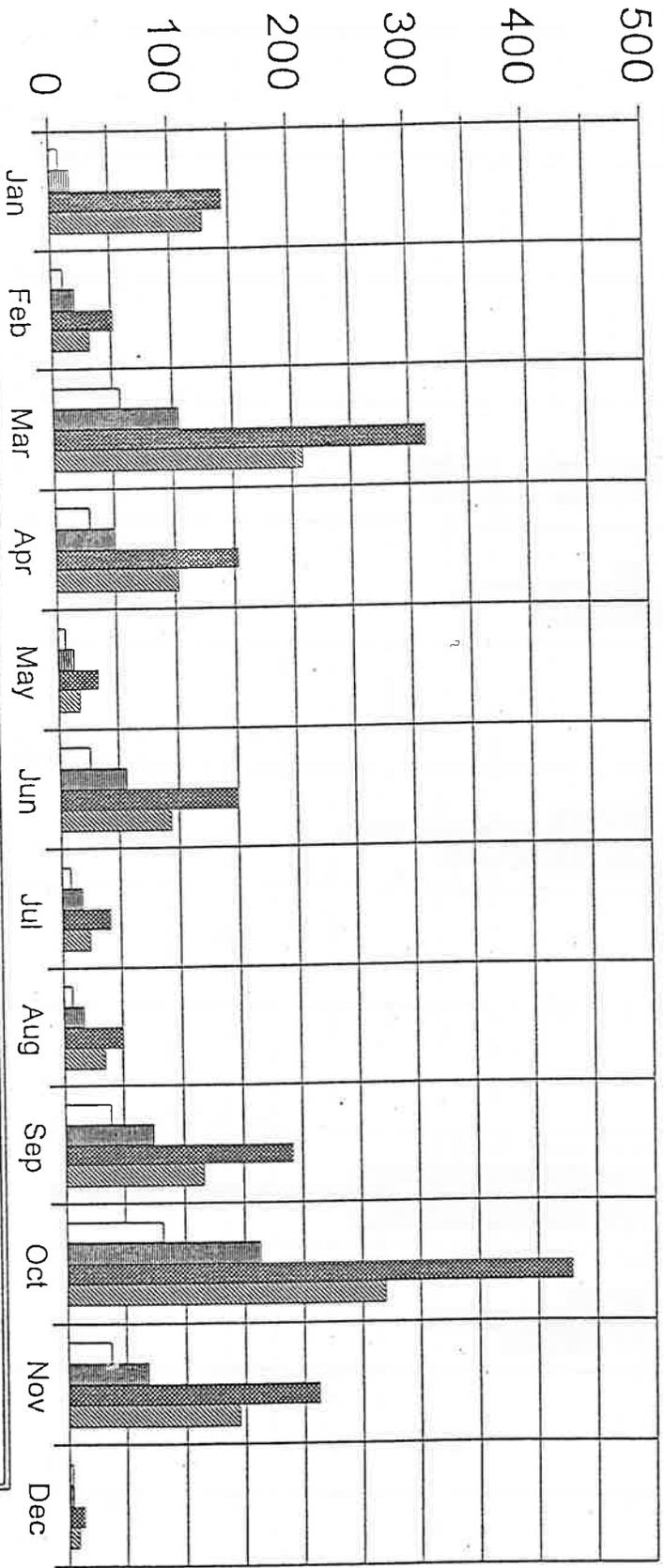


Note: Backcountry routes are defined here as those less commonly used and more difficult to access.

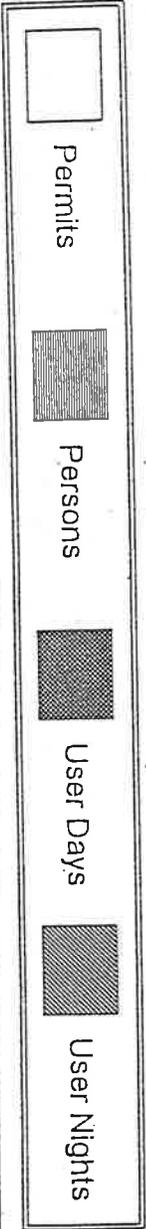
- Permits
- Persons
- User Days
- User Nights

ZION NATIONAL PARK

Climbing, 1995

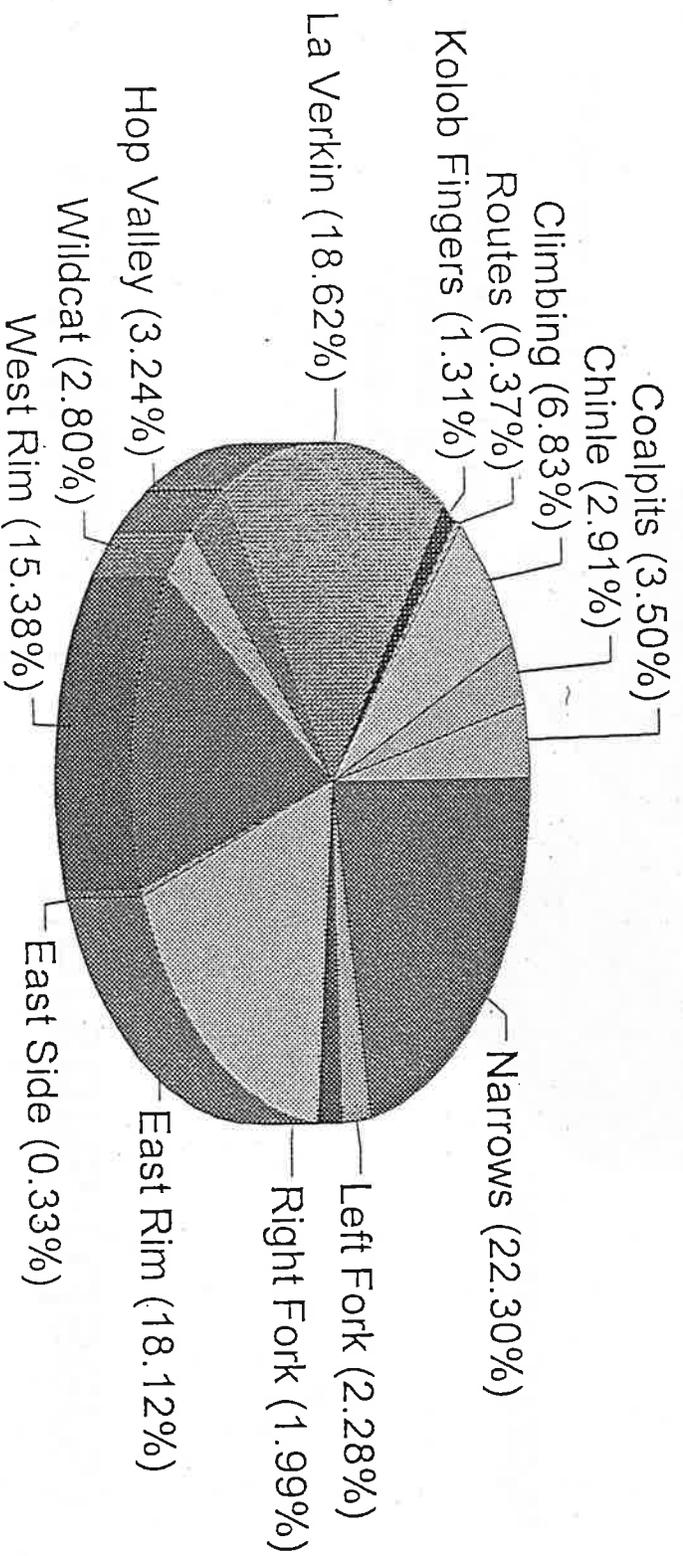


Note: Climbing statistics are affected by route closures designed to protect peregrine falcon nesting and nesting attempts.



ZION NATIONAL PARK

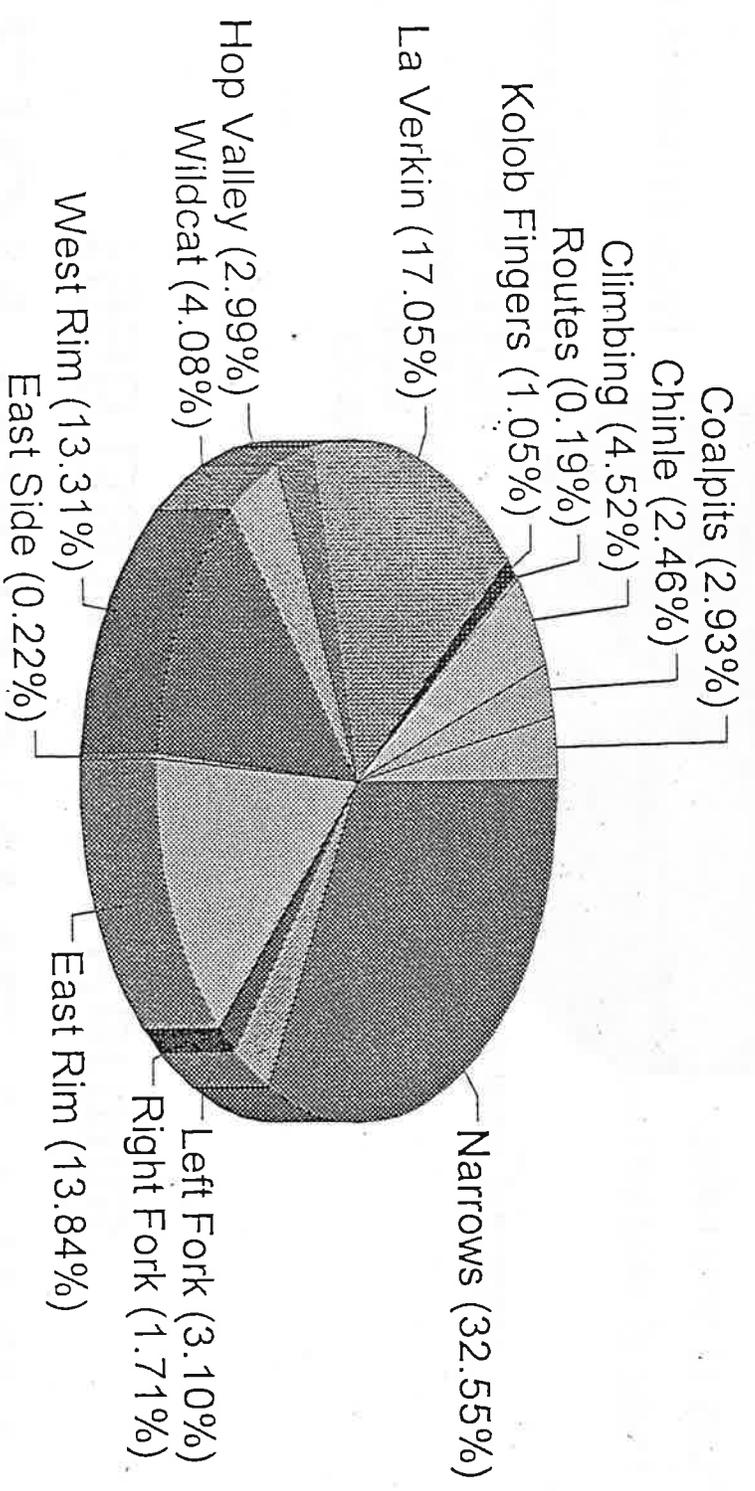
1995 Backcountry Permits



Pie graph shows the percentage of total backcountry permits issued for each trail or route.

