

Climbing Management Plan
Snow Canyon State Park

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Introduction

Snow Canyon State Park, located nine miles north of downtown St. George, is a popular tourist and recreation destination and is widely recognized as one of the most beautiful natural sites in Utah. Although relatively small in size (5,688 acres) the park is rich in biodiversity, providing a unique meeting place of three geophysical provinces and their associated bioregions. The park attracted 649,571 visitors in 1996, slightly down from a record 686,000 in 1995. Estimates of continued growth in the St. George area (Washington County has been one of the top six fastest-growing counties in the nation for three consecutive years), as well as the anticipated steady increase in tourism in the years ahead made the development of a comprehensive resource management plan for Snow Canyon State Park a top priority.

In keeping with the direction outlined in *Frontiers 2000, A System Plan to Guide Utah State Parks and Recreation into the 21st Century*, park managers began a planning process for the Snow Canyon Resource Management Plan in January 1997. The Utah Division of Parks and Recreation met with stakeholders including community leaders and representatives to create a planning team. The team represented a diverse mix of conservation, economic development, education and local interests. Together they identified fifty-two issues relating to the future of the park. The team committed itself to open public dialogue and input from focus groups (including representatives from the major recreational users of the park) on issues prior to identifying solution options. Team members operated on the basis of consensus after detailed discussion of the pros and cons of any recommendation.

The team determined that it was important to develop a climbing management plan to balance the needs and concerns of the rock climbing community, a prominent recreational user group in the park, with reasonable management of climbing impacts to the sensitive desert ecosystem. To demonstrate the park's interest in working cooperatively with climbers, it was decided that the climbing management plan should be developed and adopted concurrently with the resource management plan. The climbing community has worked cooperatively for three years with park officials to develop fixed anchor guidelines that would allow for the removal of bolting restrictions in force since 1994. Recommendations developed by the local climbers are the basis for many of the management actions outlined in this plan. Additional assistance and input in the development of the climbing management plan was received from The Access Fund, a national climbing association dedicated to keeping climbing areas open and conserving the climbing environment.

Purpose and Need

Technical rock climbing has been allowed in Snow Canyon for several years despite a regulation (R651-622) which prohibited technical climbing without a permit. Concern for climbing-related impacts in Snow Canyon State Park led park managers to place a ban on the placement of new fixed anchors in 1994. This concerned area climbers both because it restricted the replacement of older and unsafe bolts, as well as it curtailed the establishment of new climbing routes.

Park officials — reacting to a rapid increase in visitation, increasing concerns for the fragile biodiversity of the canyon, and the presence of rare, threatened and endangered species — decided to restrict the placement of new fixed anchors until they could improve their understanding of, and develop a management plan for, climbing-related impacts.

The purpose of this plan is to identify impacts resulting from climbing in Snow Canyon State Park, to identify reasonable means to reduce or eliminate these impacts to assure the long-term protection of park resources and values, to provide for a diverse and rewarding climbing experience in the park, and to retain the overall park visitor experience.

Goals and Objectives of Climbing Management Plan

Goal. The overriding goal of this plan is to provide a cooperative management scheme which allows for the continued enjoyment of rock climbing while protecting of the natural, historical, and scenic resources in Snow Canyon State Park.

The development of the Climbing Management Plan, subsequent implementation and future revision are intended to provide a forum for public involvement and collaboration. Park management considers the long-term partnership with climbers and others in the recreational and environmental communities to be a critical component of an effective climbing management program.

Objectives. To achieve this goal, the following objectives have been identified:

1. Identify the key issues resulting from climbing use of Snow Canyon State Park.
2. Determine the potential impact of climbing on a) threatened or endangered species or other wildlife, especially raptors, bats, and desert tortoise; and b) sensitive areas where there is comparatively greater biodiversity.
3. Develop management guidelines for climbing use in Snow Canyon State Park necessary to minimize impacts to the natural, historical and scenic resources of the park. This will include but not be limited to:
 - the use of a zoning scheme, or other climbing density/impact management tool;
 - consideration of closures in highly sensitive areas to protect wildlife;
 - organize a Climbing Advisory Team and a route establishment protocol;
 - establish a climber registration program, for the purpose of developing a climber's mailing list and for monitoring climbing activities in the park;
 - identify designated parking areas; and
 - plan for the signage and maintenance of designated access trails to climbing areas.
4. Ensure that climbing educational or interpretive programs address natural, historical and scenic resource protection in the park.
5. Maintain a standard of high quality, unique rock climbing experiences in the park.

