



FY 2006 Superintendent's Annual Report

Glen Canyon National Recreation Area and Rainbow Bridge National Monument



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I. MANAGEMENT

Kitty Roberts continued to be the park superintendent with Nancie Ames as the deputy superintendent. Kevin Schneider was selected to be the management assistant in November 2005, coming previously from Yellowstone National Park. Susie Perkins continued as the management division's executive assistant.

Long-term drought conditions generally persisted in the Colorado River Basin in the winter of 2005-2006. In March and April 2006, it appeared as though spring runoff would be sufficient to allow the Castle Rock Cut to open for the first time since 2003. However, spring proved to be dry, and Lake Powell filled to approximately 3610 feet, just 8-10 feet short of enough to open Castle Rock Cut. Nonetheless, all launch ramps remained open throughout the year, with the exception of Hite. Lake Powell has hovered around 3600 feet now since spring 2005, and park operations have become accustomed to operating at this water level.

The superintendent and deputy superintendent met regularly with both the Arizona and Utah delegations and their staffs and county representatives to update them on low water, business management concerns and other park issues. The park again hosted its annual NPS/4-county meeting in September 2006. The meeting was hosted at Bullfrog by ARAMARK and included Garfield, Kane, San Juan, and Coconino county commissioners, and staff from local Congressional offices. These meetings continue to be a productive means for communicating park issues to stakeholders in government.

The city of Page continued exploring the prospect of annexing park lands, including the Wahweap and Antelope Point areas. Kitty Roberts participated in the city of Page's Partnership Committee, which was exploring the annexation issue and met in January, February, and March of 2006. The city's growing interest in annexation park lands prompted the NPS to send several letters to the city in 2006 communicating the park's concerns. Concerns about annexation include: the potential to create friction and interference between park and city officials/managers, additional taxes imposed on park visitors without commensurate benefits, the city's failure to recognize ARAMARK and Antelope Point Holdings as eligible signatories in the annexation process, the loss of law enforcement support currently provided by Coconino County, and the city's responsibility to provide adequate fire protection services on land and water. In light of these concerns, the park worked closely with Kevin Jones of the Department of the Interior's Solicitor's Office in Salt Lake City to research legal issues associated with annexation.

In May 2006, the Navajo Nation sent the NPS a letter expressing interest in building a casino facility within or near the Antelope Point developed area. The NPS responded to the Navajo Nation with a letter outlining concerns about such a development at Antelope Point. The letter stated that a casino in the Antelope Point area would not be an appropriate use, nor is it necessary to serve visitors to this area. Further, a casino would be incompatible with the existing agreements and planning documents guiding developing of the Antelope Point area. It would also be incompatible with the mission and image of the National Park Service.

Off-highway vehicles (OHVs) continued to be an issue. On November 29, 2005, Bluewater Network et al filed a lawsuit against the National Park Service in DC District Court challenging the authorization of OHVs in national park units across the nation where special regulations had

not been promulgated to authorize vehicles to travel off-road. The lawsuit specifically named the Lone Rock Beach area at Glen Canyon as lacking a special regulation.

As a result of the lawsuit, Glen Canyon developed an interim management plan for Lone Rock and the Accessible Shorelines. This interim management plan allows vehicles to continue using these designated off-road areas while a long term plan (an environmental impact statement) is completed. The EIS will address the use of OHVs at Lone Rock, at the accessible shoreline areas. In addition, the EIS will address the use of ATVs on park roads, as Glen Canyon has never been through a planning process to determine if the use of ATVs on park roads is appropriate. This issue stems from the local counties (Kane, Garfield, and San Juan) promotion of park roads as being "open" to ATVs. In 2006, the park was successful in seeking funding to begin this EIS, and the planning process will begin in FY07.

Park and regional office staff worked closely with the Bureau of Land Management (BLM) throughout 2006 in preparation for a joint environmental assessment to assess the potential environmental effects of a single exploratory petroleum well proposed by Viking Exploration, Inc.(Viking), leases UTU9406 and UTU9407. The permit to drill the exploratory well was approved in May 1990 and then put on hold until October 2004 when the two agencies agreed to proceed with the EA. During much of 2006 park staff surveyed the well site area gathering data on the flora and fauna for the EA. In addition, the park staff provided information to Gulf Coast Prospectors, the company hired to develop the exploratory well, in order for them to submit a revised Application Permit to Drill (APD) which addressed the environmental requirements of the EA. The BLM notified Viking in August 2006 that additional information was still required by the NPS and BLM for analysis of potential impacts of their proposal as part of the EA. Viking failed to submit the required additional information by the required deadline and in December 2006 the BLM notified Viking they were lifting the suspension of operations and production for the oil and gas leases. As there were two months remaining on the term of both leases at the time the suspension was originally granted these leases are scheduled to expire on February 28, 2007.

The Bureau of Land Management (BLM) undertook an Oil Shale and Tar Sands Leasing Programmatic Environmental Impact Statement (PEIS) to determine the environmental impacts that could result in the development of oil shale and tar sand resources in Utah. Nearly one-half of the largest tar sands area is located within the park boundary. In October 2005 the BLM issued an Interim Final Rule to amend regulations for the leasing of hydrocarbons, except coal, gilsonite and oil shale in special tar sand areas. The PEIS will fully analyze and disclose the applicability of the Interim Final Rule to existing (suspended) leases in special tar sand areas that may potentially affect park resources. A number of combined hydrocarbon leases exist, under suspension, in and around the NRA. As there are several parks in the state of Utah affected by the PEIS Cordell Roy, Utah State Coordinator is the NPS lead for the PEIS.

Throughout the summer of 2006, Kevin Schneider presented weekly Glen Canyon NRA orientation programs to new ARAMARK employees. The purpose of these programs was to introduce these employees (many of whom hail from other nations) to the mission of the NPS and build support for the NPS among ARAMARK's staff.

The superintendent actively participated in the Colorado River Steering Committee, serving as the chair for most of FY2006.

A management team retreat was held at Dangling Rope in March. The management team meeting was predominantly occupied by a discussion about the core operations planning.

All employees meetings were held in January and July of 2006, with the core operations analysis being their main focus.

In June, Kitty Roberts attended the National Wilderness Stewardship training, hosted by the Arthur Carhart National Wilderness Training Center in Missoula, Montana.

Nancie Ames attended the Arizona Governor's Conference on Tourism, in July. The park hosted an exhibit booth in partnership with ARAMARK and Antelope Point Holdings.

In June 2006, Glen Canyon NRA hosted the zone meeting of Arizona superintendents and Intermountain Region staff at the Lake Powell Resort. The superintendent also attended the Utah zone meeting at Zion National Park in May. These meetings provide an opportunity for the park managers to discuss common issues and build relationships.

Glen Canyon continued to oversee Navajo National Monument in FY2006. In August 2006, Navajo Superintendent Roger Moder accepted a job as superintendent of the National Park of American Samoa. As a result of Roger's departure, Eileen Martinez acted as superintendent of Navajo through November of 2006.

CORE OPERATIONS ANALYSIS

The core operations analysis process continued in FY2006, and a one-year report was submitted to the regional office in September 2006. The budget cost projection, a tool to analyze the park's spending over time, indicated that Glen Canyon and Rainbow Bridge would face a \$2.6 million deficit in FY2010 if no cost saving measures were taken. If the efficiencies and cost savings strategies identified in the core operations analysis were undertaken, Glen Canyon could reduce its shortfall to \$630,000 in FY2010. A decision was made to separate the true costs of managing Rainbow Bridge from Glen Canyon's budget, which allows reviewers to better understand this unique relationship. The core operations analysis indicated that Rainbow Bridge would face a shortfall of approximately \$185,000 in FY2010.

Through the core operations analysis, the park's management team reviewed each operation's structure, looking at supervisory ratios, grades of positions, duty stations, and tenure of position (i.e., permanent full-time, subject-to-furlough, term, seasonal). The management team looked for opportunities to combine functions and whether or not core priorities were being met by the organizational structure. The park will also review each vacancy and carefully evaluate the type of appointment that would best suit current needs.

Other position management actions called for in the core operations process include:

- The Business Management and Administration operations will be combined, resulting in one less division chief by the end of FY08.
- The supervisory structure of the Visitor and Resource Protection operation will be flattened, focusing more attention on field operations.
- As vacancies occur, we will rely more heavily on contracts for professional services.

As part of the cost savings strategies in the core operations process, a decision was made to convert Dangling Rope Marina to a seasonal operation, where it will be opened from March through November. This will be implemented beginning with the winter of 2006-2007, and is expected to save the park as much as \$140,000, while having few adverse effects on park visitors.

SAFETY

Safety was again a primary goal of all park staff for visitors and employees. In May, Dave Johnson was hired to be a term safety manager for Glen Canyon, Zion, Bryce Canyon, Pipe Spring, Navajo, and Cedar Breaks. Dave came to the park from working as a contractor for the military in South Korea. Dave accepted a full-time permanent position with the U.S. Army Corps of Engineers in Sacramento in October 2006.

A major safety effort this year focused on a new recreational activity, called "Kite Tubing." Kite tubes were inflatable tubes that were towed by a boat and designed to allow the rider to take flight 30-50 feet off the water's surface. Within weeks of first observing these water toys at Lake Powell, four significant injuries occurred within Glen Canyon NRA, requiring the user to be airlifted out of the park. Two fatalities also occurred early in the summer at other water bodies outside the park. Glen Canyon NRA took swift action to highlight the dangers of kite tubing and prohibited their use in early June 2006. The prohibition received a great deal of print and television media coverage, all of which was very supportive of the park's decision. As a result of the park's efforts, the Consumer Product Safety Commission announced in July that the manufacturer of the kite tubes was issuing a voluntary recall on them because of safety concerns. Glen Canyon's quick action to prohibit kite tubing undoubtedly saved lives.

The park continued to have work related injuries or illness which prevented staff from fully performing their jobs. We had 26 employees injured on the job, of which 6 were significant lost time injuries. The park addressed concerns about the ramp leading from the marina to the housing area at Dangling Rope by purchasing two Kubota vehicles, which are far more stable than ATVs and are capable of safely carrying injured patients to the helicopter landing pad.

The injuries or illness reported this year includes: back strain (4); chemical burn (2); puncture (2); strain, multiple (2); inflamed joints (2); scratch/abrasion (2); heat stroke (1); dermatitis (1); laceration (1); exposure to chemical/toxin (1); carpal tunnel (1).

EQUAL OPPORTUNITY

The Glen Canyon/Navajo EEO committee continued in 2006 with the committee chair, vice-chair, and the recorder position still vacant. In addition the Accessibility Program Coordinator position became vacant due to the disability of Becky Sessions. The committee members were: Jacki Blais, Federal Women's Special Emphasis Program (SEP) Coordinator; Stan White, Uplake EEO member; and Eileen Martinez, EEO Counselor. Kathie Gordon, human resource officer, and Nancie Ames, deputy superintendent, serve as ex-officio members on the committee. The committee focused on providing EEO support to the parks and was not able to obtain additional members. Although the committee is small they continue accomplish a fair amount in support of the parks EEO program.

Training: Annual training in Prevention of Sexual Harassment and Equal Employment Opportunity law was provided for Glen Canyon NRA and Navajo NM staff on June 20, 21 and 22. This year we were able to hold three classes (once each downlake, uplake and at NAVA), which provided several opportunities for staff to participate. Separate trainings were offered for the fees and interpretation seasonal staffs. In addition, a TEL EEO course was made available to staff and a number of employees participated in that two-hour session. The entire staff was also kept up to date on EEO case law and special emphasis programs via regular email correspondence from the EEO counselor, provided by the Regional EEO office.

The committee has worked diligently to improve recruitment efforts for both park units. Park staff from both GLCA and NAVA participated on March 4, 2006, at the Coconino Community College job fair in Page. Glen Canyon employees provided job information to interested local applicants. Curlinda Holiday represented NAVA and provided information on their seasonal positions. GLCA recruited specifically for student positions (interpretation, maintenance and dispatch) and for two biological technician positions.

Jacki Blais, Federal Women's SEP coordinator again provided information to park staff during Women's History Month (March 2006) and encouraged staff to learn more about some women who have made a difference in the growth and development of the United States.

II ADMINISTRATION

ACQUISITION AND PROPERTY MANAGEMENT

Contracting activity for Glen Canyon NRA during FY06 is shown in the table below:

Description	Award
Crack Seal for BF and WW	\$57,502
Dangling Rope Generator Repair	97,881
Gravel to Wahweap	28,990
Gravel to Bullfrog	26,114
Network Video Recorders	24,596
Condition Assessment of 7 Sites	47,300
Slurry Seal Bullfrog Parking Lots	226,213
Fish Cleaning Station	455,000
Relocate GRCA GIS Building	42,193
MEVE Roofing Replacement	55,525
Boat Replacement (2)	197,758
Boat Engine Replacement (2)	60,788
Total	\$1,319,860

Individual procurement accomplishments included:

- Warrant training
- Completed onsite COR/COTR training
- Completed Acquisition Management Review
- Completed necessary year end reports for region

Individual property accomplishments included:

- Disposed of excess vehicles
- Completed Annual Inventory

The Glen Canyon NRA contracting operation also underwent some changes as a result of an initiative to consolidate some contracting functions in northern Arizona. And, although an agreement was executed wherein the FLAG contracting office would accomplish contracting tasks for GLCA, RABR, NAVA, GRCA, and FLAG that required more than a Level III warrant, this agreement is not functioning because of a contracting staff shortage at GRCA. Craig Jordahl provided contracting support to GRCA during FY06.

PARK FLIGHT OPERATIONS

Glen Canyon operated its Cessna 206, N2PS, for the full year accumulating approximately 585 flight hours. The aircraft is equipped with a digital radio for government operations, an

integrated TCAD and GPS system for enhanced flying safety, a SAR homer to aid search and rescue efforts, and the Blue Sky system enabling real time flight following. Also accomplished in FY06 was wildlife following for GRCA utilizing the newly certified wildlife antenna installation.

BUDGET, FISCAL AND TRAVEL

In FY2006, Glen Canyon NRA received an OFS increase of \$113,000. This was Phase II of the OFS increase received in FY 2005 for water quality.

The operational costs of collecting fees park wide was 30.1%. Our deferred maintenance goal for Federal Lands Recreation Enhancement Act (FLREA) projects was \$828,075. We came very close to meeting that goal, spending \$810,022 on deferred maintenance FLREA projects. FY2006 was also the first year parks were required to use the new online version of the FLREA five year comprehensive plan. After our plan is approved by WASO, it will become the guiding document on how FLREA funds are spent in the future.

FY2006 was the first year Glen Canyon prepared a Budget Cost Projection (BCP) in AFS3. The trends projected by the BCP were used by management when discussing cost efficiencies and core activities.

Following is an accounting of the various fund sources for Glen Canyon National Recreation and Rainbow Bridge National Monument:

GLEN CANYON NATIONAL RECREATION AREA

Park Base (Fund 01)

9,848,000	Operation of the National Park Service, Final 2005 Authorization
479,000	Pay Cost Increase; Park Increases
(378,500)	WASO, IMR, and IT Assessments; .476 ATB reduction, 1% rescission
9,948,500	Total Base Funding
50,000	IMR Contingency Fund transfer to assist GLCA with escalating utility costs
9,998,500	Revised FY2006 Base Funding

SAR Accounts (Fund 01)

967	Buoy 86 SAR
4,661	Springer Jet Ski Fatality
1,410	Beck Rescue
1,832	Buoy 25 Rescue
846	Phu Search
5,096	Lundberg SAR
978	Navajo Canyon Medical
1,403	Mylott Rescue
1,228	Faumoi Technical Rescue
639	Sherman Rescue
7301	Hoff Drowning

789	Rockslide Rescue
27,150	Total

Cyclic Maintenance (Fund 01)

293,990	Slurry Seal/Strip BF Parking Lots
117,000	Overhaul DR Generators
410,990	Total

Hazardous Waste (Fund 01)

65,800	Remove Coal Tar at the Chains
65,800	Total

Vanishing Treasures (Fund 01)

58,100	Cyclic Maintenance of 7 Sites
58,100	Total

NRPP – Disturbed Land Restoration (Fund 01)

15,000	Restore Springs at Navajo Point
15,000	Total

VIP Program (Fund 01)

4,100	FY06 GLCA VIP Program
4,100	Total

ONPS Reimbursable (Fund 01A)

750	Telecomm Rights of Way
29,383	Special Use Permits
8,408	Rights-of-Way
54,620	CUA Permits
44,245	Construction Set Aside
137,406	Total

Equipment Replacement (Fund 05)

74,164	Narrowband Radio Initiative
1,230	Replace Boat 261, Additional Costs
964	Replace Boat 213, Additional Costs
115,367	Replace Boat 251, Boston Whaler
153,911	Replace Boat 252, Boston Whaler
345,636	Total

Agreements & Miscellaneous Reimbursables (Fund 06)

-35	Arizona Grant - Web Cams
328	Utah Grant - Web Cams`
6,267	BLM Dispatcher Agreement
30,012	Banner Health EMS Agreement
9,299	Court Restitution

10,000	UT Grant - Colorado River Take-Out
55,871	Total

Utility Reimbursable Accounts (Fund 06)

17,290	Water Income
2,707	Electric Income
824,091	Concessioner Electric Income
438,572	Concessioner Water Income
1,282,660	Total

Repair/Rehab (Fund 07); Year 1 of 2 Year Projects

0	Repair Wahweap Well #3
0	Emergency-Replace Damaged DR Elec System
44,996	Upgrade Lakeside Boat Pump-Outs
44,996	Total

National Park Pass 70% Projects (Fund 22)

35,348	Antelope Point Project Mgmt (DSC)
26,474	Antelope Point Project Mgmt (GLCA)
61,822	Total

Fee Demo 80% Projects (Fund 25): Deferred Maintenance

84,681	Weaver Ranch Planning, DSC
1,264	Weaver Ranch Planning, GLCA
76,262	Replace Air Conditioning and Upgrade Kiosks
204	Repair/Replace Kiosks
143	Install Exhibit Panels
85,115	Rehab and Refurbish Park Signs
5,575	Replace Exhibits at BF Visitor Center
200	Replace Lakeshore Drive Signs
57,550	Crack Seal and Stripe Parking Lots
22,090	Replace Lees Ferry RV Dump Station
463,537	Replace WW Fish Cleaning Station
4,837	Replace WW Manhole 25A
8,564	Repair/Rehab 11 LF Historic Buildings
810,022	Total

Fee Demo 80% Projects (Fund 25): Visitor Service Projects

249	Prospectus Development WW Visitor Services
6,672	Concession Appraisal, WW and DR
2,087	GIS/GPS Mapping of Roads and Trails
5,000	Excavate Plesiosaur Site
5,108	Control Aquatic Nuisances
23,767	Control and Remove Invasive Plants
47,300	Develop Pest Management Plan
3,897	Control Ravenna Grass

6,727	Monitor Campsites Along the San Juan River
8,221	Park Brochures
787,219	FY06 Cost of Collection - Operations
46,611	FY06 Cost of Collection - Capital
942,858	Total

Donations and Grants (Fund 26)

2,562	Donations from Coopersmith Account held by NHA
362	General Donation Account
73	Science Education Program
5,138	NPF Grant - GRIT
8,135	Total

Quarters (Fund 34)

307,684	Permanent Housing Expenses
59,079	Seasonal Housing Expenses
366,763	Total

Federal Highways (Fund 44)

5,903	Unpaved Roads Inventory
5,903	Total

FIREPRO (Fund 85)

544	Three Fires
112	Crosby Fire
47	Robinson Fire
72	Moqui Fire
555	Trailer Village
53	Bucket Drop
3,500	FY06 FIREPRO Support
4,883	Total

Concession Franchise Fee 80% Projects (Fund 99)

- 30,907	Condition Assessment at Wahweap
69,880	WW Contract/Market Analysis
0	Prospectus Development WW Visitor Services
1,000	Prospectus/BF Medical Clinic
7,540	Prospectus/Colorado River Float Trips
861	Uplake Prospectus Development
9,186	Replace Dive Gear
25,000	Economic Value Study
1,272	Improve Safety Program
4,945	Asset Management Program
88,777	Total

Fees Collected

325,109	National Park Pass
210,245	Park Specific Passes
105	Golden Eagle Passports
179,520	Campground Fees
979,030	Daily Entrance Fees
120,586	Commercial Vehicle Tour Fees
25,590	Golden Age Passports
774,188	Boat Use Fees
1,158	Credit Card Clearing
2,615,531	Total Recreation Fees Collected
237,360	Concession Franchise Fees Collected
117,457	Transfer of erroneous MEVE deposit
2,562	Coopersmith (held by NHA) Donations
350	Interpretive Information Donations
750	Telecommunications Right-of-Way
29,383	Special Use Permits
8,408	Rights-of-Way (All Other)
54,620	CUA Permits
2,410	Filming Cost Recovery
44,245	Construction Set Aside
30,012	Banner Health EMS Agreement
6,267	BLM Dispatcher Agreement
1,241	General Treasury Deposits
771	Court Ordered Restitution
8,000	National Park Foundation - GRIT
269,836	Quarters Income, Permanent
75,756	Quarters Income, Seasonal
19,265	Non-Concessioner Utility Income
2,707	Non-Concessioner Electric Income
740,812	Concessioner Water Income
405,125	Concessioner Electric Income
10,000	Utah Grant - Colorado River Take-Out
2,067,337	Total Non-Rec Fees Income Collected
4,682,868	TOTAL INCOME COLLECTED

RAINBOW BRIDGE NATIONAL MONUMENT

Park Base (Fund 01)

104,000	Operation of the National Park Service, Final 2005 Authorization
1,000	Pay Cost Increase; Park Increases
(3,000)	WASO, IMR, and IT Assessments; .476 ATB reduction, 1% rescission
102,000	Total Base Funding

VIP Program (Park Base Fund 01)

900	FY06 RABR VIP Program
900	Total

Donations and Grants (Fund 26)

342	Rainbow Bridge Donation (account is now closed)
342	Total

INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS

- Completed the cut over to VBNS system (New T1 Installed at HQ).
- Completed NAVA on Tachyon satellite system, and brought NAVA fully onto the NPS Domain.
- Completed all web cams on-line both up and down lake; later replaced web cam at Dangling Rope.
- Installed new security systems at both Headquarters and the south fee booth. The south fee booth is connected to our network via a WiFi system located at the visitor center. We also ordered the cameras and recorders for all other fee booth locations.
- Brought both weather stations (Wahweap and Bullfrog) on-line, and remounted weather radio station on tower at Wahweap.
- Completed migration to the DOI domain on all park IT systems.
- Accomplished an accurate IT park property inventory on all assets. We also created a local SQL database program for tacking and reporting of these assets.
- Rewrote the work order program to support multiple parks. BRCA, DINO, GRTE, MEVE, SOAR, CACH, CHAM, CORO, NAVA
- Rebuilt and replaced the Bullfrog and Fee servers.
- Installed the Motorola marine base set on Navajo Mountain. Installed Motorola Quantar radio software and programmed base set for Navajo Mountain expanding marine channels into dispatch.
- Realigned Halls Crossing repeaters and antenna combiner; tested digital radios.
- Reconfigured data link from Bullfrog to HQ for two channel radio control.
- Completed Halls Crossing repeater installation and tower upgrade.
- Installed new antenna and digital mobile radios for Navajo NM and converted them to digital operations.
- Replaced software and reprogrammed the TEAC recorder in dispatch.
- Repaired antenna and checked combiner alignment at the Paria repeater site.
- Installed antennas and programmed microwave link from HQ to Wahweap and tested data interface. Set bandwidth to 100 mbps.
- Installed lift station alarms at Wahweap.
- Relocated alarm system at Dangling Rope from telephone closet into room with fire alarm panel.
- Installed base station upgrades in all park Westel base stations.
- Built antenna combiner for Navajo NM.
- Upgraded park radio in N2PS and programmed with digital channels.
- Built antennas for Warm Butte, Paria Overlook and Mount Ellsworth.