ZION NATIONAL PARK

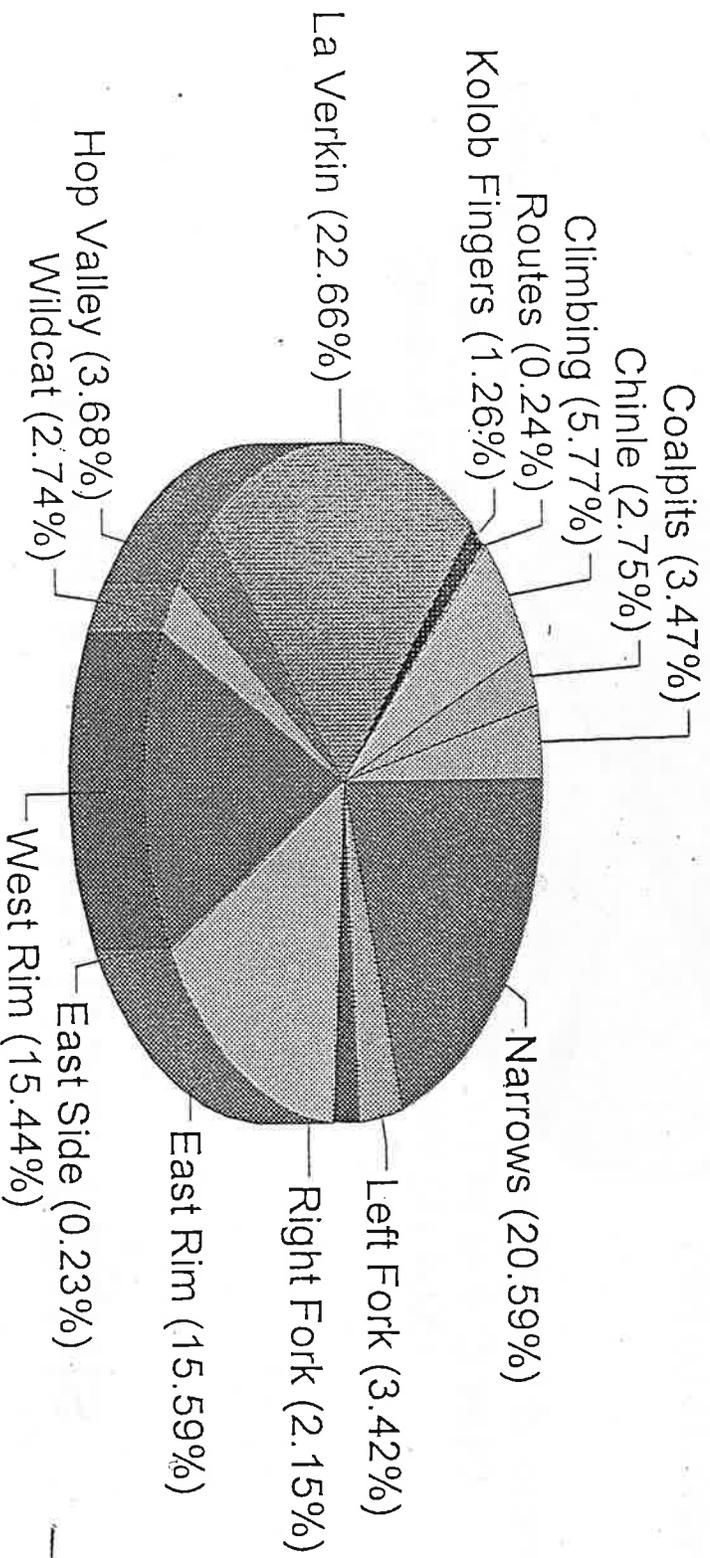
1995 Backcountry Persons (Users)



Pie graph shows the percentage of total backcountry persons (users) for each trail or route.

ZION NATIONAL PARK

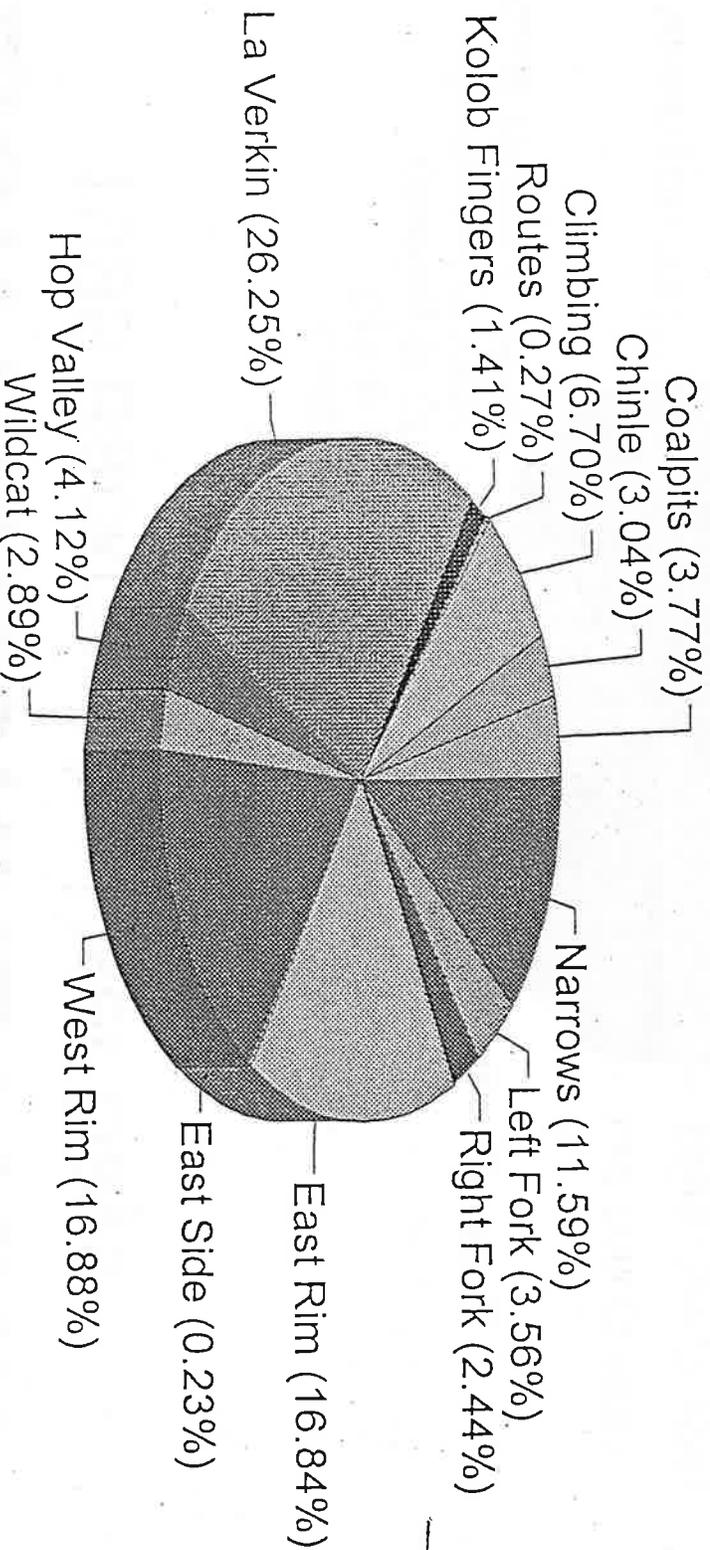
1995 Backcountry User Days



Pie graph shows the percentage of total backcountry user days for each trail or route.

ZION NATIONAL PARK

1995 Backcountry User Nights



Pie graph shows the percentage of total backcountry user nights for each trail or route.

KOLOB CANYONS DISTRICT

RANGER ACTIVITIES

FY 1995

YEAR END REPORT

Visitor Stats:

	<u>Visitor Center</u>	<u>Vehicles</u>	<u>Backcountry Camping</u>
October	6,520	7,716	529
November	2,112	3,729	120
December	912	2,431	4
January	1,529	2,633	18
February	2,412	5,551	37
March	3,624	6,780	485
April	6,340	8,242	632
May	8,680	11,284	923
June	9,631	11,171	1,196
July	9,488	11,006	612
August	8,986	9,833	445
September	7,485	7,498	347
Totals	<u>67,719</u>	<u>87,874</u>	<u>5,348</u>

Note: Backcountry user nights are for Kolob Canyons District only. The total visitation at Kolob Canyons for the fiscal year of 1995 is 217,571. The total visitation for FY94 was 188,724. the backcountry overnight use for FY94 was 3,990.

Interpretation:

Visitor center operations- 5,620.68 interpretive hours.

Roving interpretation- 77.42 hours.

Formal programs- 1 given to the Cedar City Kiwanis Club on geology of Zion National Park.

Projects completed:

- *School visit letters approved and distributed.
- *TIS transmitter repaired.
- *Outside exhibits displayed throughout the season;
 - "Kolob Canyons hiking"
 - "The food chain"
 - "Birds of Kolob"
 - "Canyon water"
 - "Kolob Canyons, one step on the grand staircase"
- *Visitation stats maintained.
- *Ranger photo reference guide of Kolob Canyons wildflowers.
- *TIS information tape for 9am to 5pm recorded.
- *Road counter repaired.
- *Slide file re-cataloged.
- *Information collected from interview with Olaf Larson.
- *Kolob xerox handouts of trails and routes removed.
- *Participation in Zion's interpretive training.
- *Editing of park guide.
- *Weekend maintenance duties.
- *Trail information board
- *Backcountry travel information board.

Patrol operations:

B.C. Patrols

FY95- 78
FY94- 63

Note: the following c-tags, violation notices and case incidents were primarily written by one law enforcement ranger at Kolob Canyons in FY95. Case incidents do not include backcountry trail reports, c-tags or violation notices.

C-tags FY95-45 FY94-69

19-traffic
13-camping
11-resource preservation
2-firearm/hunting

Violation notices FY95-30 FY94-29

20-traffic
1-camping
5-resource preservation
2-firearm/hunting
2-alcohol related

Case incidents FY95-82 FY94-83

1-SAR
1-poaching
6-livestock trespass
10-larceny
1-medical
9-visitor assist
7-resource preservation
2-MVA
22-others

23-Agency assists;
2-vehicle fires
1-medical
1-vehicle search
1-wildlife
1-MVA
1-larceny
16-others (including disabled vehicles)

Projects completed:

Signs

- *Double Arch Alcove.
- *Visitor center trail information board.
- *Cougar Canyon.
- *Upper Camp Creek gate.
- *Timber Creek Overlook.
- *Visitor center "Grand Circle" sign reversed.
- *South Fork trail sign.

Resource

- *Taylor Creek trail head steps.
- *Taylor Creek trail to Larson cabin brushed and delineated.
- *Camping zones evaluated.
- *Kolob Canyons wilderness management draft.
- *Gate replaced at Buck Pasture Mountain.
- *Boundary fence put up along Horse Ranch, Buck Pasture and Camp Creek.
- *Old fence removed from lower Camp Creek.
- *Eradication at;
 - residential area
 - South Fork area
 - Timber Creek
 - Camp Creek
- *Fuel reduction around buildings.

Other projects completed

- *Fire extinguishers inspected.
- *MOU draft with Kanarrville F.D.
- *Mid-season and final performance evaluations.
- *SAR equipment re-organized.
- *S.O.P.'s revised.
- *Wildland pumper on line.
- *Public assembly area designated.
- *Additional sensors added to alarm system.
- *Radon test.
- *Safety inspection.
- *Needed supplies and equipment acquired.
- *Assistance to hurricane disaster.
- *Horse use clinic conducted.

