

(Submitted in '97 without action, but perhaps should be reviewed again for possible implementation with Sandy Graban's report)

Project Proposal

Name: LeConte Canyon Drift Fence Relocation

Location: LeConte Canyon, Kings Canyon Backcountry

Prepared by: George Durkee 10/1/97

Statement of Project:

Eliminate Ladder and Stillwater drift fences as ineffective and unnecessary. Relocate Big Pete drift fence to lower portion of Big Pete meadow in order to protect meadow areas closed to grazing under current regulations (but not protected by current Big Pete fence), otherwise eliminate Big Pete fence as unnecessary as well.

Purpose and Need:

Between Big Pete Meadow to the north and Stillwater Meadow to the south, there are 4 drift fences in 6 miles of the John Muir Trail (Big Pete, Dusy/JMT junction, Ladder, & Stillwater). They are an esthetic and physical intrusion on the wilderness qualities of Kings Canyon and are the subject of 2-4 hiker complaints per week. Three of them do nothing for resource protection, even indirectly (Big Pete, Ladder and Stillwater); two of those are completely ineffective at holding stock (Ladder and Stillwater) and therefore not even "for the convenience of stock users" as classified by the '86 Stock Use classification of drift fences. Stock do not even use camps anywhere near the Stillwater fence anymore and haven't for probably 20 years (closest current stock camp is Deer Meadow, 2 miles away). As such, the Ladder and Stillwater fences should be completely removed as unnecessary.

Current Grazing Regulations (1986 revision) list the "upper, wooded portion" of Big Pete as closed to grazing. This regulation was established to protect the fragile and constantly wet sphagnum portion of the meadow from grazing damage. Only about 1/10th of the entire Big Pete meadow is ever dry enough for grazing--it is, essentially, a marsh. However, the existing fence does not keep stock out of any portion of the meadow and the current regulation is unenforceable. This closed section of Big Pete receives continual grazing and mechanical damage from trampling. In fact, the existing fence keeps stock **in** Big Pete meadow, denying them forage below as well as increasing grazing pressure on Big Pete..

This action was first recommended by Sumner (1940): "...eventually it [Big Pete fence] may have to be removed to discourage further overgrazing." Thede (1961) repeated this recommendation: "...recommended that the drift fence between Upper LeConte Meadows and Big Pete be removed." Neuman and McClaren (1987) added: "... although the wooded portion...was closed to grazing in 1986, no form of protection is evident. If the intent to keep the wooded portion of the meadow ungrazed is serious, some attempt at an enclosure should be

made.” Neuman and McClaren also pointed out that: “The meadow is not well suited for stock grazing, although the abundant associated forage [nearby dry benches and lower stringer meadows] could compensate for the marshy conditions in the open meadow.”

In addition, stock have created 3 “dust wallows” (10 to 15 feet in diameter and up to a foot deep) adjacent to the meadow and on the JMT. They seem to be increasing in size and destroying more of the surrounding dry meadow. The existing Big Pete fence (1/2 mile below the meadow), then, should be moved to the very lower edge of Big Pete (to protect the sphagnum meadow section of Big Pete and allow recovery of the wallows). Otherwise it should be removed as unnecessary in its present location.

(References from current Forage Guide).

Alt. A (preferred):

Remove Stillwater drift fence (approx 50 feet)

Remove Ladder fence (approx 100 yds.)

Remove existing Big Pete fence and relocate to protect Big Pete meadow (approx. 200 yds.)

Alt B (no action):

Hey! No action is what we do best.

Environmental Consequences:

Alt A:

Vegetation:

Stillwater: no adverse or positive impact foreseen. The area from Deer Meadow (current stock camp) to the existing fence have shown no grazing use for years nor has the section below (west) been used in 20 years.

Ladder: stock in the Ladder area may drift upcanyon. Grazing would be dispersed, rather than concentrated, thus a possible overall positive effect on vegetation

Big Pete: relocation of present drift fence would effectively close Big Pete proper to grazing (as specified in regulations). Mechanical impact by horse hooves would cease (6" to 8" holes in most wet sections): concentrated grazing of wet sections would cease, allowing a normal growth and flowering; dust wallows would be allowed to recover to meadow. However, grazing pressure would increase on the drier benches nearby and the meadows below. The drier benches, though, are more able to withstand grazing.

