

ZION-1125



United States Department of the Interior



NATIONAL PARK SERVICE

Zion National Park
Springdale, Utah 84767

IN REPLY REFER TO:

A2621 (ZION-S)

February 26, 1999

Memorandum

To: Director, Intermountain Field Area

From: Superintendent, Zion National Park

Subject: Annual Narrative Report
Reply Due: Friday, February 26, 1999

Enclosed is the requested subject report for Zion National Park for the fiscal year 1998.

Donald A. Falvey

Enclosure

GENERAL MANAGEMENT

The continued efforts in completing the park's GMP has been a significant project in fiscal year 1998. The GMP team has worked to develop zoning strategies, implementation concepts and identified several issues of service-wide concern and needs for legislative support. This plan was presented to the Regional Director and key staff and to the Director, Deputy Directors and key staff for WASO policy review. All NPS offices concur with proposed alternative. Coordination has been maintained with diverse groups including other federal agencies, state and local organizations and interest groups.

A minor land exchange and boundary adjustment was completed in 1998. Congressional authorization was required as part of the process.

Input was provided on the aircraft overflight national rule-making process, attending sessions in WASO and Denver with the national rule making team. Air tour language and zoning requirements was incorporated in the GMP to strengthen NPS and park position in preserving natural quiet.

The interagency criteria for Wild and Scenic River eligibility and suitability studies in the State of Utah was completed in 1998. An agreement was signed with BLM for study of river segments on BLM lands adjacent to the park. Have included eligibility and suitability determination in the park's GMP.

Significant progress was made in obtaining a land exchange with the family owning in-holdings at Lee Valley, Hop Valley, and Cave Valley. A substantial private donation to help consummate this exchange was secured in which over 1200 of the total of nearly 3500 acres of in-holdings are involved.

Fiscal year 1998 saw continued efforts to complete the transportation system for the park. Some accomplishments this year include: presenting the project to the Development Advisory Board, obtaining congressional approval on project, obtaining congressional authorities relating to fee collection and contracting benefiting this park and other parks with transportation systems, presenting the park's plans to the National Tour Association Conference and hosting a groundbreaking ceremony which was attended by key federal, state, and local personalities and members of Congress.

GPRA plans and goals were completed with reporting on accomplishments of service-wide goals for FY98.

The Sentinel Slide retraining wall and fill section failed due to erosion of the foundation wall caused by flood flows in the Virgin River. This road section was rebuilt in 1996 by FHWA as part of the ERFO (Emergency Repairs Federally Owned) program. Emergency repairs were made by park staff. Design of a repair solution was initiated by FHWA.

Superintendent's involvement beyond the park continued in several areas:

- Regularly participate as a regular member of SUPAC, providing input and coordination on a wide variety of issues among federal, state and local governments and tribal groups.
- Selected as Zion Canyon Chamber of Commerce Person of the Year.
- Made presentations on park issues to various groups: Utah BLM leadership team, Dixie National Forest staff, Five County Association of Governments, Chambers of Commerce, Lion's Club, Western States Tourism Conference on Partnerships, National Park Foundation Board of Directors, and various park visitors including foreign dignitaries.
- Provided input on ZNHA's strategic planning efforts; assisted in selection of new executive director by providing criteria and other input during selection process.

ADMINISTRATION

CONTRACTING

Procurement

| DESCRIPTION | QUANTITY | \$ FIGURE |
|--|----------|----------------|
| Purchase Orders & Third Party Drafts | 780 | \$1,415,359.11 |
| GSA Orders | 64 | \$ 43,891.70 |
| GPO Orders | 8 | \$ 7,518.00 |
| Credit Cards | 772 | \$ 256,568.51 |
| Imprest Vouchers | 26 | \$ 25,917.90 |
| Small Lot Sales | 2 | \$ 3,327.77 |
| GSA Vehicle Charges | 12 | \$ 236,727.54 |
| Transfers of Property From Nellis | 18 | |
| Requests For Quote | 23 | |
| Transfers of Property Between Agencies | 7 | |
| Reports of Survey (Inc. 7 damage or loss of vehicles) | 19 | |
| Cert of Unserviceable (56 Items) | 21 | |

Contracting

The following contracts were awarded:

- CX 1590-8-0001 - 980 Tons of coral pink sand, Watchman C Loop. Awarded to Progressive Contracting , St. George, UT for \$27,930.00 *under Government estimate
- CX 1590-8-0002 - Reconstruction of C Loop – Extension of D Loop. Awarded to Marietta, E & C, Inc., SLC UT for \$11,437.94 (\$232,386.43 with Extensions)
- CX 1590-8-0003 - Provide & deliver electrical wiring/cable for Watchman Campground. Awarded to D & S Electrical, Pocatello, ID for \$29,463.00
- CX 1590-8-0004 - Provide & deliver 5,500 Tons of ½ inch minus/Kolob Terrace. Awarded to Western Rock , St. George, UT for \$133,375.00

- At request of GRSM superintendent, reviewed transportation issues and provided recommendations for addressing traffic congestion at Cade's Cove.
- Hosted the fall federal manager's meeting (BLM, USFS, & NPS in Utah, Arizona, and Nevada).
- Continued with a variety of civic duties - member of Lion's Club, Chamber of Commerce, continued involvement in roadside litter pickup, serve on the Town of Springdale's Planning Commission, serve on the State of Utah's 21st Century Team as a technical advisor to communities, represented the park in Washington County's Pageant.
- Participated on the three-person management review team for the YELL maintenance operation.

CONCESSIONS

The facilities and services provided by Amfac Parks & Resorts within Zion National Park were fully satisfactory this year.

The National Park Foundation visited the park and stayed at Zion Lodge. A special dinner was provided in the auditorium and Amfac provided a basket filled with souvenirs for each guest.

A contingency of staffers from the Senate Appropriations Committee and representatives from the Utah State Office were guests at the Lodge and were served a special dinner on the patio.

Phase II of the cabin renovation as completed in March in time for the busy pre-Easter season crowds. The improvements are impressive and have been very well received by the visiting public. The suites were upgraded with new furniture, lighting, and silk floral arrangements. All of the furniture in Motel A was replaced, also. The entire Lodge, including the dining room, gift shop, lobby, auditorium, and offices was recarpeted and new subflooring installed in the dining room. The historic bakeshop was completely renovated and is now being used for storage. Windows were installed in the Accounting Offices to provide air circulation in the summer. The hall and bathrooms were renovated in the Chalet Dormitory.