Description of the Red Cliffs Desert Reserve

The majority of Snow Canyon State Park, including the heavily visited canyon floor and the prominent sandstone climbing cliffs, is located within Zone 2 of the Red Cliffs Desert Reserve, a 61,000 acre reserve managed to preserve the threatened Mojave Desert Tortoise and other species of wildlife contained within its boundaries. Established in 1996, the reserve is managed by Washington County in coordination with state and federal agencies. The management of the reserve is based on a jointly developed habitat conservation plan (HCP).

While Zone 2 restrictions anticipated recreational uses within Snow Canyon State Park, the HCP nevertheless places added scrutiny on the management of the park for the protection of wildlife habitat and biodiversity.

Biodiversity

Biodiversity is a key indicator of ecosystem health. Snow Canyon has a unique and varied flora and fauna which is a result of its location at an "overlap" of different biomes. Here both plant and animal species reach the limit of their ranges from the southerly lower/warmer elevations and the northerly

higher/colder climates. Contrary to what one might expect, the otherwise dry canyon contains an established riparian system and cottonwood overstory in a protected side canyon that is a critical for wildlife species including insects, amphibians, reptiles and birds.

A team of biologists (including the Washington County HCP administrator, a DWR aquatic biologist, and a biologist from the Washington County School District) developed preliminary maps identifying the park's most biologically sensitive areas for reptiles, amphibians, birds and mammals. Vegetative maps showing major community types are in the process of being reviewed for accuracy as well. Support for the inventory findings can be found in the *Final Biological Inventory Report, Snow Canyon State Park*, prepared by SWCA, Inc. in November 1996.

Based on their findings, a "sensitivity scale" ranking the park's biotic communities from 1 to 5 was developed. Management policies are based on this scale, with limited restrictions in the most durable areas (1-3), and increasing restrictions in the most sensitive areas (4-5).

Resource Monitoring

There is a need to efficiently manage the natural resources of the park, especially in association with its various sensitive species. The Snow Canyon State Park Resource Management Plan recommends that the park develop a resource monitoring program designed to determine if natural resources in the canyon are stable, deteriorating or improving in the face of anthropomorphic pressures. The program should establish simple, objective monitoring systems to identify real impacts from perceived impacts by using volunteer college and high school students led by professional biologists. The plan should also invite user groups to participate in partnership efforts to obtain community input and support.

Baseline documentation should be enhanced by compiling and examining historic photographs of the canyon to see what vegetation communities were like in the past, and current aerial photographs, including infrared analysis, should be taken to document "as is" condition for future comparison. In terms of biotic monitoring the park should conduct more scientifically based surveys for rare and threatened animals as well as those common to the canyon, and explore the possibility of University assisted projects to quantify recreation impacts.

The baseline sensitivity scale and management restrictions implemented in this plan should be re-evaluated on a regular basis and management guidelines modified as necessary to reflect either the opportunity for a reduction — or the need for increases — in zoning restrictions.

Climbing History

Although few records exist, it is likely that humans have been scrambling in Snow Canyon for many years. Currently, it is accepted that the original Snow Canyon State Park technical climb was *Will's Rush* (I, 5.6), on the west face of *Island in the Sky*.

First ascents of increasing difficulty were established from the late seventies to 1994, when a moratorium was placed on new fixed hardware. Few new routes have been done since that time.

There are currently about 180 known routes ranging from 5.2 (Nickel & Comb) to 5.12a (Meaty Bone) that include cracks (finger, hands, off-widths), chimneys, corners and faces (pockets, edges, ledges, friction and varnish rugosity). Face climbs are protected by bolted hangers or pitons. Belay/rappel anchors exist at the top of most pitches that are not walk-offs.

There are many types of fixed gear in Snow Canyon, ranging from 3/8" bolts with manufactured hangers, 1/2" angled pitons (pins) driven into 3/8" drilled holes, and 1/4" homemade anchors on rivets. The current standard is either the drilled piton or 3" by 1/2" expansion bolts with belay anchors comprised of bolted hangers connected by chains.

Scrambling and sport rappelling continue to be popular. Scouts, search and rescue groups and others rappel in the park. Bouldering (climbing relatively near to the ground without the protection of a rope, generally for practice and/or increasing skill on short, challenging problems) opportunities exist in the canyon, but it has not been known as a bouldering center.