- Installed new radio control interfaces for the radios in dispatch.
- Installed base station and remote radio link from Canyon De Chelly to dispatch in Page. GLCA dispatch now provides dispatch services for Canyon De Chelly.
- Installed analog base station at airport to help locate lower audio levels in dispatch.
- Upgraded all VHF portables for the second time in two years.
- Replaced all VHF mobiles in the park.
- Replaced the park microwave link from headquarters to Wahweap.

HUMAN RESOURCES

The Human Resources (HR) staff includes the human resources officer, a human resources specialist, and three human resources assistants. The HR program provides program management, employee relations and performance management advice, classification and position management, staffing and recruitment services, OWCP case management, benefits services and advice, personnel action processing and training and payroll support. HR provides these services for 139 permanent employees, 6 term and 41 temporary/seasonal employees at Glen Canyon NRA and 9 permanent employees, 1 term and 9 temporary/seasonal employees at Navajo NM. This totals 205 employees served.

Retirements

Three retirements were processed in FY06: Marylou Douglas, Ken Hawkins, and Richard Harney.

We processed the death of one seasonal employee, Kirby Yocum and a Navajo National Monument permanent employee, Kenton Acord. We resolved and corrected two FERRCA issues: Kerry Haut and Lloyd White. Ongoing retirement work includes running retirement estimates, advising employees on creditable service and buying back temporary or military time. We anticipate retirements will continue to grow each FY. We currently have 31 employees eligible for optional retirement in the next 5 years.

Office of Workers Compensation Program

Twenty-four entries into the Safety Management Information System (SMIS) for FY2006 breakdown as follows:

In FY06 there were a total of 18 on-the-job injury claims submitted to SMIS of which 1 was denied by OWCP due to "Fact of Injury Not Established" and 5 were filed only in SMIS and not sent to OWCP. Thirteen were filed and accepted by OWCP.

There were a total of 6 Occupational Illness claims submitted to SMIS of which 2 were denied by OWCP due to "Fact of Illness Not Established" and 1 was filed only in SMIS and not sent to OWCP. Of these, only 4 were filed and accepted by OWCP.

There were a total of 329 hours of COP used at a cost of \$9,417.86 between 2 cases.

We had one new long term management case from 2006. Of the 4 continued long-term management cases of which 3 are from 2005 and 1 from 2004, 1 was removed from GLCA rolls.

Incentive Awards

1 QSI

1 Excellent Service Award

1 Above and Beyond Award

1 On the Spot Award

5 Time Off Awards

7 Star Awards

29 Non-Monetary Awards

Drug Testing

There are 45 law enforcement ranger positions subject to either pre-employment or random drug testing; 30 maintenance positions subject to either pre-employment or random testing for drug and alcohol for commercial driver's licensing, and 34 additional positions as required for boat operations.

Employee Development

Training courses offered at Glen Canyon National Recreation Area this year included:

Training Name	Hours	Number Attending
EEO/Prevention of Sexual Harassment Training	2	124
PMIS Training	5	28
National Safety Council Defensive Driving Course	4	8
DOIIMOC		
COR/COTR		

TEL training courses offered at Glen Canyon National Recreation Area this year included:

Training Name	Hours	Number Attending
Workforce Planning 4 HR Professionals 1-Day Overview	8	2
From Hugger to Harasser: True Story of Sexual Harassment	2	1
Taking the Grief Out of Administrative Grievances	3	1
Conducting Administrative Investigations	2	0
Electronic Control Weapon Instructor Bridge Training	4	4
Reasonable Accommodations	3	2
Intro to the Servicewide Comprehensive Budget Call (SCC)	8	15
Dealing with Misconduct	2	4
How to Write a PIP	2	2
Resolving Performance Issues	2	5
Personal Safety – What Everyone Should Know	4	0
How to Prepare for the Job Interview	2	4
Interpretive Media Development	4	1
Hazard Tree Safety – Getting to the Root of the Problem	8	10
Preparing and Presenting an Effective Interpretative Talk	4	1
Occupational Safety	3	3

Effective KSA Writing for Job Applications	2	4
DOI Ethics Annual Training	2	62
Occupational Safety & Health Overview for NPS Employees	2	76
First Line Supervisors – Providing Leadership for Safety Excellence	3	21
Secretary Kempthorne’s address	1	13
Executive Occupational Safety & Health Overview	3	2
Prepare & Present an Interpretive Demonstration & Other Program	3	9
The Key to Performance Management	2	1
Effective KSA Writing	2	5
Practical Skills for Leaders: Taking a Stand	3	2
International Migratory Bird Day Broadcast	1	1
Managing Workers’ Comp Cases: Finding Your Way thru the Maze	4	1
Federal Resume Writing Workshop	2	5
PPE: Knowing You Need it is Not Enough	4	24
TEL Going Live	1	2
Position Descriptions: What Every Supervisor Should Know	2	1
Position Management	2	1
Recruiting for the NPS	2	1
Presenting Curriculum Based Programming (Module 270)	4	1
21 st Century Relevance	4	5
Facility Mgmt Workforce Development Process	3	11
The Perfect Fit: People, Equipment, and Processes	3	4
Servicewide Training & Development: New Tools & Opportunities	3	4
Congressional Actions and the NPS	2	2
Accident Investigation: Getting to Why to Prevent Again	4	13
National Recreation Conference “Partners Outdoors 2006”	3	1
Introducing Records Management in the NPS	3	4
FTEP Update	2	2
NPS Director’s Roundtable	2	14
Intro to New Web Based Fed Land Recreation Act Fee Program	4	7
Justifiable Homicide by Police Officer	4	3
DOI Ethics Training	2	3
Law Enforcement Refresher	2	20

Recruitment and Staffing

15 permanent positions were filled during FY06:

<u>POSITION TITLE</u>	<u>SELECTEE</u>	<u>EOD</u>
Park Guide (SCEP), GS-05	Cindy Adams	10-02-05
Archeological Tech (Navajo NM), GS-07	James Dryer	10-02-05
Contract Specialist, GS-11	Craig Jordahl	10-02-05
Park Ranger (P)(Escalante SDR), GS-11	Jeffrey Kracht	10-30-05
Maintenance Mechanic Leader, WL-10	Christopher Cook	11-13-05
Public Affairs Specialist, GS-12	Kevin Schneider	11-27-05

Supv Park Ranger (P)(BF SDR), GS-11	Scott Ryan	11-27-05
Park Ranger (P), GS-025-9	Scott Larson	01-07-06
VUA (Remit), GS-303-6 STF	Phyllis Howard	02-13-06
Supv VUA (Fees), GS-303-6 STF	Brady Van Draght	03-05-06
Housing Mgmt Spec, GS-1173-9	Candy Poulson	04-02-06
Park Ranger (I), GS-025-7/9 SCEP	Justin Galsgow	06-25-06
Maintenance Mechanic, WG-4749-9	Steve Marquis	07-23-06
Park Ranger (P), GL-025-9 STF	Jeff Rhame	08-06-06
Secretary, GS-318-6	Patrice Hutton	09-03-06
Water Treatment Plant Op, GS-5409-9	Ray Skeet	10-01-06
Supv VUA (Fees), GS-303-6 STF	Duke Dupree	10-15-06

41 Temporary positions were filled during the FY06 season.

Position Classification:

IT Specialist, GS-2210-9
 Water Treatment Plant Operator, WG-5409-9
 Outdoor Recreation Planner, GS-023-11
 Concessions Management Specialist, GS-1101-11
 Park Ranger (I), GS-025-11
 Supervisory Resource Mgmt Specialist, GS-401-13
 Botanist, GS-430-12
 Rangeland Mgmt Specialist, GS-401-11
 Ecologist, GS-408-12
 Biologist, GS-401-11
 Environmental Specialist, GS-401-12
 Human Resource Assistant, GS-203-7 (2)
 Human Resource Assistant, GS-203-6
 Office Automation Assistant, GS-326-6

New Term Positions Established:

Concessions Management Specialist, GS-1101-11
 Safety & Occupational Health Specialist, GS-018-12

Employee Relations:

2 conduct cases and 1 performance management case.

Special Projects completed in FY06:

Core Analysis Organization Charts FY06-FY10

SOPs Completed:

Employee Ethics & Conduct
 Leave Administration
 Performance Management System
 Designation of Drug & Alcohol Testing Designated Positions
 Check-In/Check-Out Procedures (Draft)

III. BUSINESS MANAGEMENT

During the winter of 2005-2006, the snow pack in the Colorado River Basin above Lake Powell resulted in an approximate 30 ft. rise in lake elevation from 3588 ft. in April to 3611 ft. in July 2006. Unfortunately, the rise in the lake's elevation was not enough to open the Castle Rock Cut access. Boating visitors launching at the south end of the lake continued using the main channel to access all other lake locations.

Again, off-season fall/winter operations allowed ARAMARK some savings in operational efficiencies and costs.

Glen Canyon National Recreation Area was chosen as the location to hold the National Park Service Concession Management Evaluation & Pricing training. ARAMARK Lake Powell Resorts and Marinas staff did a tremendous job of accommodating the participants, instructors and all others involved.

Antelope Point Holdings, LLC (APH) continued its operations while further developing facilities and infrastructure. Concession facilities at Antelope Point include a gangway and docks, valet launch and retrieve from the concessioners launch ramp, 90 private vessel rental slips, 25 boat rental houseboats, 16 powerboats rentals, a covered fuel dock with eight fuel dispensers and associated slips with pump outs, a point-of-sales building and public restrooms and two boats that serve as executive services and boat rental offices. Additionally, there are offices, restrooms, fuel storage, waste storage and electrical facilities at the top of the gangway on NPS property. Facilities presently on the Navajo Nation's concession land assignment include roadways, dry storage, parking and valet parking, entrance station, infrastructure sites, and maintenance activities. APH has moved accounting and marketing operations to an office area on Lake Powell Blvd in the city of Page. APH is still developing and contracting a Concessions Maintenance Management System to include a database to track facility assets, capital improvements, leasehold surrender and possessory interest and other information. The NPS and Navajo Nation are also working with the new management company, Desert Marina Management, to repair and rebuild the previous management company's financial records so that APH's 2004 and 2005 annual financial reports can be audited.

The Division of Business Management staff continued to focus on good communications and expanded cooperation with internal and external partners which contributed to division accomplishments, some of which are listed below:

- Required Lake Powell Yacht Club to comply with NPS regulations and remove two houseboats from rental activity.
- Performed site visits and information collection to complete a full/direct Campground and RV Park Comparability Study.
- Completed final food and beverage comparability study for the Rainbow Room (Wahweap) and Anasazi Restaurant (Bullfrog).
- Completed overnight accommodations study for Lake Powell Resort (Wahweap) and Bullfrog's Defiance House Lodge.

- Intermountain Region completed the scope of work to set new criteria for uplake and downlake financial evaluations for future contracts.
- Awarded a Category III concession contract for guided river float trips on Colorado River between the Glen Canyon Dam and Lees Ferry to Colorado River Discovery, LLC.
- Completed contract orientation with Colorado River Discovery, LLC, prior to its offering visitor services November 1, 2006.
- Coordinated meetings between ARAMARK/Wilderness River Adventures and Colorado River Discovery, LLC for the purchase personal property.
- Coordinated and managed the volunteer efforts of Cross International's Lake Powell clean-up project for the removal of sunken vessels.
- Assisted with the completion of memorandum of agreement (MOA) with the U.S. Coast Guard for concessioner operated flat water raft operations within Glen Canyon, Grand Canyon, and Lake Mead park areas. Assisted developing training, operational, maintenance procedures, and certification and inspection procedures for MOA compliance.
- Assisted in the issuance of the final Uplake Development Concept Plan.
- Coordinated with ARAMARK and Antelope Point Holdings, LLC to further improve internal procedures within the concessioner brokerage program which was started in June 2003. The program continues to gain public acceptance and compliance.
- Coordinated efforts to draft *Work Order Policy and Procedures* with Antelope Point and ARAMARK.
- Continued to work with concessioner(s) and NPS interpretive staff to improve concessioners' interpretive messages and programs. Procedures and resources are in place to develop a lake-based interpretive program that will be used lake-wide and for float trip operations.
- Continue to participate in meetings with Antelope Point Holdings, LLC in addressing jurisdictional and operational issues/questions pertaining to the Memorandum of Understanding, Quadrilateral, and Bridge Agreements with the Navajo Nation.
- Coordinated on-site National Park Service baseline environmental audits for ARAMARK uplake and downlake operations and Strata Medical, LLC with the NPS concessions environmental audit team.
- Facilitated meetings with Antelope Point Holdings, LLC, Arizona Department of Environmental Quality (ADEQ), and Navajo Nation EPA to address the required permitting process to maintain standard construction procedures for the water treatment plant and wastewater ET beds.

ARAMARK SPORTS AND ENTERTAINMENT SERVICES, INC., D.B.A. LAKE POWELL RESORTS AND MARINAS, CC-GLCA003-69 (DOWNLAKE)

ARAMARK requested another off-season operating schedule to accommodate visitors during the fall and winter months. A sampling of breakfast, lunch and dinner selections was offered at the Java City Coffee Bar and in the Driftwood Lounge. The campground, boat rentals, boat repair and marina operations operated regular 8 to 5 hours. Fuel dispensing locations operated during specified hours or "on call" status. The seasonal operating schedule allowed for the concessioner to complete repair and maintenance projects.

A large number of resort guest rooms including guest suites were renovated. The renovations included installing new bathroom tile, curved style shower curtain rods, vanities, full-length sliding glass closet doors, and room furnishings including new larger flat screen television systems.



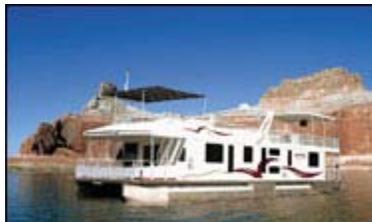
Renovations at the Lake Powell Resort

The concessioner, as part of ARAMARK's Planet EVERgreen program, began retrofitting two guest rooms with more than three dozen environmental-friendly products. The guest rooms when completed will offer guests an opportunity to experience eco-friendly amenities and furnishings.

A new buffet line with separate serving stations was installed in the Lake Powell Resort Rainbow Room. The new buffet allows the concessioner to offer a wide selection of breakfast, lunch and dinner options in addition to the full menu choices.

Two new houseboats were added to the boat rental fleet this season. The new 75-foot Excursion houseboats offer a full range of amenities.

A smaller houseboat, the new 46-foot Explorer, offers extra amenities including a separate stateroom.



The 75-foot Excursion (left) and 46-foot Explorer (right) offer first class amenities (below).



ARAMARK received several noteworthy awards and recognition in 2006. A 2006 *Pollution Prevention Award* from the Utah Pollution Prevention Association affiliated with the Utah

Department of Environmental Quality was awarded to Lake Powell Resorts and Marinas in recognition of recycling over 900,000 pounds of recyclable products, environmentally preferable purchasing practices, and reduction in emissions from boats and vehicles. On October 5, 2006, the concessioner received the *Governor's Pride in Arizona Environmental Leadership Award* from Arizona Clean and Beautiful. This award recognized Lake Powell Resorts and Marina's overall program and commitment to serve as a model program to improve Arizona's environment. Along with that award, the concessioner also received a *Governor's Pride in Arizona Honorable Mention Award* for recycling from Arizona Clean and Beautiful in recognition of diverting over 900,000 pounds of materials from landfills.

A new boat pumpout service was offered to slip and buoy customers. Lake Powell Resorts and Marinas added a fully equipped pumpout boat to its list of marina services.

Again, the concessioner's adventure cove activities beach and water area offered visitors opportunities to play in the lake, learn how to water ski, wake board, kayak, operate a personal watercraft or just sit back and relax under beach cabanas.

**ARAMARK SPORTS AND ENTERTAINMENT SERVICES, INC., D.B.A.
WILDERNESS RIVER ADVENTURES, CC-GLCA001-93**

Wilderness River Adventures has continued providing float trips under one-year extensions since 1999. These extensions have been necessary to finalize the development of a new contract prospectus. On August 12, 2005, a new contract prospectus for guided interpretive river raft trips was released for offers. In January 2006, a new operator was selected to provide the guided interpretive river raft trips. Wilderness River Adventures was not successful in the selection as the new concessioner, however, they continued offering river float trips to accommodate visitors for the 2006 season and through October 31, 2006.

A total of 44,586 passengers took advantage of the opportunity to experience a guided interpretive river float trip on the Colorado River through Glen Canyon to Lees Ferry in FY 2006 ending September 30, 2006 (October 2006, the final month of WRA's operations, saw 3,516 passengers). Specialty group tours accounted for 31,678 (October 2006 – 2,765) of the total passenger count. 117 river enthusiasts took advantage of the backhauling service for kayaks/canoes/dory boats.



**COLORADO RIVER DISCOVERY, LLC, CC-
GLCA001-06**

Colorado River Discovery, LLC was selected and awarded a 10-year concession contract on February 27, 2006, to provide guided interpretive river raft trips on the 15-mile section of the Colorado River between the Glen Canyon Dam and Lees Ferry within Glen Canyon National Recreation Area. The concessioner will begin operations November 1, 2006.

ARAMARK SPORTS AND ENTERTAINMENT SERVICES, INC., D.B.A. LAKE POWELL RESORTS AND MARINAS, CC-GLCA002-88 (UPLAKE)

Lake level problems continue to have an impact on the concessioner's operations. The changing lake levels have required relocation of docks and breakwaters.



Bullfrog Marina Slip and Buoy Area



Bullfrog at Lake Elevation 3597.04



Halls Crossing Developed Area



Halls Crossing Covered Slips and Fuel Dock

ARAMARK again requested off-season operating hours for many of its visitor service locations in the uplake area. This affected the retail, lodging and restaurant facilities. At uplake locations visitors still have the capability of staying in one of the three-bedroom family units that are fully furnished and allow the visitors the ability to cook their own meals.

The Utah Department of Transportation *Charles Hall* ferry is operating year round with some limited winter schedules and an increase in the ferry rates.

ANTELOPE POINT RESORT AND MARINA, CC-GLCA007-03

Antelope Point Marina continues the development of facilities on National Park Service and Navajo Nation land. Phase II plans include the floating marina village with a restaurant, lounge and store, additional rental slips, dock restrooms and showers, a security and sales office the anticipated opening is scheduled for March 2007.



Antelope Point Marina - Lake Level 3,597.04



Marina Village - Launching of Platform April 2006

*Marina
Village -
September
2006*



Antelope Point Marina has grown through its third operating season to 90 private customer wet moorage slips, with the anticipation of a shower and laundry area for early in the 2007 season. The boat rental operation has grown to 25 houseboats and 18 powerboats with a July occupancy rate of 93.3% on houseboats. The plan in 2007 is for the introduction of new models offering ADA facilities. The planned opening for the 27,000 square foot Marina Village is scheduled for April 2007. This facility will offer restaurant, lounge, retail, coffee/ice cream center, boat rentals, and offices. Infrastructure plans for the water treatment plant and the construction of waste water evaporative transpiration beds should be complete for the 2007 season.

STRATA MEDICAL, LLC, CC-GLCA021-05

Strata Medical, LLC operated the Bullfrog Medical Clinic a full season in 2006. The staff in the Bullfrog Medical Clinic extended the operating season by keeping the clinic open one day a week through the winter months for the convenience of winter visitors and local residents.



Bullfrog Medical Clinic



Main Entrance for Bullfrog Medical Clinic

INCIDENTAL BUSINESS PERMITS/COMMERCIAL USE AUTHORIZATIONS

FY 2006 picked up where FY 2005 left off with continuity and consistency being key elements to a successful program. While personnel and paperwork, for the most part, went unchanged, midway through the fiscal year, we moved from Incidental Business Permits (IBPs) to Commercial Use Authorizations (CUAs). We await NPS guidance on specific changes to the commercial permit program.

Communication between our office and our permittees continues to be frequent and constructive. Our scheduled permittee meetings in the spring were once again not well attended which indicates to us that their concerns are being handled on a more personal basis and that we have no major issues of concern at this time.

Because of budget concerns, we did without a seasonal permit monitor for the summer season. The slack was taken up by the division's secretary who serves as back-up to the permits coordinator. While a typically high level of monitoring took place in the Wahweap Marina developed area, we were also able to get to other recreation area locations such as Bullfrog Marina, Coyote Gulch, and Lees Ferry at least a couple of times over the summer. In particular, the permits coordinator was able to take part in a 4-day backpack trip into Coyote Gulch to monitor CUA activity in this highly popular and impacted area.

Cost recovery for the fiscal year was \$54,620.00 for the processing and oversight of 119 permits. Additionally, 29 applications were sent out to prospective permittees who did not complete the process.