When the Scenic Drive was closed on September 17, 1998, the Lodge guest were evacuated and the facilities were closed for several days until the road could be stabilized.

The employee turnover rate remained lower than industry standard at 44.6 percent compared to 100 percent. There were several changes in key positions such as Food and Beverage Manager, Human Resources Manager, and key kitchen staff.

The facilities and services provided by Canyon Trail Rides within Zion National Park were fully satisfactory this year.

Mr. Paul Mangum has done an excellent job of trail maintenance, spending much more than the required minimums toward this task. The trail rides are very popular with the visiting public.

The services provided by the Zion Natural History Association under a concessions permit to sell stamps and film within Zion National Park were fully satisfactory this year.

- CX 1590-8-0005 - Install fire sprinkler system at Pipe Spring NM. Awarded to Alert Contrating, Tempe, AZ for \$23,640.00
- CX 1590-8-0006 - Awarded to Wasatch Front Electric, SLC, UT for \$5,618.00
- CX 1590-8-0007 - Awarded to Petro Source Refining Corp, Fredonia, AZ for \$29,520.00
- CX 1590-8-0009 - Provide & deliver 3/8 inch cover aggregate-Red Cinders/Kolob Canyon Road. Awarded to * Progressive Contracting,, St. George UT for \$20,610.00
- CX 1590-8-0010 - Provide & install fire intrusion system in Maint, Curatorial/Pipe Spring NM. Awarded to Utah Controls, Inc. Sandy UT for \$5,663.59
- CX 1590-8-0011 - Provide all materials, labor, equipment to re-roof Cedar Breaks Visitor Center. Cancelled

Budget

The ONPS allotment for fiscal year 1998 at Zion was \$3,213,400*, plus \$1,229,000 designated as Fee Enhancement for a total of \$4,442,400.

*Includes 6C – DSC portion Concessions, COS adjustments.

Additional Funding Sources:

| | |
|---|--------------|
| GMP | \$32,500 |
| SEPAS VIP | 4,500 |
| Volunteer in Parks | 5,800 |
| Equipment Replacement (Computers) | 9,800 |
| IBP's | 3,500 |
| Special Use Permits (Filming) | 3,700 |
| Special Use Permits (Tunnel Operations) | 265,480 |
| Donations | 30,995 |
| Fee Demonstration Program | 3,171,457 |
| Golden Eagle (Fee Demo) | 397,186 |
| Drug Enforcement | 7,000 |
| Construction Transportation System (2) | 8,943,455 |
| Repair/Rehab Projects | 300,000 |
| R/R Emergency Flood | 50,400 |
| Cyclic Maintenance (1 project) | 120,000 |
| Emergency Roads Funding (Landslide) | 4,956 |
| Cultural/Natural Resource Projects (3) | 89,200 |
| NPF Grant | 42,900 |
| Fire Management | 214,677 |
| Prescribed Fire Module | 186,900 |
| Prescribed Fire Projects | 215,065 |
| Total Special Funds | 14,099,471 |
| Total ONPS | 4,442,400 |
| GRAND TOTAL..... | \$18,541,871 |

We expended \$43,465 for 13 major search and rescue incidents in FY98.

Human Resources

Staffing

Permanent Employees

| | |
|------|-----|
| ZION | 101 |
| CEBR | 4 |
| PISP | 6 |

Vacant Permanent Positions

| | |
|------|---|
| ZION | 9 |
| CEBR | 0 |
| PISP | 0 |

Term Employees

| | |
|------|---|
| ZION | 6 |
| CEBR | 0 |
| PISP | 3 |

Seasonal Employees

| | |
|------|----|
| ZION | 24 |
| CEBR | 1 |
| PISP | 4 |

A total of 17 Merit Promotion Vacancy Announcements; 60 Recruitment Bulletins, including 3 STEP authorities and 1 Emergency hire; and 12 Delegated Unit Announcements were issued by the Human Resources Office.

Employee Development

Compass I and II training was made available to all employees. Compass I addresses mission comprehension, agency orientation, and individual development planning. Compass II addresses five additional universal competencies, resource stewardship, fundamental values, NPS operations, communication skills, and problem solving skills. These career planning and training kits have been issued to each division.

MAINTENANCE

Buildings and Utilities

Zion averaged 90% occupancy in the permanent housing and 85% occupancy in the seasonal housing in FY98. Minor upgrades were accomplished in four permanent houses in the canyon and in one seasonal backcountry cabin at Firepit Knoll.

The Needs assessment and Market Analysis have been completed and certified for Zion's Housing Plan. The Condition Assessment will come next.

Compliance measures have begun in order to rehabilitate an historic dwelling in the Pine Creek housing area. This work is tentatively scheduled for completion in mid June of FY99.

Zion maintenance upgraded the valves and regulators on the propane distribution system in Oak Creek in order to bring the system up to safety codes.

2400 feet of fifty year old sewer main line and manholes were replaced in the Oak Creek housing area.

Zion maintenance began the upgrade of the electrical distribution system in the historic maintenance area in an effort to eliminate all above ground lines as well as meet the electrical codes regarding load balancing among the buildings.

The pump, motor and controls were replaced in the 900 foot well on the east side of Zion. The existing pump and motor had failed. The controls were upgraded in order to monitor the static water level of the well and the storage tank

Roads & Trails

The maintenance crew crack sealed, patched, chip sealed and striped 5.5 miles of road on the Kolob Canyon section of Zion National park. The work was accomplished by day labor crews.

Zion maintenance crew overlaid with hot mix asphalt approximately seven miles of roadway on the Kolob Terrace section of Zion. The crews put down fifty five hundred tons of material, the work completed by Zion day labor crews.

Approximately 20 miles of road was re-striped on routes #10 and #11; the striping was contracted with traffic control provided by park day labor crews.

The Zion Trail crew completed the re-hab of the Stadium area of the Riverside Walk trail which includes a rest area with stone benches, a one hundred foot raised walkway with stone veneer facing.

New anchor bolts and chains were installed on a two hundred foot section of the Hidden Canyon trail to enhance the safety of this section of trail.

New decking was installed on the bridge leading from the Zion Lodge to the Emerald Pool and Sand Bench trail. This bridge is one hundred feet long and six feet wide.

Approximately five miles of fence at Cedar Breaks National Monument were re-habed with portions being totally rebuilt.

In early September the Sentinel Slide retaining wall failed during a major flash flood. The scour from the flooding resulted in undermining causing fill material to be washed out from behind the T walls. Zion maintenance crews, with the help of a local contractor, made emergency repairs to the roadway, the wall, and a section of main waterline that collapsed during the process.