Issues & Impacts Related to Climbing Use in Snow Canyon State Park

The planning process identified eleven impacts/issues related directly or indirectly to climbing; visual aesthetics; zoning; new route hardware; fixed hardware or bolt replacement; webbing and chalk; trails/erosion; vegetation; wildlife; Johnson's Canyon; safety and education; and commercial use.

Inventory of Current Fixed Hardware Placements

In order to provide a basis for future management decisions, the 1994 *A Guide to Climbing in Snow Canyon* serves as an accurate inventory or baseline of existing fixed hardware. Because of the ban on bolting that was in place since the publishing of the guidebook and the cooperation of climbers with that ban, very few additional bolts were placed in the last 3 years. Estimates by local climbers suggest that the guide book is accurate within 3 percent or less.

Management of Climbing Impacts

General Provisions

Registration. Climbers using Snow Canyon are required to register with park managers for the purpose of developing a current climber's mailing list and for monitoring climbing activities in the park. Registration forms are available at the entrance station and at local climbing shops. There is no fee for registration. Park management will maintain and update the list as needed.

Parking. Park in established parking areas only. Road side parking is prohibited for all purposes other than emergency parking.

Camping. Overnight camping is available in the park campground. Backcountry camping is not allowed within Snow Canyon State Park.

Altering Rock Surfaces and Damage to Vegetation. Chipping, drilling, gluing, manufacturing holds, any other damaging alteration of the rock surface to provide climbing holds, or any other damaging practice such as forcibly prying off rock or destroying vegetation to enhance a route, are prohibited. The only alteration approved would be for safety reasons, as recommended by the Climbing Advisory Team.

Climbing within 24 hours of a significant rainstorm is discouraged in Snow Canyon due to the weakening of sandstone and the increased damage to vegetation that is a result of moisture levels in the rock and the soil. Both climber safety and impacts to park resources can be negatively effected.

Visual Aesthetics

Viewing the canyon and its associated resources is the main objective for many visitors to Snow Canyon State Park. Although some visitors may enjoy looking at climbers, some are disturbed by the visual distraction of brightly colored slings, ropes, anchors, and possibly chalk. Climbers themselves are readily visible to visitors through the central portion of the park. Slings are sometimes left on the rock and may occur in abundance at rappel stations. Belay/rappel stations and shiny bolts may detract from the natural appearance of the canyon, although they are often hard to detect. Chalk used by climbers to improve friction may be hard to detect in some locations, but on the more popular routes may be easily noticeable from the road.

Other visual impacts include litter and human waste. Small amounts of litter associated with climbers and hiker/climbers is most commonly found at the base of climbing routes or rappel stations. Currently, the visual impacts of climbing are not so significant as to warrant severe restriction. The implementation of the reasonable management policies included in this plan — including zoning, camouflaging bolts and anchors, and careful location and maintenance of access trails — are sufficient to mitigate normal visual impacts. *Further restriction of visual impacts related to rock climbing should be considered only if the level of impact is determined to be inappropriate by the park manager when evaluated with comparable uses.*

Zoning

A zoning scheme has been developed for climbing use in Snow Canyon State Park that divides the park into five zones: High Impact, Medium Impact, Low Impact, No Routes, and Closed to New Routes. Park management and representatives of the local climbing community have agreed upon qualitative definitions which utilize performance criteria, rather than defining density in terms of numerical limits. The qualitative approach recognizes that appropriate restrictions should be based on *level of impact* which is a function of many variables. Failure to meet performance criteria may result in closure or other restrictions for the specific area where compliance is a problem.

Zoning Definitions and Criteria.

High Impact Climbing is the primary use of these areas, and is anticipated to cause significant impacts to biotic and abiotic resources. The impacts are considered to be acceptable since concentrating climbing activity reduces impacts to other areas (medium and low impact zones). The following performance criteria are intended to mitigate impacts as much as possible.

Performance Criteria:

- on a busy day, several climbing parties may be in the area;
- adjacent routes may share the same starts and/or top anchors, but not common holds;
- trails to climbs are designated and impacts at base of routes are contained;
- fixed hardware is camouflaged and chains are used for anchor extensions, not webbing;
- periodic clean-ups of chalk residue are organized as necessary;
- climbers disperse at least 200 feet from area to urinate or climbers use a portable urine container, and human feces are packed out to an appropriate receptacle;
- new routes are established without removal of significant vegetation, and minimal pruning;
- vegetation shall not be used as belay anchors;
- the area is kept clean and trash free; and
- applications for new routes which cannot demonstrate compliance with these criteria will be denied.