FY 2006 began with a total of 123 active IBPs/CUAs (held by 89 businesses) and ended with a total of 119 (held by 80 businesses) as noted below:

<u>October 05</u>	<u>Permit Type</u>	<u>September 06</u>
21	Vessel Caretaking	21
32	Minor Vessel Repair	34
29	Vessel Launch & Retrieval	30

17	Fishing Guide Service(CR & LP)	13
13	Hiking Service (w/ and w/o packstock)	11
02	Hunting Guide Service	03
00	Waterski/Wakeboard Instruction	00
06	Kayak Instruction/Excursions	05
01	SCUBA	01
01	Land Tour	01
<u>01</u>	Salvage	<u>00</u>
123		119

SPECIAL PARK USES

There still seems to be little consistency from year to year with the number of permits issued under the Special Use Permit (SUP) program. Filming in the park increased significantly from 19 film permits issued in FY 2005 to 37 issued in FY 2006. However, the number of permits issued for other special use permits (included those for activities such as weddings, fishing tournaments, and 1st Amendment activities) dropped from 49 in FY 2005 to 35 in FY 2006. In addition to the permits that were processed, additional requests for permits which were not completed by the applicants totaled 23 for filming and 11 for other special uses.

Television commercials, still photo advertisements, and travelogues/documentaries continue to generate the most filming at Glen Canyon. However, we were also visited by 3 major motion picture crews this past year. Projects in FY 2006 included:

- The upcoming IMAX film “Water Planet”
- A documentary produced by Southern Utah University on canyoneering
- 3 film permits were issued on behalf of Navajo National Monument for filming within Keet Seel and Betatakin Ruins
- Automobile and motorcycle advertisements for Mercedes, Audi, and Harley Davidson
- Various travelogues and documentaries particularly aimed at foreign audiences
- Numerous fashion and product shoots

Locations included the Wahweap developed area, Alstrom Point, Navajo and Labyrinth Canyons, Padre Bay, Rainbow Bridge National Monument, the Colorado River, and Lees Ferry. Special use permits were also issued for other activities including the following:

- 7 fishing tournament schedules
- 17 baptisms, memorial services, and weddings
- 9 community group, youth group or school activities
- 3 four-wheel-drive or ATV safaris

Locations utilized included Lone Rock, Wahweap developed area, Antelope Point Launch Ramp, Lake Powell, Lonely Dell Ranch/Lees Ferry, Hole in the Rock Road, and the Bullfrog area.

There were 111 permitted days (in addition to two year-long permits) as compared to 69 permitted days for filming in FY 2005. There were 138 permitted activity days (in addition to one year-long permit) for other special uses.

In late FY 2006, the Special Park Uses program saw the addition of two new accounts (627 Film/Photo and 625 Location Fees) to better differentiate between monies coming in. In FY 2006, cost recovery for special use permits, film/photo, and location fees totaled \$37,242.50

RIGHT-OF WAY PROGRAM

With a year under our belts of administering Right of Way (ROW) permits, this program gained form and consistency. While we still face several expired permits needing renewal, we continue to establish communications and work through the backlog.

FY 2006 saw a renewal permit sent out to Page Electric Utility (electric transmission line) for signature, work begun on a new permit for Grenehaven Development (sewage pipeline), and work begun on a renewal permit for Marble Canyon Company (water well and pipeline). The special park uses coordinator also works in unison with the administrative officer who oversees telecommunications ROW permits for GLCA. In FY 2006, telecommunications permits were completed for Comnet 4 Corners (cellular service) at Bullfrog and for the Federal Aviation Administration (radio site) at Halls Crossing.

In FY 2006, cost recovery for the right-of way program totaled \$8,408.00.

In addition to overseeing IBP/SUP/ROW permits, special park uses coordinator Marianne Karraker continues to coordinate the biannual highway clean-up that the Glen Canyon Employee and Alumni Association participates in under Utah's Adopt-A-Highway Program.

IV. INTERPRETATION AND RESOURCE MANAGEMENT

The Division of Interpretation and Resource Management had a full and productive year during 2006: the public was served, the resources protected, and knowledge was gained. The quality of the I&RM staff is described by the many successful endeavors they completed this year and the many visitors they serve. This park and the Service have been well served.

Branch of Natural Resources

AQUATIC RESOURCES MANAGEMENT

Public Health

The beach monitoring program continued collaboration with the Utah and Arizona Departments of Environmental Quality per the 1996 Strategic Plan to Protect Water Quality at Lake Powell. The Aquatic Resources Management Branch participated in the Lake Powell Technical Advisory Committee (TAC), which evaluates field and laboratory procedures and provides technical guidance for the beach monitoring program. The Glen Canyon NRA beach monitoring program remains one of the most well established, largest, and most progressive beach monitoring programs in the world, providing public health protection for 2,000 miles of Lake Powell shoreline.



Water quality sampling

The quality manual and standard operating procedures for the Lake Powell water quality laboratories were revised and approved prior to the 2006 sampling season. All new requirements under the National Environmental Laboratory Accreditation Program were fully incorporated into the laboratory quality systems. Laboratory certification for environmental testing was maintained by both the Wahweap and Bullfrog laboratories through the Utah Department of Health, Bureau of Laboratory Improvement.

Following a recommendation of the TAC and with approval from the states of Utah and Arizona, beginning in 2002, all fecal indicator testing at Glen Canyon NRA has been accomplished with *Escherichia coli* bacteria using the Colilert[®] System from IDEXX Inc. *E. coli* has been shown in numerous studies to be the best indicator of fecal pollution in water and highly correlated with human illness from recreational contact.

Sanitary water quality of Lake Powell in 2006 was good with only a very small percentage of samples indicating any potential health risk. Twenty-one sites were on the routine sampling list at the beginning of the season, but six sites could not be sampled due to low water levels.

Routine sites are determined by criteria established by the TAC and are sampled at least every other week. Lone Rock Beach is comprised of two routine sample sites that are sampled weekly due to high visitor use. Additional samples (409) were processed from randomly selected beaches throughout the lake and suspected problem areas. The total number of samples analyzed during 2006 was 568.

Sampling of randomly selected beaches and suspected problems is intended to locate sites that may require regular monitoring. Random sampling also maintains the high standards of public health protection set by Glen Canyon NRA by maintaining the current level of sampling as sampling sites are dropped from the routine list due to good water quality.

There was one swimming closure at a remote beach in Slick Rock Canyon on June 10th due high levels of fecal bacteria. By June 17th, bacterial concentrations had dropped to safe levels and the beach area was re-opened to swimming. Following protocols recommended by the TAC, the site was added to the routine sample site list.

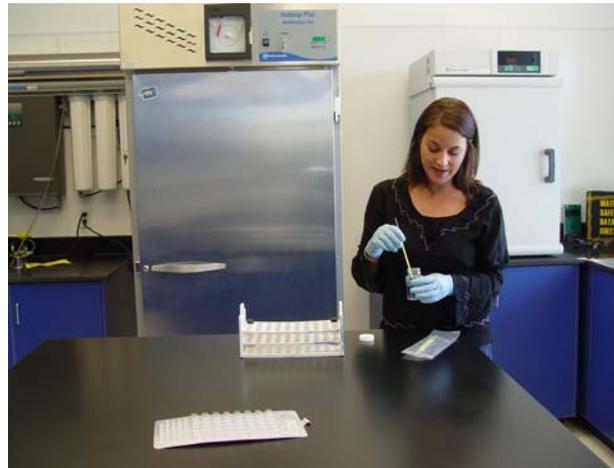
Sampling was routinely conducted at the Slick Rock Canyon site throughout the rest of the season and no other incidents were detected.

The beach in Slick Rock Canyon is the first beach to be added to the routine sample site list in many years. Protocols recommended by the TAC dictate that the Slick Rock Canyon site will remain on the routine sampling site list for at least three years.

During the 2006 season, beach monitoring personnel deployed the very first swimming advisory at Glen Canyon NRA. The advisory is intended to alert swimmers in the immediate area when



Swimming advisory sign



Working in the laboratory

initial water quality sampling has indicated the need for further sampling to scientifically determine the potential health risks to swimmers. During the 24-hour period required for further analysis to determine if a swimming closure is warranted, a local swimming advisory may be used. Sample results on June 8th indicated two potential health risks; one was in Slick Rock Canyon, the other was a beach area along the main channel of the lake. Advisory signs were posted at each location during re-sampling. The advisory on the main channel was removed when re-sampling results indicated

safe conditions. The advisory in Slick Rock Canyon became the swimming closure previously discussed; the advisory in Slick Rock effectively protected visitor health one day earlier than a closure could be scientifically justified.

Despite the swimming closure and the two advisories, sanitary water quality in Lake Powell continues to be very good with greater than ninety-nine percent of all samples collected at swimming areas indicating safe conditions. The Glen Canyon beach monitoring program continues to protect public health on more miles of shoreline than any other single program, and Lake Powell remains one of the cleanest reservoirs in the country.

NPS/US Geologic Survey projects

A cooperative study between the U.S. Geological Survey (USGS) and NPS to examine levels of hydrocarbon contamination in Lake Powell was approved in 2003 for funding in 2004 through 2006. Funding was provided through the USGS/NPS Water Quality Assessment and Monitoring partnership. This study involves three years of sampling to develop baseline hydrocarbon contamination levels. Baseline data is critical to the development of a hydrocarbon monitoring program to mitigate for the continued use of personal watercraft on Lake Powell.



Hydrocarbon Sampling

Another cooperative project with the USGS to characterize and develop long term ecological monitoring for the Escalante River within Glen Canyon NRA began in 2005 and continued in 2006. Funds for the three year project were used to generate remotely sensed data in 2005 that was classified and ground-truthed for vegetation, aquatic habitat, and geomorphology in 2006. The classification will be used to develop a comprehensive monitoring program of aquatic and riparian resources in 2007.

Limnology

Aquatic Resources Management, in cooperation with the Grand Canyon Monitoring and Research Center (GCMRC) and the Bureau of Reclamation, has continued to collect limnological data on Lake Powell. In 2006, water quality parameter profiles were measured at 20 to 25 established stations along the Escalante Arm, San Juan Arm, and the main stem of the Colorado River. Depth-specific water



The GCMRC Boat

samples are collected for evaluation of nutrients and contaminants. Additional measurements and samples are collected from within and below the dam. The limnological functioning of Lake Powell proceeded in typical patterns that have been seen in previous years.

Aquatic Nuisance Species

Glen Canyon Aquatic Resources Management continued to participate in the Utah Aquatic Nuisance Species Action Team (UANSAT) to coordinate protection of Utah’s waters from exotic species. All surface waters of Utah are at risk, but Lake Powell is considered a very likely port of entry for nuisance species because of high visitation. Aquatics Resources Management staff have assisted UANSAT in the development of a memorandum of understanding, sign and brochure design, distribution of educational material, educational instruction to state park rangers, and the development of a prevention strategy within the State of Utah. Aquatics Resources Management personnel have also produced educational materials including posters, mailer inserts, and a peer reviewed publication on the Glen Canyon Zebra Mussel Prevention Program.

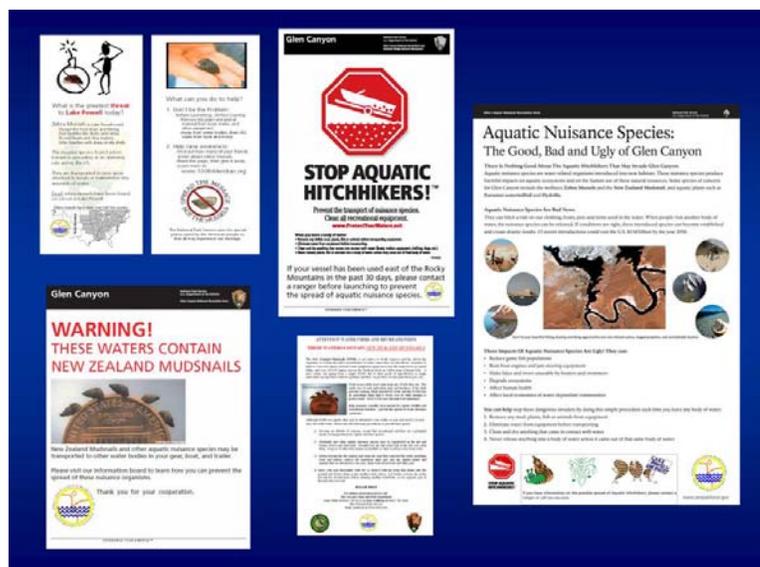


Zebra Mussel

The Lake Powell Zebra Mussel Prevention Program began in 1999 and continued through 2006. This program is recognized as one of the most proactive efforts in the western United States to prevent the spread of zebra mussels. Strategic questions are asked by fee collection personnel to identify high-risk visitor boats. Automated fee machines ask the questions of visitors requesting boat permits when fee collection personnel are not available. Boats identified as high risk are required by the Superintendent’s Compendium to be professionally washed, at no cost to the visitor, prior to launching.

The program monitors Lake Powell for zebra mussel infestation with artificial substrate samplers. The substrate samplers allow for early detection of zebra mussels in the settling stage. There have been no live zebra mussels found in Lake Powell.

In April 2002, New Zealand mudsnails (NZMS) were detected in the Colorado River below the Glen Canyon Dam by Aquatic Resources Management staff. This invasive exotic species has been documented passing through the digestive system of trout



Comprehensive Aquatic Nuisance Species Sign Products

undamaged. The NZMS also out-competes other aquatic invertebrates for food and space. The result is a greatly reduced invertebrate fauna that provides very little energy to higher trophic levels. Examination of voucher specimens from invertebrate monitoring by the GCMRC showed that the NZMS has existed in the Colorado River below Glen Canyon Dam since at least August of 1995. The snail had been misidentified for seven years. In 2000, NZMS density at Lees Ferry peaked at over 40,000 snails per square meter. Currently there are no feasible methods for removal. Impact of these snails to the rainbow trout fishery is unknown.

In 2006, a comprehensive set of signs related to aquatic nuisance species was developed to educate visitors and protect Glen Canyon's aquatic resources. Signs were designed to strategically address the various aquatic nuisance species issues within the NRA. Road signs were developed to be placed at lake access points to inform visitors of the requirement to be screened for a free boat washing, as a central component of the Zebra Mussel Prevention Program. Warning signs were designed for Lees Ferry, informing visitors that the river is infested with NZMS and directing visitors to more information. Interpretive displays have been planned to educate visitors about zebra mussels and other aquatic nuisance species. A Lake Powell specific brochure, suitable as a mailer insert, has also been produced. Recreational Enhancement Act funds are approved in 2007 for construction and deployment of the sign products.

Fisheries

Sport fishery management at Glen Canyon NRA is accomplished through an integrated, interagency cooperative effort between the Utah Division of Wildlife Resource (UDWR), Arizona Game and Fish Department (AG&F), and the National Park Service.

Sport fishing in Lake Powell was outstanding during 2006. Since the 1980's, the striped bass population in Lake Powell has gone through cycles of boom and bust in a classic predator-prey interaction with threadfin shad. Peaks in the threadfin shad population cause the striper population to increase until the threadfin shad population is severely depleted, leaving the striped bass with insufficient forage. Unlike the previous three years, the threadfin shad had a poor year-class in 2006. While the striped bass population remained large during 2006, their condition decreased and the population is expected to decline in 2007 as a result of limited forage. Angler harvest is used as the primary tool for controlling the striped bass population. There is no creel limit on striped bass in Lake Powell, and all anglers are asked to keep all striped bass caught.

During recent years, the smallmouth bass size and condition has increased. Regulations imposed in 2002 increased the creel limit on smallmouth bass from 6 to 20 in possession to keep smallmouth populations at sustainable levels. With no limit of striped bass and the increased limit for smallmouth bass, Lake Powell has the most liberal creel limits in the U.S.

A gizzard shad was first collected from Lake Powell in the San Juan inflow area on June 6, 2000. No additional gizzard shad were found until August of 2002 when Utah Division of Wildlife Resources personnel collected six from the San Juan arm. By 2003, gizzard shad had moved into all areas of Lake Powell. The effects of this new exotic species in Lake Powell are unknown. Gizzard shad may improve the sport fishery by providing another forage source. They may also

severely impact the threadfin shad population. Gizzard shad quickly grow beyond the prey size threshold for all but the largest of the predators. This could mean that gizzard shad will provide a more stable food source by virtue of maintaining a large brood stock to replenish forage for bass. Alternately, gizzard shad may become too large to serve as forage and may compete with other fish for the already limited food resources.

The rainbow trout fishery in the Colorado River below Glen Canyon Dam has seen low production for the last several years. The population is large, but the size and condition of the fish are poor. The average trout size in the 1970s and 80s was over 16 inches; today the average size is less than 12 inches. The causes for poor growth in trout are uncertain. The NZMS is expected to have negative impacts on the trout, but the actual effect is unknown. In 2002, Arizona Game and Fish adopted new regulations to reduce the population size in an attempt to increase trout condition. Water releases from the Glen Canyon Dam have been manipulated since 2003 in a variety of ways in an attempt to help the trout fishery. The success of the fishing regulation changes and dam release manipulations are still uncertain.

Sedimentation Studies

Progress in understanding the sedimentation processes in Lake Powell was made in 2006 using data collected during lake-wide surveys in 2005. Cooperative investigations with the Bureau of Reclamation, University of New Brunswick, and Duke University were conducted to map new sediment and measure turbidity currents in spring and early summer. The processes governing sedimentation of Lake Powell are unique and have strong implications for management and development. Sediment accumulated in the inflow and now exposed by low lake levels is being transported long distances down-lake. Biological and chemical oxygen demand from re-suspended sediments plays a large role in water quality, ecosystem health, and contaminate fate.



Mapping Sediment

Lake Powell Cooperators Group

The Lake Powell Cooperators group has met each year since 1990. The annual meetings create an opportunity for information exchange and fostering partnerships between agencies active on Lake Powell. Formalized by a memorandum of understanding in 1998, signatory agencies include the NPS, USGS, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, Utah Division of Environmental Quality, UDWR, Arizona Division of Environmental Quality, Arizona Game and Fish, and Navajo Nation Environmental Protection Agency. Other participants include U. S. Bureau of Indian Affairs, U.S. Coast Guard Auxiliary, Utah Department of Health, Utah Parks and Recreation, Southwest Utah Public Health Department, Coconino County Department of Health, GCMRC, Northern Arizona University,



Utah State University, University of Utah, Page High School, Navajo Generating Station, and ARAMARK.

GRAZING MANAGEMENT

Administration and Planning

FY2006 was the third year in which grazing fees were collected by Glen Canyon NRA. We received a total of \$11,000 from May through September. We supported one park intern with \$2,600; remaining funds were spent on resource management needs.

In August of 2005, a lawsuit was filed by several environmental groups against the Department of Interior requesting relief from improper grazing practices across portions of Glen Canyon NRA. The range ecologist worked closely with the regional solicitor and Department of Justice to prepare administrative records, develop a formal response to the claims of the suit, and work toward a proper defense strategy. On September 20, 2006, the court ruled in favor of the NPS and BLM on claims concerning permit renewals and appropriations riders but ruled against the NPS on a claim concerning inadequate NEPA and NHPA analysis and compliance for the park's 1999 Grazing Management Plan. The EA associated with the plan was remanded for revision and the park is working toward completing this task.

The Arizona Strip Field Office of the Bureau of Land Management, in cooperation with Grand Canyon-Parashant National Monument, continued to finalize a revision of their existing Resource Management Plan. The Glen Canyon NRA range ecologist served as primary contact for agency cooperation on this effort. After several iterations, the plan was edited to accommodate Glen Canyon NRA concerns and comments. Most comments submitted centered on grazing administration as Arizona Strip BLM manages livestock grazing across park lands.

San Juan and Henry Mountains BLM Field Offices are also producing Resource Management Plan revisions but no final drafts are near completion. Glen Canyon NRA's range ecologist is serving as agency cooperator for these efforts.

The Grand Staircase-Escalante National Monument Office of the BLM has been preparing a Rangeland Health EIS since 2001. Draft chapters of this effort were reviewed with state and national BLM offices in November of 2005. Although a draft of the plan was to be released for public comment in February of 2006, it is on hold pending further review.

Inventory and Monitoring

Shawn Gerrity was rehired in June 2006 through the Utah State Tehabi Internship Program to assist with two ongoing monitoring efforts. First, a germination trial was initiated in May of 2006 at the Page high school greenhouse. Glen Canyon NRA's range ecologist worked with the local botany teacher to inform students and establish greenhouse space. Shawn helped prepare seeding flats and collected over 200 soil samples in the field in June and July. He then assisted with watering and monitoring seedling establishment from July through October. Data is being analyzed for differences in lightly and heavily grazed areas.

Shawn also helped with the park's annual upland monitoring efforts. Beginning in March, the range ecologist worked with the NPS Vital Signs Network out of Flagstaff to determine a sampling strategy and site selection procedures. In total, 22 field sites were selected and sampled over the course of the summer. Grazing allotments associated with this work included Soda, Lake Canyon, Escalante River, and Fortymile Ridge. Staff collected data on forage cover, density, and frequency and litter, bare ground, and cryptobiotic soil cover. Shawn entered and began analyzing the data for differences in grazing pressure (heavily vs. lightly grazed sites). He then presented initial findings of both monitoring efforts to the park and to an internship committee in August. The range ecologist is continuing to use this data to refine sampling techniques and study design for future monitoring efforts.

Annual Management of Livestock

During the 2006 grazing year (June 2005 through May 2006), the Glen Canyon NRA region received less than average rainfall, particularly during the winter months. Most livestock permittees ran approximately 75% of normal herd sizes. Allotment visits were made in the early spring primarily to those allotments along the Escalante River. We found vegetation trends stable at most locations. Utilization measurements read 40 to 50% for many grasses and 30% for browsing on shrubs, both within acceptable levels of forage use.



Glen Canyon NRA field crew sampling vegetation and collecting soil samples from grazed benches high above the Escalante River (15 June 2006).

Lake water levels increased 30 feet from April to August of 2006. As a result, fencing constructed the previous winter in the Castle Rock area just north of "The Cut" needed to be removed to prevent the fence from becoming a recreational hazard. The range ecologist actively monitored and removed fence sections when necessary from April through June.