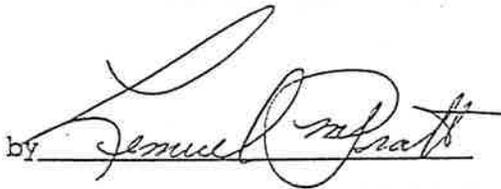
Training attended:

- *Managerial Grid
- *EMT refresher
- *L.E. refresher
- *DUI refresher
- *Quarterly firearms qualifications
- *NPS leadership

The Kolob Canyons staff worked very hard to accomplish the projects this year. With the staff reduced to half strength and the visitation increase we were obtaining mid-season burn out prior to Memorial day weekend. But, we pulled through it with flying colors in the best tradition of the National Park Service. I personally thank Richard Fesler, Al Klein and Bruce Winslow for an outstanding job! I also thank those from the mother ship in backcountry, resource management, interpretation and administration who gave the Kolob Canyons District the needed support to stay a float. There was more accomplished this season than in the past three seasons. God willing, we will continue to achieve a high level of performance. Ownership moves to dedication and motivation. It has truly been a team effort.

Submitted

by

 10/13/95

Lemuel M. Pratt
Kolob Canyons Area Ranger

FIRE MANAGEMENT

Weather Summary

In capsule, 1995 weather was a warm, wet winter, spring, and early summer, followed by a dry, hot late summer, fall, and early winter. 21.32 inches of precipitation fell at Zion HQ in calendar year 95, 30% above the 20 year mean, 16.35 inches. Rainfall for December, March (5.73"), May (2.07"), and June (0.55"), exceeded all of the previous four year's amounts for those months. The June 95 total exceeded the sum of all four prior Junes. In addition, amounts in November, January (4.97"), April (2.25"), and August (1.97") were second out of five. The tap turned off, and there was no moisture in July or October. The rainfall total July - December 95 (4.23") was lower than the same period in any of the previous four years. An appended graph compares rainfall totals over five years for the six month period January - June with annual fire numbers.

The abundance of grass at lower elevations resulting from the moisture contributed to large fires on neighboring BLM and state lands. In the park, fuel moistures remained high, with only one day in June reporting fuel moisture sticks below 5%. Lack of the normal July monsoon, however, enabled fuels at all elevations to eventually dry to critical levels. Between July 21 and August 8, 4% ten-hour fuel stick moisture was consistently reported at both Lava Point and the Zion Canyon weather stations.

August rainfall was heavy in places, but widely scattered, as monsoonal moisture and stationary cold fronts flirted with southwest Utah in the early part of the month, and finally came after mid-August, and then cut off rather quickly. A dry period followed into early September. Between 9/6 and 9/10 a general storm dropped 0.74 inches at Lava Point and 0.77 at headquarters. Following this, fuel sticks again dropped and remained at 4% and 5% from 9/14 through the end of October. A storm 10/31 - 11/1 effectively ended potential for significant fires.

As opposed to 1994 when there were an abundance of red flag warnings, in 1995 the first was issued August 3, for low humidities, strong winds, and dry lightning. Warnings were issued again August 7, 8, 10, 15, 16, and 17. Unseasonably low humidities and hot temperatures occurred in mid-October, and red flag warnings were issued October 21 and 22.

The first lightning storms in the area occurred 6/27 - 6/30. In July, normally a month of frequent thunderstorms, only a handful of ground strikes were reported by the BLM automated lightning detection system, and only on July 9. The first significant lightning since the June storm occurred 8/10. Strikes were again reported 8/16, 8/20 - 8/23, and a powerful storm on 9/5 and 9/6. There was another 9/28 and the last of the season 10/31.

1995 Fire Summary

Lightning fire activity in Zion in 1995 was slightly below the ten year average. Park crews were frequently called to operations on nearby lands, as BLM-Cedar City and Arizona Strip Districts had an active fire season.

There were nine wildfires in Zion NP in 1995 for an estimated total of 2.5 acres, six caused by lightning and three by park visitors. The most significant was the 1.5 acre Cottonwood fire, across the Virgin River from the horse operation at Birch Creek. Four lightning fires went out naturally before crews reached them.

There were four prescribed natural fires. The estimated 7 acre Sacrifice fire in the Towers of the Virgin behind park headquarters accounted for nearly all the acres. Four management-ignited prescribed fires resulted in 109 acres treated. A prescribed fire module from Bandelier National Monument worked at Zion and Bryce for four weeks; assistance from this team was critical in enabling Zion to complete two of the park's burn projects.

Project work focused on mechanical clearing of brush and trees at Lava Point, final preparation of the East Mesa unit, and completing an archeological survey of the proposed Stave Spring unit.

Installation, data collection, and analysis of ten fire effects plots in Ponderosa and mixed conifer forests on the plateaus east of the Virgin River was a major accomplishment of PNF monitor crew for the year. This was accomplished despite loss of key personnel at critical times of the year.

Zion crews suppressed or assisted in suppressing four fires on nearby private lands, including the twenty two acre Dalton Wash fire northeast of Virgin. Park personnel supported local agencies on twenty eight fires managed by Cedar City BLM, the State of Utah, the Dixie National Forest, and the Arizona Strip BLM. Included were dispatches of thirteen engines, assignments on thirteen fires for Zion fire fighters working on Arizona Strip helitack, and eight fires for Zion personnel on Color Country crews.

Park personnel assisted Grand Canyon National Park with the Mathes Fire, a converted PNF, and Bryce Canyon National Park with the County Line and Yovimpa management-ignited prescribed fires.

Out of area assignments were rare: an EMT for the Twin Butte fire in Idaho, a Color Country crew dispatch to Nevada, and replacement engine crew for Socorro, New Mexico.

Of the thirteen in-park wildfires and PNF, there were two in June, four in July, two in August, and five in September. Normally highest fire occurrence is in August. Eight off-park assists were made in June, fourteen in July, ten in August, five in September, and the last on October 21.

Season Highlights

In-Park Wildfires

The first park 1995 wildfires, Hail and West Stave, began 6/30. Management of Hail as a PNF was considered, but rejected because of its troublesome location near the boundary. Although hit by heavy showers, it continued to burn in logs. A light engine extinguished it after the struck tree fell. Showers did put West Stave out.

On 7/13, trails foreman Deines came upon a Scout troop piling dirt on a fire at Stave Spring trail head where the troop had illegally camped and made three campfires. The fires were dry-mopped.

On 7/15 the Cottonwood fire was reported on the west bank of the Virgin across from the Court of the Patriarchs turnout. Engines 1, 6, and 7 responded. Engine 1 pumped a hoselay across the river and kept engine 7 filled to pump another line. The fire was moving to the west in short grass as fire fighters and hoselays pinched it at 1.3 acres, before it could go upslope to the northwest and make big problems. An undetected ember came to life 0630 the next morning in the turbulent down-canyon winds; it was quickly contained by three engines and a hose run through the river. There was only a slight increase of fire perimeter. No cause was found, although conjectured as a cigarette. There is a tree that can be walked across the river; tubers portage around some boulders there.

The Slick fire was reported 7/21 in the Virgin Narrows, smoke was observed over the next couple days, but the fire was never firmly located, and went out. Two fires were reported 7/27 in Watchman campground; Engine 7 (Ashley/Olson) put out a 20 X 20 spot.

Three lightning fires started in early September. Tin Roof and Close, started 9/6, were both rained out. Close was seen by park crews working at Lava Point, Tin Roof was a pilot report. Tra 9/8 was extinguished, just off the MIA road near the boundary.

Joint Action

Engine 3 responded to a fire reported in Trees Ranch/Chinle Trail area 6/1; none was found. Engines 1, 3, and 7 responded to a fire near the Zion House B & B in Springdale the evening of 6/15. Rockville-Springdale FD was at the scene; the fire was controlled.

The Dalton fire 7/3 involved joint initial attack on an escaped brush clearing fire on state and private lands in the Dalton Wash area. The fire was first reported on Smith Mesa by an off-duty ranger near Kolob Reservoir. Engine 7 (Lewelling and Sidles) was first on the scene, locating it and reporting active spread. A tender and the county fire warden arrived soon after, as did Engine 3 enroute from the Birthday fire, Engine 6 (Geiger and Chamberlin) and FMO Latterell. The fire was contained at about 22 acres after burning up a steep slope, with the help of bucket drops.

Ashley and Olson put out a fire in the Ponderosa Hunt Club 9/3.

Off-park support

Off-park support began in June with several incidents of initial attack engine support for BLM-Cedar City: 6/1 Bracken Pond, engine 7 (Geiger, Lewelling, Olson); 6/15 Twist, engine 6 (Walton and Olson); and 6/27 Bird Refuge, Engine 6 (Walton and Sidles). The first Color Country call came 6/29 for Veyo; the crew (Olson, Breeding, Winsor and Nelson) went to Arizona Strip fires 7/1.

Support in July was active. Sidles and Walton were with helitack on the Air Strip/Nevershine fires 7/1 and on Birthday, Tasteful, and Rest, before going to Parowan Canyon fire 7/7 on the Dixie NF. Engine 3 responded 7/3 to Birthday (Ashley, Lissoway, and Betenson). A Color Country crew (Deines, Patmore, and Chamberlin) went to Parowan Canyon, as did Lewelling and Dunlavey to helitack. Engine 3 (Ashley, Butler, and Nelson) responded to Milford Pass fire 7/9. Geiger, Olson, Deines and Patmore worked at the retardant base in Cedar City and Chamberlin went to Milford Pass to join the engine crew, along with Walton and Olson. A Color Country crew was dispatched 7/18 to the Hills Creek fire on the Dixie NF (Ashley and Forester); Olson responded with helitack. Nelson went to the Sky Ranch fire 7/23 with helitack and on 7/30 was dispatched to the Twin Butte fire on the Boise BLM District as an EMT.

August started actively, then quickly off-park activity slowed. Fred Hoeger went to eight BLM fires with helitack. Engine 3 (Ashley, Lewelling, and Caples) went 8/3 to the Matthes fire at Grand Canyon NP. Menz was dispatched with helitack and also worked on Hindu and Little fires at the Canyon. A Color Country crew (Walton, Nelson, and Winslow) responded to the Microwave fire 8/7 and went to the Pintura fire 8/8. Engine 6 (Olson and Nelson) responded to a fire near the Eagle Crags 8/9. Although smoke was seen from Springdale, the fire could not be found.

Engines 6 and 7 responded to the North Gulch fire on the Arizona Strip 9/6 (Walton, Nelson, Hayde, Lewelling, Dunlavey, and Holland). Engine 6 assisted Hurricane FD with Roadkill fire 9/9, reported while enroute to Kolob Canyons. The last Color Country call-out was to Cave Canyon near Elko 9/17 (Ashley and Olson). Holt Canyon 10/21 on the Pine Valley Ranger District ended the season; Engine 7 was dispatched with Walton, Sidles, and Nelson.

Fire Planning

No changes were made to the park Fire Management Plan; updates need to be made to the step-up plan to allow for EFF use. Discussion of interagency fire plans among the local FMOs is beginning. A verbal agreement was made with BLM Cedar City for Zion to respond to fires on BLM lands west of the park, in the area visible from Highway 9.

The Glen Canyon fire plan was approved in 1995, with assistance from the Zion FMO.

