

2014 SOUTHERN PAIUTE CONSORTIUM
Colorado River Corridor Resource Evaluation Program
Annual Report of Activities

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Introduction

The traditional lands of the Southern Paiute people are bounded by more than 600 miles of the Colorado River from the Kaiparowits Plateau in the north to Blythe, California in the south. According to Southern Paiute traditional knowledge, Southern Paiutes were the first inhabitants of this region and are responsible for protecting and managing this land along with the water and all that is upon and within it.

Today the Colorado River flows through Grand Canyon National Park and Glen Canyon National Recreation Area, as well as the Navajo and Hualapai reservations. The Bureau of Reclamation (BOR) completed the construction Glen Canyon Dam on the Colorado River in 1963 and became responsible for management of the Dam. U.S. federal law requires that Glen Canyon Dam be operated with minimal impact to the natural, recreational, and cultural resources of the *Colorado River Corridor*, the region of the Colorado River between Glen Canyon Dam and Lake Mead that is potentially impacted by flows from the Dam. The National Historic Preservation Act mandates that the impacts of any federal undertaking that will negatively affect historic and traditional cultural properties be evaluated, and the Southern Paiute monitoring program is designed to address this mandate. The Grand Canyon Protection Act and the Environmental Impact Statement for the Operation of the Glen Canyon Dam (GCDEIS) establish a program of long-term research and monitoring of the effects of the Dam on these resources.

In 1991, three Southern Paiute tribes – the Kaibab Band of Paiute Indians, the Paiute Indian Tribe of Utah (representing the Shivwits Band of Paiute Indians), and the San Juan Southern Paiute Tribe – agreed to participate in studies to identify cultural resources impacted by Glen Canyon Dam and to recommend strategies for their protection. In 1993, the Kaibab Band of Paiute Indians and the Paiute Indian Tribe of Utah created the Southern Paiute Consortium (SPC) to ensure more effective government-to-government interactions between the tribes and the BOR. The SPC took over the cultural resource studies being conducted under the GCDEIS.

The BOR and National Park Service (NPS) developed a Programmatic Agreement (PA) on Cultural Resources for Glen Canyon Dam Operations. On February 9, 1994, the PA was signed by the Advisory Council on Historic Preservation, the Arizona State Historic Preservation Office, the BOR, the NPS and the Hopi Tribe, the Hualapai Tribe, the Navajo Nation, the Paiute Indian Tribe of Utah, the Kaibab Band of Paiute Indians, the San Juan Southern Paiute Tribe, and Zuni Pueblo. The PA lays out a plan for agency compliance with Section 106 of the National Historic Preservation Act through the development of monitoring and management protocols for cultural resources in the *Colorado River Corridor*. It directs the BOR and NPS to develop and implement a plan for monitoring the remedial actions and to develop a Historic Preservation Plan (HPP) for long-term monitoring and management.

In 1995, the GCDEIS was completed and transition to the Adaptive Management Program called for in the Grand Canyon Protection Act was begun. At that time, the SPC expanded the research activities it began under the GCDEIS to include assessing potential environmental impacts, developing monitoring procedures, and interacting with the BOR and other PA signatories. It established the Colorado River Monitoring and Environmental Education program.

The basis for the program and the results of its initial development and implementation are fully discussed in the report, *Itus, Auv, Te'ek (Past, Present, Future): Managing Southern Paiute Resources in the Colorado River Corridor* (Stoffle, Austin, Fulfrost, Phillips, and Drye 1995). The results of each succeeding year's activities are reported in annual reports to the BOR.

The 2014 program had eight goals: (1) implementation of the SPC's monitoring program; (2) training and education of Southern Paiute monitors; (3) education of Southern Paiute tribal members and the general public; (4) discussion and evaluation of traditional cultural properties protection and management; (5) visitation with Grand Canyon Superintendent to provide input for tribal consultation with the National Park Service; (6) consultation among Southern Paiute tribal members to determine the future objectives of the SPC monitoring program on the Colorado River; (7) reestablishing photo monitoring at one site; (8) determining SPC involvement in Long Term Experiment and Management Plan (LTEMP). All of these goals were accomplished during 2014. Regular monitoring activities were conducted during a ten-day trip between Lees Ferry and Diamond Creek, but due to weather conditions, the take-out for the trip was at Pearce Ferry.

This report summarizes the activities of the SPC undertaken as part of its responsibilities to protect and manage the land, water, and resources within Southern Paiute traditional territory and as a PA signatory. Chapter One, "Cultural Resources Evaluation," describes the results of the SPC's 2014 river trip to monitor SPC cultural resources, gather information for tribal members and leaders, and otherwise conduct activities deemed necessary for fulfilling those responsibilities. Education and training are critical facets of the SPC program that ensure that the Southern Paiutes can continue to fulfill their responsibilities into the future. Chapter Two summarizes the results of the education and training components of the SPC program. There are many diverse stakeholders in the Adaptive Management Program, and a great amount of time is spent in meetings and conferences where information is shared. Chapter Three describes the SPC's participation in those meetings and the other activities it undertakes to enhance its ability to successfully carry out its responsibilities.

Chapter One

Cultural Resource Evaluation

The SPC cultural resource monitoring program was developed to evaluate the effects of the operation of Glen Canyon Dam on cultural resources that have been identified by Southern Paiute consultants within the Colorado River Corridor. Indirect effects of dam operations on important cultural sites may extend well beyond the river's edge, and variations in river level may affect site access, frequency of visitor use, and plant and animal communities well beyond the shoreline of the river (see *Itus, Auv, Te'ek* [Past, Present, Future]: Managing Southern Paiute Resources in the *Colorado River Corridor*, [Stoffle, Austin, Fulfrost, Phillips, and Drye [1995]]). Evaluating the effects of dam operation on the holistic integrity of river corridor cultural sites requires that some monitoring activities take place within portions of sites beyond the immediate influence of the Dam.

Southern Paiutes have worked with the Bureau of Reclamation (BOR) to investigate cultural resource issues since 1992. In 1995, the SPC, on behalf of the Kaibab Band of Paiute Indians and the Paiute Indian Tribe of Utah (PITU), began the development and testing of a cultural resource monitoring program. The SPC designed the 2014 monitoring research efforts to advance the existing program.

The FY2014 Southern Paiute Consortium (SPC) Colorado River Corridor cultural resource monitoring program operated between September 2013 and September 2014. A major component of the monitoring program is the annual SPC monitoring river trip. This year's program included one river trip between Lees Ferry and Diamond Creek (with take-out at Pearce Ferry due to inclement weather), data entry and analysis, review of photo reestablishment, and report preparation. The purpose of the program was to continue tribal monitoring as recommended by the Glen Canyon Dam Environmental Impact Statement and Record of Decision (GCDEIS). The monitoring program included training and was conducted at the same time as the environmental education program (see Chapter Two). This chapter summarizes the activities of the trip into the Colorado River Corridor and provides recommendations for the FY2015 cultural resource monitoring program. Other SPC activities are detailed in Chapter Three.