High impact areas include: *The Doghouse, Clairvoyance, and Balkan Wall.*

Medium Impact Climbing is one of the uses in these areas, and though the impact of climbing on biotic and abiotic resources may be noticeable, it is minor and does not interfere with other park uses.

Performance Criteria:

- on a busy day, a couple of climbing parties may be in the area;
- adjacent routes are typically within easy walking distance, but do not share common anchors or holds;
- trails to climbs are designated and impacts at base of routes are contained;
- fixed hardware is camouflaged and chains are used for anchor extensions, not webbing;
- periodic clean-ups of chalk residue are organized as necessary;
- climbers disperse at least 200 feet from area to urinate, and human feces are packed out to an appropriate receptacle;
- new routes are established without removal of significant vegetation and minimal pruning;

- vegetation shall not be used as belay anchors;
- the area is kept clean and trash free; and
- applications for new routes which cannot demonstrate compliance with these criteria will be denied.

Medium impact areas include: north and south ends of *Island in the Sky* and *Wayne's World*.

Low Impact Climbing use of these areas produces minimal impact visually or physically to biotic and abiotic resources as well as scenic and historic resources.

Performance Criteria:

- climbers are in the area infrequently - usually no more than one party in the area at a time;
- routes are typically not near to one another;
- trails to climbs may be designated and impacts at base of routes are contained;
- fixed hardware is camouflaged and webbing is strongly discouraged;
- climbers disperse to urinate, and human feces are packed out to an appropriate receptacle;
- new routes are established without removal of vegetation, and minimal pruning;
- wildlife is not noticeably displaced by climbing activities;
- vegetation shall not be used as belay anchors;
- the area is kept clean and trash free; and
- applications for new routes which cannot demonstrate compliance with these criteria will be denied.

Low impact areas include: *The Enclosure, The Rookery, and West Canyon*

Areas closed to new routes due to existing high, maximum acceptable impacts include: *Johnson's Canyon, Circus Wall, Indian Wall,* and petroglyphs area of *Hackberry Wash*.

No routes shall be established in areas of the park not otherwise designated for climbing. The park manager, working with the Climbing Advisory Team, will periodically review the effectiveness of zoning and performance criteria in reaching the goals and objectives of this plan.

Special Management Area — Hidden Canyon

Hidden Canyon shall be a special management area because of the pristine nature of its biotic and abiotic resources. The climbing resources in this canyon are considered to be very high with great variety of climbing available. Park management recognizes that numerous routes may be developed within this canyon resulting in a high level of use and associated impacts. The canyon's remote nature reduces the visual impact of high use climbing on other park visitors.

Hidden Canyon's undisturbed and unique vegetation (redbud trees and other shade-tolerant plants), its aesthetic beauty and the opportunity for solitude that it affords are important resources. It is desirable for both park management and the climbing community to cooperatively manage climbing activity in the canyon with the goal of minimizing resource impacts while allowing for a high level of use. This presents an intriguing challenge.

Park management and the climbing community anticipate that a unique set of specific criteria and management guidelines will be required to meet this challenge. This is viewed by the climbing community as an important opportunity to demonstrate climber's shared concern for resource protection. Climbers and park managers see the management of Hidden Canyon as an opportunity to develop a creative and highly effective partnership using the Climbing Advisory Team model. The underlying test of successful management of Hidden Canyon is the long-term viability of the canyon's sensitive biological resources.

The park manager will work closely with the Climbing Advisory Team to develop initial management strategies, monitor impacts in Hidden Canyon, and to adapt management strategies to balance resource protection with use.

Climbing Advisory Team (CAT).

A Climbing Advisory Team shall be given the responsibility to review proposals for the placement of new or replacement hardware, including the approval or denial of new route proposals based on objective criteria, and for acting as an advisory body to mitigate potential conflicts between climbers and park managers. The CAT shall be comprised of at least 6 individuals, with representatives from the following: (1 or more) park management, (1) biologist, (1) search and rescue, and (3) climbers representing a diversity of climbing styles.