The maintenance division brought on ten YCC's that helped with various maintenance projects including grounds maintenance, chip seal work, backcountry trail work, fence repair. The young people also assisted the procurement office and the maintenance support office with specific projects.

An SCA crew was also brought in to do some re-hab work in the backcountry on the West Rim trail, but due to the flooding of the Watchman Trail they were re-routed to rehab this popular hour hike. Walls were repaired, water bars installed and the trail tread graded. This was a six person crew which included a crew leader.

During the flood in September, A, B, and C loops of Watchman Campground were covered with a couple of feet of mud and rock, approximately 300 feet of irrigation ditch was also filled up with mud and debris or washed out completely. A and B loops were closed for good due to the site work that was to begin for the new transit center. C loop had recently been rehabed by a contract and had only been opened for two weeks when the flood hit. Cleanup in C loop and repairs to the irrigation ditches were completed by park day labor crews.

RESOURCE AND VISITOR PROTECTION

Fee Management

This was the park's first full year under the fee demonstration program, and its busy fee management program continued to play a pivotal role in overall operations. A summary of some notable events follows:

- Revenue collections of over 4.5 million dollars.
- Rehabilitation of Watchman Campground, phase 1, including C & D loops.
- Electrified C & D loop campsites.
- Implementation of Biospherics campground reservation system.
- Construction of a new campground kiosk with full security and data management features.
- Implementation of Point of Sale cash registers/Comm 2000 - Advantage software.
- Divisional Assistance: Ozone data collection, exotics eradication, SAR program operations, wildland fire, backcountry permit operation, visitor center desk, law enforcement patrol.

Visitor Protection

1998 saw a continued decrease in parkwide visitation (-3.2%), which may be contributory to an ongoing downward trend in a number of statistical law enforcement categories. Despite a minor budget increase of 2%, Patrol was able to maintain a staff equal to that of FY97, but only due to lapse money resulting from the transfer of the Patmores, and the continued lapse of the McNally position.

There were slight increases in some trackable categories when compared with '97's statistics, but when compared with previous years, a general downward trend in recordable offenses continued. This decline may be partly attributable to both the decline in park visitation, as well as decreased coverage hours by the patrol staff.

There were five fatalities in the park this year...three traumatic and two cardiac.

The park played host to several training sessions for NPS and other agencies including the annual law enforcement refresher, an EMT-Basic Refresher, Utah POST training, three Utah Fire and Rescue Academy courses, Leave No Trace training and conducted numerous outreach training including Technical Rescue, Leave No Trace, CPR, Emergency Vehicle Operations, EMT-Basic, Basic OAS Safety, and S-130/190.

An MOU for interagency law enforcement assistance was initiated with Washington County and should be finalized this year. This MOU will also provide deputation for many of the park's permanent law enforcement rangers.

1998 R&VP Workload

| This Year | Previous Year | % Change |
|---------------------------|---------------|----------|
| Visitation - 2.46 million | 2.51 million | -3.2% |
| Incidents - 3,043 | 3,532 | -14% |

Law Enforcement Incidents

| | | |
|--------------------------------|-------|-----------|
| 775 Citations | 1,507 | -48% |
| 636 Warning Notices | 700 | -9% |
| 44 Arrests | 44 | No Change |
| 42 Drug Violations | 34 | +23% |
| 16 DUI's | 9 | +77% |
| 67 Liquor Law Violations | 52 | +29% |
| 45 Natural Resource Violations | 52 | -13% |
| 30 Weapons Violations | 24 | +25% |
| 15 Vandalism | 11 | +36% |

| | | |
|-------------------|----|-------|
| 4 Burglary | 0 | +400% |
| 38 Agency Assists | 52 | -26% |

Service Incidents

| | | |
|---------------------|-----|------|
| 800 Visitor Assists | 584 | +37% |
| 17 SAR's | 23 | -26% |
| 210 EMS Incidents | 233 | -11% |

Fire Management

Fire season was less active than normal in the Intermountain West, as a result of a wet spring, cool summer, and a wet fall. There were over 20 inches of rain at park headquarters, about 140% of normal. Lava Point recorded 23.66 inches. There were three peak rainfall months, April, July, and September – all with four inches; normally March and August are the wettest months.

Zion responded to 79 fire incidents, both in-park and off-park assists and support actions, 19 more than in '97. There was an above normal amount of dry grass in the early summer, which contributed to a higher than normal number of human-caused fires in Zion and surrounding lands. No fire restrictions were implemented, but a prevention team was mobilized to southwest Utah by the Bureau of Land Management to warn their land users of fire hazards.

Fire use activities in the park included 4 natural ignitions managed for resource benefits, all of which were less than 1 acre, all much later in the year than is typical. Eight prescribed fires were conducted in five projects for approximately 450 acres. This included treatments in the Old Field near the Virgin River, the Kolob administrative area, Hop Valley, Pocket Mesa, and Lava Point. No prescribed fires were ignited on the east side of the park, the focus of activity in prior years, as the remaining fuel pockets there never came into prescription in 1998.

Sixteen fires were suppression responses, of which six were on adjacent lands which Zion protects under a local interagency agreement. The first large fire of the year was an assist to local fire departments on a fire burning along Highway 9 up the LaVerkin Twist. A seven acre fire occurred in Parunuweap Canyon, caused by a warming fire left by lost hikers. In late June a lightning fire in Coalpits Wash required use of helicopter drops and a single engine air tanker to control at eleven acres. On July 3 an eight acre interface fire was ignited by children playing with fireworks on private lands in Springdale, and burned ½ acre of park lands on the south side of the river. Helicopter bucket drops were called in to assist hand crews working on the slope above the river. Both wildland and structure firefighters from the park responded to assist the Rockville-Springdale volunteers. There were no structures lost and no injuries. The fifty acres Firepit fire spread in sagebrush from a spot fire from the Hop Valley prescribed fire in October, as a result of strong winds.

Forty nine fires were off-park support fires, including both suppression and fire use operations. The Zion Fire Use Module assisted on prescribed fires at Zion NP, Bandelier NM, Lake Mead NRA, Saguaro NP, Bryce Canyon NP, and Grand Canyon NP. They assisted on a total of 16 wildland fires for resource benefits at the Grand Canyon and the Bitterroot and Nez-Perce National Forests, and suppression of the Parunuweap and Firepit fires in Zion.