Methodology

The SPC monitoring program developed in 1996 was utilized in 2014 (see Austin, Fulfrost, Osife, Drye, and Rogers 1996 for details). The program included the use of: (1) a composite cultural resource monitoring form; (2) site-specific monitoring checklists and data collection forms; (3) the SPC Monitoring Training Program; (4) a SPC plant reference guide; (5) standardized methodologies and forms for plant transect and plot monitoring; and (6) a monitoring program manager's handbook. In addition, the Southern Paiute River Guide was shared with river trip participants.

As noted in the 2013 report, the SPC is continually evaluating its program in an effort to collect data in as straightforward and replicable a process as possible. Given that there have been

no increases in program resources even as costs have increased, the SPC has also been mindful of working within its budget. Finally, the SPC monitoring program is careful to preserve the natural resources in the Colorado River Corridor, limiting travel to and monitoring at fragile sites. In 2013, the SPC decided to adjust its long-term monitoring schedule, addressing these goals and limitations while maintaining continuity with the SPC monitoring data that have been collected since 1996. Instead of continuing with the six-year planning cycle, the SPC is shifting to a four-year planning cycle. In the new four-year plan, the SPC will continue to visit some sites annually, will visit other sites every other year, and will visit the most fragile sites every four years. Plant data will be collected every other year, with a contracted botanist monitoring plant change. The cultural, archaeology, and beach sites that receive the highest visitor traffic and are greatly affected by the potential impacts of the high flows will be monitored annually. Table 1.1 depicts the new monitoring schedule.

Table 1.1. Southern Paiute Consortium – 4 year plan

Site	2014	2015	2016	2017
South Canyon	beach, archaeology	beach, cultural*	beach, archaeology	beach, cultural
Nankoweap	archaeology	plants, cultural	archaeology	plants, cultural
Lava/Chuar	archaeology		archaeology	
Tanner	archaeology		archaeology	
Bedrock		plants, cultural		
Deer Creek	beach, archaeology, plants	beach, archaeology, plants	beach, archaeology, plants	beach, archaeology, plants
Kanab Creek	beach, archaeology	beach, archaeology	beach, archaeology	beach, archaeology, plants
Vulcan's Anvil	cultural	plants, cultural	cultural	cultural
Whitmore	beach, archaeology	beach, archaeology	beach, archaeology	beach, archaeology
Pre-Parashant				archaeology, plants
Ompi	cultural	cultural	cultural	cultural
Spring Canyon	archaeology, plants	plants, cultural	archaeology, plants	plants, cultural
Indian Canyon	archaeology	cultural	archaeology	cultural
Pumpkin Spring	spring, cultural	spring, cultural	spring, cultural	spring, cultural
Ledges	archaeology, spring		archaeology, spring	
Granite Park	cultural	cultural	cultural	cultural

*Southern Paiutes recognize archaeological sites, plant gathering areas, springs, and many other features as cultural sites. Terminology used in this table reflects designations commonly used by

scientists and resource managers and is used to aid in communication. Sites indicated as “cultural” in this table are those which do not fit into the other categories.

The focus of the 2014 monitoring program was a river trip through the *Colorado River Corridor* between Lees Ferry and Diamond Creek (inclement weather necessitated take-out at Pearce Ferry). Prior to the trip, the SPC monitoring team worked together to coordinate monitoring program plan. The trip began on July 2nd and ended on July 11th. One day prior to the trip (July 1st) monitoring training and orientation was carried out for all participants at the Lees Ferry Campground. Trip participants included the SPC Director; one tribal elder; two SPC monitors; one Southern Paiute cultural consultant; four participants from the Paiute Indian Tribe of Utah; four participants from the Kaibab Band of Paiute Indians; one participant from Moapa Band of Paiute Indians; two participants from the Las Vegas Paiute Tribe; two representatives from the San Juan Southern Paiute Tribe and three educational and research specialists from the University of Arizona. Among their responsibilities, the university participants were responsible for helping evaluate and re-establish the photo monitoring program.

Site Discussions

In this section, site-by-site discussions describe findings at each site that was monitored during the 2014 river trip into the Colorado River Corridor. The summaries of the sites include beach, archaeology, and other cultural properties, plus any recommendations for revisions to the monitoring program or for actions to be taken by management agencies regarding the site. For detailed site descriptions, please refer to Stoffle, Austin, Fulfrost, Phillips, and Drye (1995). During 2014, the SPC monitors and consultants followed the newly-established four-year plan (which runs through 2017) for the twenty sites in the SPC monitoring program. Recommended changes to the monitoring program are discussed in each individual section.

Table 1.2. Downriver Sites Monitored During 2014

Site #	Site name	Date monitored	Features monitored	Next monitoring
-	Lees Ferry	July 1, 2014	Training, Orientation	2015 (Training, Orientation)
5	South Canyon	July 2, 2014	Beach, Archaeology, Cultural activities	2015 (Beach, Cultural)
6	Nankoweap	July 3, 2014	Plants, Archaeology, Cultural activities	2015 (Plants, Cultural)
7	Lava/Chuar	July 4, 2014	Archaeology, Cultural activities	2016 (Archaeology)
8	Tanner	July 4, 2014	Archaeology, Cultural activities	2016
10	Deer Creek	July 7, 2014	Plants, Archaeology, Beach	2015 (Beach, Archaeology, Plants)
11	Kanab Creek	July 8, 2014	Beach	2015 (Beach)
19	Ledges	July 8, 2014	Archaeology, Cultural activities	2016
12	Vulcan's Anvil	July 9, 2014	Cultural activities	2015 (Plants, Cultural)

13	Whitmore	July 9, 2014	Archaeology, Beach	2015 (Cultural, Beach)
15	Ompi Cave	July 9, 2014	Cultural activities	2015 (Cultural)
16	Spring Canyon	July 10, 2014	Plants, Archaeology	2015 (Plants)
17	Indian Canyon	July 10, 2014	Archaeology, Cultural activities	2015
20	Granite Park	July 10, 2014	Cultural activities	2015
18	Pumpkin Spring	July 10, 2014	Spring, Beach	2015 (Spring, Beach)

Lees Ferry

Orientation and monitor training were carried out at Lees Ferry campground on July 1, the day before the river trip began. Exercises were conducted to train river trip participants in matching photos, using the compass, and running transect lines.

South Canyon Site #5

Archaeology (at the rock structure and of the rock writing) and the beach were monitored at this site in 2014.

Archaeology: Rock Structure

At the archaeology site, two small pieces of lithic material were found in a collection pile on the wall of the rock structure. They were noted and removed. Additionally, within the rock structure, rodents and ants have unearthed and scattered small slivers of turquoise around a rodent hole. The SPC director spoke with the cultural heritage representatives of the Hopi Tribe and the Pueblo of Zuni about whether they knew of turquoise use in the area. A Zuni council representative verified the possibility of the turquoise being an offering, but not a recent offering.

Archaeology: Rock Writing

No changes in rock writing were noted during monitoring this year. Some reference monitoring photos were retaken. Concerns about trailing at this site remain and NPS is aware of the situation. This year, a large pottery sherd was found near the rock writing boulders. This rare find was noted.