Because water levels are again declining at Lake Powell beginning in September, livestock are being monitored to restrict their access to unauthorized areas. First, the Castle Rock fence is again being extended in the Castle Rock area to prevent livestock from accessing Antelope Island. Second, cattle are being monitored so they do not access Halls Creek Bay area from lower elevations of the Waterpocket Fold allotment (by heading southwest from the Bullfrog north campground). Cattle are not authorized for Halls Creek.

One fencing proposal has been prioritized for funding and is currently being cleared by NEPA procedures to remove livestock from the Bullfrog developed area and a popular campground. Once installed, the fence will exclude cattle, improve resource conditions, and effectively change visitor attitudes of the area. Project is to begin in February of 2007.

NPS Coordination and Collaboration

In March 2006, the range ecologist presented Glen Canyon NRA grazing program information to a group of 50 attendants of the first ever Livestock and Landscapes Workshop in Lakewood, CO.

This workshop, sponsored by the National Park Service and Utah State University, sought to identify issue-based linkages among parks and park-partners to facilitate cooperation, communication, and consultation. The workshop served to provide network and partnership opportunities, share policy information, review case studies, and provide information about basic scientific principles of livestock management.

EXOTIC PLANT CONTROL

In FY2006 the seasonal employee in the Escalante subdistrict, William Wolverton, continued tamarisk and Russian olive control work. He also led or co-led eight exotic plant control trips. An additional 2.6 miles of the Escalante River corridor was cleared, for a total of 32 miles of the river corridor cleared. Work trips were conducted by the Wilderness Volunteers, the Sierra Club, and Utah Conservation Corps. Tamarisk and Russian olive have also been eradicated from Willow Gulch, Fort Mile Gulch, Davis Gulch, and about ½ mile in Harris Wash.

An Exotic Plant Management Team (EPMT) crew sprayed remaining Ravenna grass and re-sprouts from the 2005 control work with various herbicides. A Colorado Plateau EPMT team eliminated Ravenna grass from several lakeshore areas, then started control in Cottonwood Gulch.

Overall, 1,716 hours of volunteer work for exotic plant control was conducted in Glen Canyon NRA. This volunteer effort is equivalent to \$25,740 of in-kind support at \$15.00/hour.

TERRESTRIAL INVENTORY AND MONITORING



Limnocrene Spring, Coyote Gulch, 26 April 2006

The botanist, as a member of the technical steering committee, continued to provide assistance to the Southern Colorado Plateau Network (SCPN). A general meeting to review progress and to vote on changes and additions to the program was held at Canyon de Chelly 1-2 November 2005.

The eighth annual Glen Canyon Christmas Bird Count was held on January 4, 2006. Eleven enthusiastic birders attended, with 75 species and 7,393 individuals counted. Six species new to the count were recorded; Greater yellowlegs, prairie falcon, Costa's hummingbird, white-winged dove, lesser

goldfinch, and brown-headed cowbird. The number of species seen on the CBC reached 132.

In April, the botanist and aquatic ecologist surveyed the riparian zone and selected springs in Coyote Gulch with the U.S. Geological Survey. An unusual limnocrene spring (spring emerging underwater) was documented and sampled during this trip. This is one of only two known limnocrene springs in Glen Canyon NRA.

Between October 2005 and June 2006 three trips were conducted to the Viking Oil project area near the Purple Hills. Dave Worthington and Gary Lenhart, biologist at Capitol Reef National Park, assisted in the surveys. Gary Lenhart conducted three Mexican spotted owl surveys according to the official protocols, but found no birds. However, several pairs of great-horned owls were documented in the project area. A spring not marked on the U.S.G.S. 24" topographic maps was discovered in Middle Moody Canyon in the project area. Observations on wildlife, flora, vegetation and paleobotany were conducted during these surveys.

RESTORATION

Resource Management obtained funding in 2005 through the NPS NRPP-Disturbed Lands Program to restore three springs damaged by livestock grazing activities in Glen Canyon NRA. In 2006 the springs were re-visited and monitoring transects read again. An intern, Angie Roberts, was hired from the Tehabi Program to work on the project. Field work was accomplished in July at the three springs. In July 2005 plantings of dogwood (*Cornus sericea*) and yellow willow (*Salix lutea*) were transplanted into East End and Cottonwood Springs. Monitoring in 2006 indicated that none of the dogwood had survived, but that 20% of the willows had survived. A group of coyote willow (*Salix exigua*) stakes were transplanted into East End Spring in July of 2006. Between 2005 and 2006, relatively few changes were noted in vegetation at East End Spring and Cottonwood Spring. At French Spring, a storm in the previous late summer had scoured out part of the soil and vegetation in the lower wetted area down to bedrock. A final year report was completed.



East End Spring, 2006, looking towards gate



East End Spring, 2001, looking towards gate

THREATENED, ENDANGERED, AND SENSITIVE SPECIES

Bald eagle monitoring was accomplished in January of 2005 by Brenda Russell, Tug Kangus and other volunteers. In all 21 bald eagles were counted on the survey. This is well down from the high of 50 bald eagles found in 2003. For the only the second time in 15 years since counts were started, no golden eagles were observed.

The listed threatened *Cycladenia jonesii* was monitored in June of 2006. Numbers of shoots increased to the highest seen since 1992, with 337 counted. However, as in previous surveys since 2002, no fruit production was observed.

In 2006, the botanist with Dr. Jim Enderson (Colorado College) and Tim Tibbitts (Organ Pipe Cactus NM) conducted surveys for peregrine falcons around Lake Powell. A final report was prepared. Birds were found at most eyries that had been first identified in the mid-1980s, many by Dr. Enderson. This important work will continue with additional surveys in FY2007.

RESEARCH AND RESEARCH PERMITTING

The botanist continued to serve in a collateral capacity as the park's research coordinator, dealing with terrestrial program areas as well as the Adaptive Management Program and Grand Canyon NP.

The botanist continued floristic and taxonomic research on the bryophyte flora of North America, moss flora of Nevada, moss flora of Australia, vascular plant flora of Arizona, and vascular plant flora of the San Juan River Basin. He took leave without pay in July of 2006 to work on two rare species on the North Kaibab Plateau for the U.S. Forest Service, Kaibab N.F.

Publications and Reports

The botanist continued in 2006 as editor of *Utah Birds*, the journal of the Utah Ornithological Society.

Other publications published or in press are listed below.

- Brinda, J.C., L.R. Stark, J.R. Shevock and JRS. 2006. An annotated checklist of the bryophytes of Nevada. The Bryologist 110, 4 (in press).
- Floyd, M.L., W.H. Romme, D.D. Hanna, J.R. Spence, M. Winterowd, D. Hanna and M.E. Hill. Fire History of Floristically Rich Piñon-juniper Woodlands on Navajo Point, Glen Canyon National Recreation Area, USA. Natural Areas Journal (submitted).
- Joyce, L., W. Fox, P. Geissler, R. Heitschmidt, L. Hidinger, D. Patten, JRS, L. Strong, R. Unnasch, and R. Washington-Allen. 2006. Sustainable Rangeland Roundtable Indicators for conservation and maintenance of plant and animal resources on rangelands. Journal of Range Management Monographs (in press).
- Romme, W.H., J.R. Spence, L. Floyd-Hanna and J.S. Redders. 2007. Plant communities and vegetation associations in the Four Corners Region. In Heil, K., L. Reeves, T. O'Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007a. Biogeography and floristics of the San Juan River Basin and Four Corners Region. In Heil, K., L. Reeves, T. O'Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007b. Anacardiaceae. In Heil, K., L. Reeves, T. O'Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).

- Spence, J.R. 2007c. Araliaceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007d. Berberidaceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007e. Celastraceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007f. Crossosomataceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007g. Gentianaceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007h.. Nyctaginaceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007i. Rhamnaceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007j. Vitaceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007k. Viscaceae. In Heil, K., L.Reeves, T. O’Kane and A. Clifford. The Flora of the San Juan River Basin and Four Corners Region. Missouri Bot. Garden, St. Louis (in press).
- Spence, J.R. 2007l. Archidiaceae. In Zander, R.H. Flora of North America, Vol. 27. Oxford U. Press (in press).
- Spence, J.R. 2007m. *Jaffueliobryum* (Grimmiaceae). In Zander, R.H. Flora of North America, Vol. 27. Oxford U. Press (in press).
- Spence, J.R. 2007n. Monitoring the riparian breeding bird community along the Colorado River in the Greater Grand Canyon region: statistical power, experimental design and implications for long-term monitoring. In Van Riper III, C. and M.K. Sogge (eds.). Colorado Plateau III.
- Spence, J.R. and H.P. Ramsay. 2006. Bryaceae. Pp. 274-348 In Flora of Australia, Vol. 51, Mosses 1. Government Printing Office, Canberra.
- Spence, J.R., J.R. Shevock and L.R. Stark. 2006. Contributions toward a bryoflora of Nevada. Bryophytes new for the Silver State. Part II. Madroño 53 (4): 400-403.
- Spence, J.R. and W.B. Schofield. 2007. Takakiaceae. In Zander, R.H. Flora of North America, Vol. 27. Oxford U. Press (in press).
- Vitt, D. and J.R. Spence. *Brachydontium* (Seligeriaceae). In Zander, R.H. Flora of North America, Vol. 27. Oxford U. Press (in press).

GEOGRAPHIC INFORMATION SYSTEMS

Interpretation and Resources Management

New GPS equipment was purchased for resource management programs. These new GPS receivers are lighter, more accurate and built for rugged field duty.

Glen Canyon NRA GIS researched and collected electromagnetic spectrum specie signatures for the upcoming Escalante River Basin resource classification. University archives were searched and vegetation signatures gathered to help in the vegetation classification portion of the research.

A Colorado River 100,000 CFS flow model was created to help identify the old high water zone along the Colorado River between Glen Canyon Dam and Lees Ferry. This will be used in conjunction with STARS remote sensing data to delineate and map the old high water vegetation zone.

Continued to support the Navajo Point Fire History Study. Final GIS data and reports were integrated into the Glen Canyon NRA GIS.

Converted and updated the GCMRC GIS databases for soils and river miles and added GIS layers into the Glen Canyon NRA GIS database.

Glen Canyon NRA continued the process of obtaining digital geologic base maps from the states of Utah and Arizona. Over two thirds of the Glen Canyon NRA geologic mapping is complete. The task of field checking and edge matching is in progress.

Worked with aquatic staff members to help update the beach monitoring random sample GIS model. Field checked and made corrections to the Glen Canyon NRA Lake Powell bathometric GIS model.

Glen Canyon NRA GIS continued work on the springs and seeps databases, rectifying data from all known sources for inclusion in the baseline seeps and springs database.

Glen Canyon NRA GIS processed several 2004 NAIP aerial photo mosaics and integrated them into the Glen Canyon NRA baseline GIS. Histogram and color-matching was begun in the Bullfrog, Alcove Canyon, Halls Crossing, King Mesa and Deer Point areas. These geo-referenced photos represent the most current areal photographs of the Glen Canyon NRA in a GIS readable format.

Continued development of an iconological GIS database to protect and document fossil resources for research and provide visitor information and education.

Park-Wide GIS Support

Glen Canyon NRA GIS provided map and graphics support to the management staff as well as consultation on subjects such as boundaries, land ownership and power site reserves.

The field portion of the GPS survey of Coconino, Garfield, Kane, Wayne, and San Juan county roads and trails was completed in 2006. Glen Canyon NRA started the editing phase of all collected data and is in the process of compiling and comparing various road data. Glen Canyon NRA will use as much of the county's GPS line-work in an effort to be consistent with state and local governments when publishing the final roads and trails database.

A massive amount of work was done in support of the Viking Oil EA. Glen Canyon NRA GIS produced some 81 maps including revisions, 91 GPS and GIS layers and over 50 updates and changes to existing Viking Oil GIS layers. This project has over 1800 associated files amassing some 4.5 gigabytes.

In 2006, Glen Canyon NRA GIS provided support for various other projects including: maps and signage for Navajo National Monument, RS2477 roads and trails, proposed annexation of Glen Canyon NRA by the city of Page, Navajo Generating Station, and the Glen Canyon NRA tree restoration project.

The National Geodetic Survey and Glen Canyon NRA have implemented a survey control network in Glen Canyon NRA through survey monumentation. These survey monuments will serve as control points for mapping of Glen Canyon NRA facilities and related assets. The second of placing more monuments close to facilities in developed areas continued. This project's purpose is to tie all assets to the National Spatial Reference System (NSRS) and to update the AutoCAD and GIS databases. This will create a standard by which all future assets and facilities will be based.

Several maps were prepared as well as other GIS services provided to the Environmental Specialist and NEPA group in support of NEPA related projects. Soils maps were produced in support of the Bullfrog, Halls Crossing and Hite marinas DCP.

Rangers were provided with maps for incident command and control centers. Support for the SAR Team was actively continued, providing mapping and support for several SAR efforts. Maps and graphic support were provided to investigators and law enforcement rangers as needed.

PALEONTOLOGY

A third plesiosaur in Glen Canyon NRA was excavated in 2006. This included two partial days and one full day dedicated to hosting media during the excavation. Phase II of the excavation was completed, which consisted of laboratory preparation of fossils, conservation, labeling, and collection management of the fossils. Cataloging and collection management activity are partially completed, and the first stages of Phase III were begun.

Several dinosaur trackways were discovered in 2006 during continued low water conditions.

The final draft of the Glen Canyon NRA Paleontological Resources Management Plan is complete. Dr. David Gillette and NRA staff continued research in an effort to compile and document known paleontological resources within Glen Canyon NRA. The plan documents past

paleontological research, paleontological potential by geologic formation and is meant to be a guide for future research, interpretive programs and resource protection. The dinosaur trackways guide is complete and ready to go to press.

Branch of Cultural Resources

LEES FERRY LONELY DELL RANCH HISTORIC DISTRICT PROJECTS

Numerous small deferred maintenance projects were completed on historic structures within the district. Work included improvement of drainage, cleaning the patio and removal of two large tamarisk trees at the patio of the USGS VIP cabin, and consulting with IPM and monitoring of extensive termite damage to the three-year-old doorway framing at the silt lab and the east sill log at the root cellar. Maintenance of the historic ditch required removal of additional tamarisk.



Exterior of the Samantha Johnson cabin

Large gaps between the logs at the Samantha Johnson cabin were filled with a dirt/grass/Rhoplex mixture which will help repel rodents. The interior lime chinking was completely repaired (using the original NPS 1984 repair formula) and the entire interior was whitewashed with a lime mixture. Extensive repair of the chinking on the exterior of the cabin was completed and the blue window trim was freshly painted. The north door was re-hung in its original location to open outward.

Maintenance completed at the Weaver Ranch house was primarily directed towards eliminating the severe rodent infestation which has plagued the east wing apartment for nearly 20 years. Fixtures in the bathroom were removed and the entire rotting upper flooring and lower drywall were removed to reveal the source of the problem, namely inadequate construction when the building was remodeled in the mid 1980s. Metal flashing was used extensively to seal off the walled areas, new subflooring and vinyl flooring was installed, and an incalculable number of rodents were trapped and removed. Original fabric, including tongue and groove flooring and a small area of wainscoting, were preserved. Gaps between the foundation and sill plate were packed with stones and dirt. The large elm trees in the yard were successfully sprayed to diminish a beetle infestation.

Planning for Rehabilitation of Weaver Ranch House

A project to plan for the rehabilitation of the Weaver Ranch house was ongoing throughout the fiscal year. An initial condition assessment was performed to identify and prioritize repair work for the structure. A separate analysis identified historic components of the structure which needed special preservation. Outside professionals evaluated seismic and hazardous materials

risk, and park staff and management conducted a value analysis session to determine the appropriate type of use for the structure. Ultimately, a phased implementation plan, emphasizing protection of the historic fabric and health/safety issues, was adopted and will begin in FY07.

DATA MANAGEMENT

Considerable effort went into upgrading the cultural resources database this fiscal year. Disparate databases including the ASMIS, LCS, Monitoring, IMACS, CSI and C14 were combined into a master Access database. The GIS system was updated to ArcMap9 and combined with the master database and hyperlinked site files, allowing retrieval and manipulation of site-specific records, maps, and photographs for sites throughout the park. New and existing data fields, along with current site conditions in the LCS and ASMIS data bases, were 100% updated, a WASO program priority. Services of a VIP were utilized to verify and correct site condition data for over 2,400 sites, resulting in the review and modification of over 60,000 data fields. Another VIP was utilized to review missing elevation data for over 200 sites, through laborious correlation checks between site records and GIS data.

CONDITION ASSESSMENT CESU IN THE ESCALANTE CANYONS

An ongoing Northern Arizona University CESU project for the detailed documentation and chronological assessment of structural sites in the Escalante Canyons entered its second phase in 2006. Phase II work included three field trips to document additional structures. This expansion of the population of structures enabled testing of a model of stylistic progression of construction techniques from Basketmaker through Pueblo time periods observed in the earlier work. Archival collections were reviewed for organic remains, which are used for establishing dates for specific construction styles, including circular alluvial cists, upright slab-lined cists, and complex masonry construction. If the proposed model of stylistic change continues, it will be tested in areas outside the immediate Escalante Canyons, such as the Kaiparowits and canyons around Halls Crossing.

PARKWIDE CONDITION ASSESSMENT TRIPS



Granary site in Cow Canyon

Three backcountry trips were conducted by park staff for the purpose of updating site condition assessments to fulfill WASO LCS and Corrective Action Plan (CAP) requirements. The first trip focused on seven heavily visited sites along the shoreline of mid-lake side canyons; the second focused on a high site density area of the Kaiparowits Plateau; and the third was conducted in the remote Cow Canyon. Condition updates were completed for 56 sites.

Analysis revealed significant new impacts from visitor activities on the shoreline sites.

Kaiparowits sites were heavily impacted from grazing and subsequent erosion, while numerous Cow Canyon sites showed significant and unexplained loss of sediments protecting features such as hearths and artifact scatters, in some areas at the rate of approximately 4 inches in the last 20 years.

Widow's Ledge Inspection

Severe damage and undermining of structures was found at Widow's Ledge ruin during an inspection of the site by cultural staff and uplake rangers in January. Despite the presence of a 10-foot high chain-link fence restricting access to the site for the last 15 years, heavy impacts on both the talus slope and the prehistoric structures themselves were documented. This site is scheduled for condition assessment and cyclic maintenance in FY07 and FY08; funding has been requested for a major project to upgrade the talus slope trail and install a retaining wall at the top of the slope, utilizing the same protection strategy that has been effective at Defiance House.



Structure 8 Widow's Ledge

NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT

The park's inventory of NAGPRA related items (including human remains and associated funerary objects) was reviewed and subjected to visual inspection and confirmation. GLCA collections at the Museum of Northern Arizona in Flagstaff, and the Western Archeology and Conservation Center in Tucson were examined for accuracy in numbering and description; numerous discrepancies and issues were identified and corrected. Several lots of additional materials were reviewed for inclusions in the inventory. Jurisdiction issues related to materials collected from Indian lands and associated funerary objects in separate storage were discussed with NAGPRA program leaders.

An affiliation study for GLCA materials, containing agency recommendations as to probable cultural affiliation of NAGPRA related items, will be completed by Bureau of Reclamation as part of their larger study of Lake Powell and Navajo Reservoir materials. When this study is completed in approximately two years, we will review the recommendations and conduct joint consultation with Native American groups. Subsequent to this consultation, the park will prepare a final Notice of Inventory Completion for publication in the Federal register.

AMERICAN INDIAN LIAISON

Consultations

- Planning documents: Uplake DCP/EA, Lees Ferry Improvement Project, Colorado River Restoration Project, Viking Oil, and the proposed Navajo Mountain Radio Repeater/Transmitter Station.

- For each of the planning documents, consultations with the park's affiliated tribes along with the Navajo Nation Chapters were held.
- The Rainbow Bridge National Monument's Native American Consultation Committee had their annual meeting.
- The Oljato Chapter requested and Glen Canyon NRA installed a trash collection bin at Paiute Farms area of the park for visitor's use.

Ongoing projects

- Attended at least four meetings representing the park superintendent with an exception of the San Juan Southern Paiute Tribe of the affiliated tribes/nations including the Navajo Nation chapters surrounding the park.
- NAGPRA-inadvertent discovery, initiation of consultation of such discovery has been applied during the year.
- Rainbow Bridge National Monument's General Management Plan implementation through the Native American Consultation Committee programmatic agreement with issue of boundary fence improvement along with the trail improvements due to low water effects that required extensive coordination and consultations with affiliated tribes/nations.
- Language translation from English to Navajo for those people inquiring about jobs, and other park related issues (including plant and entrance fee collections) has been readily available.
- The American Indian Liaison is often invited to other Native American Indian communities' activities and functions as a representative of Glen Canyon NRA and Rainbow Bridge National Monument.

Liaison assistance to other parks and agency

- Page Unified School District's Indian Education Program.
- Grand Canyon National Park's Colorado River Management Plan-Language translation at the Navajo Nation Chapter meetings.
- Capital Reef National Park – Interpretation for language translations in Navajo.
- Navajo National Monument-sensitive issues involving Navajo culture and tradition.

Other

- Department of Justice-Voters' Rights Program requested help from American Indians that are bilingual in Navajo/English languages. Implementation of Civil Rights Act require observations of ballot polling sites that are targeted with concerns and deficiency and in 2006, assistance was given at least once.

Branch of Interpretation

BUDGET

Glen Canyon ONPS	\$457,341
Rainbow Bridge ONPS	\$ 12,000
Total ONPS	\$469,341

STAFFING

6.8 Permanent FTEs
2.2. Temporary FTEs
9.0 Total FTEs



VISITOR CONTACTS

Carl Hayden Visitor Center	357,254
Navajo Bridge Interpretive Center	44,647
Bullfrog Visitor Center	4,748
Wahweap DRO	4,167
Formal Interpretation	27,339
Informal Interpretation	33,641
Special Events	6,064
School Programs	1,668
Junior Ranger Programs	972
<u>Total Interpretive Contacts</u>	<u>480,500</u>

PARK-WIDE CHALLENGES AND ACCOMPLISHMENTS

This was the second year that Interpretation operated as a branch in the newly organized Interpretation & Resource Management Division. Staffing and budget were somewhat lower than in 2005. However, a precise matrix scheduling system and a united effort by staff to broaden our scope of programs allowed us to increase the number of interpretive contacts made by almost 14,000 people.