Wildlife: It is slightly possible that deer and bear can be injured by wire as they attempt to go through fences. To the extent fences interfere with the travel of deer and bear, that interference would be eliminated. The effect of stock grazing on native wildlife is completely unknown, having never been studied. To the extent that grazing in Big Pete interferes with the normal life cycles of native species (habitat destruction; destruction of burrows; competition for food) that effect would be eliminated there, but perhaps increased in the nearby meadows, though likely more dispersed.

It is worth noting that Belding Ground Squirrels have completely disappeared from Little Pete Meadow (where grazing is allowed) since my last tour at LeConte in '84. They seem to have

increased significantly in Dusy Basin (where grazing is no longer allowed). The relationship between Beldings and stock use has never been examined but may be significant where the native species exists on marginal habitat (stock collapsing tunnels and competing for food). In the case of Beldings, this also may have an effect on the range of the Yosemite Toad, since the Toad uses Belding tunnels for part of it's life cycle (Roland Knapp, pers. comm.)

Cultural Resources: Slight changes in grazing patterns may disturb archeological sites, though I know of none that aren't already in areas receiving significant stock use.

Water Resources/Flood Plains/Wetlands:

Stillwater & Ladder: No anticipated effects.

Big Pete: Elimination of severe mechanical impact in very wet meadow sections. Studies have established that stock use can increase soil compaction and thus increase runoff, allowing less penetration of water into the soil. Under the proposal, this potential is eliminated and Big Pete meadow allowed to evolve naturally.

Soils/Geology:

Stillwater & Ladder: Elimination of stock use trail along Ladder fence as stock graze up to edge of fence.

Big Pete: Elimination and recovery of dust wallows in protected area of Big Pete.

Visual Resources: Fences are an intrusion on wilderness esthetics. Proposal would eliminate half of fences in LeConte canyon and a source of visitor complaints. With Big Pete grazing regulations enforced, visitors would be able to see Big Pete flora allowed to go through it's natural life cycle (green shoots to tall grasses nodding with seed) uninterrupted by stock trampling and foraging.

Visitor Use and Safety: Stock users will argue that they'll have to chase their animals farther. In 5 seasons of experience, I don't believe this to be the case. Stock at Deer Meadow stay there and don't even go down to the Stillwater fence (2 miles west); stock at Ladder camp may drift up to Little Pete, but only 2-3 parties a year use this camp anymore; stock at Grouse Meadow stay there and don't go up to the Ladder fence (1 1/2 miles north); stock below Big Pete camp may drift down to Little Pete (1 mile south from camp), but probably not often. Big Pete stock don't go down to the existing drift fence (no use trails along it), nor do they go north on the JMT, which they could easily do now.

Alt. B (no action taken):

Veg. Continued stock induced damage of unknown extent to Big Pete flora; continued damage to sphagnum moss in meadow; continued (but unknown) effects of grazing on evolution of plant community and meadow; continued and probable expansion of dust wallows along JMT.

Wildlife: continued (but unknown) effects of fences on wildlife; Big Pete: continued (but unknown) effects of grazing impacts on wildlife dependent on meadow ecosystem.

Water Resources: Continued severe mechanical impact on Big Pete Meadow.

Visual: Continued esthetic and physical impact on wilderness values of 4 fences in a short distance; continued severe visual impact of grazing effects in Big Pete Meadow.

Visitor Use & Safety: Continued backpacker resentment of stock users (hassle of opening & closing gates; reminder of special privileges stock users enjoy in Wilderness.)

Mitigation: A general grazing plan has to be worked out for the entire drainage. Allowable animal use nights have to be set to prevent overgrazing based not only on forage available, but on the esthetic impact of grazing. Currently, there are no limits except on the number of animals allowed per trip--none on how long they stay or how many trips are done. Fences exacerbate some of the overgrazing problems, especially at Big Pete, because they hold stock in one area rather than allowing use to be spread out.