Beach

Beach monitoring was carried out in 2014. There are several notable changes. The November High Flood Experiment (HFE) has led to even greater deposition than the 2013 HFE. Midway up the canyon the wash was silted in with sand deposits likely from the HFEs. Additional effects of flooding at the site include boulder movement, greater debris and small rocks, and different height and placement of the sandbar. The deposition has covered many of the rock landmarks used during the photo matching.

Additionally, SPC monitors noted the effects of the tamarisk beetle on the tamarisks (*Tamarix chinensis*), which have declined since the 2013 monitoring trip. This could be a

potential site to continue monitoring the spread and health of tamarisk in the canyon and the effect of the tamarisk beetle.

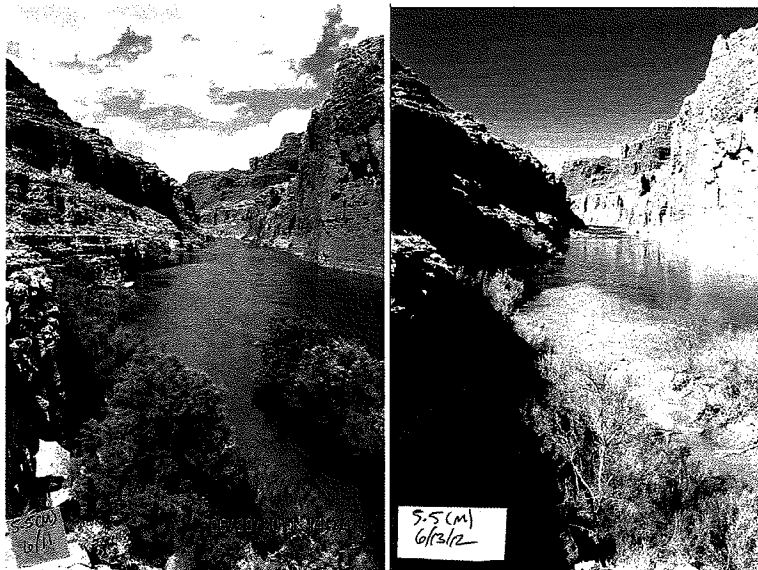


Figure 1.1. South Canyon: sediment change and the effects and recovery of the tamarisk beetle. 2011 (left), 2012 (right)

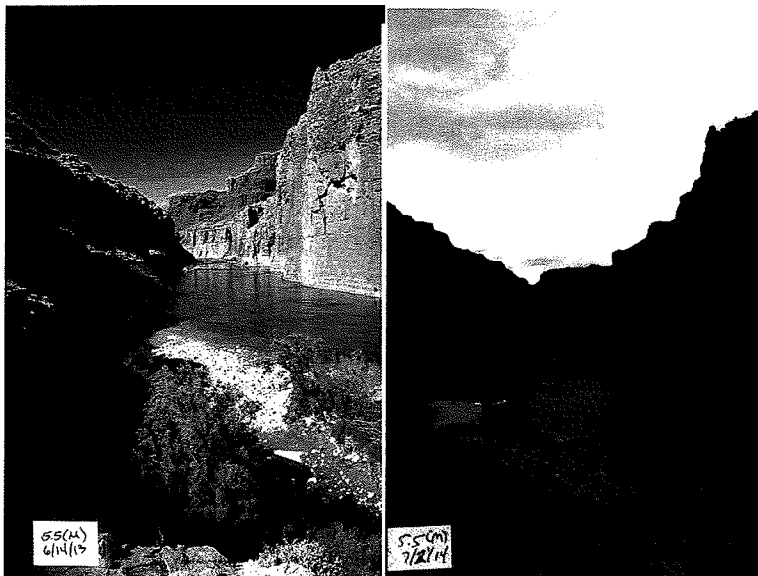


Figure 1.2. South Canyon: continued build up of the beach, 2013 (left), 2014 (right)

Recommendations

Further monitoring of the effects of regular HFEs is recommended in order to track the effects of regular high flows and associated management of the Glen Canyon Dam on the site. Visitation to this site remains high, so monitoring of this beach, the rock writing, and trailing near the rock boulders will continue annually. Finally, the SPC has concerns about the tamarisk

beetle in the Colorado River Corridor; this site should be considered as a potential for monitoring the effects of the tamarisk beetle.

Nankoweap—Monitoring Site #6

The archaeology site was monitored here in 2014. Plants were not monitored at Nankoweap in 2014, since the monitoring program has shifted to a four-year plan, with a botanist going on the river trip every other year. The 2015 river trip will have a botanist and data on plant growth and change will be collected.

Archaeology

No significant changes were observed at the archaeology site. There were no collection piles. The grinding rock and grinding stones were moved, but both were present. While plant transects were not laid, in general, the plants at the site were dry and appeared to be suffering from drought. Additionally, the portion of the trail up to the bench site from Nankoweap Creek continues to be in very poor shape, having become a major runoff channel for water. Rock pile markers were observed near the side creek at lower Nankoweap, also indicating trail use and visitor traffic. Artifacts on the lower bench continue to be protected by cacti and mesquite, although these plants are experiencing drought.

Recommendations

The SPC recommends that the NPS address the trail erosion on the lower portion of the trail from Nankoweap Creek to the archaeology site on the bench, and repair the trail.

The SPC will work next year to establish additional photo monitoring of the beach and vegetation in the creek bed. This effort responds to the ongoing use of high flow experiments and the Long-Term Experimental and Management Plan. The SPC will establish beach monitoring to collect additional data on the impacts of sediment and beach change brought about by the high flows.

Lava/Chuar – Site # 7

In the 2013 trip, Lava Chuar was remapped and the baseline monitoring photography was re-established. On the 2014 river trip, the site was monitored in order to evaluate the new process. Transect tapes were used to ensure consistent photo points, and some revision of photo points and protocols were made. No human impacts were observed. The site has been impacted by some erosion from flash flooding in the side canyon. Some arroyo cutting is present and has the potential to affect roasting pits at the site.

Recommendations

In order to continue monitoring the effects of erosion on this site, the site will be monitored in 2016 using the new photo monitoring program.

Tanner – Site # 8

Archaeology

In 2014, the SPC monitored the site, which includes rock writing panels. Several problems were encountered at this site. One rock with rock writing shows increased surface erosion due to visitors using it as a handhold. Visitor traffic was also evident in the trailing. Visitors continue to use multiple trails and the trails surrounding the rock writing panels remain in very poor condition, due to heavy use and additional erosion caused by rain.

