

memorandum

DATE: July 15, 1989

REPLY TO
ATTN OF: District Ranger, RMD, SAGU

SUBJECT: Chiva Fire Resource Protection Plan

TO: Chief Ranger, SAGU

OVER VIEW OF THE CHIVA FIRE:

The lightning- caused Chiva Fire began on July 5, 1989 and was declared controlled on July 11, 1989. The fire burned a total of 9,580 acres of which 7,500 acres is within the Rincon Mountain District of Saguaro National Monument (see enclosed map). Fire behavior was extreme with particularly intense burning in the Pine Canyon drainage which flows north from Cowhead Saddle.

OBJECTIVES:

If public access is not carefully controlled during the early stages of natural recovery we expect the rapid proliferation of "volunteered" or "rogue" trails, excessive soil erosion and retardation of natural plant recruitment. Use of the Douglas Springs Trail will also accelerate erosion and make repairs and replacement of trail much more difficult.

The primary objective is to educate the public through information and interpretation reasons, why there are imposed restrictions on access into the Chiva Fire burn area.

The secondary objective is enforcement of the imposed restrictions of illegal entry into the Chiva Fire burn area by means of law enforcement patrols.

RESOURCES AVAILABLE:

The following is a list of resources that are available and may be used for visitor information, visitor interpretation, and protection of the Chiva Fire burn area:

- Rincon Mountain District/Tucson Mountain District Visitor Protection personnel.
- Rincon Mountain District Volunteer Horse Mounted Assistance Unit personnel.
- Helicopter operations (air patrol).
- Rincon Mountain District Fee Collectors.
- Interpretive personnel from the Rincon Mountain/Tucson Mountain Districts Interpretive Division.
- NPS Protection horse patrols.
- Maintenance Division to maintain informational, interpretive, and restriction access signs.

ACTION PLAN:

- Assign volunteers and NPS personnel at key locations of access to the Chiva Fire burn area to provide information, interpretation, and monitor limited access during the peak visitor use activities.

- Monitor the implacement and condition of informational and restrictive access signs.
- Enforce Title 36, Code of Federal Regulations on restrictive access posted area.
- Document number of visitor contacts on a daily basis.
- Document number of manhours expended in providing information, monitoring, and law enforcement activities.



Loren S. Whitehead
District Ranger

Original: Chief Ranger
cc: District Files

DRAFT

July 14, 1989

Memorandum

To: Regional Director, Western Region

From: Superintendent, Saguaro National Monument

Subject: Chiva Fire Rehabilitation

The lightning-caused Chiva Fire began on July 5, 1989 and was declared controlled on July 11, 1989. The fire burned a total of 9,580 acres of which 7,500 acres is within the Rincon Mountain District of Saguaro National Monument (see enclosed map). Fire behavior was extreme with particularly intense burning in the Pine Canyon drainage which flows north from Cowhead Saddle.

An Interagency Rehabilitation Team was formed on July 7, 1989 and produced an excellent report (enclosed). Largely because of their reconnaissance, discussion and thought the following actions have been, or will very shortly be, completed:

1. Rehabilitation of fire suppression effects (e.g. water diversions of firelines, trash collection, repair of firefighter access routes, fire camp site repairs, etc.) is 90% complete. Elimination of firelines at numerous places where they cross trails will be done after the fire is declared out.
2. Repairs to the six miles of boundary fence between Saguaro and the Coronado National Forest will be handled by the USFS. Priority is being given to the western 1.5 miles of fence because a range allottee is about to put cattle on the Forest in this area. Cattle grazing is permitted just north of the monument boundary along the entire length of the fence.
3. No watershed rehabilitation (e.g. seeding and water diversion structures) will be done within the monument. However, the Forest Service will seed approximately 300 acres of USFS lands with a mix of native grasses. They will also install diversion structures to reduce siltation of livestock water ponds located on active grazing allotments.

The balance of the rehab workload - and by far the greatest challenge - involves controlling public access and replacing lost recreational facilities in the burned area between Tanque Verde Ridge and the Monument Boundary.

Controlling Public Access

The burned area is immediately accessible to residents of the City of Tucson via trailheads at the east ends of Speedway and Broadway Boulevards, multiple points off the Cactus Forest Loop Road and from the Tanque Verde Ridge Trail. If public access is not carefully controlled during the early stages of natural recovery we expect the rapid proliferation of "volunteered" or "rogue" trails,

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excessive soil erosion and retardation of natural plant recruitment. Use of Douglas Springs Trail will also accelerate erosion and make repairs and replacement of trail tread much more difficult.