Members of the CAT shall be selected by the group which they represent. Annually, the CAT will review and reconsider its membership to provide opportunities for representation to rotate and for new individuals to serve on the team.

At the first meeting(s) of the CAT, the team members shall 1) determine annual route quotas, 2) develop procedures for receiving, reviewing and approving/denying proposals, 3) define objective criteria by which to approve or deny proposals for new or replacement fixed hardware, 4) review and determine locations for designated access trails to climbs; 5) choose a meeting schedule, and 6) develop a grievance procedure and/or plan for resolution of conflicts between climbers and park management. Decisions of the CAT shall be made by consensus, although State Parks has veto authority. It is strongly recommended that State Parks avoid making unilateral decisions with regard to climbing policy.

It is anticipated that the role of the CAT is very important to the effective implementation of the Climbing Management Plan. The CAT is the embodiment of the partnership between climbers and park management contemplated by this plan. It is the forum for shared decisions which guide the cooperative management of climbing use in Snow Canyon State Park.

Park management and climbers agree that desired outcomes of managing new route establishment include 1) a sustainable growth rate and 2) preservation of natural, historical and scenic resources.

New Route Hardware

All new hardware proposed to be placed in Snow Canyon State Park shall be required to be recommended by the Climbing Advisory Team and approved by park management as further described below.

Fixed protection (bolt and pitons) allows for the relatively safe exploration and challenge of new routes that cannot be adequately protected with other means. However, fixed protection is also, undeniably, a permanent human-made alteration of natural resource features. Alterations to natural resource features in Snow Canyon State Park must be carefully considered and managed to preserve the quality and integrity of the resource. The experience of all park visitors, both present and future, must be considered in any alteration to accommodate use. The balance of use and preservation should favor preservation.

Zones have been established to allow for a limited amount of fixed protection to continue to be placed. Through zoning and impact restrictions, approved fixed protection placements are considered to be an acceptable alteration of the resource, similar to other alterations to accommodate use.

Hardware or Bolt Replacement

Numerous pieces of fixed safety hardware now exist in the park. These pieces designed to protect climbers are in various states of disrepair. This old hardware is a safety concern for both the park and the climbing community. It will continue to be the responsibility of climbers to use good judgment as to whether to use existing hardware and/or use other methods to supplement their safety needs (e.g. chocks, cams, top rope, etc.).

Replacement of hardware by the climbing community will be allowed. Individual climbers must obtain approval from the park to replace hardware. Climbers must identify where and when replacement is to occur and follow these basic tenets:

- Bolts, pitons and chains should be permanently camouflaged so as to blend in with the color of the surrounding rock.
- Elimination of unsightly chains, cable and slings is preferred.
- Bolt design must be generally approved by the climbing community.

Labor and material costs must be borne by the climbing community. The park encourages the community to camouflage existing hardware, even if it does not need to be replaced. All hardware needing to be upgraded and placed in a new location must follow the team approval process.

Power Drills and Bolting Styles. It is the consensus of the Snow Canyon climbing community that the use of power drills and the choice of whether to bolt from the bottom-up or the top-down should be made by the individual placing any fixed anchors *which have been recommended by the CAT and approved by the park*. With other methods in place to restrict quantity and assure quality of climbs, the resulting impact to the resource is considered to be the same regardless of the style used to place the anchors.

Park management is committed to this free choice approach as long as it addresses park concerns for managing impacts to the natural, historical and scenic resources in the park and does not lead to undesirable or unanticipated proliferation of climbing routes in the park.

Webbing and Chalk

Webbing. The replacement of webbing with camouflaged chain or rings is expected to be initiated immediately and to be accomplished within the first two years following implementation of the plan to reduce the visual impacts of anchors.

Chalk. Chalk is widely used to assist climbers. Chalk functions to increase friction between the rock surface and the climber's hands. Chalk helps reduce the fall potential on a challenging route.

The most popular form of chalk is magnesium carbonate, which is white. White chalk is most commonly associated with indoor gymnastics. The most pronounced impact in an outdoor setting is chalk's contrasting color with the natural rock surface.

Chalk's effect on the rock or the leaching effect it may have onto nearby vegetation or soils is unknown. Further research in this area is needed.

Studies at other climbing areas have demonstrated that normal weathering processes such as wind and precipitation remove most chalk, thereby diminishing long-term effects on as much as 90 percent of the rock faces. The remaining 10 percent of the rock faces resist weathering because of protection from overhangs or angle of exposure.