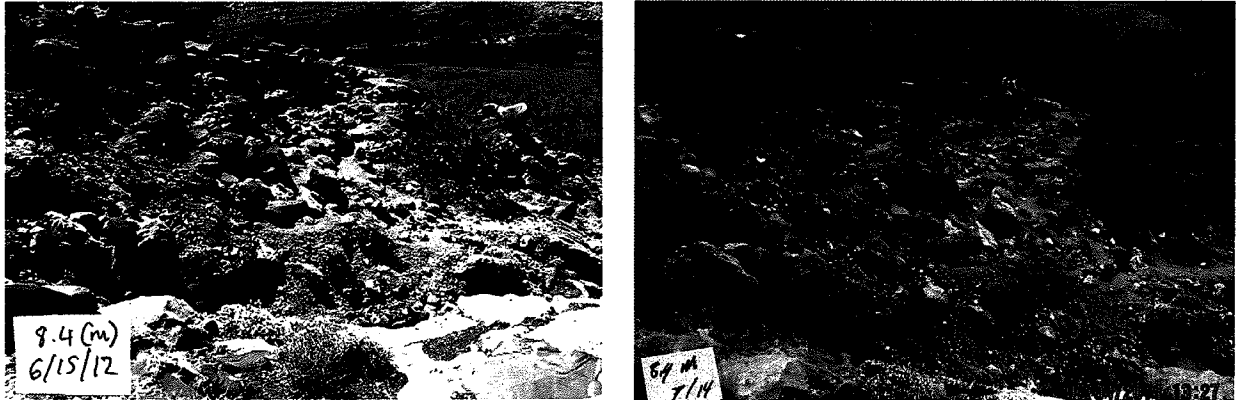


Figure 1.3. Tanner: trailing at the Tanner site. On the left is the photo from 2012 (left) and on the right is the 2014 photo, showing more dispersed trailing around the site.

Recommendations

The SPC recommends that the condition of the trail be addressed and that trail maintenance and improvement be carried out to prevent the rocks with rock writing on them being used as handholds and to prevent multiple trails forming. Barring this possibility, the SPC recommends closing and re-routing the entire trail to avoid the rock writing.

Deer Creek – Site # 10

Plant and rock writing monitoring were conducted at this site in 2014. The SPC is pleased with the results of closing Deer Creek Narrows. This year, only two individuals were noted entering the Narrows out of the fifty-three people on commercial trips who stopped at the falls. However, the site still presents challenges to protecting the rock writing.

Plants

As discussed in the methodology section of Chapter One, a botanist was not contracted for this year's monitoring trip. However, given the importance of the Deer Creek agave plants, the two agave plots were monitored by SPC monitors in a manner consistent with previous years. The species of agave present in these plots is significant as Dr. Art Philips has shown that they are endemic to Northwestern Mexico and were likely traded and cultivated as a foodstuff. The agave and all other plants in both plots, including many of the willows show clear signs of stress and are experiencing drought.

The agave plots were mapped and flowering stalks were counted. One agave plant in plot 1 sent up a flowering stalk in 2014, measuring 3.15 meters on July 7. Three agave plants in plot 1 had stalks from previous years with dying rosettes. Five other agave plants were counted, along with nine pups in the plot. In agave plot 2, three adult plants were counted. Two of these adult plants have not yet sent up flowering stalks, while the third has a stalk with a dead rosette. However, agave plot 2 has an abundance of pups, approximately 40 in total.

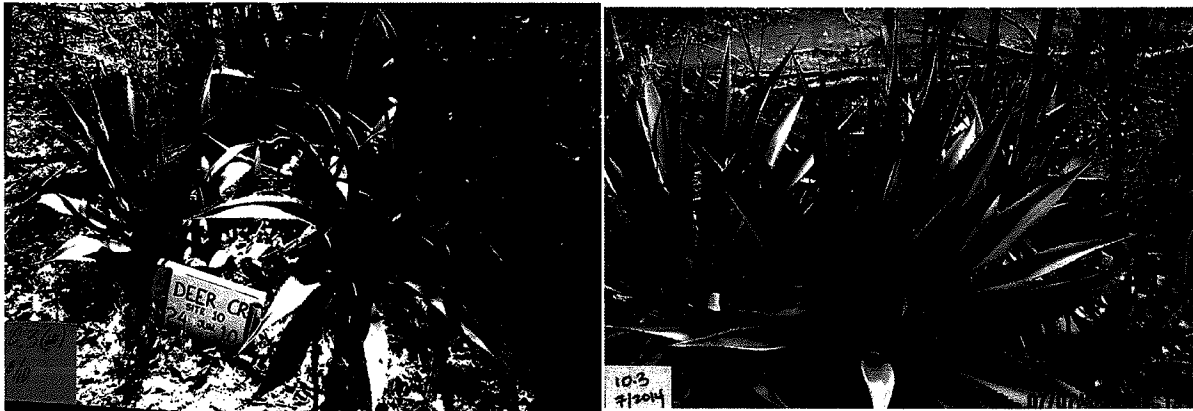


Figure 1.4. Deer Creek Agave: Photos of the agave at plot 1 from 2010 (left) and 2014 (right).

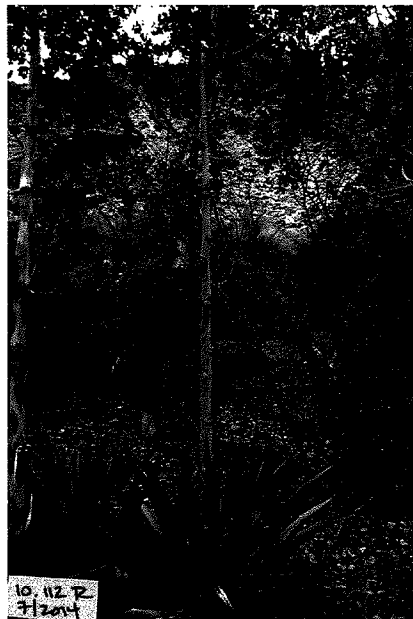


Figure 1.5. Deer Creek Agave: photo of the 2014 flowering stalk on agave at plot 1.

Archaeology: Rock Writing

Prior to the 2014 monitoring trip, the SPC and researchers from the University of Arizona met with National Park Service staff to learn more about their system for monitoring the rock writing panels at this site. Based on the re-establishment of photo monitoring at the site that the SPC accomplished in 2013 and the discussions held with the NPS in 2014, the SPC continued photo monitoring at the site in 2014. The size and complexity of the site continue to

present considerable challenges to monitoring. However, monitors noted certain changes, including fading of some rock writing panels, especially those close to the trail which may be affected by visitors touching them.

The SPC uncovered two artifacts, a woven sandal and a piece of a woven basket, that appeared to be dug up by animal burrowing and wind erosion. These artifacts, and their location, were documented by the SPC during the trip. Upon take-out, the SPC Director immediately communicated the presence of these artifacts to NPS employees. The NPS located and tested the artifacts. After dating of the artifacts, it is quite clear that these objects are fabrications and were likely placed in the Canyon for tourists to “discover.” The SPC strongly condemns this sort of behavior, as it is deeply disrespectful.

Recommendations

The SPC Director is working with NPS archaeologist Ellen Brennen to write a joint letter to the Boatmen’s Quarterly Review on the lack of cultural sensitivity shown by those who leave falsified items at cultural and sacred sites. The SPC Director also communicated with other tribal stakeholders, from whom he discovered that this issue is widespread and perhaps reflects a growing trend affecting tribal sacred sites. The SPC Director will continue to follow up on this issue in 2015 with boatmen and outfitters.