Program Changes

This year the interpretive staff made a concerted effort to place interpreters on concession-operated Lake Powell tour boats and river raft trips. Interpreters contacted over 10,000 visitors on various boat tours. In coordination with the tour boat captains, they presented formal and informal interpretive programs, as well as one-on-one roving interpretation. The success of this program was due, in large part, to the painstaking groundwork prepared by NPS district interpreter Eileen Martinez and Aramark's interpretive manager Beth Mader. Eileen and Beth prepared and planned carefully to insure that interpreters and Aramark tour boat staff collaborated successfully. Though there was some resistance initially, this soon disappeared as both groups saw the benefits of this partnership.

Interpreters also contacted nearly 6,000 visitors on the concession-operated raft trips. These trips traverse the last remaining miles of Glen Canyon, from the dam down to Lees Ferry. The format of these trips was different from that of the tour boats. NPS interpreters rode on the rafts, but did very little interpretation while on the water. Their primary venue on this trip was a stop made at a prehistoric petroglyph panel along the river. It was here that interpreters gave their programs and made the majority of their contacts.



Another program change involved a contraction instead of an expansion. For the first time since its inception in 1997, downlake interpreters did not make shoreline visitor contacts as part of the park's water quality program as a result of staffing shortages. We continued to make shoreline contacts in the uplake district. And, for the first time, our Dangling Rope seasonal interpreter made limited water quality contacts in that subdistrict.

Matrix Scheduling

Another big change begun in earnest this year was matrix scheduling. This process is somewhat more time consuming and complicated for the person who prepares the schedule. However, the benefit of this type of scheduling is that it allows us to accomplish more activities with a relatively small staff.

Wahweap Subdistrict interpreter Joan Mayer had the unenviable job of preparing this schedule. It was through her tireless efforts and dedication that we were able to accomplish so much in the Wahweap Subdistrict this year. We were able to accomplish several things this year:

- Operate Carl Hayden Visitor Center 10 hours a day, 7 days a week;
- Provide formal and informal programs at the visitor center on most days;
- Provide interpreters for tour boats and raft trips on an average of more than once a day during the season;
- Provide educational programs for over a thousand students;
- Expand our Junior Ranger program;
- Present special programs for the concession-operated lodge;
- Prepare for and participate in special events, such as Earth Day, the Coconino County Fair, and National Public Lands Day;
- and a variety of other interpretive services.

A New Cooperative Enterprise

In May of 2006, the park, in cooperation with the Glen Canyon Natural History Association, opened a new visitor contact station in Wahweap. The contact station was a recently rehabbed historic structure from the "Mission 66" phase of the National Park Service. The Association provided primary staffing for the station, along with occasional help from NPS volunteers.



The station has a sales outlet for the History Association, as well

as park information. There are exhibits that highlight visitor safety and protection of park resources. The contact station was open from about Memorial Day to just after Labor Day. This was the first year of operation, but more than 4000 visitors utilized this facility in slightly more than three months. The plan is to have a large rock panel of dinosaur tracks on display next year.

Media Production

The NPS rolled out a new format for park websites this year. Much of the content review and web page authoring and design fell to the Interpretation Branch. We provided content and design for a number of pages for GLCA and RABR sites including sections on: park activities, maps, visitor services, and cultural and natural history. Manipulation of 119 photos was required. It is uncertain exactly how many pages we created, but it was probably 75% of the total content. Interpretive specialist Betsy Scroggs deserves the lion's share of the credit for the creation of these pages.

Major interpretive publications projects included the park newspaper, a temporary five panel display at Carl Hayden Visitor Center, large-scale posters for special events, and revisions of both the informational displays at Bullfrog, and the tri-panel information displays throughout the park. Near the end of the year, we also began researching and designing new waysides for the Lakeshore Drive viewpoints. Betsy also designed and fabricated exhibits for Navajo National Monument, as well as many site bulletins, maps, and handouts. The total number of individual publications produced was 52.

Employee Highlights

At the request of NPS Chief of Interpretation Corky Mayo, Eileen Martinez instructed at two different sessions of "Interpretive Operations for First-Line Supervisors" at Mather Training Center. She also taught a class as part of the NPS Fundamentals class at Albright. In August of 2006, Eileen was selected to serve a detail as acting superintendent for Navajo National Monument.



The long vacant uplake district interpreter position was filled in July of this year. Justin Glasgow was hired on a SCEP appointment. Justin is pursuing a master's degree in interpretive communications from Stephen F. Austin University in Texas. He has worked at Fort Davis NHS, Bandelier NM, and Canyonlands NP, before coming to Glen Canyon. Justin has already proven to be an excellent addition to the Glen Canyon interpretive team.

Cindy Adams, our SCEP employee from 2005, was converted to a permanent, subject to furlough position in January of 2006.

All permanent and seasonal employees were given a set of "Core Knowledge" criteria. These criteria specified certain things (knowledge, concepts, practices, information, processes, etc.) that all interpreters should know and with which they should become familiar. This was the first time that interpreters had been given such a requirement.

The Branch of Interpretation also had a work plan, which set forth tasks and goals for the work year. This was the first identifiable Work Plan interpretation has had for several years. It not only allowed the entire staff to identify their role in accomplishing our mission, it was an excellent tool to articulate our accomplishments during the year.

DOWNLAKE DISTRICT

Carl Hayden Visitor Center

In mid May, the Carl Hayden Visitor Center became the caretakers of a group of seven 3-year-old bonytail (*Gila elegans*) courtesy of the Big Water Fish hatchery team of the Utah Division of Wildlife. The U.S. Fish and Wildlife Service, the Bureau of Reclamation and the National Park Service all partnered together to acquire and take care of several of the endangered fish of the Colorado River system.



The purpose of the aquarium is to give visitors an opportunity to see examples of endangered fish that are of great scientific interest to many individuals and agencies who study the Colorado River. Five large razorback suckers (*Xyrauchen texanus*) also joined the tank in July. Much larger than the bonytail, several skirmishes occurred but eventually, the bonytail and razorbacks acclimated to each other within a few days.

Seven humpback chub were delivered in late August. They were only three inches long and a couple of months old, but they have held their own in this tank of much larger fish. They are growing at a good rate and the other fish have appeared to fully accept this new group.

Rangers and volunteers help tell the story of these remarkable fish several times a day to visitors from all over the world. Visitors seem deeply interested in this great fish story that isn't about how big these fish are, but how a few fish can represent ultimately the last of a species unless steps are taken to insure their survival.

Just across the rotunda from the endangered fish aquarium is the junior ranger station corner. The junior ranger program continues to gain momentum in our park. Since last year, we have given out about 3,000 books. We also give them out on tour boats, river trips, evening programs, community outreach events, and hiking trails. Because of the large junior ranger exhibit in the Carl Hayden Visitor Center, many kids and parents discover the junior ranger program for the first time in our park. We are very proud to be able to continue this tradition at the park and on our website.

Rangers meet the challenges of a fast-paced visitor with innovation: short multi-media programs in the auditorium that explore some of the most interesting topics about Glen Canyon. When there is enough trained staff, at least four media programs are given per week lasting from 20-40 minutes in length.

Conrad's Great Adventure puppet show was resurrected this August and entertained two audiences of 170 people, exceeding the Carl Hayden Visitor Center auditorium seating capacity. The cast consisted of several new volunteers and two seasonal rangers who produced the best performances ever. There was a musical band, the Chili Pepper Players, consisting of three talented musicians who sang original songs as well as old favorite sing alongs. Children were able to meet the puppets and the puppeteers at the end of the show and receive stickers and tattoos of their favorite puppet characters. The show has been performed several times since 2001, and although requires a lot of time to produce, is worthwhile and successful because it has a captivating and educational story line.

In addition to these types of performances, approximately 100 talks between June and September were given each day by rangers and volunteers. Most talks are scheduled but many continue to be impromptu so we can be flexible to accommodate large bus groups.

Wahweap Subdistrict

Several new ways of contacting visitors in the Wahweap area were tried this year. Of particular interest was finding places to do evening programs, since we had no amphitheater. We provided five evening programs to several hundred Tauck tour bus guests at the Lake Powell Resort. The most successful program at the lodge was Astronomy Night. Visitors crowded into the Tower Butte room for a media presentation by a guest amateur astronomer from Kanab and then headed outside to the back lawn for telescope viewing. Astronomy is clearly a topic of keen interest to visitors and will be continued when and where possible as we build a cadre of volunteers willing to bring telescopes to the star viewings.

Consistently throughout the summer, usually 4-5 mornings per week, rangers and/or volunteers head out to Horseshoe Bend to offer talks at the rim and along the trail. Rangers typically contact between 50-100 visitors over a one-hour period. We provide formal and informal talks on topics that include: geology and geography of the region, river runners-past and present, endangered fish, recent scientific research in park, condors, nesting eagles and peregrines in the river corridor, and the ever popular topic of water issues of the West.

By the first week of July this year, the seasonal and permanent staff participated in concession-led float trips when staffing allowed. This gives rangers the opportunity to talk with 100-160 visitors per day in the resource rather than behind a desk. We give short talks on the boat on the way downriver on a variety of subjects when invited by the river guide. We disembark at the Petroglyph Panel and give as many as four to six 10-minute talks per hour as new boats arrive. We often collaborate with river guides on the interpretive talks, which benefits visitors as well as employees.

Rangers greatly increased their presence on tour boats this summer, averaging 4-5 times per week. The unpredictable and constantly changing scheduling issues presented the biggest challenge. We continue to work with Aramark boat captains to improve relationships while on-board concessioner vessels. The Antelope Canyon 1 ½-hour boat tour proved to be the best investment of time. Typically, we contact between 100-150 visitors per tour which makes these interpretive contacts manageable and very personalized. We trade off using the microphone for formal talks with the captain and then spend time roving the upper and lower decks answering

questions, giving our junior ranger booklets and badges, as well as providing additional short informal programs on a variety of subjects.

Until this summer there has never been a signed nature trail in the Wahweap area. Thanks to the vision of Cindy Adams, downlake interpretive ranger, the Agua Terra Loop Trail was developed on an existing hard surface path that began just outside the Lake Powell Resort hotel. Visitors can now stroll along this mile-long path with trail guide in hand and learn about some of the area's plants and animals, get a short history of the park, and then make their way back to the starting point refreshed and exercised. The path also leads them to the Wahweap Visitor Contact Station. Thousands of people who visit the park ask where they can take short hikes in the Wahweap area. This trail satisfies that niche since it can be walked in about 20 minutes and is great for sunrise and sunset walks. The trail links to the campground, picnic area, fish cleaning station and, ultimately, the Coves. Thanks to the collaboration with Aramark, Cindy was able to have help in selecting and putting in the trail guide dispenser and plant sign stakes.

Lees Ferry Subdistrict

Navajo Bridge Interpretive Center hosted 45,025 visitors during FY06. The facility opened in mid-April and closed in mid-November. It was staffed mainly by NHA employees with oversight by NPS staff. The NHA employed two bookstore staff persons and contracted the maintenance needs of the center. Sales of interpretive items remained consistent, with some record months. The Lees Ferry interpreter working at Navajo Bridge used the opportunity to present formal interpretive programs on condors and redesign the visitor education displays inside.

The Lees Ferry interpreter accomplished a number of special projects to improve services within the area. These included developing and compiling a new walking trail guide for the historic district, installation of new wayside exhibits and the refurbishments of the frames, installing new way finding signs for the Lonely Dell ranch, updating all bulletin boards, and rehabbing the ranger station with new visitor education displays inside.

Dangling Rope/Rainbow Bridge Subdistrict

2006 marked the 100 year anniversary of the Antiquities Act. In 1910, the Antiquities Act was used by President Taft to establish Rainbow Bridge NM. The park celebrated this birthday with a special evening program that included a photographic display, a guest speaker and an interpretive program on Rainbow Bridge. The event well attended by the community.

Interpretive operations at Dangling Rope and Rainbow Bridge consisted of ongoing daily formal interpretive programs offered to tour boat customers and the general public. Visitor safety remained a top priority.

In addition to normal interpretive operation at the bridge, Rainbow Bridge interpreters also participated in numerous medical responses. The seasonal interpreter also made a number of water quality contacts.

UPLAKE DISTRICT

In 2006, the formerly vacant uplake district interpreter position was filled. Justin Glasgow entered on duty on June 26. This provided some much needed guidance and direction for the district.

Justin began with several orientation trips for both himself and his staff. They made trips to Escalante and Hite, as well as sites in Bullfrog and Halls Crossing. These trips provided information about 4-wheel drive trails, lake access points, camping areas, and other recreational opportunities for visitors.

Justin also began a re-evaluation of the uplake interpretive operation. He explored new venues for interpretation, as well as expanding on existing programs. In conjunction with Aramark, he secured a space in the boat rental office where interpreters could be stationed and provide essential resource and recreation information to visitors. He also completed an inventory of all non-personal interpretive materials, ensuring these items were all current and in alignment with materials distributed in the rest of the park.

Uplake staff continued to present formal programs at the Bullfrog Visitor Center and the Halls Crossing contact station. Attendance at these programs continues to be inconsistent, though everyone who does attend seems to have a enjoyable experience.

Justin also initiated a new informal "Table of Wonder" activity at both Bullfrog and Halls Crossing. This hands-on activity is especially popular with children and provides opportunities for interpreters to talk about a variety of subjects.

The interpretive staff continued to provide support for the district during the busy holiday weekends by working the launch ramps, assisting with phone and radio coverage, as well as medical emergencies.

Interpretive staff continued to participate in the water quality program uplake. Interpreters contacted nearly 2,000 people camping on the shores of Lake Powell. As in recent years, there were no overnight patrols and only occasional joint patrols with law enforcement.

The Halls Crossing Boater Contact station continues to be a productive location for quality visitor contacts. The facility was staffed for about six hours a day, three days a week. Interpreters made nearly 2,000 contacts at this facility, slightly less than half the number of people contacted at the Bullfrog Visitor Center.

The staff also resurrected a formerly abandoned nature trail in the Bullfrog Campground. This short trail was developed in the early 90s but fell into disrepair later in the decade. Justin initiated contact with Trailtamers, a non-profit volunteer group who evaluates trails on public lands and provides both consultation and implementation regarding potential trail development.

Due to lake levels, there were no facilities or operations in the Hite area.

EDUCATIONAL OUTREACH

Educational outreach continues to show growth as more schools choose to visit Glen Canyon Dam for field studies. Approximately 3,500 students representing 54 schools from across the nation and around the world were given some form of a ranger program during their park visit. Schools come here with a keen interest in studying the environmental, social, political, and economic issues surrounding water resources, electrical generation and dams, and water conservation, spanning in age from pre-school to Elderhostel. Most educational visits concentrate in and around the Carl Hayden Visitor Center to learn about the Colorado River and Lake Powell.



Ranger staff, coordinating closely with the dam tour staff, provides a variety of programs for students depending on the interest of their teacher. Once the topics of interest and curriculum are identified, and dam tours are scheduled, rangers and other subject matter experts are asked to provide the desired program that will best serve the teachers needs. Most of the programs are done by interpretive rangers, which can be up to two per day during the busiest months of March, April, and May. Most of the programs take place in the Carl Hayden Visitor Center as media programs in the auditorium, short talks and demonstrations at the viewing window or fish tank, and sometimes on the back deck or on the bridge. Subject matter experts, such as Mark Anderson, Mike Mayer, Ken Rice, and Dr. Alan Titus, are invited when available and specifically requested by a university group.

COMMUNITY OUTREACH

Interpretive staff, encouraged by past successes, continues to get involved in local and regional community events. January starts off with the annual Christmas Bird count. The inventory is submitted by John Spence as part of the national bird count study. The interpretive division normally provides two rangers to participate in this national event. March and April proves to be the busiest month with Career Days, Earth Day/Page Attacks Trash, National Park Week, and National Library Week. Because our seasonal staff is not on board at that time, we participate in these events with permanent staff from all park divisions and volunteers.

Interpretation collaborates with Human Resources to provide an interpretive ranger to assist with Career Day at Coconino College-Page campus. In March, planning and fabricating begins on exhibits for Earth Day/Page Attacks Trash. Last year our booth consisted of several lively educational activities that about 500 hundred people enjoyed. We brought a tank full of endangered fish, provided by Big Water Utah Division of Wildlife fish hatchery and had several art projects associated with the fish. We also set up the ever popular "Porta-Potty Yacht Race," which teaches the importance of wearing life jackets, water safety, safe boating, and maintaining Lake Powell's water quality. Under the tent out of the sun, we provided an endless stream of paper and different art supplies for our giant mural project that encourages kids and adults to express themselves their love of the earth through art. Possibly the most popular activity was our

face painting booth staffed by local volunteer artist, Becky Holland. Becky applied face art for several hours to at least a hundred kids who could choose from a variety of Becky's original endangered animal and plant designs.

Staff offered several interpretive programs at the Page Library as part of the Summer Library Reading Program. This is a wonderful opportunity for NPS staff to share their time and talents with local kids to improve reading habits over the summer and teach something interesting about the park that is in their own backyard.

The Coconino County Fair and National Public Lands Day both occur in September just as the season is beginning to wind down and our seasonal staff is leaving. Planning and exhibit fabrication for both large events begins in early May as paperwork is submitted and partnerships with other agencies and parks are forged. This year the park shared the Coconino County Fair booth with Grand Canyon NP, Grand Canyon NHA and Glen Canyon NHA. The Colorado River and water issues in the West clearly were the basis of both parks' themed activities. Glen Canyon brought a tank full of endangered fish to the delight of hundreds of booth visitors. We averaged about 400-500 visitors per day over the 4-day period. Late in September, we participated in the annual National Public Lands Day for the 5th year in a row in the park. The event, coordinated by Lisa Dittman, concentrated on removing graffiti from the Dam overlook trail.

VOLUNTEER PROGRAMS

The total number of volunteers parkwide, which included the Trash Tracker and its sister program True GRIT (Graffiti removal and Intervention Team,) numbered 228. More than 2,500 hours were provided by 8 campground hosts, 5,498 hours for interpretation, 3,598 hours for maintenance, 2,817 hours for natural and cultural resource management and 190 hours for law enforcement. Local volunteers continue to support our interpretive and outreach programs, working primarily in the Carl Hayden Visitor Center. Volunteers also provided invaluable assistance to our resource management programs, participating in bird counts, water quality assessment, and tamarisk removal in the Escalante region.

Trash Tracker

- 711.5 miles of shoreline cleaned
- 92 volunteers
- 3,193 volunteer hours
- 56,347 pounds of trash picked up

Of special concern was the amount of human feces found on the shorelines. On the downlake trips, the volunteers were running into hundreds of contaminated beaches on each trip.

Volunteers were also quite concerned with the amount of fireworks they found. This year and last year, the Trash Tracker used a total of 2,507 trash bags. These bags need to be sturdy in order to wade through the backs of canyons and the weeds. With our trash bag supply nearly expended, this could become a serious problem in the immediate future. Our partnership with Aramark remains strong, and volunteers were stellar.

Some of the items found this year:

- Sailboat
- .22 rifle
- 15 barbecue grills
- 997 golf balls
- 14,199 aluminum cans
- 10,863 plastic bottles
- 490 water toys
- 3,191 “deposits” of human feces.

True GRIT

- 6939 square feet of graffiti removed
- 45 volunteers
- 1,568 volunteer hours

Although this season was plagued with mechanical problems leading to the cancellations of two trips, the volunteers who were able to go did an astonishing amount of work. Every day, they would hike to the back of a canyon full of graffiti, scrub all day, and still take the time to drag all the trash they could carry on the way out. The program just completed its second year of the three-year grant awarded by the National Park Foundation, along with the generous support of the Tauk Foundation. Other sources for funding need to be found soon. Money was tight, considering the amount of maintenance work needed on this older houseboat. Many repairs would not have happened if it were not for the generous donation of parts from Skipperliner of Page. Without our partners the trips would not be possible.

GLEN CANYON NATURAL HISTORY ASSOCIATION

FY 2006 started out with a tough fall as visitation and sales were greatly affected by soaring gas prices following Hurricane Katrina. Though winter visitation at Carl Hayden Visitor Center was down, sales were up as Glen Canyon NHA focused on a holiday sales option for the local community. High gas prices continued to have a significant impact on visitation and sales at Carl Hayden with the beginning of the spring season. This continued throughout the summer as the bookstore recorded its worst July and August sales in our history with sales and visitation down over 20%. On the other side, Navajo Bridge Interpretive Center had a banner year with the installation of road signs by the Arizona Dept. of Transportation that caught the attention of travelers along U.S. Hwy 89A. Navajo Bridge saw record months in April and May; though sales continued strongly throughout the season, they were affected in the summer months when the price of gas increased.

Winter did bring some good news to Glen Canyon NHA with two awards: first in January, Glen Canyon NHA was awarded for excellence by the BLM Utah State Director for our work in 2005 with Grand Staircase-Escalante National Monument; then in March, the NHA received national recognition from the Bureau of Land Management when it was awarded the National Partnership award at the APPL



Superintendent Kitty Roberts opens the visitor contact station at Wahweap.

conference, for efforts to increase and support opportunities for interpretative programs and education at GSENM.

In May, 2006, Glen Canyon NHA provided the necessary support to open the Wahweap Visitor Contact Station at the District Ranger Office. This Contact Station offers needed contact opportunities within the Wahweap area where much of the park visitation gravitates for lake recreation.

In June, 2006, Glen Canyon NHA provided refreshments for the celebration of the 100th Anniversary of the Antiquities Act of 1906. Also in June, Glen Canyon NHA hosted Christa Sadler at Carl Hayden Visitor Center for a special presentation in the auditorium. Her presentation, “Fossils of the Colorado Plateau,” also featured a large display of fossils that visitors were allowed to touch and feel – a big hit with the children in attendance.

Over Labor Day weekend, Glen Canyon NHA partnered with the Grand Canyon Association to provide a large booth at the Coconino County Fair in Flagstaff or Glen Canyon NRA and Grand Canyon NP. This four-day event was a great opportunity for the parks and its cooperating associations to interact with people from the local communities and promote local resources. Glen Canyon NHA provided for volunteer Becky Holland to attend to provide children with face painting of local flora and fauna.