Prescribed Fire

Nine acres near Watchman Campground were burned 6/19 - 6/21, about 83 hours of work time for ignition, holding, and mop-up. Its purpose was to remove grass along roadways to prevent a fire from spreading to involve several campsites. The wet winter/spring prevented the normal ditch and grass burning to reduce the hazard.

Ignition of the East Mesa prescribed burn block began 8/18 and continued 8/19. Approximately 40 acres were burn just south of the East Mesa trail, to secure the high points of the unit from fire moving upslope from the south. An engine and water tender from Bryce Canyon assisted in holding both days. The Bandelier module assisted with ignition, and engines from BLM-Cedar City and the Dixie National Forest assisting in holding. Rain came on 8/20 to knock the fire down, but some mop-up also was needed. A second piece of this unit was ignited 8/30, with approximately 40 acres ignited along the east boundary from the East Mesa trailhead to Lemmon Spring. Strong winds the afternoon of 8/31 challenged the crews on the scene. A heavy engine from BLM-Cedar City district arrived at a critical time to deliver water to the light engines on the unit. Bryce again assisted with an engine.

Ignition of piles in the Lava Point area 11/02 - 11/04 over an area of about twenty acres completed the management-ignited fires of the year. Because of the dry fall, it was necessary to wait until after the November storm to burn the piles of limb wood and brush. Preparation of this area was begun in July, and continued through the first part of October.

The Sacrifice PNF was ignited 8/17 on an isolated mesa in the Towers of the Virgin and enchanted park residents and visitors with a light show that evening. On 8/18 it appeared to slop off the mesa, but recon showed this was not so. Additional flights were needed to map, document with photography, and confirm the fire was out after no smoke was seen from Zion Canyon. Photos were taken of re-growth on the nearby Inclined Temple fire of 1992. Three additional PNFs (Smoky, Camp Creek, and Oak Creek) were in areas with rocky soils and limited ground fuel; they did not spread beyond the vegetation first ignited.

Engine 7 assisted Bryce Canyon personnel with the County Line prescribed fire 7/20. Lewelling and Sidles were fire monitors; Latterell worked with ignition and holding crews. Engine 3 (Ashley, Olson, and Holland) were a holding crew for the Yovimpa prescribed fire 8/21 - 8/28.

Preparation of the Stave Spring prescribed burn unit along the east boundary was begun; an arch survey was completed with fire personnel assisting the park archeology staff. Preparation of line along the boundary fence was also begun.

Aviation

Aircraft use for fire operations was very limited, with only two helicopter and two fixed wing flights made, associated with the Sacrifice PNF, and no landings in the park. There were three missions each made to Timber Top and West Temple for repeater maintenance. All the flights to Timber Top departed directly from St. George, and landed only at Timber Top.

Following S-217 Interagency Helitack training, several individuals worked one week details with the Arizona Strip helitack crew to build their skills: Kevin Walton, Cyndi Sidles, Mike Lewelling, Ed Dunlavey, Dave Olson, Dave Nelson, Fred Hoeger, and Marsha Menz.

Aviation Use

Hawkins & Powers (BLM-Arizona Strip contract)	- -	6.6 hours
6/11 and 24, 7/6 Timber Top repeater	2.6	
7/27 Wildcat Canyon SAR	1.1	
8/17 and 8/18 Sacrifice PNF	1.9	
9/20 West Temple repeater	1.0	
Skyhawk (BOA - Minersville)	- - - - -	6.5 hours
10/23 and 10/24 West Temple repeater		
Classic Helicopters (BOA - GRCA)	- - - - -	3.5 hours
4/13 Sponge Rock Slide		
Classic Helicopters (BOA - Page)	- - - - -	4.1 hours
5/28 Left Fork SAR		

Total Helicopter Flight Time - - - - - 20.7 hours

Note: additional flights for Bighorn sheep capture contract 12/23.

Scenic Airlines (BOA - Cedar City)	- - - - -	2.21 hours
8/22 and 8/29 Sacrifice PNF recon		

Redtail Aviation (BOA - Green River)	- - - - -	5.0 est
6/20 Bighorn sheep telemetry by Nat Biological Survey		

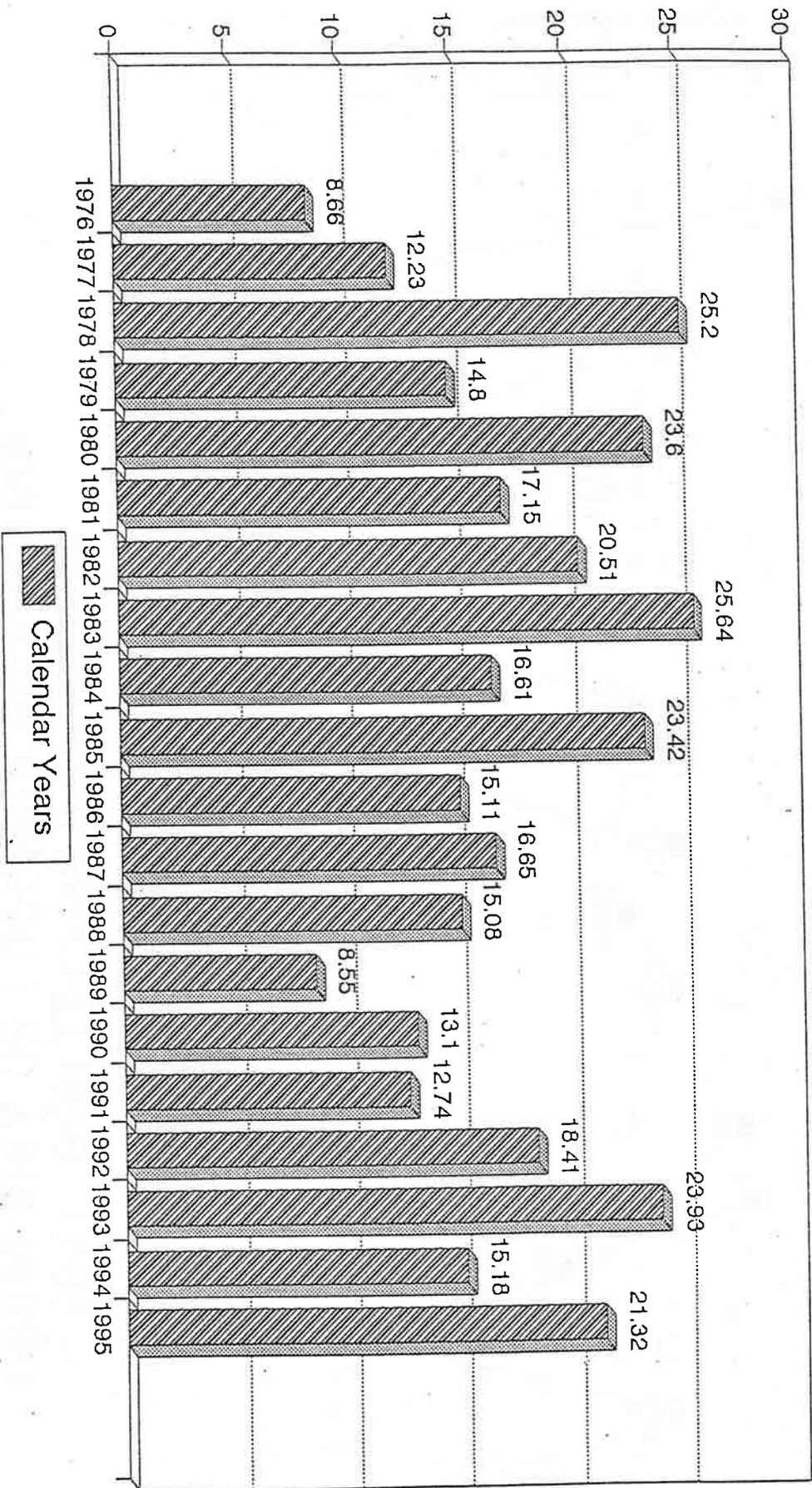
Total Fixed Wing Flight Time - - - - - 7.21 hours

Cache and Equipment

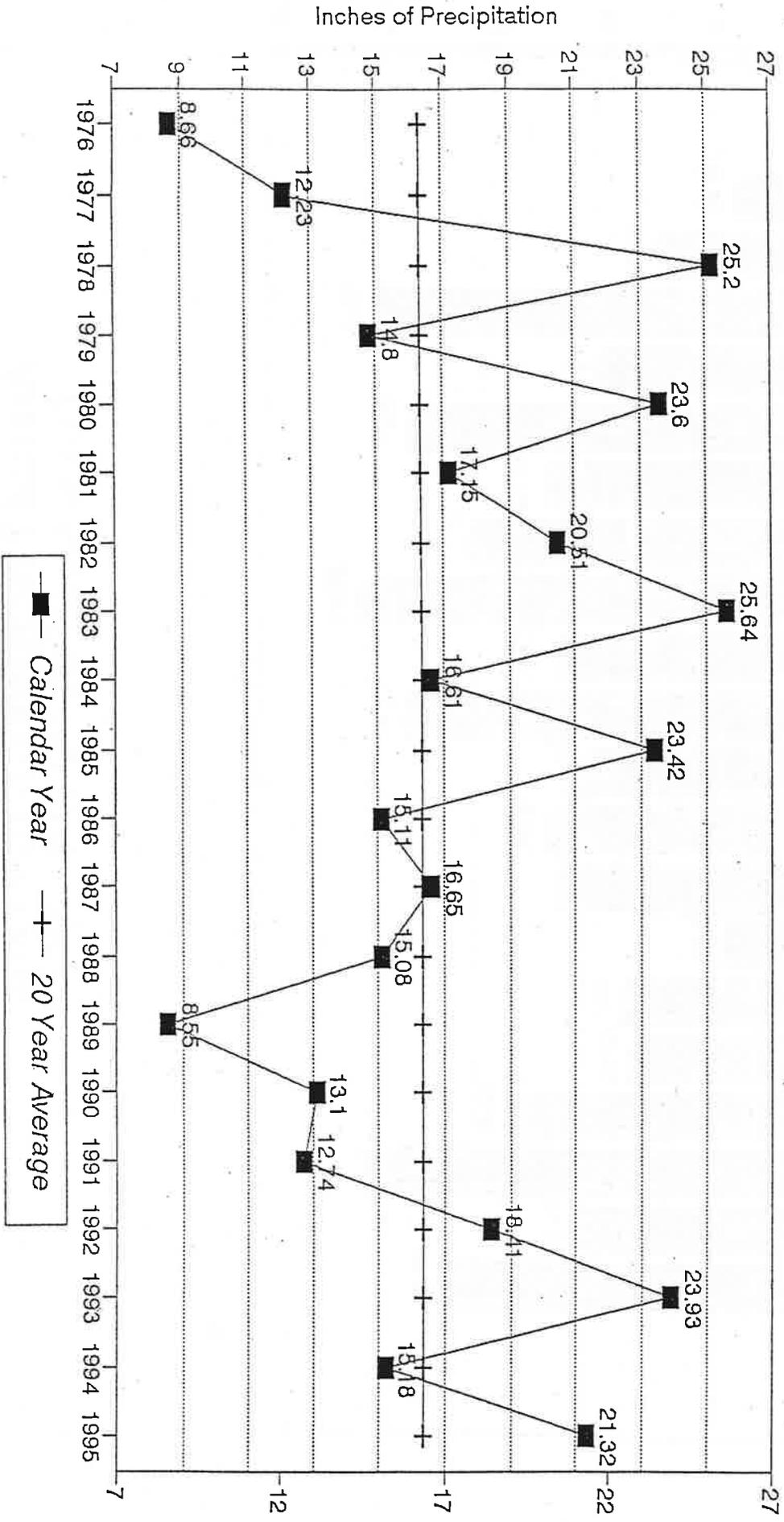
Funds previously held at the Region were transferred to Zion Fire to support Area parks for physicals, training, PPE, and so on. Zion solicited and received lists of supply and equipment needs. Training travel was covered for Bryce and Capitol Reef. Surplus weather equipment from BLM Cedar was transferred to Timpanogos. Purchase, transfer, and/or exchange of supplies and equipment was made for Golden Spike NM, Timpanogos Cave NM, and Capitol Reef NP.