This site will be monitored in 2015.

Kanab Creek Site # 11

Beach monitoring was carried out at this site in 2014.

Beach

The site was flooded once again in the November 2013 HFE. The site may have also flash-flooded prior to the monitoring trip. These events led to significant changes: sediment and boulder shifting, as well as the creek itself changing course. Some tamarisk trees at the site have been washed away while others have taken root in cleared areas.

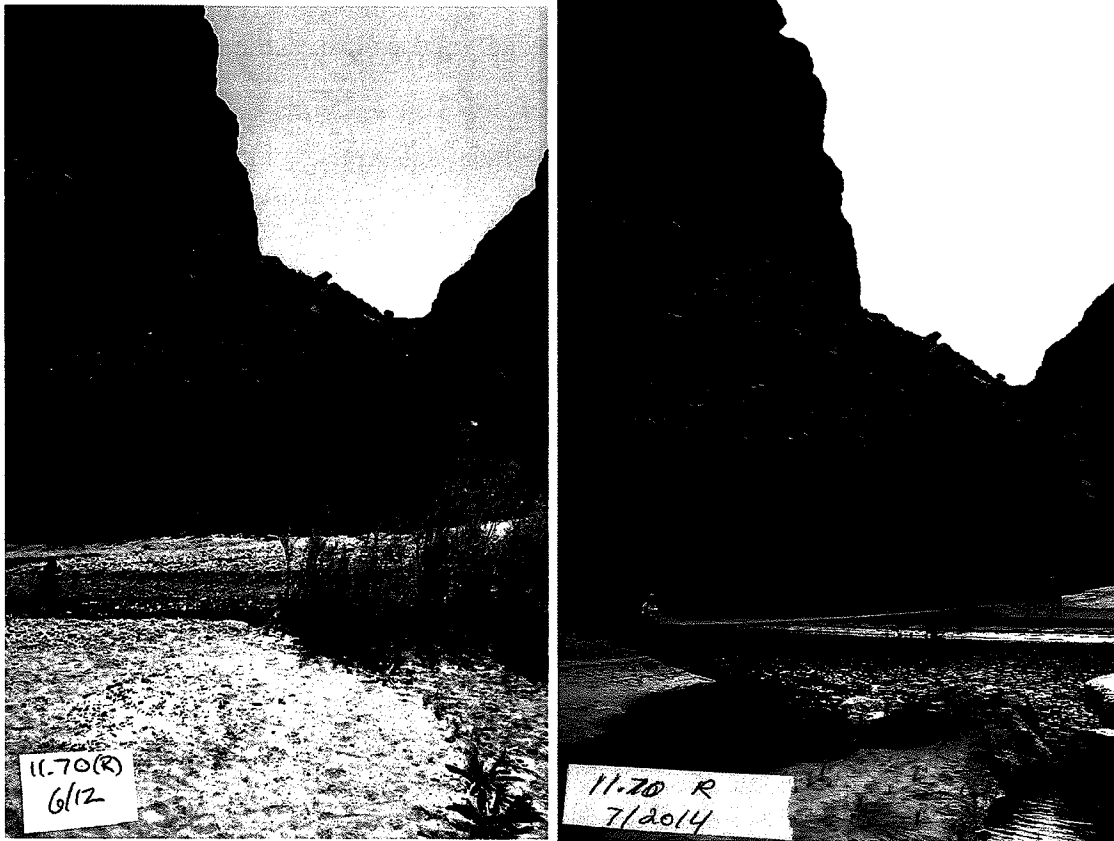


Figure 1.6. The mouth of Kanab Creek shows a movement of sediment and increase in erosion, including cutting of the sand bar on the upriver side of Kanab Creek. Photos from 2012 (left) and 2014 (right).

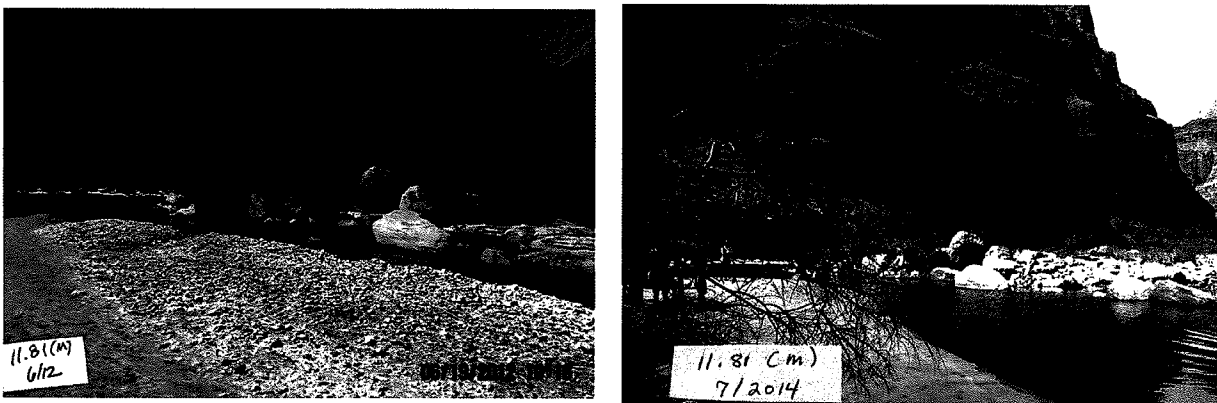


Figure 1.7. Sand bar at the junction of Kanab Creek with the Colorado River shows a decrease in deposition. Photos from 2012 (left) and 2014 (right).

Recommendations

Further monitoring of the effects of regular HFES is recommended.

Ledges – Site # 19

The archaeological site was monitored in 2014.

Archaeology

In 2014 the SPC monitored this site, which consists of several roasting pits. The area surrounding the roasting pits has experienced some erosion. This erosion appears to be caused by wind and water rather than human impacts. The site does not appear to attract many visitors, as most visitors head to the nearby spring instead.

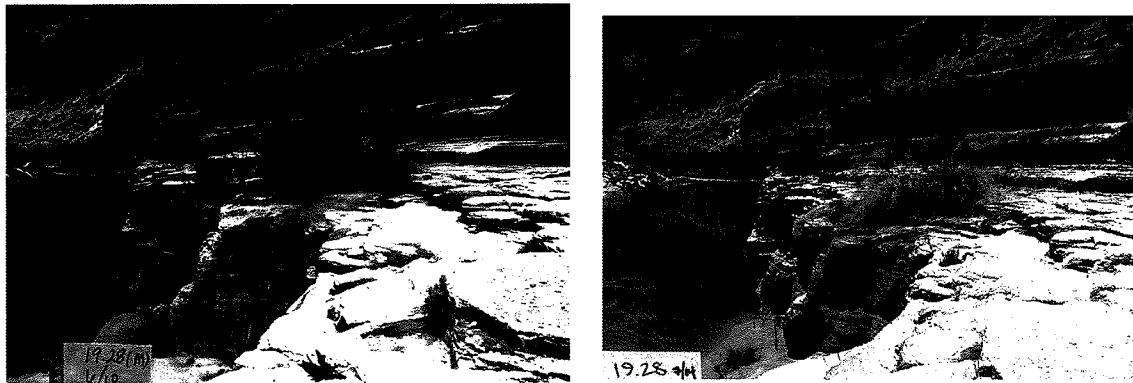


Figure 1.8. Spring at Ledges, indicative of the level of drought and the condition of vegetation encountered on this year's river trip. Photos from 2010 (left) and 2014 (right).