Glen Canyon NHA continued its partnership with the Powell Museum and the Page Public Library in 2006 with both the Glen Canyon Lecture Series and the Second Annual Powell Symposium. This year’s lecture series included “Carving Grand Canyon” by geologist and guide Wayne Ranney; “Colorado River Stories” by geologist, paleontologist, and river guide Christa Sadler; “The Sciences of Archaeology” by Grand Staircase Escalante NM archaeologist Matt Zweifel; “New Discoveries in Colorado Plateau Paleontology” by Grand Staircase paleontologist Alan Titus; and “The California Condor: An Update” by Peregrine Fund biologist Chris Parrish.

“River Crossings: By Boots, Boats, & Bridges” was the theme of the Second Annual Powell Symposium. Attendees learned about the Dominguez-Escalante Expedition and the Old Spanish Trail in relation to the Colorado River while on a half-day boat trip on Lake Powell to the Crossing of the Fathers. Participants also learned about the engineered crossings of the Colorado River including bridges, ferries, and dams from historian W.L. “Bud” Rusho; Lamont Crabtree presented on the Hole-in-the-Rock expedition; geologist Ivo Lucchitta talked about geologic barriers to crossing the river while attendees floated the 15 miles of the Colorado River below Glen Canyon Dam down to Lees Ferry; local photographer Frank Talbott talked about photography and the local landscape; and Glen Canyon NHA’s Sharron Malmquist finished the symposium with a presentation on historic Navajo Bridge – the first bridge across the Colorado River on the Colorado Plateau. The highlight of the event was the keynote address from Craig Childs, author of many books on water and travel on the Colorado Plateau including *The Secret Knowledge of Water*; Craig mesmerized the attendees with four engrossing tales from his many crossings of the Colorado River and its tributaries. The theme for 2007 will be paleontology on the Colorado Plateau.

V. RESOURCE AND VISITOR PROTECTION

STATISTICAL INFORMATION

Visitation to Glen Canyon in 2006 totaled 1,904,350, as compared to 1,928,274 in 2005. Visits in 2006 represent a 1.2% decrease from 2005 statistics.

	2001	2002	2003	2004	2005	2006	2006 Lake Elevation
Jan.	44,883	42,437	41,207	40,360	30,544	34,883	3,594
Feb.	47,187	41,843	42,279	46,270	32,871	37,514	3,590
Mar.	111,631	105,032	83,842	94,091	92,334	92,917	3,589
April	185,785	161,696	139,967	132,648	134,088	139,478	3,593
May	268,296	247,981	213,207	206,745	207,462	229,717	3,605
June	389,431	343,052	320,128	283,948	329,375	331,186	3,610
July	411,398	380,318	330,828	325,865	338,372	348,809	3,607
Aug.	395,802	338,242	284,626	274,749	307,988	305,969	3,603
Sept.	236,511	215,664	194,304	187,012	209,325	193,546	3,602
Oct.	153,522	149,601	143,042	138,442	142,352	96,815	3,608
Nov.	77,717	63,708	66,011	99,171	68,017	57,162	3,607
Dec.	41,644	38,805	37,356	32,472	35,546	36,354	3,603
Ann.	2,363,807	2,128,379	1,896,797	1,861,773	1,928,274	1,904,350	

Rainbow Bridge National Monument

	2001	2002	2003	2004	2005	2006
January	1,177	961	361	34	0	111
February	595	588	432	779	0	211
March	1,210	1,195	3,129	3,249	1,344	1,214
April	8,548	5,148	5,624	4,141	3,006	4,089
May	15,604	20,531	7,926	9,718	7,724	8,935
June	41,166	22,761	22,346	13,413	11,426	20,060
July	27,972	37,493	20,153	17,107	20,137	19,622
August	42,982	36,323	18,467	10,088	17,596	14,604
September	25,366	24,253	13,474	10,078	12,472	13,266
October	21,013	14,544	6,318	6,318	6,114	4,673
November	3,534	2,148	418	232	1,315	704
December	583	1,791	217	129	172	153
Annual	189,750	167,736	98,865	75,286	81,306	87,642

HEADQUARTERS STAFFING

During fiscal year 2006, Mark Law continued as the law enforcement specialist. Audrey Ashcroft served as division's administrative assistant. Mike Mayer served as chief ranger.

CRIMINAL ACTIVITY (CALENDAR YEAR 2006)

	2006	2005	2004	2003	2002	2001
Part I Offenses	51	54	45	35	78	102
Part II Offenses	3,777	2711	2584	3639	2588	4245
Arrests	142	161	129	120	113	163
Total Incidents*	5,660	5472	4642	5843	4878	7276
Total Service Incidents	3,553	2319	2013	2169	2207	2702

*Note that total incidents above include motor vehicle and boating violations, and non-service incidents.

Offenses (calendar year)	2006	2005	2004	2003	2002	2001
Drugs	32	27	29	33	45	73
Alcohol	146	273	167	195	244	353
Weapons	42	43	23	18	36	38

A commissioned staff that numbered 38 permanent rangers, one special agent, and 7 seasonals handled these incidents. Seven of the permanent rangers are subject to furlough, working six months. Six permanent and two seasonal dispatch personnel handled dispatch operations.

MAGISTRATE SYSTEM

U.S. Magistrate Judge Mark Aspey continued to hold court monthly in the Wahweap district ranger office.

Special agent Jennifer Sypher continued to serve as a shared court officer for Glen Canyon National Recreation Area and Grand Canyon National Park during FY2006. Warrants are retained within dispatch for suspects who live within 80 miles of the park; all other warrants are sent to the U.S. Marshall's Service in Flagstaff.

SEARCH AND RESCUE OPERATIONS (CALENDAR YEAR)

<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
129	77	101	115	118	165	146	150	225	138

EMERGENCY MEDICAL SERVICES (CALENDAR YEAR)

	2006	2005	2004	2003	2002	2001	2000	1999
Total Medical Incidents	356	371	339	358	410	539	680	721
Advanced Life Support (ALS)	88	88	79	77	68	75	77	97
Basic Life Support (BLS)	230	283	187	167	266	343	395	296
First Aid/AMA/EMD*	47	61	73	114	76	121	208	267

* The first aid, against medical advice, and emergency medical dispatch category includes minor cases or cases in which the patient received assistance but refused or did not require transport to a medical facility.

NPS STRUCTURAL FIRE PROGRAM

- During the 2006 season Glen Canyon NRA was the primary training site for structural fire training in the NPS.
- During the above training courses there were more than 200 hours of continuing education training and assistance provided by Glen Canyon personnel in support of the courses.
- The Glen Canyon fire coordinator (Jim Traub) assisted the national program office in Boise by completing two 3-month details as the national structural fire training officer and participated in additional annual training committee meetings and conference calls.

VISITOR FATALITIES (CALENDAR YEAR)

	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
Accidental Death	5	9	2	7	7	7	5	6	10	23
Natural Causes	2	1	5	1	1	7	1	3	5	2
Suicide	0	2	0	1	0	0	1	1	2	1
Homicide	0	0	0	0	0	0	1	1	0	0
Undetermined	0	0	0	0	0	0	0	1	0	0
Total Fatalities	7	12	7	9	8	14	8	12	17	26

FEE OPERATION

We mourned the tragic, accidental death of the Halls Crossing visitor use assistant, Kirby Yocum. Kirby was killed outside the park in an auto accident. The accident took place around 3 a.m., when Kirby and friends were returning to Halls Crossing after a weekend trip to Aspen, Colorado. The vehicle rolled over at a steep curve on Utah Highway 95 near Blanding. Kirby was riding in the passenger seat. The park came together to provide support and assistance to Kirby’s family during this time.

The fee operation includes three downlake entrance stations and three uplake entrance points. Halls Crossing was staffed part of this season. It had not been staffed since 2004. Hite was not staffed in 2006. Automated Fee Machines (AFM) are located at North, South, Lone Rock,

Bullfrog, and Halls Crossing entrance stations, as well as Lees Ferry. Pipe safes (iron rangers) are located uplake at Hite, Stanton Creek, Dirty Devil, and Farley campgrounds for campers to self-register. Bullfrog North and South campgrounds were closed again this season, due to low water. There was also no collection at Farley campground. Fees are also collected at park headquarters in Page.

2006 entrance fees increased as follows and were effective on March 1, 2006:

7-day vehicle pass:	\$15 (from \$10)
7-day individual pass:	\$7 (from \$5)
GLCA Annual Permit:	\$30 (from \$20)

The following fees remained unchanged:

National Park Pass:	\$50
Golden Age Permit:	\$10
Golden Access Permit:	FREE
7-day Vessel Permit:	\$16
Annual Vessel Permit:	\$30

Also unchanged were camping fees:

Lees Ferry	\$10 per site/per night
Lone Rock	\$ 8 per vehicle/per night
Primitive Camping	\$ 6 per vehicle/per night

Collected Revenue

Field collections for FY06 reflected a 21.7% increase over FY05. The cost of collection for FY 2006 was 30.1%

	FY 2006 Field Collections		FY 2005 Field Collections	
	<u>Staffed</u>	<u>AFM</u>	<u>Staffed</u>	<u>AFM</u>
North	390,840	21,510	305,568	17,844
South	753,848	23,981	653,431	14,722
Lone Rock	240,746	20,609	180,053	11,216
Bullfrog	705,870	84,912	555,857	93,580
Lees Ferry	N/A	33,710	N/A	29,558
Lees Ferry VC	780	N/A	1,285	N/A
Halls X	22,690	32,630	N/A	46,716
HQ Reception	12,250	N/A	8,545	N/A
Hite	N/A	N/A	N/A	N/A
TOTALS:	2,127,024	217,352	\$1,704,739	\$213,636

Self - Registration

Primitive Camping	24,598	18,769
Lees Ferry CG	18,565	24,586
GRAND TOTAL:	2,387,539	\$1,961,730

GLEN CANYON INTERAGENCY COMMUNICATIONS CENTER

The Glen Canyon Interagency Communication Center (GCICC) continues to provide the primary telecommunications and logistical support for the day-to-day and emergency operations for Glen Canyon National Recreation Area, Rainbow Bridge National Monument, Navajo National Monument, Bryce Canyon National Park, Canyon de Chelly National Monument, and the Grand Staircase Escalante National Monument. The dispatch center continues to provide support to Grand Canyon National Park, Natural Bridges, and Hovenweep National Monuments. In addition GCICC supports 42 additional officers from 13 state and local agencies working throughout northern Arizona and southern Utah.

The dispatch center continues to provide logistical support for homeland security call-outs by tracking law enforcement personnel available for national emergency situations. It continues to be the coordination center of the Colorado Plateau cluster of the Intermountain Region. There were no national security or national disaster call-outs during 2006.

Radio communication continued to be a challenge this year. Narrowband conversion combined with fluctuating water conditions at Glen Canyon continue to impact radio communications park-wide. Upgrades to repeaters located at Mt. Ellsworth, Warm Butte, and installation of a dedicated telephonic link "virtual dispatch" to the Bullfrog and Halls Crossing areas have helped to relieve some of the weaknesses in the existing repeater system. Progress continues in the effort to secure a new park-wide repeater site on Navajo Mountain, located within the lands of the Navajo Nation.

The lack of clear, unbroken park-wide radio transmissions poses significant challenges for dispatchers and all field personnel and represents one of the most serious safety issues at Glen Canyon NRA.

Staffing Changes

Through much of the year the permanent dispatch center staff remained stable. The staff was supplemented by seasonal dispatchers Jessi St. Clair and Chad Hunter. Veteran dispatcher Patrice Hutton transferred to an administrative position within the Division of Maintenance in September; her position has been filled temporarily by Jessi St. Clair pending the hiring of a permanent dispatcher.

DOWNLAKE DISTRICT VISITOR PROTECTION

Summary

During 2006, Wahweap subdistrict had significant staffing changes with new faces and a smaller seasonal class than 2005. During the first third of the summer, the seasonal level decreased even more as two staff members accepted permanent positions elsewhere. Both Wahweap launch ramps were open throughout the summer season and Antelope Point Launch Ramp was available for use by Memorial Day Weekend. Three permanent rangers in key positions transferred out of the park during the summer season. This year created many challenges and complex incidents for Wahweap staff. All were met with professionalism and a teamwork approach to solving issues, etc.

Dangling Rope was fully staffed this year. Ranger Raymond Hall returned after a serious injury from the previous year. Two of the Dangling Rope rangers were night certified this year which enhanced late patrols. The Dangling Rope staff from all divisions worked very well together. Water quality patrols were greatly enhanced due to the presence of seasonal interpretive ranger Valerie Nelson, who conducted independent educational contacts and partnered with ranger staff to conduct campsite and lakeshore patrols. Dangling Rope rangers documented 19 special resource patrols this year. These patrols addressed bighorn sheep monitoring and other wildlife issues. ARPA site patrols were conducted and several beach and campsite litter clean-up projects were completed.

Visitation was again up at Rainbow Bridge for the 2006 season, despite heavy rains in the fall. Interpretation and protection rangers ensured daily patrols were conducted during the peak season, with the interpretive staff spending an average of five to six hours per day on site. During the fall season, rangers and maintenance made regular visits to Rainbow Bridge to check conditions and conducted special patrols to monitor conditions. No new graffiti was discovered. Most interpretive and protection rangers assigned to Dangling Rope and Rainbow Bridge were trained EMTs this summer (one interpretive seasonal was a first responder). In June, there were several incidents of heat-related emergencies on the Rainbow Bridge trail relatively early in the summer. Other than medical carryouts, there were no significant SARs at Rainbow Bridge this summer.

On-going issues at Rainbow Bridge include: Visitors continuing to illegally camp at the docks as observed by early morning maintenance visits, and dog and horse activity on the trail. There is a history of horseback trespass into the monument every spring and fall by dismantling the posted boundary fence. It is believed the horse traffic is related to Navajo outfitters carrying visitors down to the dock. Not as much horse sign was observed this spring and fall by patrolling rangers, and the subdistrict ranger was told the price of horseback and llama trip permits from the Navajo Nation had increased.

Staffing Changes

Patrol ranger Ben McKay transferred September 3 to Grand Canyon NP. Patrol ranger and field training ranger Amy Mowat transferred to Bullfrog as of March 19. Patrol ranger Leslie Wells transferred to Big Cypress National Preserve on August 5. Patrol ranger Jeff Rhame was converted from a seasonal appointment to a STF fee position on August 6.

Fee Collection

Downlake rangers contributed 295 hours of time dedicated to fee collection operations. Of this Lees Ferry documented 61 hours. There were 27 road audits conducted at Wahweap for South, North, and Lone Rock Entrance Stations.

Water Operations

Wahweap

- 160 Boat safety inspections
- 224 Water quality contacts / camps
- 25 Voyages terminated due to safety violations

- 670 Boat contacts / 1206 visitor contacts
- 54 Citations issued for water / safety violations
- 53 Personal flotation device violations
- 50 Bow riding violations
- 65 Fishing contacts
- 8 Zebra muscle inspections
- 37 Wakeless speed violations
- 18 Underage vessel operation violations
- 112 Prohibited boating violations (speed in proximity, reckless, etc.)
- 474 Boat patrol hours

Lees Ferry

- 13 Boat safety inspections
- 180 Fishing contacts / license checks
- 31 Duck hunting / license checks
- Special Patrol with US Fish and Wildlife: 1
- 5 Special Patrols to Colorado River Archeological Sites
- 109 Boat patrol hours
- All Lees Ferry Protection Personnel (GLCA and GRCA) fully certified and qualified to operate vessels from the dam to Badger Rapids. Vessel operations were done during river flows ranging from a low of 3000 CFS up to 45,000 CFS.

Dangling Rope

- 33 Boat safety inspections
- 57 Water quality contacts / camps
- 42 Citations issued for water / safety violations
- 18 Personal flotation device violations
- 18 Bow riding violations
- 16 Boating equipment violations
- 6 Fishing contacts
- 13 Wakeless speed violations
- 22 Prohibited boating violations (speed in proximity, reckless, etc.)
- 22 Water skiing violations
- 14 Underage vessel operation violations
- 19 Special patrols
- 862 Boat patrol hours

Totals for boating violations for the district are as follows:

- 138 Citations
- 18 Boating under the influence arrests
- 206 Vessel inspections
- 281 Water quality / camps
- 68 Bow riding violations
- 50 Wakeless speed violations

- 71 Personal flotation device violations
- 32 Underage vessel operation violations
- 251 Fishing contacts/license checks
- 31 duck hunting/license checks
- 1445 Vessel operation hours, including 31 vessel hours on Fireboat 270.

Law Enforcement

Wahweap

- 101 Arrests, including
 - 25 DUI
 - 23 Under influence of alcohol
 - 21 Warrants
 - 16 BUI
- 414 Citations, including:
 - 148 traffic related
 - 139 alcohol/drug related
 - 54 boating related
 - 67 resource related
- 38 Burglary incidents
- 88 Trespass incidents
- 32 Thefts
- 48 Larcenies
- 6 Littering
- 15 Off road travel
- 15 Open containers
- 6 Provide alcohol to minors
- 29 Underage alcohol possession
- 15 Possession of fireworks
- 13 Possession of controlled substances
- 14 Weapons violations
- 43 Disorderly conduct
- 4 Simple assaults
- 4 Domestic violence
- 43 Vehicle impounds
- 327 Visitor assists
- 60 Agency assists
- 13 Cliff jumping
- Accidents:
 - 83 Vessel accidents / 31 injuries
 - 46 Motor vehicle accidents / 4 injuries
- 73 Special patrols



Lees Ferry

- 2 Arrests

- 4 Citations
- 1 Motor vehicle accident
- 20 Agency assists
- 20 Visitor assists
- Numerous verbal warnings for minor infractions

Dangling Rope

- 2 BUI arrests
- 42 Citations
- Accidents:
 - 16 Vessel accidents / 15 injuries
 - 25 Other accidents with personal injury
- 6 Cliff jumping
- 4 Underage alcohol possession
- 2 Possession of controlled substances
- 3 Weapons violations
- 6 Possession of fireworks
- 1 Theft
- 4 Tampering
- 3 Littering
- 67 Visitor assists

Totals for the district with significant law enforcement violations / assists are as follows:

- 105 arrests
- 466 Citations
- 45 Motor vehicle accidents / 4 injuries
- 99 Vessel accidents / 46 injuries
- 15 Poss. Of controlled substance violations
- 33 Underage alcohol violations
- 17 Weapons violations
- 21 Poss. Of fireworks violations
- 48 Larcenies
- 33 Thefts
- 19 Cliff jumping violations
- 97 Special patrols
- 80 Agency assists
- 414 Visitor assists

Emergency Medical Services

There were 195 total emergency medical incidents in the Downlake District in 2006. These include ALS, BLS, and AMA responses. There were 55 ALS calls which required park medic or Classic Life Guard intervention.

- 46 Boating related injuries
- 14 Motor vehicle related injuries

- 140 Emergency/medical calls occurred on land at Wahweap, Lees Ferry, or the developed area at Dangling Rope.
- 4 patients treated for carbon monoxide poisoning (one incident).
- 68 Patient transports in Medic 1 to Page Hospital.

Search and Rescue

There were a total of 95 search and rescue incidents in the Downlake District for 2006.

- Wahweap: 57
- Lees Ferry: 4
- Dangling Rope: 34

Of the 95 incidents, 5 of these SARs were technical (climbing/rope assistance required). 16 of these incidents required Classic helicopter response for patient transport, ranger or equipment transport to the scene, etc.

Structural Fire

During 2006, there were 9 structural fire calls in the district related to structures (2), vehicle fires (2), and 6 calls for dumpster fires, propane leak, or a fuel spill. There were 10 boat fires all occurring in the Wahweap Sub-District.

There was a significant fire response just outside the Lees Ferry area on Highway 89A requiring response from Wahweap with Engine 1. This incident involved a fully involved semi-tractor trailer with carnival related cargo (generators). The highway was closed for over an hour due to dense and toxic smoke. This was an agency assist to Arizona Department of Public Safety.



Wahweap Fire Brigade also responded to the City of Page for a fire at the UPS warehouse. The building and UPS delivery trucks were destroyed. This fire was started by a suspected arsonist.

During the July 4th weekend, Wahweap rangers responded to a fully involved 65 foot houseboat fire located in Padre Bay with vessel 270 (fireboat). The smoke from this fire could be seen from Wahweap and Page. This houseboat was burned to the waterline by the time rangers arrived.

All fire hydrants in the district were tested in 2006. All fire extinguishers were tested and/or replaced if found deficient. The structural fire plan for Lees Ferry was completed. All fire hose within the district was tested in 2006. At Dangling Rope, fire extinguishers with boxes were installed on the main dock.

The park did host a Driver/Operator-Engineer structural fire class during February. This class provided by Boise Inter-Agency Fire Center provided structural fire engineer training to participants throughout the NPS.

Wildland Fire

There were 11 wildland fires in the district in 2006. Five occurred in the Wahweap subdistrict and 6 fires occurred in the Dangling Rope subdistrict. All of these fires were human caused. Investigations into three of these fires resulted in mandatory court appearances. Downlake rangers supported the Navajo Mountain Fire during June providing security in Oak Canyon for helicopter bucket operations. Two Wahweap rangers were sent on wildland fire details to California and Idaho. Eleven downlake Rangers were red-carded in 2006.



Fatalities

There were 7 fatalities in the district during 2006, with all of them occurring in Wahweap subdistrict. Five of these incidents involved accidents and two of the deaths were natural.

- April 16 – Case Number 06-0404: 15-year old male was killed when he was involved in a PWC accident with a second PWC. Incident occurred in Warm Creek Bay.
- July 21 – Case Number 06-3321: 25-year old male Aramark employee drowned at Adventure Cove when he fell into deep water after being thrown from a trampoline. Individual was unable to swim and he wasn't wearing a life jacket.
- July 30 – Case Number 06-3654: 49-year old male was killed in the Wahweap Marina area after he was struck by lightning. Individual was operating a PWC at the time of the accident.
- August 9 – Case Number 06-3959: 2-year old male drowned after he fell off a houseboat in Warm Creek Bay. He wasn't wearing a life jacket.
- September 15 – Case Number 06-4918: 44-year old female was killed in a boat accident near buoy 15 in the Narrows. Incident involved a speed boat traveling an estimated 60 MPH in rough seas striking a tour boat wake.
- September 16 – Case Number 06-4930: 67-year old male died of cardiac arrest while camping at Lone Rock Beach.
- October 16 – Case Number 06-5318: 72-year old male died of cardiac arrest aboard a houseboat in Warm Creek Bay.