Annual Precipitation Amounts

Zion National Park HQ 1976 - 1995

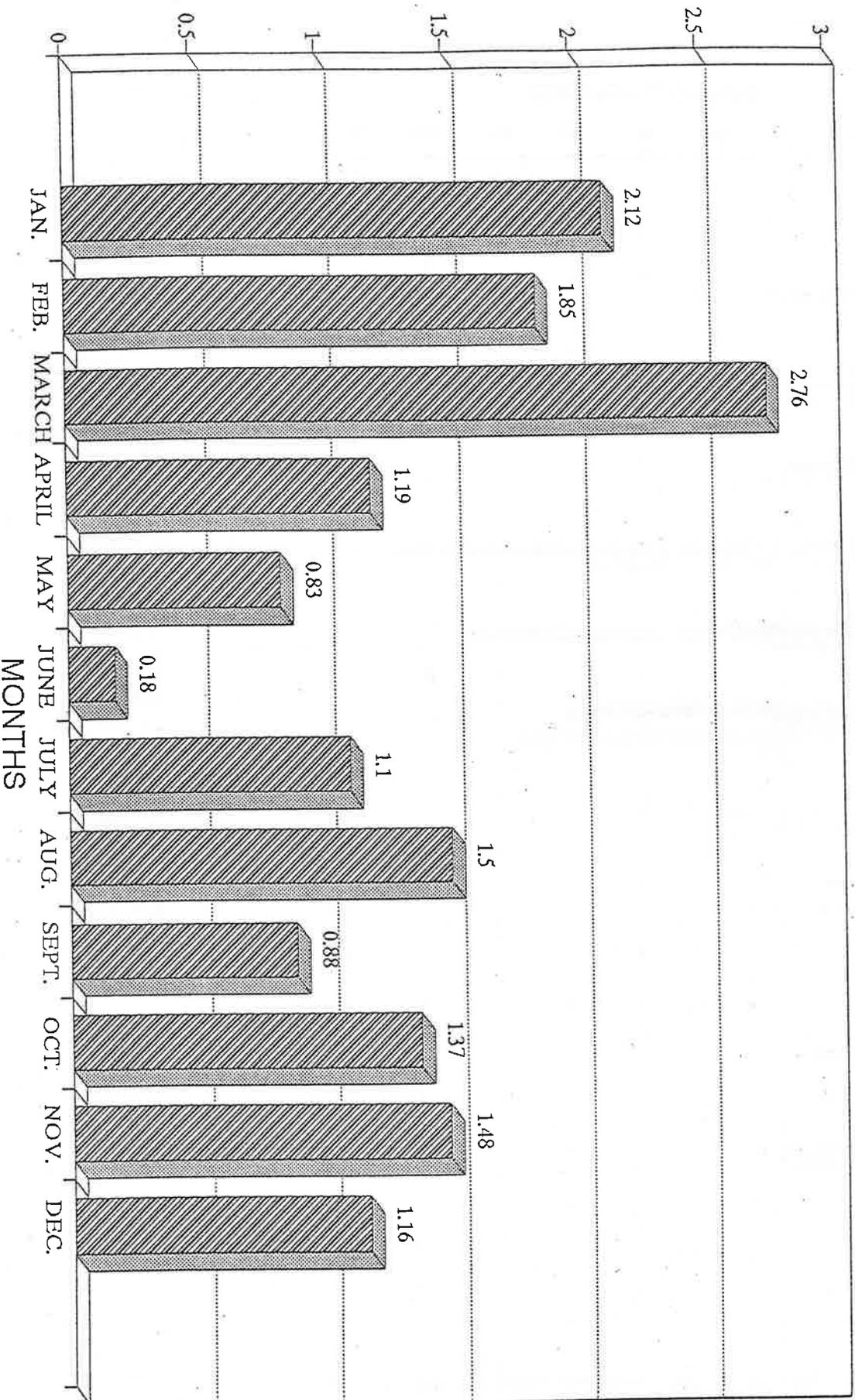


Annual Precipitation / 20 Year Mean Zion National Park HQ 1976 - 1995

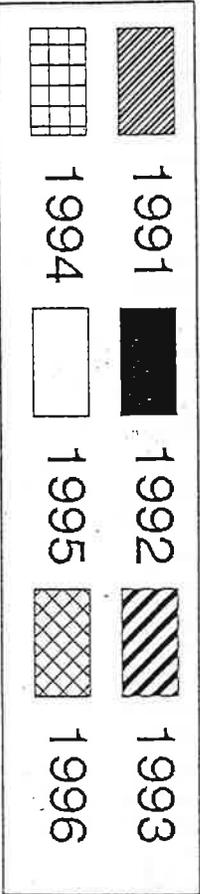
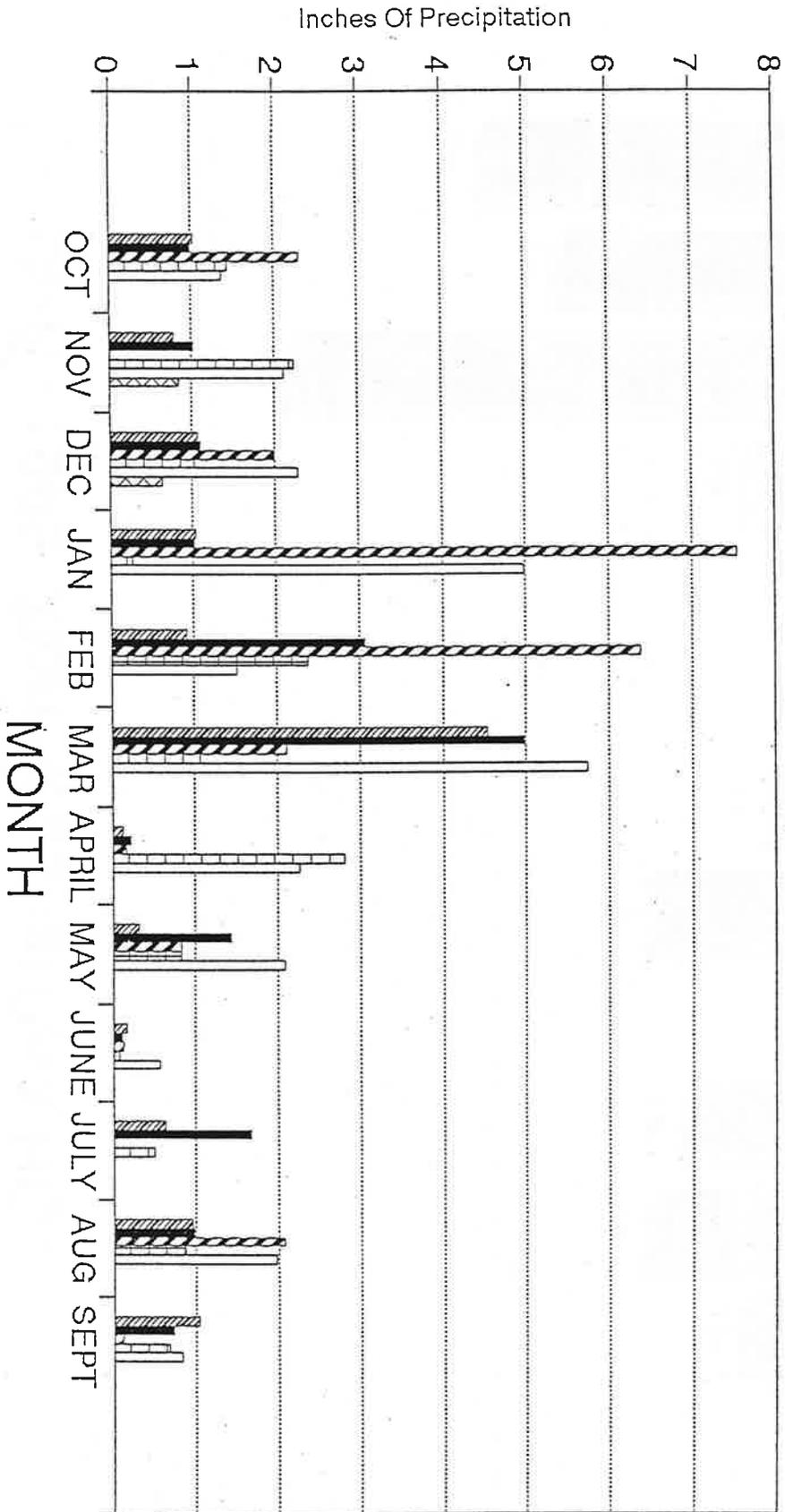