Backcountry

As with the frontcountry patrol program, backcountry also had to rely on lapse money (in this case Jerry Davis') to buoy its seasonal program. Despite these measures, the Division was still forced to cut the backcountry seasonal workforce from four to two. Once the summer got underway, backcountry patrol activity was redirected from it's historical focus of patrolling the Kolob Terrace road, to patrolling the established backcountry trails and off trail routes. Backcountry staff made thousands of positive visitor contacts, assisting visitors with questions concerning the natural history of the park, and providing accurate and reliable information for safe backcountry trips.

At the beginning of the season, the divisions of interpretation and R&VP agreed to move the backcountry permits staff / program from the interpretive division, to the backcountry district. Efforts were initiated to combine the backcountry permits staff/ operation and the backcountry V/RP staff into a homogeneous organization, and full integration is expected this coming season.

Other positive changes included a new fee permit reservation system for the popular "Subway" route. The new reservation system was welcomed by the public as it allows them the ability to make reservations up to 2 weeks in advance, while still maintaining the 50 person per day use limit. The reservation system helped to reduce field staff work load several hours per day, provided for more of a quality "wilderness experience" for park visitors, and reduced the number of search and rescue incidents in the "Subway" as well.

The addition of a backcountry permits staff has had tremendous positive impacts on a variety of fronts. There is now better control and direction for the permit program, as well as a new aspect of "fairness" associated with the permitting process due to the implementation of a reservation system. Other benefits include the fact that backcountry rangers are now afforded more time to actually get out and become familiar with the resource, and the visitor benefits not only from reservations, but from a more knowledgeable staff armed with relatively current information about backcountry conditions.

The reservation system will be expanded to other high use areas in the coming years as the need arises (Narrows, West Rim, East Rim, Coal Pits, etc..) The current reservation system is being done by hand, but is expected to be replaced by computer software.

RESOURCE MANAGEMENT & RESEARCH

Program Management and Operations

Staffing for 1998 included eight full time permanents, one permanent part-time and 14 temporary/seasonal positions. Four SCA positions were approved for resource management as well. The Division is currently comprised of natural, cultural, and GIS program areas.

| <u>Permanent</u> | | <u>Temporary/Seasonal</u> | |
|------------------|------------------------------|---------------------------|----------------------------------|
| GS-13 | Chief | GS-9 | Archeologist |
| GS-12 | Assistant Chief | GS-7 | Archeologist (1) |
| GS-06 | Administrative Support Clerk | GS-5 | Cultural Technician (3) |
| GS-11 | Botanist | GS-5 | Biological Technician (Veg) (2) |
| GS-11 | Wildlife Biologist | GS-6 | Biological Technician (Veg) (1) |
| GS-11 | GIS Specialist | GS-7 | Biological Technician (3) |
| GS-11 | Archeologist | GS-6 | Biological Technician (Wildlife) |
| GS-11 | Special Projects Coordinator | GS-6 | GIS Technician (2) |
| GS-11 | Hydrologist (perm/part-time) | | SCAs (4) |

Base allocation for the Division was \$511,700 including a 2.9% cost of living increase. Also added was \$9,000 to support the Park Hydrologist position. The remainder was paid by the Water Resources Division in Denver. This was a one year commitment by both the park and Water Resources. Special project funds totaled \$252,525 for the year. Zion Natural History Association contributed \$8,500 for continued support of resource management program operations. Following is a listing of Special Project funds received:

| | |
|-------------------------------------|--------|
| Cedar Breaks Archeological Survey | 50,000 |
| Geologic Inventory and Monitoring | 59,000 |
| Riparian Restoration | 17,000 |
| Hanging Gardens | 3,000 |
| General Management Plan | 32,500 |
| Camp Creek/Parunuweap Data Recovery | 27,200 |
| Public Land Corps | 7,725 |
| CEBR Beetle and Fire History | 11,000 |
| Paleontologic Inventory | 1,200 |
| NPF/Canon Grant (Greenhouse) | 42,900 |

Planning

Visitor Management Resource Protection Plan

Several Resource Management staff were extensively involved in the General Management Planning process in 1998. Zoning scenarios were refined for all of the alternative concepts, followed by a reduction in the range of alternative concepts to four: No Action, Increased Use and Access, Resource Protection Emphasis, and the Proposed Alternative. Planning issues and concerns were refined, and Common Management Actions developed. The GIS staff prepared all alternative concept maps and resource analysis, and the Natural and Cultural Resource Management staff assisted in writing sections of the EIS Environmental Consequences section. Resource Management staff participated in several parkwide GMP planning meetings, as well as division meetings for GMP resource analysis.

Wild and Scenic Rivers

The Special Projects Coordinator and a Rivers Trails and Conservation Association (RTCA) staff member co-authored the Zion National Park Wild and Scenic Rivers Eligibility, Classification, and Suitability report for all streams within Zion National Park. Interdisciplinary subject matter experts, including Resource Management staff as well as outside academia, provided professional assessment for outstandingly remarkable values as part of the Eligibility process. Interagency meetings and presentations were held with the BLM, USFS, state, and local governments as part of the statewide MOU to conduct Wild and Scenic River studies in concert with federal, state, local, and private interests. Five mainstem rivers and their major tributaries were found to be eligible and suitable for inclusion in the National Wild and Scenic River System, including the North Fork Virgin River from the north park boundary to the south park boundary, the East Fork Virgin River, North Creek, La Verkin Creek, and Taylor Creek. Five small BLM segments adjacent to the park were jointly evaluated by the BLM and Zion, and all five were found to be eligible and suitable as well.

Special Assignments

The Division chief and assistant chief continued to serve on the Natural Resource Advisory Committee (NRAC) and the Cultural Resource Advisory Team (CRAT) for the Colorado Plateau. A major focus for both committees was to jointly develop a strategic science plan to improve research in park units on the Colorado Plateau. The park botanist continued to serve as a prescribed fire behavior analyst with one assignment to a complex fire on National Forest land in Salmon, Idaho. Additionally, she taught fire behavior and fire ecology at several regional and national training courses and provided consultation to the fire management office on development of potential burn areas and fire effects monitoring types.

The Special Projects Coordinator served as the Planning Coordinator for the General Management Plan, overseeing the day-to-day operation of the process. Coordination included liaison with the Denver Service Center staff and the Zion GMP team members, organization of planning issues and concerns, assistance with writing and editing the draft GMP EIS, coordination with local and federal governments and special interest groups, and assistance with planning newsletters and team assignments. A GMP overview was presented to the Director and the Regional Director.