Safety/Accidents

There were no employee injuries or accidents in the Downlake District during 2006. There was no damage to any government vehicles or vessels other than prop damage. There was a significant change in travel on land at Dangling Rope in 2006. Six Kabota vehicles (larger and more stable than ATVs) were purchased, which has been a significant safety improvement for travel up and down the ramp to the housing area.



Major Incident Summary

Wahweap

- Throughout the summer season, there were 32 larcenies (car clouts) in different areas of the sub-district, mainly at launch ramps. Suspects were locals from Page. Theft value and property damage is estimated at \$75,000. This case was investigated by NPS, Page PD, and Coconino County SO.
- A Navajo male illegally jumped from a cliff at Anchovy Point breaking both his ankles. This was a SAR involving all on-duty staff at the time.
- Wahweap Rangers responded to a request for assistance from DPS reference a multi-vehicle accident on Hwy. 89 near the Big Cut. Medic 1 and Engine 2 responded to provide patient care and fire protection.
- Visitors walking along the beach north of Lone Rock reported the discovery of possible explosives. This material was determined to be crystallized dynamite. This material was collected and destroyed by Arizona DPS.
- A 15-year old male was killed after being struck by a PWC while riding his PWC in Warm Creek Bay. Neither of the individuals involved in the accident had taken the required Utah PWC course.
- During a large thunderstorm, a 49-year old male was struck and killed by lightning in Wahweap Marina after launching his PWC. During this storm and while the fatality was being worked, two boats were reported sinking near the dam with persons in the water. Also heavy rains caused Lakeshore Drive to flood with mud and debris, forcing a closure of the road.
- A 44-year old woman was killed in a high speed boating accident near buoy 15 in the Narrows. She was operating a 30-foot Baja Outlaw vessel at an estimated 60 MPH in rough seas when the boat struck a tour boat wake. The vessel sank within minutes of impact with the tour boat wake. Her body was recovered the next day in 387 feet of water by the park underwater recovery unit. The vessel was recovered approximately two months later by a salvage company contracted by Marine Max's (vessel owner) insurance.
- A private 65-foot houseboat burned completely to the waterline during the Fourth of July weekend in Padre Bay.
- An all-night manhunt occurred in the Wahweap Area during the spring looking for an individual who had been arrested and had escaped. This individual was wanted in Georgia for felony child molestation. Individual was apprehended and taken to Page Hospital for medical evaluation. He was then incarcerated in Coconino County Jail for extradition to Georgia. This incident involved DPS officers, Coconino County SO, and all available Wahweap rangers.
- Wahweap fire brigade responded to Page for a mutual aid request involving a structural fire at the UPS Warehouse. This facility and all of the UPS delivery trucks were destroyed. Fire is believed to have been started by an arsonist.
- Wahweap rangers assisted maintenance with road closures after a severe thunderstorm produced 2.5 inches of rain. This storm caused damage to many of the roads in Wahweap and washed out backcountry roads within Kane County. Also during this



storm, an individual attempted to cross the wash at Crosby Canyon on the Warm Creek Road. His vehicle was washed down the canyon by a flash flood and was destroyed. There were no injuries.

- Wahweap Rangers responded in December to a mutual aid request by Page PD in the safe apprehension of a suicidal man. This individual was safely apprehended by a Page police officer after a brief struggle on a cliff north of Potato Hill above the main channel. The individual was attempting to jump off the 300 foot cliff into the lake.

Dangling Rope

- On June 25, there was a SAR in which a woman and young children were left stranded on a rock after dark by her boyfriend near buoy 25. The incident resulted in the rescue of the woman and children, as well as the subsequent arrest of the boyfriend (an off-duty police officer) who was found naked and passed out on the roof of a houseboat.
- On July 30, there was a rescue of a 14-year old male who had fallen 20 feet on a sandstone ridge south of Oak Bay and complained of back and leg pain. Evacuation was accomplished using three technical lowerings over a total height of 350 feet and carryout to a helicopter.
- On Sept. 17, two vessels were boating in Secret Canyon when a rock slide hit both vessels injuring 5 of 13 people onboard. Dangling Rope and Utah State Park staff responded to extricate and treat patients. Classic Helicopter responded from Flagstaff and transported the two most serious patients. Three others were transported by rangers to Page Hospital.

Lees Ferry

- During the spring, an arrest was made for a DUI involving an individual who had done significant resource damage with off-road travel near Cathedral Rock.

UPLAKE DISTRICT

Staffing Changes

Scott Ryan transferred to Glen Canyon as the Bullfrog subdistrict ranger, from Grand Canyon National Park. Amy Mowat transferred from Walweap to Bullfrog in April 2006. Shuni Routh accepted a position at LBJ NHS in July 2006. Bullfrog ranger Charles Mayer accepted a position at Crater Lake in July 2006. Both Mayer's and Routh's positions were reclassified to become seasonal in accordance with the park's core operations report. Brett Timm's position as a subject to furlough patrol ranger at Hite was reclassified to a full time position. In fall of 2005, Jeff Kracht was hired to be the Escalante sub-district ranger, coming to Glen Canyon from Hawaii Volcanoes.

Staffing for the Uplake Ranger Division was a major concern in 2006 with 54% of the district's permanent staff attending the 8.5-month course at the Federal Law Enforcement Training Center. During the peak season of 2006 the Uplake District had only 58% of its traditional staffing level for this period.

Fee Collection

Derek Dalrymple, the ranger assigned and funded by the fee program attended FLETC in 2006 and the (limited) Uplake staff assumed his fee program responsibilities during his nine-month absence.

- 82 Hours contributed to the fee program
- 13 Road audits conducted
- 132 Fee audits conducted (*Launch Ramps, Stanton Creek, etc.*).
- 32 Fee violations (approximately 20% of visitors contacted were non-compliant)

Water Operations

The Uplake District put into service two new patrol boats in 2006; one of these vessels was out of service for nearly 6 months awaiting replacement, installation and proper setup of a new engine. The Hite river jet boat was not in service this year due to lack of funding for replacement jet-drive parts.

Bullfrog

- 354 Total vessel hours
- 309 Boat patrols conducted
- 75 Joint boating patrols with Utah State Parks (mostly night patrols utilizing state vessel).
- 71 Boat accident investigations
- 35 Personal injury boat accident investigations
- 20 Personal injury boat accident investigations referred to Utah State Parks
- 57 Written vessel safety inspections
- 352 Verbal warnings for boating violations
- 10 Citations written for vessel operator with open container
- 8 BUI arrests
- 16 Citations issued for water safety violations
- 10 Personal flotation device violations
- 30 Fishing contacts
- 2 Zebra muscle inspections
- 20 Verbal warning for cliff jumping
- 197 Vessels and/or camps contacted for water quality
- 709 number of visitor contacted for water quality

Halls Crossing/Hite

- 440 Total hours of boat patrol
- 233 Boat patrols conducted
- 34 Boat accident investigations
- 11 Personal injury boat accident investigations
- 22 Written vessel safety inspections
- 333 Verbal warnings for boating violations
- 7 Citations written for vessel operator with Open Container
- 5 BUI arrests

- 25 Citations issued for water safety violations
- 15 Personal flotation device violations
- 14 Fishing contacts
- 6 Verbal warning for cliff jumping
- 108 Vessels and/or camps contacted for water quality
- 543 Number of visitor contacted for water quality

Totals for boating violations for the district are as follows (these are water related incidents only with the majority of violations occurring on the lake):

- 794 Total Uplake boating hours
- 642 Total Uplake boating patrols
- 79 Total written safety inspections
- 726 Educational boating contacts
- 13 BUI arrests
- 66 Boating citations issues
- 125 Boat accident investigations
- 46 Personal injury boat accident investigations (including 20 accidents investigated by Utah State Parks)



Total water quality contacts;

- 305 camps and/or vessels contacted
- 1252 visitors contacted
- 5 citations issued

Land Operations

Bullfrog

- 23 Arrests
 - 13 DUI
 - 8 BUI
 - 1 Under the influence of alcohol
 - 1 Warrants
- 202 Citations
 - 101 Traffic related
 - 41 Alcohol/ drug related
 - 26 Boating related
 - 16 Resource related
 - 1 Commercial Operations
- 3 Burglary incidents
- 8 Trespass incidents
- 9 Thefts

- 1 Larceny
- 6 Littering
- 42 Off road travel
- 15 Open containers
- 1 Provide alcohol to minors
- 11 Underage alcohol possession
- 6 Possession of fireworks
- 22 Possession of controlled substances
- 4 Weapons violations
- 2 Disorderly conduct
- 21 Vehicle impounds
- 404 Visitor assists
- 49 Agency assists
- 18 Motor vehicle accidents / 1 injury



Halls Crossing and Hite

- 7 Arrests
 - 1 DUI
 - 5 BUI
 - 1 Under the influence of alcohol
- 135 Citations
 - 37 Traffic related
 - 42 Alcohol/ drug related
 - 40 Boating related
 - 6 Resource related
 - 3 Commercial operations
 - 4 Weapon violations
- 7 Burglary incidents
- 4 Trespass incidents
- 2 Thefts
- 4 Larcenies
- 2 Assault
- 1 Littering
- 3 Off road travel
- 1 Underage alcohol possession
- 4 Possession of fireworks
- 5 Possession of controlled substances
- 7 Weapons violations
- 2 Vehicle impounds
- 75 Visitor assists
- 14 Agency assists
- 1 Motor vehicle accidents / 1 injury

Totals for the district with significant law enforcement violations/assists are as follows:

- 2,484 Total Cases Numbers issued to the Uplake District
- 1,941 Case numbers issued to criminal incidents
- 0 Uses of force
- 34 Arrests (23 NPS and 11 state officer arrests)
- 12 DUI
- 22 BUI
- 341 Citations
- 20 Motor vehicle accidents / 1 injuries
- 27 Possession of controlled substance violations (2 possession of controlled substances associated with a DUI arrest)
- 13 Underage alcohol violations
- 11 Weapons violations 1 possession of loaded firearm (associated with a DUI arrest)
- 10 Possession of fireworks violations
- 16 Larcenies
- 11 Thefts
- 63 Agency assists
- 479 Visitor assists

Backcountry Law Enforcement

Bullfrog

- 63 Backcountry patrols
- 27 Ranger-nights spent in the backcountry
- 1 Multiple-day raft patrol of the San Juan River
- 38 Archeology sites monitored with data recorded
- 1 Seven-day detail assisting resource management in Escalante Canyons to eradicate Russian olive trees



Halls Crossing and Hite

- 29 Backcountry patrols
- 25 Ranger-nights spent in the backcountry
- 2 Multiple-day raft patrols on the San Juan River
- 1 Multiple-day Colorado River / Cataract Canyon raft patrol.

Escalante

- 60 Solo ranger backcountry vehicle and hiking patrols into Escalante Canyons
- 5 Solo ranger-nights spent in the backcountry
- 17 Multiple-day Escalante Canyon trips with resource management to eradicate exotic plants.
- 1 Multiple-day special patrol in Davis Canyon to investigate reported vandalism of archeological sites.

- 1 Multiple-day special patrol to assisted resource management with Wilderness Volunteers trip in Escalante Canyon
- 1 Multiple-day special hiking patrol to monitor big horn sheep hunters.
- 300+ personnel hours spent repairing and rebuilding the fences in Coyote Gulch, and Hurricane and Harris Washes after extreme flooding.
- 250 + Visitors contacted during the course of backcountry patrols.

Totals for the Uplake District's Backcountry Management Program:

- 152 Backcountry patrols
- 74 Ranger-nights spent in the backcountry
- 4 Multiple-day river raft patrols
- 41 Archeology sites monitored with data recorded
- 22 ARPA violations were documented, (*53% of the Archeology sites visited*).
- 6 Non-ARPA (trespassing, damage, vandalism, etc) were documented.

Emergency Medical Services

Rangers responded to approximately 141 requests for medical assistance in the Uplake District.

- 107 Cases basic life support (Treat and release or were transported to the Bullfrog Clinic).
- 34 Cases required advanced life support in the field
- 46 Cases involved injuries suffered during a Boat/PWC accident.
- 18 Patients required immediate air evacuation from the scene to a trauma center.
- 5 Cases motor vehicle related accident
- 2 Cases involved Kite Tube
- 1 Case involved cliff jumping
- 39 Calls for Uplake NPS Boat Responses
- 74 Calls patients were transported to the clinic by NPS staff
- 33 Calls patients were transported by NPS Ambulance

There were no carbon monoxide cases in the Uplake District in 2006.

Totals EMS Incidents for the Uplake District

- 141 EMS Cases
- 4 ACLS
- 30 ALS
- 87 BLS
- 20 First Aid
- 18 Air evacuation from the scene

Bullfrog Clinic

The Bullfrog Clinic treated a total of 923 patients in 2006 (nearly a 10% increase of patients over 2005, but a 70% decrease of patients since 2002).

- 296 Cases (32%) Local Residents

- 627 Cases (67%) Visitors to the Park.
(384 of these cases involved treatment for pre-existing medical conditions – 41% of the total cases seen by the clinic or 61% of the visitors seen)
- 495 Cases (53%) Medical condition not related to accidental injury
- 428 Cases (46%) Trauma related (injury/accident) cases
- 139 Cases (15%) Involved injuries suffered in a boat related accident
- 99 Cases (10%) Involved injuries suffered while using water toys (Skiing, tube towing, PWC).
- 9 Cases (.09%) Involved cliff jumping injuries
- 37 Cases (4%) Involved concession employees with work related injures.

Search and Rescue

There were a total of 60 Search and Rescue incidents in the Uplake District for 2006.

- 41 Water related
- 0 Diving operations
- 0 High angle technical rescues
- 4 Required aircraft support/response
- 1 Assisted Other agencies outside of park
- 4 Major SARs requiring regional funding
- 2 River operations

Structural Fire

- 3 Structural fires
 - 4 Boat fires
 - 3 Motor vehicle fires
 - 2 HazMat responded
 - 1 Other
- A fire started in the floor of an Aramark housing trailer. Cause was either cigarettes or electrical wiring. The fire was Initially controlled by Aramark bystanders using a garden hose and extinguishers. The NPS Fire Brigade extinguished the fire.
 - A wooden fence behind a NPS residence caught fire secondary to an adjacent brush pile. Cause was a cigarette.
 - An unattended barbeque grill flashed up and scorched the exterior siding of an Aramark residential trailer.
 - A Coast Guard Auxiliary vessel, while assisting Labor Day weekend, caught fire due to engine water pump failure. The fire was controlled by Coast Guard Auxiliary members, with assistance from the NPS fire boat.
 - A galley fire occurred aboard a cabin cruiser boat when a cooking stove allegedly malfunctioned. The cook received second degree burns on abdomen, legs and hands. NPS fire boat responded, but fire was brought under control by vessel owner with the use of an extinguisher.

- Gas from a fuel can was being poured into a boat engine carburetor, when the gas can caught fire. The operator threw the can overboard. Fire was put out with the use of an extinguisher.
- A PWC caught fire. It was abandoned by the operator and left to drift. The NPS Fire Boat arrived and monitored as the fire self-extinguished.
- A fire flashed while a visitor was filling numerous 5 gallon fuel containers inside his SUV at the Bullfrog Service Station. The fire was extinguished by Aramark personnel using an extinguisher.
- Halls Crossing rangers responded to a trailer, vessel, and vehicle fire inside the park on Highway 276.
- Halls Crossing rangers responded to an overturned semi-truck and trailer fire outside the park on Highway 276.

HazMat Response

- The Halls Crossing fuel dock experienced an approximately 50 gallon fuel spill due to a broken fuel dock line. The fire boat responded as a standby precaution.
- After heavy rains and the flooding of Hansen Creek numerous 55 gallon barrels were discovered floating in lake at the back of Hansen Creek Canyon.



Wildland Fire

- 24 Wildland fires
- 1 Controlled burn (unauthorized)

The reports of wildland fires received in the Uplake District were all located in the Bullfrog/ Halls Creek Bay areas. All were determined or assumed to be human caused fires due to intentional brush clearing, unattended campfires, or fireworks. These were brush fires, each approximately ½ acre or less in size, and were extinguished by the use of the fire boat, fire lines, or just allowed to naturally burn-out.

One unauthorized controlled burn occurred when contractors burned off the vegetation in a wastewater retention pond as part of their reconstruction project.

Fatalities

There were no fatalities in the Uplake District this past year.

Safety

There were no lost time employee accidents in the Uplake District Ranger Division this past year.

Notable Incidents

- Most notable of incidents in 2006 were the lack of any deaths in the Uplake District as a whole, and the lack of any all-day or multi-day search and rescue missions.
- Nearly every member of the Uplake staff conducted a backcountry patrol at least once every pay period in the effort to monitor archeological sites in the district. This past year *every* Ranger in the Uplake Division received a Level III park award from the resource management division for their efforts in monitoring archeological sites. Under the leadership of Subdistrict Ranger Scott Ryan, the Uplake rangers in conjunction with the resource management division initiated a database for monitoring archeological sites in the Uplake District.
- The U.S. Coast Guard initiated a nationwide recall involving the foreign made Twin Anchor Houseboats after numerous safety violations were discovered aboard these vessels at Lake Powell.
- Several kite tubing accidents occurred in the Uplake District. One incident resulted in spinal damage and the case drew national attention and awareness to the dangers of kite tubing. As a result Glen Canyon prohibited these devices. The Consumer Product Safety Commission later announced a voluntary recall of Kite Tubes by the manufacturer.

Bullfrog

- A twin engine aircraft landed downwind at Bullfrog airstrip resulting in a late touchdown at mid runway. The aircraft ran off the end of the runway resulting in approximately \$170,000 in damage to the aircraft.
- An older model houseboat developed a slow leak and sunk while moored in the Bullfrog concession Buoy Field. This vessel sank in 130 feet of water and a specialized deep water salvage company was required to recover the vessel.
- Another houseboat developed a slow leak and sunk while moored in a slip in the Bullfrog Marina. This vessel was caught in the dock's cable anchoring system and prevented from sinking to the bottom of the lake. The vessel was recovered by concession personnel.
- The company that operated the public telephone system abandoned the pay telephones in the Uplake District this past summer. A cell phone tower was installed at Bullfrog.
- Archeological site monitoring is indicating sites are suffering from substantial vandalism, some sites are showing evidence of numerous illegal entries through vandalized fences, or past a vandalized closure sign. One structure lost all its wood roofing, probably consumed as firewood in the visitor campfires whose remains are left at the site.
- This past summer rangers spent numerous hours every weekend on the Bullfrog public launch ramp in order to manage boat launching lines. This was required because only half of the only launch ramp was available (approximately 4 launch lanes) for all of the commercial launchings as well visitor launchings.

Halls Crossing and Hite

- An off-duty police officer was assaulted and his family threatened by a large party group in the Blue Notch area of Hite. One person was arrested; several firearms including an AR-15 were seized as well as a small quantity of a controlled substance. The case was handed over to San Juan County Sheriff's office for prosecution.

- Major flooding in the Halls Crossing developed area destroyed utility lines leaving the area without running water or sewage service for several days.
- Letters were sent by the superintendent's office notifying owners of three private trailers in the Halls Crossing housing area that they must be removed by the end of 2006; however none of the trailers have been removed.

Escalante

- Jeff Kracht served as a member of the Garfield County Trails Committee and attended the committee's monthly meetings.
- Weekly patrols of the Hole-in-The Rock road on BLM and Glen Canyon lands were conducted this past year. Recently during one of these patrols ranger Kracht discovered unauthorized road construction that was performed by Kane County and the development of a livestock water well by the local rancher.
- A trip to the end of Hole-in-the-Rock road was conducted with park management and Kane County Commissioner Habbeshaw to assess the Hole-in-the-Rock road maintenance issues.
- Jeff Kracht assisted Garfield County and BLM during a fatal aircraft crash that occurred just outside the park boundary.

VI. PROFESSIONAL SERVICES/FACILITIES MANAGEMENT

SPECIAL PROJECT FUNDING

Repair/Rehab/Cycle/NPS

- | | |
|--|-----------|
| • Phase I Bullfrog Sewage lagoons | Completed |
| • Rehab Wahweap Government Dock | Completed |
| • Halls Crossing (Federal Highways) Road Project | Completed |
| • Slurry Seal Bullfrog Area | Completed |
| • Wahweap Fish Cleaning Station | Ongoing |
| • Dangling Rope Generator Overhaul | Completed |
| • Dangling Rope Electrical Line Replacement | Ongoing |
| • Rehab/Refurbish Signs Lake Wide | Ongoing |
| • Upgrade Lake Wide boat pump outs | Ongoing |
| • Parking Area Maintenance Lake Wide | Ongoing |

CONCESSION SPECIAL ACCOUNTS PROJECTS

	<u>Collected</u>	<u>Expenditures</u>
Capital Improvement Account (CIA):	\$1,654,672	\$830,425
Campground Improvement Fund (CIF):	\$30,818	\$43,868
Construction Set-aside (CSA):	\$2,627,791	\$2,003,838
Government Improvement Fund (GIA):	\$80,000	\$22,792

Projects Completed in FY06

- CIA11 Wahweap Marina Restroom
- CIA25 Wahweap Electrical Upgrades
- CSA87 Bullfrog/Halls Crossing Lift Station Replacement
- GIA05 Dangling Rope Battery Test

Projects Underway in FY06

- CIA29 Uplake DCP
- CIF16 Halls Crossing Campground Improvements
- CIA31 Replace Wahweap Fuel Dock
- CIA32 Lake-wide Breakwater
- CIA33 Marina Access Bridges Halls Crossing and Bullfrog
- CIA34 Boat Wash Facility – Zebra Mussels
- CSA47IV Wahweap Campground Phase 4
- CSA99 Hazardous Tree Removal/Trimming
- CSA100 Halls Crossing Marina Sewer Force Main
- GIA06 Modification to Dangling Rope Access Ramp
- GIA07 Floating Emergency Evacuation Pad at Dangling Rope

HEADQUARTERS: PROFESSIONAL SERVICES/FACILITIES

- Completed rehabilitation construction of the Halls Crossing Entrance Road including milling of the existing pavement and base course, and paving 11.5 miles of two lane road. Construction included installation of culvert extensions, flared end sections, cleaning of culverts, and establishment of roadside drainage and erosion protection. Obtained additional funding for a bid additive to rehabilitate an additional 2.6 miles of road and for a change order to install additional roadside drainage with heavy erosion protection at a utility crossing.
- Contracted design/build contract including conceptual architectural floor plan and building elevation, scope of work, and supporting details for construction of a Grand Canyon whitewater orientation facility at Lees Ferry.
- Completed installation of fire sprinkler and alarm system in four residential structures at Dangling Rope. Contractor tested and certified sprinkler and telemetry alarm system.
- Completed project agreements for the future rehabilitation of park roads at Wahweap, Lees Ferry, Bullfrog, and Hite through the Federal Lands Highway Program. These agreements identify responsible parties (GLCA, NPS-IMR, NPS-DSC, FHWA) and timetables for the development of FLHP 3-R projects. Initiated environmental work plans with DSC, submitted environmental screening forms, and entered projects into PEPC.
- Completed specifications for the removal and disposal of hazardous materials (mercury, lead, asbestos) from the Lake Powell Motel. These specifications will be incorporated into a contract for the demolition of the motel structure and rehabilitation of the site when funding is available. Began scope of demolition and site rehabilitation.
- Removed hazardous “rock blocks” over the Navajo Generating Station cooling water intake structure.