Recommendations

Continue to monitor this site in rotation, noting changes in levels of visitation and impacts on trails, if any.

Vulcan's Anvil – Monitoring Site #12

Cultural monitoring was carried out at this site in 2014.

Cultural

This site was visited for spiritual and ceremonial reasons. Monitoring involved visual inspection and discussions of conditions by tribal members. One object was removed from the Anvil in 2014. There appears to have been little recent use of the river bank near the Anvil, and there was no evidence of human footprints or vegetation damage.

Recommendations

The SPC should continue outreach and education efforts to let river guides know about the importance of the site, and to discourage placement of objects on the Anvil.

Whitmore Wash—Monitoring Site #13

In 2013, the SPC re-established photo monitoring at this archaeological site to better document the rock writing panels and any potential changes to them. In 2014, however, the National Park Service, with the support of the Pueblo of Zuni, re-routed the trail to the rock writing panel. This effort was undertaken in order to protect the panel and involved moving the trail further out from the rock panels and filling the remaining space with rocks and cacti to discourage visitors from getting close to the panels. It was noted that these cacti appeared to be quite dry. The trail work necessitated re-establishing the photo monitoring of the site yet again.

Archaeology: Rock Writing

Monitoring of rock writing panels was completed. No major changes or new graffiti were observed.

Beach

Photos of the beach taken from across the river did not document any additional significant erosion of the bank.

Recommendations

The SPC should continue to work with the river guides to educate their visitors about the cultural significance of this site. In 2015 the SPC will use the re-established photo monitoring of this site and will monitor the impacts of the new protection efforts.

Ompi Cave – Monitoring Site #15

This site was visited for spiritual and ceremonial reasons. Over the past several years SPC monitors have collected numerous tools and cups that have been left within the cave by other visitors. SPC has been working with the NPS and other tribes to communicate their concerns with how other groups use this important space. This is one topic that is still being addressed by the Grand Canyon working group of tribes. The SPC is part of this working group and will continue to raise its concerns about the stewardship of the Ompi Cave to other group participants.

Recommendations

The SPC will continue to provide the NPS with information about the importance of preserving this natural element and about any concerns that may arise.

Spring Canyon—Monitoring Site #16

Spring Canyon was not monitored in 2014 because it had not flash-flooded. Given the overgrown vegetation, access to the site is extremely difficult. The thick vegetation, however, is also effectively protecting the site. Photos of Spring Canyon were taken from the river.



Figure 1.8. Photo from 2014 taken at the mouth of Spring Canyon, which has not been scoured recently from a flash flood.

Recommendations

The SPC will monitor this site in 2015, contingent upon the flash-flooding of the canyon.

Indian Canyon—Monitoring Site #16

The SPC monitored this archaeology site, including the roasting pit and the rock writing panels, in 2014.

Archaeology: Roasting Pit

The roasting pit shows no significant change. The re-developed trail has been effective in routing visitors around the roasting pit rather than through it. This has been effective in preserving the site.

Archaeology: Rock Writing

The site's rock writing panels were monitored in 2014 and no new graffiti was noted. However, it was noted that visitors sometimes throw small rocks at the ledges above the rock writing panels, ostensibly for good luck. This may have a potential detrimental impacts on the panel themselves, should people miss their target and hit the rock writing panels instead of the ledges above them.

Recommendations

The SPC will continue to monitor this site in rotation. Additionally, the SPC Director will conduct outreach and education to the boatmen about this particular issue along with the other concerns identified in this report.

Pumpkin Spring—Monitoring Site #18

Spring and beach monitoring were conducted at this site in 2014. The water in the spring appeared murky, indicating it had not been flooded or scoured in some time, and there was also algae present. Mountain sheep tracks were noted on the beach.

Recommendations

The SPC will closely monitor the effects of regular HFEs on the spring.

Chapter Two

Education and Training

The 2014 Southern Paiute Consortium Colorado River Corridor Education and Training Program was specifically designed to provide opportunities for Southern Paiutes to learn directly from elders and cultural resource specialists from the tribes of the Southern Paiute Consortium (SPC) – the Kaibab Band of Paiute Indians and the Paiute Indian Tribe of Utah (PITU) – and from the San Juan Southern Paiute Tribe, as well as from scientists and others participating in the Glen Canyon Dam Adaptive Management Program. The program includes activities that take place along the Colorado River and elsewhere. This aspect of the overall SPC program is necessary to inform and educate future tribal leaders and train tribal monitors (see Austin, Fulfroost, Osife, Drye, and Rogers 1996). The educational component of the program continues to be supported within the University of Arizona and is an important element of the overall program.

A second purpose of the program is to provide education and outreach to non-tribal members about the Southern Paiutes, their history in and perspectives of the Colorado River Corridor, and the importance of the broader cultural landscape stretching from rim to rim. This is achieved through outreach programs to the Colorado River Guides, schools and universities, civic organizations, and others. This purpose is also achieved through interactions with other canyon visitors through the annual presence of Southern Paiutes along the Colorado River. The documentary, *The Rivers and Canyons of the Colorado: Southern Paiute Monitoring and Education*, is serving as a tool through which to educate non-tribal members about Southern Paiute monitoring program and the importance of the Colorado River Corridor for Southern Paiutes.

Preparation for the River Trip

Meetings and River Trip Participants

Each year, the SPC prepares information about the annual monitoring trip and shares this information with the participating tribes. The tribes then select trip participants. Annual participation generally has alternated between adults and youth. The 2014 trip was an adult trip and included the SPC Director; one tribal elder; two SPC monitors; one Southern Paiute cultural consultant; four participants from the Paiute Indian Tribe of Utah; four participants from the Kaibab Band of Paiute Indians; one participant from Moapa Band of Paiute Indians; two participants from the Las Vegas Paiute Tribe; two participants from the San Juan Southern Paiute Tribe and three educational and research specialists from the University of Arizona.

Prior to the trip, the SPC Director made presentations about the trip to the Paiute Indian Tribe of Utah council in late fall 2013. Additionally, the SPC Director spoke with tribal representatives from Moapa Band of Paiute Indians, Las Vegas Paiute Tribe, and San Juan Southern Paiute Tribe to inform these tribes about the annual monitoring trip and to invite interested tribal members to participate. Individuals were also given the opportunity to sign up to be considered for the annual monitoring and education trip during Kaibab's annual meeting. The

Shivwits SPC monitor also informed all tribal members of the trip through printed materials. Tribal leaders then submitted names of trip participants to the SPC Director. A final list of names was approved by the Tribal and Band Council representatives, and individuals were contacted by the SPC and sent information about the upcoming trip.