The Special Projects Coordinator was chosen to participate in a new DOI pilot program, the Team Leadership Program. This is a one-year developmental training designed to improve leadership skills within the Department. As part of this program, there are five one-week seminars focusing on leadership and SES qualifications, one 30-day detail and one 60-day detail assignment in areas outside of the participant's agency. There are 45 participants in the program, from all agencies within the DOI. The seminars began in December 1997.

Partnerships

Since 1997, the Park continued to be a partner in the Grafton Heritage Partnership Project for the restoration and preservation of the Grafton ghost town site. As part of the Grafton project and the Canyon Transportation System, the park facilitated planning and funding efforts to build a contact station on BLM land north of the town site. In addition, a pedestrian bridge is planned that would connect the contact station with the town site. T21 funds are being sought to fund the contact station, associated parking area and trail, and the foot bridge.

Geographic Information System Program

The completion of the park GIS intra net occurred in FY98 with the installation of ArcView, RAID data storage system, and multi-platform software. UNIX based Arc/Info serves as the park's 'core' GIS system which supports all other components of the system.

GIS project work completed include the refinement and completion of the GMP concepts maps, technical support to DSC planners, Wilderness designation analyses, Wild and Scenic Rivers analyses, DOQ revised Road Density analyses, the initial development of GIS/GPS metadata, development of 12 cultural resource datalayers, cultural/fire GPS based surveys, wildlife T&E species database development, and Grafton graphics.

Additional GPS location field data was acquired for the park boundary, BLM public land survey system monuments, roads, trails, and water system facilities.

Five Global Positioning System (GPS) training sessions were completed with participation from the R&VP, RM&R, and FIRE divisions.

The Bio. Tech. (GIS) position which supports the GIS program was converted from a 1040 hours to 24/36 month appointment. Cynthia Tyler, the person in this position, worked mostly on GMP related projects but has also focused on numerous GPS data processing, cultural resource database development and GIS projects.

The GIS Specialist has attended the the Biennial NPS/IMR GIS conference in Denver.

Natural Resource Program

Non-native plants

This year's non-native plant program increased efforts and results immensely with a more than three-fold increase in volunteer work. Two new noxious weeds, yellow starthistle (*Centaurea solstitialis*) and diffuse knapweed (*Centaurea diffusa*) were discovered in the park headquarters parking lot and along the Kolob Terrace Road, respectively. Several hundred plants of each species were removed. Twenty-three species of non-native plants were targeted and over 650,000 plants were removed or received herbicide treatment. More than 1500 volunteer hours were accumulated. Many areas of the park known to have non-native populations were surveyed to determine effectiveness of past treatment and spread of the populations. A comprehensive report, 1998 Exotics Eradication Report Summary, is available in the vegetation office. A joint proposal for non-native plant management on the Colorado Plateau was developed and submitted for NRPP funding.

Revegetation

Revegetation in 1998 focused on the reconstruction area in Watchman Campground. Approximately 14,000 plants were ordered and the site was prepared for planting which will occur in early FY99. As a result of a fall flood, revegetation in the Sentinel Slide area was salvaged with many of the plants being transplanted to the Watchman Campground.

A proposal was developed to establish the Native Plant Restoration and Education Center. Funding was received from the National Park Foundation and Canon, U.S.A., Expedition Into the Parks program. A greenhouse was ordered and will be under construction in FY99.

Riparian restoration was initiated along the Virgin River in the Main Canyon in the vicinity of Weeping Rock. Six exclosures were constructed and willow and cottonwood cuttings were planted and seepwillow was seeded.

Work with Dixie High School continues with an old field restoration project. Sites were established north of the Watchman Housing area in an attempt to eradicate silver-leaf nightshade and scotch thistle and establish some native species. Students designed and conducted treatments for seven study plots. Success will be monitored and additional treatments will be developed over the next several years.

Visitor Experience and Resource Protection (VERP)

Soil was collected and analyzed for several vegetation communities in the park. Soils compacted by trampling are compared with non-trampled soils through an analysis of chemical and biological content. Rare Plants

In conjunction with fire management, rare plant surveys were conducted in proposed burn areas. Plant populations identified in Stanley Welsh's 1988 - 1989 survey were relocated and population size and geographic extent were determined. Recommendations regarding burning and locations of potential control lines were discussed with fire management prior to burning. During 1999, surveys are proposed to determine the effects fire has on these rare species.

Consultation was provided to the State of Utah regarding rare plants that occur in Zion National Park.

Pipe Spring National Monument

A vegetation inventory and assessment of historical vegetation was developed for Pipe Spring National Monument. Literature was reviewed at Northern Arizona University, University of Utah, BLM offices, and the LDS Church History Museum to gather any information with references to vegetation on the Arizona Strip during the past 200 years. A report is currently in draft and available in the vegetation office at Zion National Park.

Wildlife

The Mexican spotted owl monitoring program continued into its third and final year. Owl reproduction was found to be very low this year with only 1 pair producing young. One new territory was discovered.

The Mexican spotted owl monitoring program was scaled back to encompass only the territories likely to be affected by the transportation system and 3 paired comparison areas. Fieldwork for the Colorado Plateau-wide recreation impact study was completed, with minimal work being done in Zion due to the difficulty of locating nest sites.

Peregrine falcon monitoring was continued at a reduced level in 1997. With the assistance of 4 volunteers, personnel from the Utah Division of Wildlife Resources, 3 Resource Management personnel, and funding from the Challenge Cost-Share Program 13 of 15 territories were monitored for occupancy and reproduction. Five territories associated with rock climbing sites were monitored intensively in order to determine nesting location, reproductive success, and fledging date so that cliffs previously closed to climbers for falcon protection could be opened if peregrines were not using them.

Peregrine falcon monitoring was continued at a reduced level. Five territories associated with rock climbing sites were monitored intensively in order to determine nesting location, reproductive success, and fledging date so that cliffs previously closed to climbers for falcon protection could be opened if peregrines were not using them. A new method of implementing climbing closures was tried. Once nesting locations were found, the morphology of each cliff face was used to define the closed area. In this way closures could be less restrictive to climbing activities and still maintain the safety and well-being of the nesting peregrines.

Desert tortoise surveys were completed in the vicinity of the proposed site for the new visitor center, bus maintenance facility, and emergency medical facility in compliance with Section 7 (Endangered Species Act) consultation for the Zion Transportation System. No tortoises or tortoise signs were found. A thorough Southwest willow flycatcher survey was completed in all appropriate habitats. Unfortunately, no willow flycatchers were found. Monitoring for Virgin River spinedace was unable to be completed in 1998 due to extremely high water in both the North and East Forks of the Virgin River.