Headquarters Personnel Changes

Candy Poulson, sign maker to housing management assistant.

Julie Drugatz, from facilities to business management

Patrice Hutton from dispatch to facilities secretary

Karen Bennett (term FMSS clerk) extended for another one year period

Note: The following accomplishments are above and beyond normal maintenance, checks, and services as well as minor repairs (i.e., work orders) to facilities, components, and systems for fiscal year 2006.

DOWNLAKE DISTRICT

Downlake Buildings and Utilities Section

Housing Improvements

Major Housing (Total Interior) Rehabilitations:

- | | |
|--|----------|
| • PG09 Interior Remodel | Complete |
| • LF 202 Interior Remodel | Complete |
| • Install New Windows and Heat Pumps at LF 201, 202, & 203 | Complete |
| • WW 114 B, C, D | Ongoing |

Minor Housing Improvements / Accomplishments:

- Hazard tree removal; Wahweap Housing and Picnic Area
- Repair roofing; WW119 Duplex.
- Completed
- Conducted rodent control on several housing units.
- Completed
- WW119 C&D - Water Damage Repairs plus sheet rock and Carpeting
- Completed
- WW119A – Painting and Carpeting
- Completed
- PG02- Interior Paint
- Completed
- LF 206B – Interior Painting
- Completed

Buildings and Facilities Improvements/Accomplishments:

- Paint interior and exterior of Lees Ferry Ranger Station
- Replaced 6 doors at Lees Ferry District Ranger Station
- Rodent Proofed LF District Ranger Station
- Move Lone Rock micro-flush toilet units to meet changing lake level conditions.
- Conducted rodent control on Downlake facilities.
- Installation of Tri-Lock erosion control materials around the Dangling Rope battery building. (ongoing)
- Relocated Dangling Rope marina and its winch cables to accommodate changing lake levels.
- Continual relocation of courtesy docks throughout the Downlake district throughout the year.
- Repair of Dangling Rope Propane Leaks.

Water and Wastewater Systems Upgrades and Accomplishments:

- Low Water Impacts. Low water impacts required continuous relocation and extension/ retraction of floating facilities and utility services (water sewer, and electrical). The B&U crew continually experienced increased workloads in all areas due to low water during FY06. All visitor services and utilities were maintained operational throughout the year. Low water impacts also increased barging operations and barging times between Wahweap and Dangling Rope for propane runs, garbage barges, and hauling of materials for contractor projects at Dangling Rope.
- Upgraded fish cleaning station with second grinder, re-wire of electrical controls and sump pump.
- Weekly cleaning and servicing of fish remains at all lift station wet wells until the second grinder was placed in the fish cleaning station.
- Removed, rebuilt, and replaced the Trailer Village pressure building pressure pumps.
- Upgrade of main ramp and Stateline boat pump-out systems (on-going)

Preventative Maintenance Issues:

- Root-X all housing units (Wahweap, Page, and Lees Ferry).
- Weekly cleaning of lift station wet wells.
- Cleaning of gateway to transfer station at transfer manhole to accommodate system outages.

Major Electrical System Upgrades:

- Completed cyclic Dangling Rope inverter and cable repairs, software upgrades, and service of equipment and components.
- Diagnosed and identified Dangling Rope battery system shortfalls for the photovoltaic power system.
- Repair of Dangling Rope photovoltaic system batteries and battery cells.
- Installed security cameras at Wahweap launch ramp, Stateline launch ramp, and south entrance fee booths.
- Repaired and upgraded Well #4 and Lone Rock motor starter(s) and control(s) resulting from storm damage.
- Upgraded fee booth area lighting (south, north, Lone Rock, and Antelope Point fee booths).
- Upgraded government dock electrical system to NEC code.
- Installed and programmed new Programmable Logic controller at the Lees Ferry water treatment plant and Wahweap Trailer Village pressure building.

Contract/Project Support:

- | | |
|---|-----------|
| • Install new windows and heat pumps at LF 201, 202, & 203 | Completed |
| • Replacement of Lees Ferry (LF) leach fields (campground, housing, LF 201, and the DRO). | Completed |
| • Install 4 each leach fields at Lees Ferry | Completed |
| • Abandonment of 2 Each Lees Ferry water wells | Completed |
| • Upgrade Trailer Village lift station | Completed |
| • Hazardous tree removal (Wahweap) | Completed |
| • Dangling Rope fire suppression system | Completed |
| • Construct Wahweap fish cleaning station | On-going |
| • Wahweap campground phase IV | On-going |
| • Lees Ferry recreational dump facility improvements | On-going |
| • Lake-wide boat pump-out upgrades | On-going |
| • Upgrade Dangling Rope electrical line (emergency repairs) | On-going |
| • Force main To Page | On-going |
| - Repair of system deficiencies (warranty work) such as leaking pipe couplers. | |
| - Repair of bridge alarm systems. | |
| - Diagnose and repair of lift station #7 ozone equipment. | |
| - Lagoon (transfer station) sewage manhole repairs to maintain sewage plug. | |
| - lean and repair air relief units due to failures. | |

Support to Other Parks, Park Divisions, and Local Support Requirements:

Support to Other Park Divisions:

- Assisted Ranger Division with Fire, EMS, and SAR operations.
- Assisted with “Trash Tracker” operations.

Support to Concessionaire:

- Assisted in water and sewer line breaks and emergencies.
- Shutdown of Dangling Rope for winter.

Support to Outside Agencies:

- Assisted the city of Page in the diagnosis, repair, and programming of the lift station alarm system at the city of Page (force main to Page) lift station.
- Assisted with VIP boat salvage removal efforts.

Significant Personnel Changes and Issues:

- Ken Hawkins, Water Treatment Plant Operator (WG-5409-10) retired July 2006.
- Stan Sessions, Maintenance Mechanic (WG-4749-09) retired July 2006.
- John Dugas hired as Maintenance Mechanic (Welder) (WG-4749-10) effective June 2006.
- Ray Skeet hired as Water Treatment Plant Operator (WG-5409-09) effective October 2006.
- Bob Adams, Utility Systems Operator/ Repairer (WG-4742-09) transferred July 2006 to Dry Tortugas National Park.
- Heath Beard from Maintenance Mechanic (WG-4749-09) to Sign Maker effective May 2006.
- Steve Marquis from Maintenance Worker (WG-4749-07) to Maintenance Mechanic (WG-4749-09) effective July 2006.
- Debbie Barnes to Laborer (WG-3102-03) (Term Position) at Carl Hayden Visitor Center effective January 2006.
- On OWCP: Stan Sessions (April 2005-July 2006), Becky Sessions (April 2005-December 2006), and Alberta Tunney (April 2006-December 2006).
- A large loss of productivity was experienced throughout 2006 due to personnel being out on workman’s compensation (3 each), retirements (2 each), the loss of one utility position, lapse of positions after retirements or transfers, and personnel transfers.

Roads and Trails

The roads and trails crew continued to experience increased work loads in all areas due to low water during FY06. Lake access and visitor services were maintained throughout the year.

Antelope Point:

- Antelope Point Docks required repair the summer, as the bolts that hold them together started breaking. We replaced all bolts and dock bang board.

Lees Ferry:

- Cold patch pot holes in roads and parking areas. (March 2006)
- Road striping was performed on the main entrance road and parking areas. (May 2006)
- The surface of the launch ramp was getting worn and very slippery. We used carbide inserts to make the surface rough to give it more traction. (April 2006)
- Cleaned out all septic tanks and transported material to Page City lagoons.
- Assisted B&U in the painting of the ranger station and maintenance person's house.
- Transported a historic wagon that was donated to the park from Kanab, Utah, to Lees Ferry.
- Hauled approximately 8,000 cubic yards of rock from the cut on 89 to the bone yard at Lees Ferry.
- Bladed Lonely Dell Ranch road after hard rain washed out portions.
- Competed river trip inspection of restrooms, campgrounds, trails, and fire rings for FMSS, CAC, and CAAs.

Rainbow Bridge Trail and Marina:

- Tribal consultation meeting. (Oct. 2005).
- Major Rainbow Bridge trail storm damage occurred in October 2005. Most of trail was washed away and docks were stuck in mud.
- Storm damage again in June caused us to do repair of trail and to move the docks again.
- Condition assessment of trail and docks for FMSS, and CAC. (Aug. 2006)
- Transported youth group with cedar posts to do boundary fence project.

Dangling Rope Ramp and Marina:

- Barged 16 truck loads of propane, 40,000 gal.
- Barged 2 loads of # 2 diesel, 6000 gal.
- Barged 2 loads for gas company to replace regulators.
- Barged 4 loads for contractor to rebuild generators.
- Barged 2 loads with load bank
- Barged new cable up and old cable back, used for new anchors.
- Barged 977 dozer and front end loader to do back ramp repairs.
- Barged backhoe to do gas line work. (may 2006)
- Barged 6 new Kabota all terrain vehicles to replace their old ATV'S.
- Started replacing all anchor cables with new ones and drilling in new anchor points.
- Barged new refrigerator units and removed the old ones.
- Moved marina 2 times due to low water.
- Barged trash due to heavy use on 4th of July week end.

Wahweap:

- Assisted B&U in pouring new concrete drive way, installing desert landscape, and painting the interior of PG 11.
- Rehab of government docks, replace all decking with new Fiber Grate no-skid panels. Replaced all bang board with new plastic 2x12. replaced all hardware and wenches. (Oct. 2005 – Feb. 2006)

- Crack seal Lake Shore Dr. boat repair parking lot, boat rental parking lot, 14-day overflow parking lot.
- Took Stateline boat pumpout out of service and moved it to the breakwater. (Nov. 2006)
- Meeting with Federal Highways, FMSS, RIP. (Feb 2006)
- Barge supplies to Bullfrog for dock repairs. (Jan. 2006)
- Measured all parking lots at Wahweap for FMSS. (March 2006)
- Blade all gravel roads and parking areas 6 times.
- Stripe Lake Shore Dr., boat rental parking, 14-day parking lot, boat repair parking lot (July 2006)
- Assist B&U with desert landscape of PG 09.
- Relocate main ramp boat pumpout due to low water. (April 2006)
- Remove Stateline boat pumpout from the breakwater and put it back in service. (May 2006).
- Clean up the old dump site out by Ferry Swale. (May 2006)
- Stripe roads for Walnut Canyon NM. (June 2006)
- Install oil separators in auto shop and wash bay. (Aug 2006)
- Install speed bumps at Lone Rock, south, and north entrance stations. (June 2006)
- Assist on Navajo Mountain fire. (June 2006)
- Stripe Lone Rock road and parking lot, dam overlook road and parking lot, Coves road and parking lots, and Navajo Mountain parking lot. (July 2006)
- Major clean up of lower warehouse and maintenance yard. (July 2006)
- Transport excess front end loader and other property from Organ Pipe Cactus National Monument. (July 2006)
- Cleaned mud from Lake Shore Dr. and the visitor center parking lots where 32 vehicles had broken windows due to a micro burst. We were without power for 24 hours due to broken power poles. (July 2006)
- MSDS, cleaned and organized all of our Haz-Mat storage areas. Entered all materials in our storage into a computerized database. (Sept. 2006)
- Removed empty sewage lagoons and put area back to nature. (Sept. 2006)
- Started core meetings. (Oct 2005)
- Construct 2 new VIP trailer sites at Lone Rock. (May 2006)
- Remove all tumbleweed from Lone Rock beach. (March 2006)
- Rebuild boundary fence. (Oct. 2005)
- Crack seal airport runway and main entrance road at Bullfrog. (Feb.2006)
- Stripe airport runway and main entrance road at Bullfrog. (March 2006)

Sign Shop

- Fabricated and installed 460 signs.
- Replaced all signs on the Wahweap Overlook road.
- Replaced all signs on the Lone Rock road.
- Replaced all signs on the Chains road and parking areas.
- Assisted in crack seal projects lake wide.
- Assisted in rehab of Government Docks.
- Cleaned and refurbished all entrance signs.(June 2006)

Auto Shop

- Serviced and made repairs to 80 pieces of equipment and vehicles.
- Cleaned out tub on Crafcro crack seal machine and install new product pump and applicator hose. (April 2006)
- Rebuilt Trash trailer, repacked all hydraulic rams, and replaced hoses. (March 2006)
- Rebuild 4 units of Packman trash compactors, replaced all hoses, and rebuilt hydraulic pumps and rams. (March 2006)
- Service and make repairs to 5 ea. Propane fueled backup generators for our lift stations.
- Construct and fabricate a water truck out of two old worn out trucks. (Sept. 2006)

Boat Shop:

- Serviced and made repairs to 31 boats and 5 barges.
- Received new Donzi boat 260 and put into service. (Oct.2005)
- Received excess property boat 230 and put into service. (Oct.2005)
- Re-power boat 255 with new Yamaha engines. (Feb.2006)
- Re-power boat 252 with new Bombardier engines. (April 2006)

UPLAKE DISTRICT

- Assisted UDOT to move and repair ferry wedges multiple times throughout the year
- Continuous road repair support and provided gravel placement on Hobie Cat beach area for temporary extension of Highway 276 to access Ferry loading wedges.
- Performed Blue Stake services for multiple contractors at Halls Crossing and Bullfrog
- Supported Canyonlands NP to open the Flint Trail and repair access roads from the Orange Cliffs side of Glen Canyon twice
- Maintained river access to Hite Marina from Colorado River Rafting takeout on numerous occasions
- Re installed courtesy dock and extended dirt ramp at Hite Marina main ramp to accommodate rafter and fisherman takeout
- Hauled numerous tankers of water in support to Hite Marina during reconfiguration of water treatment plant
- Performed road repairs after flash flooding in Bullfrog, Hite, and Halls Crossing as well as rerouted water mains and sewer mains, installed manholes as a direct result of damage due to flash flooding, installed new culvert and lined ravine with rip rap.
- Supported professional services during hazardous tree removal project
- Installed heating system at Halls Crossing maintenance shop
- Rebuilt one of the Gensets at Halls Crossing power facility
- Center line stripping on main roads at Bullfrog and Hite
- Provided onsite training for backup gensets to the lift stations
- Completed upgrade of telemetry on Bullfrog well systems
- Rehab of boat pumpout dock at Halls Crossing
- Transported multiple loads of tri-lock to support Downlake's project at Dangling Rope
- Crack sealed 5 parking lots and airstrip in preparation for slurry seal project

- Completed backcountry roads assessments for all Uplake areas for Federal Highways and FMSS inventory
- Replaced 300 feet of sewer mains and three manholes serving the Defiance House Lodge and restaurant
- Assisted on Navajo Mountain fire.
- Installed cold mix on housing loop at turnout areas for parking
- Completed well house 3 building with stucco
- Assisted Aramark to clean up debris and sand after major storms- all areas
- Completed relining of final sewage lagoon cell at Bullfrog
- Emergency repairs to Bullfrog boat pump out when pontoon tee failed
- Replaced called back sprinkler heads in four housing units

LAKEWIDE AIDS TO NAVIGATION PROGRAM

- Put on regional dive training, 40 hours. (Oct. 2005)
- Fabricated and installed all new kite cables in between the dock fingers. (Feb. 2006)
- Installed new tubes in Antelope Point's breakwater. (March 2006)
- Assisted Crater Lake NP with a moss study project that required the use of our ROV. (Aug. 2006)
- Week-long meeting with US Coast Guard. (Aug 2006)
- Rainbow Bridge: 2 major moves, trail repair, and removal of old cable.
- Dangling Rope dock: 2 major moves, repaired storm damage, replaced anchor points, removed old cable and installed new anchor cables.
- Rebuild government dock: 8 crew days spent assisting roads and trails with this project.
- Search and recovery: 4 SAR Incidents managed.
- DOIMOC: 2 boat operator classes held.
- Uplake ATON repair and maintenance of Uplake navigational aids.
- Downlake ATON Repair and maintenance of Downlake navigational aids.
- Annual repair and painting of vessel 450
- Arizona Boat Show: Provided 25 1-hour programs on water safety.

FACILITIES CONSTRUCTION PROJECT HIGHLIGHTS

Wahweap Campground Phase 4 (CSA 47-IV)

In 2006, phase 4 of the Wahweap Campground Improvement Project was finalized in design and was bid through the Construction Set-Aside program with Aramark. Construction is approximately 80% complete and includes a new RV hook-up loop containing 49 pull-thru and back-in sites with two comfort stations to serve the camping visitors. The project also included replacement of the amphitheater consisting of a projection wall, sealed equipment storage areas, new seating, and an accessible stage and seating areas, and paved trails. The road circulation of the campground was also addressed by closing an uncontrolled entrance and paving an adequate turnaround area with overflow parking.

PLANNING PROJECT HIGHLIGHTS

Uplake Development Concept Plan & Environmental Assessment and FONSI (CIA 29)

This uplake plan and compliance process addressed facilities and visitor services for three developed areas in Glen Canyon including Halls Crossing, Bullfrog and Hite. The plan identified facility and operational projects that could be implemented over the next 15 to 20 years as project funding is obtained. A long compliance process analyzed the plan impacts and involved the public through the EA process.

The planning effort included a comprehensive re-evaluation of the carrying capacity of Lake Powell at various lake levels due to drought and possible lake releases managed by the Bureau of Reclamation.

The plan projects include facility upgrades and expansion, improvements that address employee and concessioner housing, visitor lodging and camping, launch ramp and marina services, and infrastructure rehabilitation.

Lees Ferry Improvement Projects and Assessment and FONSI

The Lees Ferry District required compliance on multiple projects planned over the next 5 to 7 years as funding becomes available. The project successfully utilized the NPS PEPC system to involve the public in the planning process.

Projects include rehabilitation of roadside drainage structures and bank stabilization, replacement of the GRCA/GLCA visitor contact station, maintenance buildings, the USGS gauging station and the Lees Ferry the water treatment and intake system. Other projects covered by the plan include development of new covered storage for vessel and equipment, improvements to the Colorado River launch and dock facilities, a repeater site for narrowband communications, and trail route establishment.

NEPA

The NEPA compliance group completed review of 41 categorical exclusions and worked on the 12 environmental assessments listed below:

1. Uplake DCP and EA: Development plan for the uplake marinas, which include Hite, Bullfrog and Halls Crossing. Of special note was the work with the contractor and project staff completed to understand and correctly use sedimentation studies and carrying capacity studies.
2. Dangling Rope Telecommunications EA – worked with administrative officer, deputy superintendent, BLM, and Beehive staff and their consultant to clarify bounds of project and identify alternative locations.
3. Lees Ferry Improvements EA – completed in-house
4. Colorado River Restoration EA
5. Repeater at Navajo Mountain EA – developed government cost estimate and scope of work. Worked with contracting officer to use GSA environmental services to hire contractor.
6. Viking Oil EA – Complete field surveys, reviewed variety of documents, established and maintained administrative record, developed government cost estimates, scope of work documents and worked with contracting office to hire contractor.
7. Weaver Ranch House EA -. Participated in planning development team.

8. GLCA Grazing Plan and EA – Worked with resources staff to identify goals, objectives and purpose and need. Completed government estimate.
9. City of Page Water Intake EA – worked with city officials, city contractor and IMR geological staff
10. Greenthaven Forced Main EA –worked with proponent and his contractors, ADOT, ADEQ, and USFWS
11. Wireless Telecommunications Plan and EA
12. IPM Plan and EA – Developed Scope of Work and Government Estimate and worked with contracting officer to award through GSA Environmental Planning services.

Other accomplishments:

- Developed training for NEPA staff related to use of Wilderness Minimum Management and Tool
- Worked with Chief of Resources to developed SOP for Wilderness Reviews
- Completed emergency funding requests for Viking Oil EA and Glen Canyon NRA Grazing Management Plan EA.
- Worked with Fees Division to identify planning needs related to proposal to replace existing entrance stations.
- Participated in the development of NPS comments regarding the proposed development of the Desert rock coal fired power plant
- Reviewed and coordinated responses for 38 notices of environmental assessments for various surrounding federal agencies.
- Attended meetings on the proposed management plan for the Old Spanish Trail
- Worked as a cooperating agency, with the BLM on their Arizona Strip Resource Management Plan EIS.

GENERAL FACILITIES ADMINISTRATION INFORMATION

- Received \$50,000 FMSS funding to continue to term employee FMSS Clerk Karen Bennett.
- Completed comprehensive inspection and inventory of all unpaved roads and parking lots in the park, per FY '06 WASO Park Facility Management Division requirements. The park received \$12,753 to pay overtime, and backfill for permanents involved in the process, as well as purchase necessary equipment. GLCA worked with Capitol Reef, sharing personnel in the uplake and Capitol Reef projects.
- Completed another contracted condition assessment for FMSS—this time the propane system at Bullfrog.
- Seven headquarters staff and one Wahweap employee attended the Facility Manager/Chief of Maintenance Conference and Workshop in Tucson, in November. In conjunction with this, all attended the 9 hour training course on cost estimating of construction projects, using RS MEANS estimating guides. The park received 5 sets of RS MEANS 2006 guides free of charge for use in estimating park projects and costs of maintenance tasks.
- Weekly safety meetings were held with uplake facilities staff, and bi-weekly meetings took place with the downlake personnel. This process has remained consistent and is showing signs of improving safety in the workplace in both locations.