Summary of Activities

The SPC Director informed trip participants about the dates of the trip and the gear list, and provided information about the Colorado River Corridor, Southern Paiute history in the region, and the SPC cultural resources program. The SPC Director and Shivwits Cultural Resource Manager also met individually with many of the participants from both the Kaibab and Shivwits bands. During these meetings, participants were provided with information about the cultural significance of the Grand Canyon and the Colorado River Corridor and reminded of culturally appropriate behavior within this sacred place. Additionally, participants received training and instruction in the use of camping and rafting gear.

Following from recommendations from 2012 and 2013 (see annual reports), the pre-river orientation and training of participants again took place at Lees Ferry on July 1, 2014, the day prior to the start of the downriver trip. Technical training on July 1st covered photo matching orientation, compass use, and map reading. Topics covered included: the history and development of the Southern Paiute Consortium and the monitoring program, as well as the goals, importance, and cultural significance of the river trips. River safety training was also conducted pre-departure. The pre-river orientation and training also maximized the time spent actively monitoring while on the downriver trip.

Recommendations

River trip preparation is a key component of the education and training program. Going into the Colorado River Corridor, Southern Paiutes are entering a place rich with historic and contemporary spiritual and cultural meaning. Although there is no way to fully prepare for the experience, through stories and discussions, trip participants can gain the information they need to make themselves ready for the trip and get the most out of their experiences. The SPC has developed a suite of educational materials, including the educational documentary, and should distribute them to potential participants prior to the trip so they can familiarize themselves with the nature and scope of the SPC's educational and monitoring program. The SPC should continue to conduct the orientation and training at Lees Ferry before departing for the downriver monitoring trip.

Southern Paiute River Guide

The *Southern Paiute River Guide* includes overview maps of Southern Paiute territory and has a location finder on each page that shows the reader where s/he is along the river and within the larger territory. The guide also has space for note taking so participants can record information they wish to remember about places and events that occur along the river. The guide was updated in 2008, based on recommendations made during the 2007 downriver trip and was

used on the 2014 trip. The 2014 river trip participants were invited to note sections, information, and recommendations for continued updating of the river guide.

Plant Reference Guide

The plant reference guide that was developed in 1997 includes over 125 pages of plants with photos; Paiute, scientific, and common plant names; and information about the significance of the plants in Southern Paiute culture. The guide was made available to trip participants during the 2014 trip.

Video Documentation and Materials

Since 2010, the SPC, with the assistance of the University of Arizona consultants, has used video to document the ethnobotany program for the SPC archives as well as to provide information about the program to participants and the general public. The documentary, *The Rivers and Canyons of the Colorado: Southern Paiute Monitoring and Education*, was made available to all river trip participants. This video covers the history of Southern Paiutes in the Colorado River Corridor, the development of the Southern Paiute Consortium, and the importance of the SPC monitoring program. The video provides an overview and background information for trip participants. Additionally, copies of the documentary were made available to visitors in the canyon as part of the SPC's effort to educate the general public. When visitors had questions and engaged with the SPC monitors while on the river, copies of the video were handed out.

Recommendations

Video archives and the documentary should continue to be made available to trip participants and the consulting botanist. Video documentation of the SPC program and Southern Paiute concerns about sites along the river should continue, including interviews with trip participants and further documentation of the monitoring process.

The Southern Paiute River Guide should be updated for the 2015 river trip, based on the recommendations and interests of the participants on the 2014 river trip as well as other previous participants.

The River Trip

Summary of Activities

The river trip took place from July 2nd to July 11th, and the education and training component occurred on July 1st at Lees Ferry. The education component of the trip included (1) specialized training in monitoring skills and techniques; (2) direct information about Paiute culture provided by Southern Paiute elders and cultural resource specialists; (3) learning through participation in Southern Paiute traditional practices and in monitoring activities; (4) information about policy and management related to the Glen Canyon Dam; (5) education about how cultural resources along the Colorado River are being protected, and what policies exist and requirements

are needed for receiving protective designation of cultural resources; and (6) expert consultation about relevant political and scientific issues in the Grand Canyon. The education program was also fully integrated into the monitoring program, and the trip schedule and activities are provided in Table 2.1.

As in past years, tribal educators were an integral component of the education program, sharing information about past as well as present connections between Southern Paiutes and the Colorado River Corridor. On the 2014 trip, the elder and cultural consultant shared their knowledge with the participants. The elder shared her extensive knowledge of plant uses. Ethnobotany, or the study of traditional plant uses, was one important component of the 2014 river trip. Trip participants learned about Southern Paiute uses of plants found in the Colorado River Corridor, where the plants grow, and methods of gathering and processing plant materials.

Table 2.1. Downriver Trip Schedule and Education Activities, 2014

Date	Site	Activities Completed
July 2	Lees Ferry	<ul style="list-style-type: none"> • River safety orientation and monitor training • Launch
July 2	South Canyon	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural activities • Assist monitors – Archaeology and rock writing
July 3	Nankoweap	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural activities • Assist monitors – Archaeology
July 4	Salt mines	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural activities
July 4	Lava Chuar	<ul style="list-style-type: none"> • Cultural hike: Archaeology and interpretation
July 7	Deer Creek	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural activities • Assist monitors— Plant and visitor monitoring • Cultural hike: Ethnobotany and history
July 8	Kanab Creek	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural transmission • Assist monitors—beach
July 9	Vulcan’s Anvil	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural activities
July 9	Whitmore Wash	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural transmission • Assist monitors— Reestablish monitoring photos
July 10	Ompi Cave	<ul style="list-style-type: none"> • Southern Paiute cultural activities
July 10	Indian Canyon	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural transmission • Cultural hike: Prehistory and history
July 10	Granite Park	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural transmission
July 10	Pumpkin Spring	<ul style="list-style-type: none"> • Southern Paiute interpretation and cultural transmission • Assist monitors—spring and beach

Other Educational Activities

During the 2014 river trip, there were many opportunities for sharing important cultural information. Discussions ranged from ethnobotany to the Long Term Experimental and Management Plan to the importance of rock writing panels.

Given the ongoing LTEMP process, the 2014 river trip included a discussion about the current progress of the EIS. Tribal members were informed about the impacts of the Glen Canyon Dam. Additionally, tribal members were updated about the LTEMP process, the potential impacts of this new EIS, the potential changes to the river's flow, and the impacts associated with the different LTEMP alternatives. Participants were welcomed to provide their opinions and input about the SPC program, the meaning of the Colorado River Corridor, and their views on the SPC's involvement in the LTEMP process. Additionally, the SPC Director discussed the history of the SPC's involvement in the Adaptive Management Work Group (AMWG), also soliciting feedback from river trip participants.