We have initiated the following program to address this important component of our rehabilitation effort:

1. Proactive media campaign. All major local television networks and daily newspapers have been given personal tours of the burned area. They have provided considerable coverage of natural recovery, public closures and rehabilitation plans.
2. Public Closure. At one point during the fire, the entire Rincon Mountain District (except for the Visitor Center) was formally closed to public entry under emergency closure authority. At this point, only the burned area north of Tanque Verde Ridge is closed. I plan to convert this emergency closure into a temporary (not to exceed one year) closure.
3. We are producing a Site Bulletin. It will address the fire, natural recovery, planned rehabilitation and the closure. This site bulletin will be widely distributed and will also be converted into fiberglass inbedment or laminated signs for posting at all prominent access points.
4. Guided interpretive walks into the burn area. We plan to conduct at least two of these walks per week beginning July 22, 1989. Details such as specific route, limits on the number of participants and program outline are being developed right now. As soon as practicable we will use our VIP workforce in conducting this effort. Important points such as natural succession and recovery, fire management alternatives such as wildfire suppression and prescribed natural fire, and the need to minimize human impacts during the early stages of natural recovery are sure to be covered.
5. Enforcement. While the efforts detailed above should minimize the need for patrols and response actions, we will carefully monitor the area to make certain that the area closure is enforced.

Given the critical nature of these human impact control efforts to ensure recovery from fire effects in the burn area, we plan to charge all costs beyond base expenditures as rehabilitation costs. Assuming the use of VIP's to handle user burn area tours in excess of two per week and minimal enforcement needs we estimate these charges will not exceed \$30,000.

Rehabilitation of Recreational Facilities

As the enclosed photos show, the trail between Douglas Springs and the western perimeter of the burn area was severely impacted, the Douglas Springs Wilderness Camp Area was completely destroyed and the 2.5 mile trail from Douglas Springs to Cowhead Saddle can not be restored and held in its present location.

These wilderness recreational facilities are extremely popular. In 1988 some 1,530 visitor nights were recorded by backcountry permit at the three-site Douglas Springs Camp Area while 14,294 pedestrian and 8,216 equestrian day use

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entries were recorded for the Speedway Trailhead entry point alone.

Nearly all wooden water bars were completely consumed by the fire and the intense heat of the fire cracked, weakened or displaced many rock water bars. Only the metal campsite sign remains at Douglas Springs. The trail from Douglas Springs to Cowhead Saddle climbs 1400 vertical feet in only 2.5 miles. The old trail travels directly up the Pine Canyon drainage. Because the fire totally consumed all ground fuels and killed all trees this trail can not be improved and held in the bottom of the creek. It must be improved and relocated. All substantial relocations will require full cultural resource (106) clearance as well as preparation of an environmental assessment.

Our Facility Manager used the Denver Service Center Class C Estimating Guide modified by our actual experience in trail rehabilitation over the past two years to arrive at the following cost estimates:

Burn Perimeter to Douglas Springs: 5.5 miles @ \$30,500/mile = \$167,750

Replace Douglas Springs Camp Area: \$30,000

Douglas Springs to Cowhead Saddle: 2.5 miles @ \$30,500/mile = \$76,250

Again, we plan to charge all costs beyond base expenditures as fire rehabilitation costs. Due to the hot temperatures which substantially reduce work crew efficiency and increase field support costs this time of year and the difficulty of securing experience trail maintenance personnel during this time of the year we do not expect to initiate full scale rehabilitation efforts until early this fall.

Monitoring

Baseline monitoring of vegetative recovery and succession in the burn area, through permanent photopoints and transects, is very important. A monitoring plan is under development. In addition, this fire presents a special opportunity to determine fire effects upon saguaro mortality. The fire burned at moderate to extreme levels through approximately 1500 acres of saguaro range. This too will be monitored.

The costs of this monitoring program, so long as they remain relatively modest, will be borne by base park operating funds.

Summary

The Chiva Fire had considerable impact upon the natural resources and recreational facilities within Saguaro National Monument. Rehabilitation is dependent upon the control of entry by residents of the adjacent urban area so that natural recovery can take place as well as extensive trail rehabilitation and relocations. Costs in excess of base operating funds, which are projected to exceed \$300,000, will be borne by emergency fire rehabilitation accounts and are expected to be made largely in FY90.

A monitoring program, emphasizing the study of saguaro mortality in response to fire, will be initiated using base funding.