Average Monthly Precipitation

1976 - 1995 Zion National Park HQ

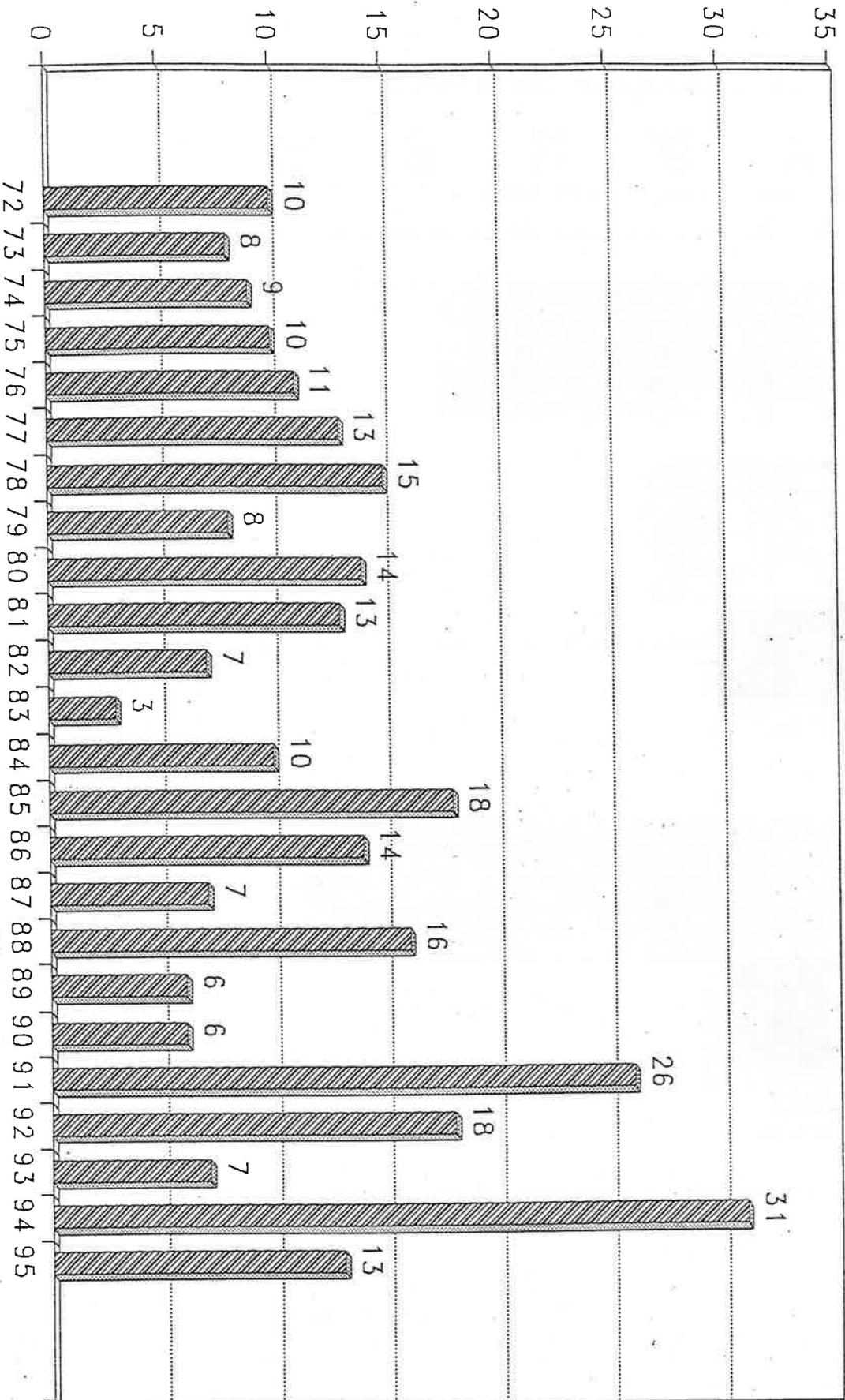


PRECIPITATION TOTALS ZION H.Q. WATER YEAR 1991-1996



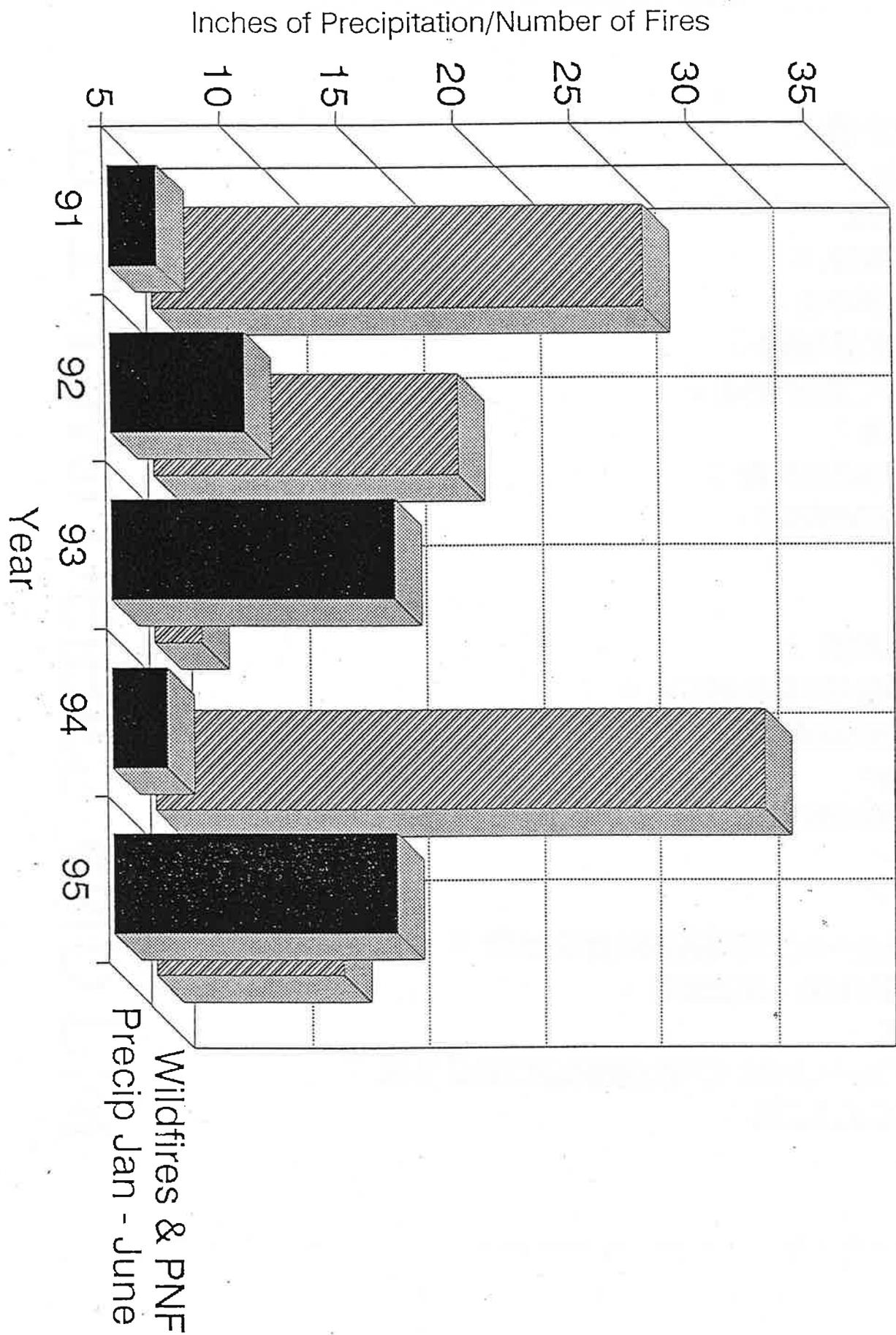
TOTAL WILDFIRES AND PNF

Zion National Park 1972-1995



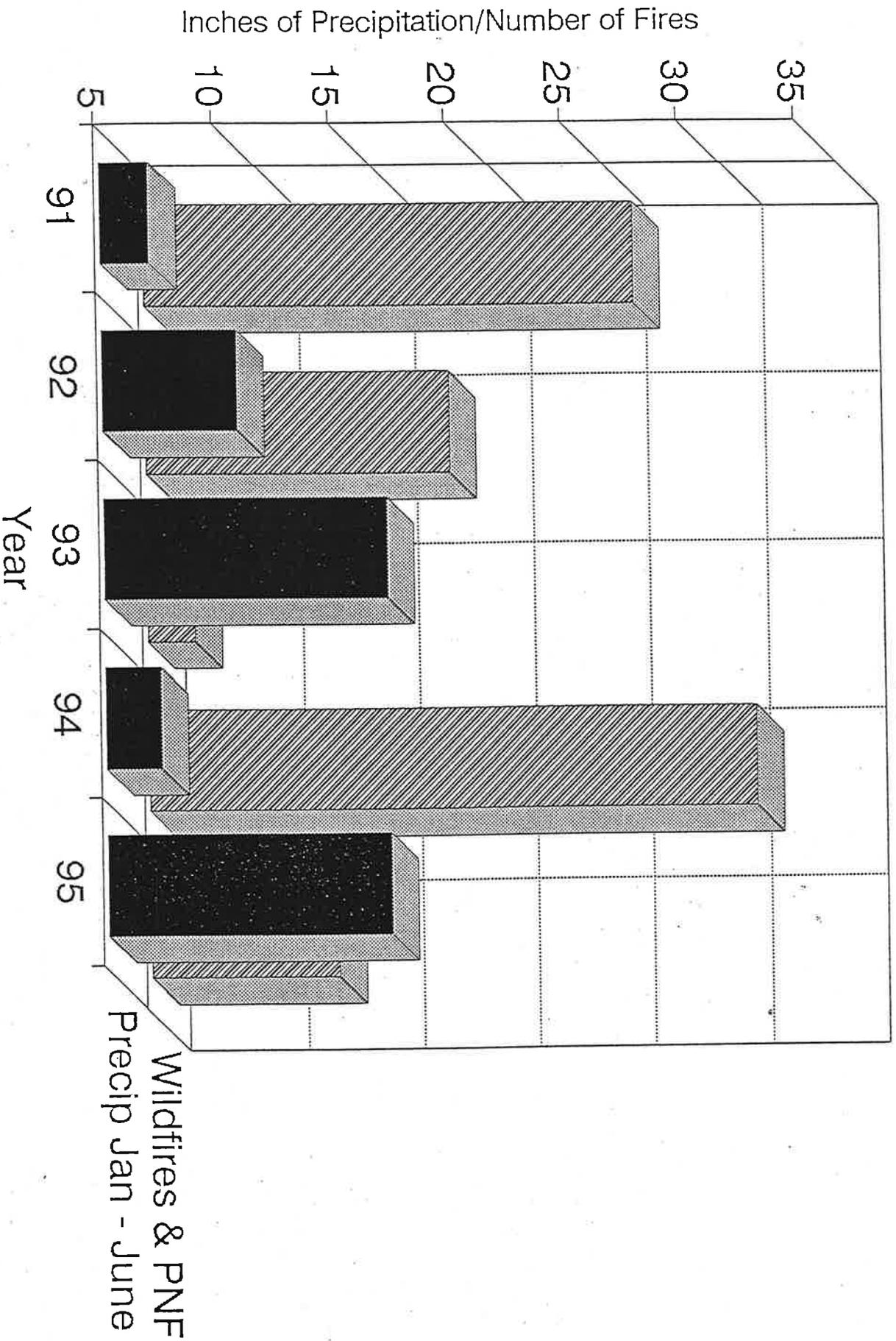
Fires and Precipitation January-June

Precipitation - Zion NP Headquarters



Fires and Precipitation January-June

Precipitation - Zion NP Headquarters





United States Department of the Interior

NATIONAL PARK SERVICE
Pipe Spring National Monument
HC 65, Box 5
Fredonia, Arizona 86022

IN REPLY REFER TO:

A2621 (PISP)

February 16, 1996

Memorandum

To: Field Director, Intermountain Field Area
From: Superintendent, Pipe Spring National Monument
Subject: Annual Narrative Report for 1995

Enclosed, you will find a copy of my annual narrative report for Pipe Spring National Monument in 1995. The staff at Pipe Spring are extremely proud of the work we have accomplished during 1995. We hope you share in that feeling.

Should you have any questions whatsoever, please give me a call.

John W. Hiscock

cc: Supt., ZION

SUPERINTENDENT'S ANNUAL NARRATIVE REPORT - 1995

PIPE SPRING NATIONAL MONUMENT

GENERAL MANAGEMENT

- Statement for Management: A management assessment session was held and successfully completed in January, 1995 with participation from local residents, nearby National Park System units, the Kaibab Paiute Tribe, and congressional staff from the Arizona and Utah delegations. The resulting Statement for Management was completed in final form in June, 1995.

- System-wide Initiatives: Pipe Spring National Monument management provided support to system-wide initiatives, furnishing training to a significant portion of the former Rocky Mountain Region on the reorganization of the National Park Service in the Fall of 1994, supplying Mission Renewal training for Zion National Park, Pipe Spring National Monument, and Cedar Breaks National Monument in November and December of 1995, and giving training assistance on the Native American Graves Protection and Repatriation Act for the Field Area in the Spring of 1995.

- Colorado Plateau Cluster Work: Pipe Spring management represented the cluster in prioritization of cultural resource special project funds for FY'96 on the Intermountain Field Area level.

- Tribal Relations: Partnerships with the Kaibab Paiute Tribe have been developed and nurtured, including jointly funded work on the Reservation/Monument water system, tribal involvement in development of interpretive publications and programs, coordination of tribal participation in National Park Service (NPS) training programs, and concurrence in proposals for hydrological research.