Throughout the trip, the participating elder shared ethnobotany information about the names (in Paiute and English), uses, and history of different plants. Specific discussions covered yucca, dogbane, mesquite bean, water sage, tobacco, and agave. Additionally, an elder showed participants how to process yucca into rope.

Finally, many discussions and interpretation of cultural activities occurred on a site-by-site basis. Interpretations of rock writing panels and the importance of these writings was noted at each relevant site. Songs and Paiute words were shared at relevant sites. All Southern Paiute cultural activities involved an educational dimension, so that new participants could learn about the importance and history of the sites and practices.

Sharing of Daily Experience

Using the model developed in 1996, participants gathered every other evening in a circle to share thoughts and feelings about the day's experiences and prepare for the following day's work. Information shared during these group meetings included stories about the places and the culturally appropriate behaviors expected there. All participants discussed what they knew about the places and shared their feelings about visiting them, often in relation to their past experiences and contemporary lives "up on top," outside the river corridor. The participants also provided additional information about other groups and historical/political events related to places that were visited. The evenings ended with time for prayer and reflection after everyone had a chance to be heard, and to speak as much as they liked regarding the issues that affected them.

The downriver trip was a success. The educational experiences of all participants were enhanced by the presence of the elder, cultural specialist, and others with knowledge of the cultural sites, social and political history of the region, the Adaptive Management Program, and the Southern Paiutes' role in that program.

Recommendations

The 2014 river trip and educational program was successful because the participants were well prepared and knew what to expect. Each year, trip participants must be carefully selected and include, if possible, elders and other cultural specialists, at least two monitors, an individual responsible for the trip's itinerary and logistics, and additional participants who are aware of the

challenges of working on the Colorado River Corridor, and who have prepared for the experience through participation in pre-trip study and events.

Participants on river trips bring a very wide variety of experiences and perspectives with them on the river, and they are usually willing to share those perspectives for the benefit of all participants. The space for dialogue about and incorporation of both Western scientific methods and Southern Paiute cultural practices should be maintained so that participants can learn how scientists and management agencies perceive and manage the resources of the Colorado River Corridor.

Chapter Three

Meetings, Conferences, and Other Activities

Much of the work conducted under the PA during FY2014 was done in committees and meetings. This chapter summarizes the interactions between the Southern Paiute Consortium (SPC) and others with an interest in cultural resources in the Colorado River Corridor.

Meetings and Conferences

The Southern Paiute Consortium was represented at meetings of Adaptive Management Work Group (AMWG), Technical Work Group (TWG), the Long Term Experimental and Management Plan (LTEMP), and the Grand Canyon Monitoring and Research Center (GCMRC). The SPC and its member tribes, the Kaibab Band of Paiute Indians and the Paiute Indian Tribe of Utah, participated in consultation with federal agencies that are PA Signatories. All of these activities are informed by the data and information that the SPC gathers during its annual Colorado River trips. The SPC Director is responsible for ensuring that the information is passed between the Southern Paiutes and the federal managers responsible for operations of the Glen Canyon Dam and the resources within the Colorado River Corridor.

Long Term Experimental and Management Plan

The SPC Director met with representatives of the Long-Term Experimental and Management Plan (LTEMP) proposal throughout the year. The Kaibab Paiute Tribe is a signatory for the LTEMP, and the SPC Director attended four meetings (in October, February, April, and August) and participated in conference calls (in November, December, February, and March). The SPC opted to not participate in the swing weighting exercise because it could not appropriately convey how Southern Paiutes value the canyon, with particular emphasis on a holistic view of all the resources and sites present (see *Itus, Auv, Te'ek* [Past, Present, Future]: Managing Southern Paiute Resources in the *Colorado River Corridor*, [Stoffle, Austin, Fulfrost, Phillips, and Drye [1995]). The Kaibab Paiute Tribe will participate in the EIS, and the SPC Director organized a meeting with consortium representatives (including past directors, tribal government officials, and cultural experts) to discuss feedback that will be presented in the LTEMP process. The LTEMP process is still ongoing and as a stakeholder, the Kaibab Paiute Tribe plans to submit comments on the environmental impact statement draft, due out in December 2014.

Furthermore, the SPC is concerned about the ongoing high flow experiments. The tendency of HFEs to push non-native fish down toward the Little Colorado River, impacting the humpback chub, as well as the potential (often unclear) negative effects of HFEs on archaeological sites and Traditional Cultural Properties (TCPs) are concerns. The SPC will continue to use its cultural resource evaluation and monitoring program as a way to keep monitoring potential impacts on sites, particularly those arising from HFEs.

PA Signatories, Adaptive Management Work Group, and Technical Work Group

The SPC Director participated in the BOR's PA meeting on October 23, 2013, as well as two conference calls (January 22, 2014 and April 22, 2014). The SPC Director also participated in two AMWG meetings (December and August), two AMWG conference calls (March and May), and five TWG meetings (October, November, January, April, June) on behalf of the SPC. The SPC maintains its position that the Colorado River Corridor is a significant cultural landscape and is vital to the physical and spiritual well-being of Southern Paiute people (see Stoffle, Halmo, and Austin 1997).

Meetings and Interaction with Federal Agencies, Tribal Leaders, and Members

The SPC Director met with representatives from the GCMRC, Fish and Wildlife Service, and National Park Service to discuss projects and activities that could potentially impact the Colorado River Corridor. The member tribes of the SPC worked with other PA Signatories to provide input for management activities. The SPC Director participated in numerous conference calls with federal agencies that are PA Signatories. In May, representatives of the Southern Paiute Consortium and the Bureau of Applied Research in Anthropology met with the Grand Canyon National Park Service's archaeologist and Native American liaison to review the park's monitoring at the Deer Creek Narrows.

The SPC consultants and director found two partially-exposed items (one sandal and one woven item) at the Deer Creek Narrows. The SPC director contacted the NPS immediately after the monitoring trip about these two artifacts. NPS investigated, and after further review, NPS confirmed that the items were falsified. Currently, SPC and NPS are working to draft an article for the *Boatmen's Quarterly Review* detailing why falsifying items at sacred and cultural sites is disrespectful.

In January 2014, the SPC held a meeting between tribal representatives and GCMRC employees. The meeting provided an opportunity for GCMRC to discuss ongoing research with tribal representatives and to hear perspectives on how to address tribal concerns about GCMRC's data collection.

Other Activities

The SPC has participated in activities that are beyond the scope of the PA but further the SPC's efforts to protect Southern Paiute cultural resources in the Colorado River Corridor. These include continued development of the SPC Education and Outreach Program. The SPC worked this year with Greg Woodal to draft two articles for *Boatman's Quarterly Review* to encourage cultural sensitivity to the Grand Canyon among boatmen and tourists. This year, the SPC director was asked by Governor Herbert of Utah to sit on "Future of Utah's Water 50 Year Plan." The SPC Director continues to distribute the DVD, *The Rivers and Canyons of the Colorado: Southern Paiute Monitoring and Education* to new representatives of the AMP and others who request it. Additionally, the SPC Director provided copies of the DVD to local libraries frequented by the boatmen.

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