A parkwide monitoring program was begun for breeding birds, small mammals, and lizards in riparian, pinyon-juniper woodland, and ponderosa pine habitat types. Mule deer were monitored during the winter for signs of a recurring pinkeye problem. No signs of disease were observed. Monitoring continued for breeding birds, small mammals, and lizards in riparian, pinyon-juniper woodland, and ponderosa pine habitat types. In addition, monitoring of small mammals and elk populations was implemented in a proposed prescribed burn area. By doing pre-burn surveys and following up with post-burn monitoring over several years, we may develop an

understanding of the effects of burning on certain animal populations. The park also participated in an interagency winter raptor monitoring program in the vicinity of the park.

A project to survey aquatic invertebrates at Pipe Spring National Monument was initiated in September. Samples will be collected at the ponds and waterways at the site throughout the next year. All samples will be sent to a contractor for identification of species. The collections for the Pipe Spring aquatic invertebrate inventory were completed in the Summer, just prior to the draining of the ponds.

Geology

The park continued with its geological mapping project this year under a cooperative agreement with the Utah Geological Survey. Five quadrangles in the southern part of the park are being mapped and digitized. Draft maps were produced, and will be published next year. The park was also funded for the second phase of the project, which will be conducted over the next three years.

The park initiated a paleontological inventory project this year with the assistance of a paleontologist from Fossil Butte National Monument. Funding was obtained from the Geological Resources Division to pay travel costs and to pay the stipend of student intern who began work during the late summer. After an interruption, work will resume in February.

Backcountry/Wilderness

With assistance from the Kolob Canyons staff, the Backcountry fee staff, and Resource Management interns and volunteers, the backcountry campsite monitoring program was continued in 1998. All designated sites along the West Rim, La Verkin Creek, and the Narrows were evaluated for resource impacts using the standardized campsite monitoring forms. The two campsites designated in the Subway in 1997 were found to be badly eroded and damaged by camping in a fragile area, and were therefore permanently closed for camping. Revegetation was conducted in the area to assist in returning the area to its more natural condition. With the new hiking restrictions in the Subway limiting the numbers of hikers per day to fifty, as well as the use of rock cairns to mark the "route", this area is in much better condition than in past years.

Cultural Resource Program

The following are bibliographic citations from finalized archeological reports on work that was either conducted during 1998 or reports that were finished from field work prior to 1998.

1998 Bibliographic Citations :

- Betenson, Matthew 1998 Non-project Archeological Work Conducted in Zion National Park
From October 1995-March 1998. Report on file, National Park Service, Zion National Park.
- Betenson, Matthew 1998 Research Design for Data Recovery and Stabilization of 42In1342. Report on file,
National Park Service, Zion National Park.
- Betenson, Matthew 1998 Zion National Park - East Side State Route 9 Corridor Survey. Report on file, National
Park Service, Zion National Park.
- Betenson, Matthew 1998 Archeological Site Monitoring Report Zion National Park April 1996-May 1998.
Report on file, National Park Service, Zion National Park.
- Betenson, Matthew 1998 An Archeological Survey of the Southeastern Corner of Zion National Park, Utah.
Report on file, National Park Service, Zion National Park.

Canaday, Timothy W. 1998 Cedar Breaks National Monument Archeological Survey - 1997 Summary Report, Report on file, National Park Service, Zion National Park.

Hansen, Eric J. 1998 Data Recovery of the East Cabin Interior at Pipe Spring National Monument. Report on file, National Park Service, Pipe Spring National Monument, Arizona.

Hansen, Eric J. 1998 Kolob Canyons Residential Area Prescribed Fire Survey. Report on file, National Park Service, Zion National Park.

Hansen, Eric J. 1998 Pocket Mesa Prescribed Fire Survey. Report on file, National Park Service, Zion National Park.

McCarthy, Joelle. and Laird P. Naylor II 1998 Archaeological Testing and a Data Recovery Plan for the North Side of the West Pond, Pipe Spring National Monument, Arizona. Report on file, National Park Service, Pipe Spring National Monument.

McCarthy, Joelle 1998 Archaeological Monitoring of the Construction of a Parking Area in Zion National Park. Report on file, National Park Service, Zion National Park.

McCarthy, Joelle 1998 Archaeological Survey of the Proposed Shuttle Bus Stops in Springdale, Utah. Report on file, National Park Service, Zion National Park.

Hansen, Eric J. 1998 Macrobotanical Analysis of Features and Test Units at 42WS2904 and 42W0149. Report on file, National Park Service, Zion National Park.

McCarthy, Joelle 1999 Addendum to Hop Valley Archeological Survey Report. Report on file, National Park Service, Zion National Park, Springdale, Utah

Additional work in cultural resources included the Camp Creek testing and stabilization project, and pre-burn surveys of the Firepit Knoll and Lee Valley areas. At Pipe Spring National Monument, fieldwork was conducted on an excavation project behind the East Cabin, and another excavation project north of the West Pond. Reports for these projects will be finalized in 1999.

Projects continuing from last year include additional fieldwork (testing and some survey) on the Cedar Breaks Archeological Project, including several ancillary contracts dealing with paleoenvironment (2), and lithic sourcing(2). This work will be published next year. At Zion, reporting work continued on excavations conducted in 1995 and 1997. This work will also be published next year.

Integrated Programs

Government to Government Relations with Indian Tribes

The memorandum of understanding was finalized between Zion, Pipe Spring, and Cedar Breaks with the Southern Paiute Tribes. At this time, only the Kaibab Paiute Tribe is signatory to the MOU; which was signed May 29, 1998. It is expected that the Moapa Tribe and Paiute Indian Tribe of Utah will sign within the coming year. The MOU, which originally included the collection of minerals, was revised to not include them. At this time the Code of Federal Regulations does not address mineral collection as related to American Indian traditional use. With pending revisions of the CFR, the park will revise the MOU accordingly. While Zion or Cedar Breaks have not received any requests for plant collection by the Southern Paiute, Pipe Spring did receive one request, however, the needed plants ended up being collected on tribal land adjacent to the monument.

The Assistant Division Chief gave a presentation on the 3 park MOU at the Intermountain Resources Conference in Corpus Christi, Texas in January of 1999. This appears to be an issue in many park units as more Indian Tribes make requests to procure natural resources on park lands.