ADMINISTRATION

- Staffing : Andrea Bornemeier was appointed to the Chief of Interpretation and Resource Management position at the Monument in February, 1995.

A new subject to furlough maintenance worker position was established and filled by David Hinman.

A new permanent curator position was established at Zion National Park with responsibilities (approximately 30-40% of work time) devoted to Pipe Spring National Monument needs. Steve Floray

was appointed to the position.

Three seasonal ranger (025) positions were converted to term positions in the Winter of 1994/95. Supplementary funding to cover a portion of the added expense of these positions was acquired. A new term lead park ranger position was established and filled.

The Zion Natural History Association donated approximately \$4000 for the establishment of a seasonal, living history ranch hand position.

- Budget : The Pipe Spring National Monument ONPS budget for FY'95 was \$297,000.

The volunteer program at the Monument was supported by a \$2500 allotment in FY'95.

Fee collection was supported by a \$13,000 allotment specifically for collection purposes (although fee collection operations required an additional \$13,500 expenditure out of ONPS funds to operate at the minimally necessary level).

Special project funds obtained for FY'95 and managed by the Monument included: \$5000 for exterior repainting and associated repairs on Winsor Castle; \$15,000 for emergency conservation treatment on Winsor Castle and other historic structures, mainly devoted to masonry repairs; \$30,000 toward upgrading museum collections management; and, \$4500 dollars toward repair and rehabilitation of interpretive audio and visual waysides. Special project funds obtained for FY'95 and managed by the former Rocky Mountain Regional Office included: \$5000+ for beginning an administrative history of the Monument; and, \$42,900 for investigation and remediation of underground storage tank leakage.

A total of approximately \$12,000 was donated by the Zion Natural History Association in support of general interpretive, living history, and resource management efforts at the Monument.

RESOURCE MANAGEMENT

- Ethnographic Study: The fieldwork and research components of a Southern Paiute ethnographic study for Pipe Spring National Monument and Zion National Park have been completed by Dr. Richard Stoffle and his associates at the Bureau of Applied Research in Anthropology at the University of Arizona. A written report should be produced in completed form for the NPS in 1996.

- Historic Preservation Maintenance: A number of historic resource preservation and maintenance projects were completed or initiated in 1995, including reroofing of the historic bunkhouse, investigation of water leaching problems in the sandstone walls of Winsor Castle, masonry work on the bunkhouse, Winsor Castle and various historic retaining walls in the historic district, and repainting of the exterior trim of Winsor Castle. Masonry preservation training and project work were successfully accomplished by partnering with the Bryce Canyon National Park historic preservation crew. Project funding for additional masonry

work on historic structures is scheduled for 1996.

- Museum Collections Management: Museum specialists from Denver and Washington, D.C. offices were brought to the Monument in 1995 to review museum collections storage facilities. A new collections storage plan has been prepared in draft and implementation has begun with collections storage room modifications and equipment purchases which will result in far improved utilization of the present space available. A term position with collateral curatorial duties was on board throughout most of 1995, and the new Zion/Pipe Spring curator toward the end of the year. Both made significant headway on improving catalogue records and protection of collection items.

- Native American Graves Protection and Repatriation Act: Monument staff completed all legally required procedures for repatriation of four sets of human remains in the possession of the Monument to the Kaibab Paiute Tribe of Northern Arizona. Staff has assisted the Tribe in acquiring NPS funding for appropriate reburial of the human remains.

Monument management participated in the production of a Native American Graves Protection and Repatriation Act video intended for servicewide information and training, and coordinated participation by leaders of the Kaibab Paiute Tribe.

- Administrative History: An administrative history of the Monument was begun in 1995 and will be continued in 1996. That research will provide a historical perspective on the establishment of the Monument, changes to the structures and grounds through the years, and NPS relations with the Kaibab Paiute Tribe and other neighbors - all of which will aid in ongoing management efforts. As part of the administrative history effort, the Monument's oral history tape collection has been transcribed.

INTERPRETATION AND VISITOR SERVICES

- Visitation: There were 47,957 visitors to Pipe Spring National Monument in 1995, a decrease of 2.9% from 1994.

- Programs: Interpretive programs have been revitalized with many living history demonstrations added, and talks and cultural demonstrations by Kaibab Paiute tribal members initiated.

- Wayside Rehabilitation: Audio equipment for interpretive waysides has been upgraded from tape players to solid state technology.

- Publications: A new interpretive publication has been produced by the Zion Natural History Association with assistance from Monument staff - Pipe Spring National Monument - Landscape and History on the Arizona Strip by Lyman Hafen.

- Vermilion Cliffs Highway Project: The Vermilion Cliffs Highway interpretive wayside project continues under the lead of the Arizona Strip District of the Bureau of Land Management. Monument staff has represented the National Park Service at a number of meetings and will serve as the agency lead on the committee set up to evaluate contract bids on production of waysides.

MAINTENANCE

- Water System Upgrades: Improvements to the joint National Park Service/Kaibab Paiute Tribe water system were made by the NPS and the Tribe between the Fall of 1994 and Spring of 1995. A water meter and valves were installed in the Monument on the line feeding all branch NPS lines. This meter now makes possible accurate measurements of NPS water use and appropriate payments to the Tribe for that use. With tribal funding new lines providing improved service on the Reservation were installed, and with funds through a cooperative agreement with the NPS, a water meter and backflow prevention device were installed on those lines to better protect the system and record water usage.

- Underground Storage Tank Remediation: An underground gasoline storage tank was removed and disposed of in the Fall of 1994. Visual inspection and initial site testing indicated that the tank had a minor leak. Further soil testing was conducted in the Spring of 1995 and a final investigatory report produced. Negotiations are taking place with the Arizona Department of Environmental Quality to determine whether soil removal and/or other remediation will be required.

- Propane Conversion for Quarters: The two Mission 66 houses were changed from heating oil systems to propane furnace systems under contract. Independent propane tanks and furnaces were installed for each house. The electric water heater on Quarters #6 was replaced with a propane water heater.



United States Department of the Interior

NATIONAL PARK SERVICE
CEDAR BREAKS NATIONAL MONUMENT
P.O. BOX 749
CEDAR CITY, UTAH 84720

IN REPLY REFER TO:

A2621(418)

February 14, 1996

Memorandum

To: Field Director, Intermountain Field Area
Through: Superintendent, Zion National Park *DBB 2/16*
From: Superintendent, Cedar Breaks National Monument
Subject: Annual Narrative Reports of Superintendents and Field Directors
Response due March 1, 1996

Enclosed is the original and two copies of the subject report for Cedar
Breaks National Monument.

Thomas E. Henry
Thomas E. Henry

Enclosures

**SUPERINTENDENT'S ANNUAL REPORT
CEDAR BREAKS NATIONAL MONUMENT**

1994-95

ADMINISTRATION AND MANAGEMENT

Visitation

Visitation in CY1994 increased to 779,086, up 25% from 1993. This reported increase is due to the first full year of reporting figures generated from new state-of-the-art infra-red beam traffic counters that replaced the old 12-volt induction loop counters. The new traffic counters are much more reliable and were not rendered out-of-service as much as the old counters, resulting in more complete and accurate reporting. During the 1994 season, the park conducted a Persons-Per-Vehicle survey under the direction of the NPS Statistical Unit based in Denver. The results of that survey indicated that the average number of persons per vehicle entering the park dropped to 2.35 from the 3.3 PPV figure that had been used since the last survey was conducted in 1988. This new PPV figure was applied to monthly public use figures in 1995, resulting in a decrease in visitation during CY1995 to 579,673 (down 26%). The actual number of vehicles entering the park during 1995, before applying the PPV multiplier, was roughly the same as in 1994. We believe the total visitation figure for 1995 is most accurate, since it was arrived at by using very reliable traffic counters and a statistically valid PPV multiplier.

The park road re-opened in mid-May 1994 in time for the traditional start of the visitor season, and was closed for the season by snow in November 1994. In 1995, the normal winter closure of the Cedar Breaks Scenic Drive lasted until June 15, which is much later than usual. Along with most of the intermountain west, Cedar Breaks had an unusually high snow year, with an estimated total accumulation of 450 inches for the year. Much of the snow fell during late winter and early spring, and the park road was blocked by snowdrifts well into May. The road was cleared by Utah Department of Transportation plows from Utah Highway 14 north as far as the visitor center by June 3, but one drift that measured 30 feet high blocked the route north of the visitor center until June 15. All trails in the park remained closed by snow until late June, and the campground remained closed until July 8. The fall of 1995 was unusually warm and dry. Very little snow fell in the park and the road remained open through the close of the year. Blowing and drifting snow closed the road for the season on January 2, 1996.

Personnel

There were no additions to the permanent park staff of four in FY1994. The Supervisory Park Ranger (Chief Ranger) position was reclassified using ProClass and upgraded to GS-025-11 in accordance with Ranger Careers. Maintenance Worker (Supervisor) Richard Batt (permanent, subject to furlough) retired at the end of the fiscal year after working nineteen seasons in the park. The seasonal staff consisted of seven in Visitor Services (one more than in 1993) and three (including one term appointment) in Maintenance. The Visitor Services staff was supplemented by one Student Conservation Association Resource Assistant volunteer and one volunteer campground host. Volunteer hours donated to the park in FY94 totalled 765.

In FY1995, the Department-wide hiring freeze delayed the filling of the vacant Maintenance Supervisor position before the start of the visitor season. Those duties were assumed by the WG-5 maintenance worker (term appointment), who received a temporary promotion (NTE 120 days). Two new position descriptions were written for temporary maintenance workers and classified at the WG-5 level. The maintenance crew for FY95 remained at three employees. The seasonal visitor services staff remained at FY94 levels (seven employees plus one SCA volunteer and one VIP campground host). Volunteers contributed 794 hours in FY95.

The Supervisory Park Ranger (Chief Ranger) position was submitted for 5 USC 8336 (c) and 8412 (d) Enhanced Annuity Retirement coverage and received Departmental approval in 1995.

Kolob Canyons Transition to New Management

FY1994 marked the final year that Cedar Breaks National Monument had management responsibility for the Kolob Canyons section of Zion National Park. On October 1, 1994, the immediate management of this 36,000-acre district of Zion was returned to the Zion National Park organization, under the auspices of the Zion Backcountry District.

Coincidental to the management transition, the administrative headquarters for the park was moved from the Kolob Canyons Visitor Center to the Federal Building in Cedar City during the summer of 1994. This move made the key park staff much more accessible to the various park constituents. Since we now share the Federal Building with the U.S. Forest Service, our abilities to be involved in the decision-making process regarding land management on the Dixie National Forest surrounding the park has been enhanced.

Interagency/Adjacent Lands Management Issues

Agencies, organizations, and individuals whose activities might

impact park resources continue to be contacted to foster support and cooperation. In 1994-95, park management continued to review and comment on plans and development proposals for areas outside the park. This provides some possibility of mitigation of outside impacts on those resources in the Monument. In 1994 and 1995, the USFS continued sanitation/salvage cuts of timber near the park's boundary. The issue of commercial logging trucks hauling timber through the park was discussed with USFS officials, and the park has prohibited the use of logging trucks on the main park scenic drive (continuation of S.R. 148). The use of logging trucks on S.R. 143 through the northeast corner of the park will be permitted with certain restrictions under the terms of a 1985 Memorandum of Agreement with the Utah Department of Transportation. In 1995, the park went on record with Iron County as opposing a zoning change that would permit the division of private lands adjacent to the park into smaller lots. The park also submitted comments in opposition to several proposals that were made in an Environmental Impact Statement on Oil and Gas Leasing on areas of the Dixie National Forest that are adjacent to the park.