Park staff will promote a prudent chalk use ethic. Climbers will continue making their own choices regarding the use of chalk, although the park manager encourages climbers to not use it. Educational efforts will be aimed at encouraging minimum chalk usage and the brushing off of routes when rappelling or lowering down a climb. In addition, regular volunteer clean ups of visual problem areas will reduce this temporary impact. The park will work with community, retailers and individuals to promote prudent use (see education pg. 13) which fosters individual responsibility.

The impacts of chalk on the rate of erosion of the rock surface and its impacts on surrounding vegetation will require further study. If magnesium carbonate or the chemical make-up of earth-toned, colored chalks proves to have a significant effect on the rock surface or nearby plant communities, then a total ban on all chalks might be necessary.

Trails/Erosion

Access to the base of many climbs in the park necessitates hiking through fragile desert scrub vegetation. In a few areas of the park there is no clearly defined path to access climbing routes. As a result, climbers often unknowingly take several paths to access the same climbs. Braided trails result in and speed erosive processes.

Active trail management is necessary to control the erosion and loss of vegetation. A preliminary biodiversity inventory of the park has been completed to assist with the development of the Snow Canyon Resource Management Plan. Appropriate actions will be taken to protect threatened or endangered plants or plant communities, critical wildlife habitat and highly sensitive areas identified in the survey.

Mitigation of vegetation trampling and soil erosion will occur by designating, signing and maintaining approach trails from the road to the base of the cliffs. All work will be coordinated and supervised by the park. Maintenance of the trails will be a cooperative effort between the park, climbing organizations, and local groups. The Access Fund has pledged to help fund, construct and maintain climbers' trails at Snow canyon; they regularly contract with one of the country's leading trail builders to design and build low-impact, volunteer labor trails at climbing areas.

Education and signing will play a key role in reducing trail impacts. Non-climbers will be discouraged from using access trails leading to technical climbing routes. Generally, climbing access trails will not be improved to normal hiking standards, they will be dead-end routes, and use by non-climbers would increase the impacts to vegetation and wildlife which park management is attempting to reduce. Where erosion, vegetation damage, or habitat disturbance potential is extreme and unmanageable, a total closure or severe restriction on access may be necessary.

Vegetation

The biological inventory prepared by SWCA, Inc. identified 8 different vegetation communities within the park, using aerial photographs, geology maps, Utah GAP analysis GIS files, and field investigations: Creosote Bush; Sand Dunes; Sand Sagebrush; Shrubs; Big Sagebrush; Pinyon-Juniper; Blackbrush; and Riparian. With elevations ranging from approximately 3100 to 4800 feet and diverse soil types, varied conditions result in the diversity of vegetative types. During field surveys, a total of 80 species were observed within the park, of which 94% were native.

Wildlife

Active trail management should allow for displaced small mammals, reptiles and birds to relocate. Sparse vegetation generally does not provide adequate cover and food sources for larger mammals. There is a high probability that larger mammals are not currently being displaced by climbers.

Developed trails exist through dry washes which are biotically important areas especially after rain events. Trail management will reduce future wildlife displacement or reduction of habitat quality in these important but durable areas.

The SWCA, Inc. biological inventory recognized twelve species of special concern known or expected to occur in Snow Canyon including: the desert tortoise, the gila monster, chuckwalla, sidewinder, Utah banded gecko, Merriam's kangaroo rat, kit fox, peregrine falcon, ferruginous hawk, western bluebird, Crissal thrasher and loggerhead shrike.

If peregrines (or other raptors of special concern) are found to be nesting or attempting to locate nesting sites within Snow Canyon State Park in areas that are found to conflict with technical climbing activities, park management shall develop a reasonable policy for seasonal cliff management using the recommendations outlined in *Raptors and Climbers: Guidance for Managing Technical Climbing to Protect Raptor Nest Sites* published by the Access Fund.

Johnson's Canyon

Access to Johnson's Canyon was closed in 1994 by the private landowner due to liability concerns. Snow Canyon State Park is negotiating for the property and it is hoped that this biologically rich and scenic canyon will soon be a part of the park.

Johnson's Canyon, unlike any other area of the park, benefits from a perennial flow of water and is considered extremely sensitive because it is associated with an established overstory riparian community. Because of the biological significance of Johnson's Canyon, all use of the canyon will be strictly controlled.