Resource management staff worked closely with the Division of Interpretation in coordinating consultation efforts with the Southern Paiute Tribes to facilitate discussion and development of interpretive media exhibits for the new Visitor Center and planned museum. This provided an excellent opportunity for tribal members to let the park know what they would like park visitors to know and learn about their culture. In addition to narrative text, tribal members provided photographs to be used in the exhibits. Consultation began in 1996 and continued through a series of working meetings and correspondence exchange into 1999.

NEPA/NHPA Compliance

Project Review Forms reviewed:

- 98-001 Rehabilitate Bathrooms, Hallways, Doors, at Men's Dormitory and Chalet at Zion Lodge
- 98-002 Birch Creek Waterline
- 98-003 Snack Bar Drainage - Zion Lodge
- 98-004 Old Field Restoration - Dixie High School
- 98-005 Restore Riparian Habitat in Zion Canyon
- 98-006 Oak Creek Sewer Replacement
- 98-007 Contain *Ailanthus altissima*
- 98-008 Construct Greenhouse in Watchman Campground
- 98-009 East Entrance Fuel Tank Removal
- 98-010 Rehabilitate Employee Residence, Quarters #2
- 98-011 Sentinel Slide Road Repair

Projects Requiring Consultation with the Utah State Historic Preservation Office and Advisory Council on Historic Preservation:

- 98-001-ZION Research Design for Excavation of Vandalized Camp Creek Rockshelter (42In1342)
- 98-002-ZION Sentinel Slide Road Repair
- 98-003-ZION Lee Land Exchange
- 98-004-ZION Construct Automotive Wash Facility in Oak Creek Maintenance Area - Assessment of Effect Form
- 98-005-ZION Construct New Office Space in Equipment Shed - Oak Creek Maintenance Area - Assessment of Effect Form
- 98-006-ZION Rehabilitate Employee Residence, Quarters #2 - Assessment of Effect Form
- 98-007-ZION Rehabilitate Men's Dormitory - Zion Lodge - Assessment of Effect Form

Researchers

The park issued 11 research permits in 1998 for the following: bighorn sheep, Mexican spotted owls, hanging gardens, geologic mapping, amphibians, lizards, snails, vegetation patterns at seeps and springs, and a case study of the North Fork of the Virgin River.

ProCite

Division reference material continued to be added to the ProCite bibliographical database, bringing the total to over 1,500 entries input by the end of FY98. A newer, faster version of the database was ordered and installed in FY98.

INTERPRETIVE DIVISION

Role and Function of the Interpretive Division:

The role of this division is varied and far-reaching. Division personnel are involved in both personal services program (ranger programs and staffing/operating the information desk at the Main Canyon Visitor Center) and non-personal services (Park Guide and Map, handouts, site bulletins, bulletin boards, wayside exhibits, etc.)—all aimed at educating park visitors to help them understand and appreciate park resources and values; and to understand and accept the role each has in helping to preserve the park for future generations.

Toward that end, the staff is challenged to not only inform and interpret park resources to the public, but also to build support for park and service management policies and decisions through effective one-on-one communications, outreach effort, formal programs, and media relations. Providing information that helps visitors think about their personal safety and well-being is another responsibility. This is critically important especially for the tens of thousands of backcountry users and climbers. The I&VS Division plays a key role in the writing and production of hiking information as well as passing on critical information to hikers.

For 1998, the Division staff established these seven goals and expectations for ourselves:

It is the goal of this division that every visitor will:

1. Feel satisfied that they were afforded a quality experience.
2. Have the opportunity to learn about and understand at least one of the major resources for which the park was established.
3. Know that they have been to a National Park and how Zion fits into the fabric of treasures that make up the National Park System.
4. Assume their responsibility to be stewards of park resources and minimize their impacts on them.
5. Have a safe visit.
6. Support the NPS mission (through compliance with park regulations, sharing their concerns with others and park management, and through their vote/influence on national policy).
7. Enjoy themselves, feel refreshed and re-energized, and experience the “re-creation” of mind, body and spirit.

These goals fit mesh with the park’s Strategic Plan and GPRA goals and is helping the division to meet those goals.

Our role, vision, and responsibility can be summarized in these two quotations:

“From Interpretation comes Understanding;
From Understanding comes Appreciation
and from Appreciation comes Preservation.”
NPS-6

*“The role of Interpretation is to enrich each visitor’s park experience.
If enrichment does not occur—if a visitor is not emotionally touched,
then somehow, we have failed.”*

*-Russel Dickinson, 1981
Director, NPS*

What follows is detail of our 1998 operations and our report for this year:

Personnel:

Chief I&VS Denny Davies, GS-13
Assistant Chief I&VS Tom Haraden, GS- 12 (Replaced Rich Fedorchak in November, 1997)
Lead Park Ranger Bob Showler, GS-11
Interpretive Specialist Christi Carmichael, GS-09
Park Ranger (Environmental Education Coordinator) Kelly Connor, GS-09
OA Clerk Janis Kali, GS-05
Curator Steve Floray, GS-11 (resigned 11/98). Job is being announced as of 2/99

In 1998, there were a total of 8 front-line seasonal interpretive positions, one or two SCA each year, and a core of four dedicated, long-term volunteers who added greatly to the visitor center staffing.

In 1998, the Backcountry Fee Operation (funded by Fee Demo Money) was transferred to the Backcountry Office, Visitor Protection, and is no longer under I&VS supervision.

Program Emphasis:

- 1) Reorganize scheduling to maximize visitor services (8 a.m. - 7: p.m. visitor center desk hours during the "peak" season—down one hour per day from former years) as a result of reduced staffing and effects of inflation.
- 2) Continue to focus personal service interpretation on the thematic approach while encouraging innovation in interpretive techniques. 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 part of protecting this (and all) national parks. In 1998, we used 12-year seasonal Steve Dobell half time as interpretive coach for the rest of the staff. Feedback on his assistance was extremely positive, and we plan to continue his role again this year.

Interpretive Attendance and Visitor Response:

| Visitor Center or Program | Attendance |
|------------------------------|------------|
| Zion Canyon Visitor Center | 699,009 |
| Patio Talks (4/day) | 15,432 |
| Hikes (2/day) | 4,820 |
| Evening Programs (2/day) | 19,111 |
| Interpretive Patrols | 1,801 |
| Kolob Canyons Visitor Center | 58,304 |
| Talks | 744 |
| Interpretive Patrols | 3,020 |
| Information Mail Outs | 8,966 |
| Information Phone Calls | 6,928 |

Visitor response to the 1998 program again 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 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:

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. In addition, format for the newspaper-format Park Guide was streamlined to make it more usable. The Guide is now printed in St. George which helps to ensure top quality production. The Guide is 100% underwritten by the Zion Natural History Association.