Training

Various park staff attended training during FY94 and FY95 to meet certification requirements in law enforcement and emergency medical services. In addition, the Chief Ranger attended Incident Command (I-420 Incident Command and General Staff) training and Tactical Law Enforcement Operations training with the Regional Special Events Team in 1994.

The Superintendent and the Chief Ranger attended NEPA/Section 106 Compliance training and the NPS Leadership Seminar in 1995.

Annual Seasonal Orientation training (40 hrs.) was presented to the visitor services staff each year, and the park hosted Winter Rescue Training with participants from the Town of Brian Head, Iron Country Search and Rescue, Utah State Parks, and rangers from Zion and Bryce Canyon.

VISITOR SERVICES AND PROTECTION ACTIVITIES

Interpretive Operations

The work begun in 1993 on the park's Interpretive Plan continued through 1994 and culminated in the completion of the Plan in 1995.

The park's interpretive program in FY1994 and FY1995 remained much the same as in years past. The number of guided walks and evening campfire programs dropped slightly in 1995 because the trails and campground were closed by snow so long into the

summer. However, the total number of interpretive programs attended (including geology talks, etc.) in FY95 was 47% higher than in FY94. An additional program offering was added to the interpretive schedule during a trial period in 1994 and was continued as a daily program through 1995: A "Porch Talk" was presented each day at noon on a variety of topics relating to the park's natural and cultural history. Attendance to all programs in FY95 was 38% over attendance in FY94. The park continued participating in the off-site "shared agency" evening programs with the U.S. Forest Service in the Duck Creek and Panguitch Lake campgrounds through 1994. This program involved an NPS interpreter and a USFS resort naturalist speaking on the contemporaneous evolution of the idea of national parks and forest reserves, leading up to the establishment of the U.S. Forest Service and the National Park Service, while comparing and contrasting the missions of the two agencies. It was presented on Friday evenings, alternating between Cedar Breaks and Duck Creek or Panguitch Lake, throughout the summer. This program was discontinued in FY1995 due to a reduction in USFS funding for the resort naturalist program. Information/orientation services in the visitor center continued to be made available with the assistance of Zion Natural History Association sales employees .

Educational outreach programs in FY94 and FY95 included participation in the Utah Child Advocacy Program in which rangers presented programs to disadvantaged youth at three local elementary schools. The number of programs presented to school groups in the park also increased to eleven during FY95, up from nine in FY94.

48,150 copies of the park brochure were received in FY94 to replenish the depleted park supply. Another 60,000 brochures were received in FY95. Shipments are keeping pace with distribution, and the current supply should last through FY96. The new ZNHA publication of a Cedar Breaks guide book was offered for sale in FY94 and continues to be one of the most popular sales items.

Interpretive operations are covered in detail in the FY94 and FY95 Annual Interpretive Program Reports.

Fee Collection

Fee collection receipts for FY94 were \$72,555.66. This is an increase of 28% over receipts of FY93, due to slightly longer staffed fee collection hours and to greater use of the honor system entrance fee collection station for after hours collections. Receipts collected in FY95 totalled \$70,244.95, down 3% from FY94. This slight decrease is explained by the late opening of the road (entrance fees were not collected until June 15, two weeks later than usual) and the campground (campground fees were not collected until July 8, three weeks later than

usual).

Cooperating Association

Sales at the Cedar Breaks outlet of the Zion Natural History Association in FY1994 dropped over 3% from FY93 to \$75,410. Sales dropped another 13% in FY1995 to \$65,228. The Association sales personnel worked 56 hours a week at the visitor center desk.

Law Enforcement and Emergency Medical Services

There were 48 recorded incidents related to law enforcement, EMS and/or Search and Rescue in 1994, up from 36 in 1993. Nine citations were issued (up from seven in 1993), primarily for traffic offenses. Resource violations for which citations or courtesy tags were written involved off-road travel (parking on meadows) and Christmas tree cutting.

The number of recorded law enforcement/EMS/SAR incidents in 1995 increased to 62. The number of citations doubled to 18. Resource violations involved off-road driving, taking of wildlife, and destruction of natural features.

One incident occurred early in 1995 involving multiple counts of malicious and wanton destruction of park wildlife. Several contacts were made with hunters along the park boundaries during the various hunting seasons, but none were found to be hunting within the park and no evidence was found of deer poaching activity.

All EMS cases required either minor first aid or basic life support. There were numerous recorded assists to other agencies, ranging from assistance on a vehicle fire outside the park to assistance on searches and motor vehicle accidents.

The park was not able to hire a seasonal law enforcement ranger in 1994 or 1995 due to a lack of qualified applicants. Rangers from the Kolob Canyons section of Zion National Park assisted with law enforcement patrols in the absence of the Chief Ranger.

Special Details

The Chief Ranger participated with the Regional Special Events Team on a detail to "Operation Eagle Rock" in Idaho. The team spent two weeks enforcing an off-road vehicle closure to protect archeological resources on Bureau of Reclamation lands along the Snake River in 1994.

The Chief Ranger also participated on an interagency incident management team with USFS, BLM, and NPS during the 3-day Wildland Fire School at Panguitch Lake and on a Type II Incident

Management Team as an Incident Information Officer (trainee) on wildland fires for three weeks in 1994 in Utah and Idaho.

In 1995, the Chief Ranger assisted at Glen Canyon NRA during the Rainbow Bridge incident.

RESOURCES MANAGEMENT

Natural Resources

Winter snowpack during 1994-95 was well above average. Heavy snows started in November 1994 and continued with significant snowfall into May and June 1995. Total accumulation at Cedar Breaks was an estimated 450 inches. Deep snow covered much of the park through June, and the wildflower display was brief but colorful. The rest of the year remained warm and dry, with an unusually mild autumn and no significant snowfall.

Resource management work centered on the protection of soils and vegetative resources through increased law enforcement patrols and interpretive "roving" assignments to better detect off-road vehicle use and plant and firewood collecting activities. Resource protection messages were included in all interpretive presentations and on the Travelers Information System radio broadcasts. Signing continues to be used to inform visitors of regulations with regard to off-road driving and firewood collection. In 1994, vegetation was salvaged from the sites of an underground storage tank removal project and transplanted along the Point Supreme walkway. New signs were installed around the visitor center area to encourage visitors to stay on trails. The Zion trail crew worked on rehabilitation of the Alpine Pond switchback trail. In 1995, a resource management crew from Zion assisted in rehabilitating social trails near the Spectra Point trailhead, at the Sunset View overlook and adjacent to the North View overlook. Their work included transplanting vegetation, breaking up compacted soils, creating brush barriers, and signing.

Areas of the park were surveyed in 1994 by U.S. Forest Service botanists with assistance from Cedar Breaks and Zion staff for the presence of Arizona willow (Salix arizonica), which was proposed for federal listing as threatened or endangered under the Endangered Species Act. The survey indicated that the park contained at least three separate stands of Arizona willow, one of which is part of the largest known continuous stand of this species which extends onto adjacent national forest lands. The park was also found to contain other areas of critical habitat for this species. Work was begun by the USFS in cooperation with the U.S. Fish and Wildlife Service on a Conservation Agreement for this species in which Cedar Breaks would take an active role in monitoring field populations inside the park. The agreement

was finalized and signed by all parties in 1995.

In 1994, a survey of spruce stands in the park was requested of the USFS Forest Pest Management Office to assess the condition of the forest within the park in light of the 1993 beetle outbreak that affected large numbers of trees on adjacent national forest lands. A USFS Forest Entomologist and a technician came to the park in August and met with the park staff to discuss spruce beetle biology and the concerns of the park. It was decided that four areas of the park (visitor center, campground, Alpine Pond loop trail, and the northeast section of the park) would be surveyed for spruce beetles. Overall, the results indicated very little current spruce beetle activity in the survey areas. From the survey information, the forest stands near the visitor center, Alpine Pond trail, and the northeast corner of the Monument were risk-rated for spruce beetle. The rating was moderate-high for a potential spruce beetle outbreak occurring in the future.

Cultural Resources

In 1994, groundwork was laid to secure CRPP funding and plan for an extensive (100%) survey of the park's archeological resources. Prioritization at the Regional level did not allow for funding of this project in 1995. Work was completed on a position description and recruitment for a curator to serve the needs of the three park area. The position was filled in 1995 and based in Zion.

FACILITIES MANAGEMENT/MAINTENANCE

Buildings and Utilities

Culinary water supplies from the springs were adequate for our needs throughout FY94 and FY95. Chemical tests for nitrites, nitrates, sulfates, organics, and inorganics were conducted over both years and the results of analyses were found to meet all primary drinking water standards.

Contract specifications were completed for painting/coating the large water storage tank in 1995 and a contract was awarded. The contractor met with park staff and problems with site access, required changes to contract specifications, and weather considerations forced the delay of work until sometime in 1996.

In 1994, the plywood riser over the visitor center porch was replaced. After removal of the old riser, it was discovered that significant settling of the original front porch foundation and rock work had occurred on the building's southwest corner. Temporary repairs were made to the foundation to strengthen

support for that corner of the porch roof until an historic architect could be consulted.

The interior of the visitor center comfort station was redone in 1994 with tile floors, tile lavatories, and new paint. The Caretaker Cabin (HS-2) was also painted in 1994.

Work was completed in 1994 to remove three underground storage tanks from the maintenance yard and housing area. An above ground gasoline storage tank, pumping system, and monitoring system were installed, as well as an above ground LP gas tank and new propane heating system for the maintenance building.

In 1995, a new porch with a cement pad was constructed along the east side of the seasonal apartment building.

Roads and Trails

The area around the new fee building was resurfaced in 1994 with a cement walkway and a rock pad on the building's west side. Snow removal operations in the spring of 1995 caused damage to several areas of pavement and curbing around the visitor center parking lot, including damage to the new rock work around the fee building. This was repaired and a bicycle rack was installed over the rock pad. A rock border was placed along the walkway leading from the fee building, past the visitor center and out to the Point Supreme Overlook to better delineate the trail and to reduce the number of people trampling the revegetation areas.

The Zion road crew returned to the park in 1995 to repair damaged areas of the road and parking lots after snow removal was completed. The crew resurfaced and striped the visitor center parking lot and resurfaced the North View Overlook parking lot.

The Zion trail crew worked on rehabilitation of the Alpine Pond switchback trail in 1994. Cross-country ski trails were marked over both winters along the existing Alpine Pond trails (upper and lower) and along the North Rim route from the north entrance.

Campground

New aluminum picnic tables were purchased to replace all of the old wooden tables in the campground and picnic area. The tables were assembled and installed in 1995.

A hazard tree survey was conducted in 1994 in the campground using methods developed and prescribed by John C. Guyon, USFS Plant Pathologist in the Forest Pest Management Office in Ogden, Utah. Thirteen trees were identified with high risk ratings in the fall of 1994 and were removed in the spring of 1995.

BUDGET:

In FY95 Cedar Breaks received a total ONPS authorization of \$258,500. The "no-year" allotment was \$45,000.

\$18,000 was received for the Fee Operation Program under fund 20.

Cedar Breaks received \$33,500 for removal of hazard trees and coating interior of water tank. \$400 for the VIP program.

The Quarters Program income totaled \$2433.00 for the year. GSA Motor Pool Reimbursable totaled \$760.00.