Climbers have stated an interest in accessing a few existing high-quality climbs within Johnson's Canyon. In order to accommodate this use, Johnson's Canyon will be open to a limited number of climbers *on existing routes only* during the winter months, November 15 - March 1 annually. This window reduces impacts to the Mojave Desert Tortoise and other reptiles which hibernate during this period, as well as reducing impacts on unique species that breed in or near the riparian habitat. Raptors are not as vulnerable before beginning nesting behavior in March. The winter months are also dormant months for fragile forbes and other vegetation critical to wildlife.

Registration will be required prior to climbing in Johnson's Canyon during the three and one -half months that it is open, and only a limited number of authorizations will be issued. If monitoring the condition of the canyon indicates that there are either 1) significant additional biological concerns, 2) non-compliance with seasonal restrictions, 3) user conflicts or 4) aesthetic concerns, a total closure of Johnson's Canyon to climbing will be considered. For more information, contact the park.

Climbing in Johnson's Canyon during any other time of the year is prohibited. Climbing on Johnson's Arch is prohibited year-round.

Education and Safety

Education. A management program that focuses on education and minimizing impacts related to use can reduce the need for regulation, strengthen community support and foster responsible behavior. Educational messages targeted at climbing activities should include information on care of the resource, climber safety and management objectives.

In order to achieve educational outcomes, the following actions are recommended:

1. Work with local climbers to develop an informational brochure for broad distribution. The brochure should include information on climber safety, care of the resource and management objectives. Emphasis should focus on personal responsibility and minimum impact techniques.
2. Work with local retailers to distribute a Snow Canyon informational brochure, and encourage their efforts to promote low impact techniques and climbing safety.
3. Promote the climbers code of ethics developed by the local climbing community.
4. All commercial guiding and instruction within the park will be required to operate under a concession contract and to practice and teach low-impact climbing techniques.
5. New trailhead markers and signs will be installed to communicate park values to climbers and non-climbers. This should also include interpretation of climbing activity and geologic resources to the general public.
6. Rangers will communicate park objectives through impromptu interpretive discussions with all park users.

Safety. There are a number of safety risks associated with rock climbing. Among the causes of accidents are climber error, equipment failure and environmental conditions, such as rockfall and adverse weather. Most of the accidents are minor and go unreported.

Risk is an inherent aspect of climbing which climbers seek to varying degrees. Some climbers feel that closely spaced anchors detract from the feeling of challenge and risk that they prefer (while other climbers feel just the opposite, that closely spaced anchors enhance their experience). The level of risk and benefit to the climber are similar to that sought by participants of other forms of risk recreation.

Climber error is the greatest cause of accidents in rock climbing. Contributing factors include inexperience and carelessness. The risk of possible human error applies to technical rock climbers as well as other park users who scramble on the rocks.

First ascents or attempts with no prior knowledge of a climb usually pose higher risks. In most cases, climbers attempting new routes are very experienced. Accurate reporting of routes reduces the risks associated with the unknown on previously climbed routes.

No instances of bolt failure have been recorded at Snow Canyon, although the potential will increase as fixed anchors age, or are subjected to repeated use-induced stress. The responsibility for maintaining fixed protection continues to rest on the climbing community. There has been some proactive interest by a few climbers to establish an anchor maintenance program. Within the guidelines enumerated in this plan, the park allows the replacement of existing anchors by a group or individuals.

The Utah Division of Parks and Recreation recognizes that climbing poses personal risk to the participants and that climbers bear the sole responsibility for their own safety while pursuing the activity. It is not the intent of this plan, nor of the implementation of any climbing management program at the park, to attempt to judge or physically control safety as it relates to rock climbing, rock climbing equipment, or conditions present on any climbing routes within the park. Management does have the authority, however, to close areas to the public due to specific hazardous circumstances.

Commercial Use

Commercial instruction and guiding shall be tightly controlled as an appropriate commercial use of the park. A commercial use permit shall be required. It is anticipated that permitted guide services will be limited to minimize the impact on public climbing use. Additional qualifications and conditions for permitting commercial climbing instruction and guiding will be developed consistent with other appropriate commercial uses.

Commercial events such as competitions will generally be discouraged. Similar climbing events in other areas have caused unnecessary damage to soils, vegetation and natural features.

Appendices

Refer to climbing map in section 9 — tables and maps.