Non-personal Services:

The three new wayside exhibits for the Emerald Pools Trail were completed and installed. The Park Guide and Map underwent additional refinement and at least ten site bulletins and other handouts were completely revised, including two in German and French. Tom Haraden was also responsible for producing a new transportation system poster for use with the Springdale community and other partners in our project.

The new state-of-the-art AV equipment, including amplifiers, speakers, CD players, and wiring at the South and Watchman Campground Amphitheaters proved to be great improvements. Because of construction in the Watchman Campground, the amphitheater there remained closed all season. Maintenance crews began the arduous task of refinishing the wooden benches.

Junior Ranger/Educational Outreach Programs:

In 1998, a total of 1814 children ages 6-12 participated in the summer-long Jr. Ranger Program inside the park. Through the Outreach Program to surrounding schools, 3,150 elementary-age students, grades 2 through 6, received environmental education classes during the spring/fall sessions. These numbers represent an increase over the previous year. Both programs are supported by ZNHA and are greatly appreciated by participants, parents, and teachers.

Curatorial Management:

Under Curator Steve Floray, the museum/curatorial is in the best condition it has ever been. Archivist Lynn Mitchell from WAC was here for one week in October and helped set priorities for future archival work, the biggest remaining part of the long-accumulated back-logged work. As part of his rotating exhibit plan, Steve developed a special CCC exhibit that is on display in the museum. In addition, he also removed two outdated wall displays. At Pipe Spring, he was instrumental in improving their storage facilities and participated in their comprehensive interpretive planning efforts. In November, Steve resigned to move to Georgia where he is the curator for the state park system.

Interpretive Planning:

The interpretive staff continued to be heavily involved in the planning for the new visitor center and transportation system. The direction of interpretive planning is to have the exhibits provide information about commonly-asked visitor questions, assisting with visitor orientation, and rearranging exhibits into a more organized fashion. The planning process was very time-consuming but well worth the effort in view of the potential to redefine how visitors will use and enjoy park features for the foreseeable future. At year's end, the visitor center exhibit contract with Main Street Design was 95% complete; the wayside contract with Beisek design was about 70% done. Both projects are under the direction of Harpers Ferry Center, from whom we are getting great support and cooperation.

Public Information Officer:

Division Chief Denny Davies continued to handle PIO duties in addition to his other responsibilities. Notable occurrences warranting media attention included three accidental fatalities in Zion—two in the same flash flood event. Because many issues continue to occur that require thoughtful, informed response which can only be accomplished with a dedicated staff member, the park needs a dedicated PIO position to handle the ever-increasing media and VIP demands. We made 105 significant media contacts.

Special Events:

Denny Davies and Chief Ranger Steve Holder planned and coordinated the Zion Visitor Transportation Center ground-breaking in August. Later that month, the Interpretive Division provided special tours and programs for the National Park Foundation Board of Directors. Their visit resulted in a \$12,500 donation which will be used to provide "seed" money for a possible three-park Friends Group (Zion, Bryce, and Capitol Reef). At year's end, the three parks are working through details to see if such a proposal is feasible.

In June IMR Assistant Director Ron Everhardt was on hand to present former employee, Rich Fedorchak (now at Grand Teton National Park), his award as the Colorado Plateau Cluster recipient of the Freeman Tilden Award for his work on Zion's backcountry permitting operation which significantly improved hiker knowledge and responsibility while reducing the government's liability for accidents.

Christi Carmichael and Bob Showler coordinated the National Audubon Society's Annual Christmas Bird Count. Twelve parties counted individuals and species of birds between Grafton and East entrance of the park. A total of 86 species were counted.

VIP Program:

In 1998, 309 volunteers contributed a total of 26,750 hours of assistance across the board to the entire park staff (not just the Interpretive Division). These were increases of 40% and 51% respectively over the 1997 levels with a 19% decrease in funding. The VIP budget for the year was \$5,500.00 for the very low cost of \$.20 per hour contributed. To pay for those services at the GS-5 rate would have cost about \$279,270—a gain to the nation of over \$273,770. These two volunteer programs continue to be valuable additions to park operations. They also play the strong role of giving prospective employees park experiences they would have difficulty achieving without these options.

Zion Natural History Association:

Zion Natural History Association went through a major transition in 1998 with the resignation of Jamie Gentry as executive director. After 12 successful years with the association, Jamie was offered a position in Michigan near his family home. Jamie had been instrumental in leading ZNHA to the high level of operation it enjoys today. He left ZNHA on August 31, 1998, and was replaced by Lyman Hafen on December 1, 1998. Lyman had been a member of the ZNHA Board of Directors for ten years and had served a two-year term as chairman.

In 1998, ZNHA continued its successful operation of five interpretive sales sites. The visitor center outlets at Zion Canyon, Kolob Canyon, Cedar Breaks, Pipe Spring, and Utah Travel Council in Salt Lake City, had combined gross sales of \$1,541,639.35.

ZNHA also continued its support of the Junior Ranger Program in Zion National Park. This very popular program for children 6 to 12, operated from Memorial Day to Labor Day, seven days a week and reached nearly 2,000

children. ZNHA provided four full-time and two part-time employees for the program. ZNHA also provided funds for the park's outreach program in which park naturalists travel to local schools for their presentations. The association continued to fund the position of a ranch hand at Pipe Spring National Monument, and aided the monument's living history programs through the purchase of costumes and supplies for the livestock and gardens.

The association supported scholarships to Dixie College and Southern Utah University and continued its support of NPS resource management programs. It made donations to the Project Learning Tree program, to Washington School District's History Fair, and to the Arizona Strip Interpretive Association's history project.

ZNHA published a new book by Nicky Leach entitled *Pipe Spring National Monument: An Ancient Oasis on a Storied Frontier*. The association also printed 600,000 copies of the Zion Visitor Map and Guide, which is the newspaper-guide distributed to almost every vehicle entering the park. ZNHA also printed many free site bulletins provided to visitors to enhance their enjoyment of Zion national Park.

The ZNHA Board of Directors evolved into a very busy working group of volunteers in 1998. They began work on a strategic plan at a retreat at Lake Powell during the summer and determined to begin holding quarterly board meetings as opposed to the traditional twice-a-year meetings. Board committees worked on a number of objectives, including initiation of a website for the association, retail planning and design for the new visitor center, the possible creation of a friends group, and the idea of possibly developing a youth wilderness camp.