



HIGH SIERRA HIKERS ASSOCIATION

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CERTIFIED MAIL
October 5, 2004

Richard H. Martin, Superintendent
Sequoia and Kings Canyon National Parks
47050 Generals Highway
Three Rivers, California 93271

SUBJECT: Comments on Draft General Management Plan and DEIS

Dear Superintendent Martin:

This letter transmits comments of the High Sierra Hikers Association regarding the *Draft General Management Plan and Comprehensive River Management Plan / Environmental Impact Statement (Draft GMP)* for Sequoia and Kings Canyon National Parks. The High Sierra Hikers Association appreciates this opportunity to submit comments for your consideration.

The High Sierra Hikers Association (HSHA) is a nonprofit public-benefit organization that educates its members, public officials, and the public-at-large about issues affecting the High Sierra, and that seeks to protect wildland values in the High Sierra for the public benefit. The HSHA represents thousands of citizens, many of whom use and enjoy both the "frontcountry" and "backcountry" areas of Sequoia and Kings Canyon National Parks (SEKI) for hiking, camping, backpacking, climbing, mountaineering, cross-country skiing, horse packing, wildlife viewing, photography, and other pursuits, as well as to seek solitude and quiet.

As detailed in these comments, our members' use and enjoyment of SEKI would be significantly harmed under the proposed action (i.e., the Draft GMP's "preferred alternative").

The HSHA submitted detailed scoping comments dated March 30, 1998, and April 9, 1998. Both scoping letters are incorporated by reference. I encourage you to review those comments along with this letter.

In sum, we are enormously disappointed that—after more than six years of work—the Park Service has produced a Draft GMP (and in particular a "Preferred Alternative") that

fails to address most of the key issues raised in our previous comments, that fails to provide adequate protection for the scenery and natural resources of SEKI as required by the 1916 Organic Act that created the National Park Service, that fails to preserve the wilderness character of the Sequoia-Kings Canyon Wilderness as required by the 1964 Wilderness Act and the 1984 California Wilderness Act, and that also fails to adequately evaluate a range of alternatives and the environmental impacts of those alternatives as required by the National Environmental Policy Act (NEPA). As discussed below, these failures render the document and its proposed action inadequate to satisfy legal requirements.

The Draft GMP/EIS needs to be substantially supplemented to address the relevant key issues. Our specific comments are as follows:

Stock use in sensitive high-elevation areas

SEKI's existing Master Plan calls for the phase-out of all stock animal use in SEKI's unique and fragile high-elevation areas. The Draft GMP proposes to eliminate that important programmatic direction. This would constitute a major change to existing programmatic direction, and the Draft GMP/EIS fails to even mention this fact, let alone evaluate and disclose the environmental consequences. SEKI's existing Master Plan states:

“Because of the damage resulting from livestock foraging for food and resultant trampling of soils, possible pollution of water, and conflict with foot travelers, use of livestock in the higher elevations for any purpose should be phased out as conditions permit...Livestock may be used in the lower elevations and around developed areas where it can be stabled and fed without open grazing on park lands.” (SEKI Master Plan, p. 24)

As requested by numerous commenters throughout this planning process, this existing Master Plan language should be retained and incorporated into the new GMP. Or, alternatively, the new GMP should be supplemented to provide equivalent or better protection of SEKI's scenery, natural resources and visitors' experiences when compared to the language of the 1971 Master Plan. At minimum, the new GMP/EIS must disclose the environmental consequences of discarding or weakening the existing programmatic direction (a NEPA requirement), and provide direction that avoids impairment of the scenery, natural resources, and wilderness character (as required by the Organic Act and Wilderness Act).

In contrast, the proposed action effectively eliminates this key Master Plan language without providing equivalent programmatic protection or any analysis or disclosure of the environmental consequences of discarding this language. This would be illegal, for the following reasons: (1) Removing the Master Plan's programmatic direction and substituting the proposed stock management scheme would result in significant impairment of natural resources, scenery, and visitors' experiences, in violation of the Organic Act, the Wilderness Act, and the California Wilderness Act; and (2) The DEIS

fails to take a hard look (or any look at all) at the environmental impacts of eliminating this current management direction, as required by NEPA.

Many research scientists have documented the significant, adverse impacts that result from recreational stock use. Whitson (1974) provides a good discussion of how horse impact differs from hiker impact. Dale and Weaver (1974) observed that routes used by horses were deeper than those used by hikers only. Trotter and Scotter (1975) documented deterioration of trails used by large horse parties. Weaver and Dale (1978) found that horses caused significantly greater trail erosion than hikers. Whittaker (1978) concluded that horses significantly increased the potential for severe erosion by churning soil into dust or mud. Weaver et al. (1979) found that horses caused more trail wear than both hikers and motorcycles. After reviewing the available literature, Kuss et al. (1986) concluded that: "Pack stock and horse travel is considerably more damaging to trails than hiking." More recent studies (e.g., Wilson and Seney 1994, Deluca et al. 1998) have confirmed these earlier studies, documenting that horses produce more erosion than hikers, bicycles, and even motorcycles.

Numerous studies have documented adverse impacts to meadows caused by recreation livestock (Cole 1977, DeBenedetti and Parsons 1979, Haultain and Das 2000, Merkle 1963, Nagy and Scotter 1974, Neuman 1990, Neuman 1991a-b, Neuman 1992, Neuman 1993, Neuman 1994a-b, Olson-Rutz et al. 1996, Schelz 1996a-c, Strand 1972, Strand 1979a-c, Sumner and Leonard 1947, Weaver and Dale 1978). In addition to the impacts outlined above, trampling and grazing by livestock are known to increase bare ground and soil compaction, and to contribute to streambank erosion, sedimentation, widening and shallowing of channels, elevated stream temperatures, and physical destruction of vegetation (Behnke and Ralieggh 1978, Bohn and Buckhouse 1985, Kauffman and Krueger 1984, Kauffman et al. 1983, Olson-Rutz et al. 1996, Siekert et al. 1985). Streambanks and lakeshores are particularly susceptible to trampling because of their high moisture content (Marlow and Pogacnik 1985). Unstable streambanks lead to accelerated erosion and elevated instream sediment loads (Duff 1979, Winegar 1977).

Of significant concern are the physical, or "mechanical," impacts that result to fragile high-elevation soils, meadows, and wetlands when these areas are trampled by recreation stock animals (i.e., horses and mules). The impact is severe because:

"A small bearing surface carrying heavy weight, a horse's hoof can generate pressures of up to 1,500 pounds per square inch." (Cole 1990)

When stock animals are released to graze in areas with low soil strength—such as is found throughout much of the SEKI high country—these high pressures can result in numerous deep hoofprints, broken sod, plant pedestalling, increased erosion, shifts in species composition, and even lowering of water tables. Many reports prepared by SEKI staff over the years have documented such persistent, ongoing damage (see DeBenedetti and Parsons 1979; Haultain 1999; Haultain and Das 2000; Neuman 1991b, 1992, 1994a; Schelz 1996d; Suk 1989, 1990, 1991; and SEKI's "case incident reports" #200835, 200836, 200842, 201491; and others).

The “opening dates” adopted by SEKI to reduce trampling impacts during the early summer season have **not** been effective at preventing significant, adverse impacts to meadows, streambanks, lakeshores, and wetlands (see references in preceding paragraph). Studies conducted at SEKI have documented some of the long-term effects of multiple deep hoofprints left by recreation livestock in high-elevation meadows (see “hoofprint impact study” in Neuman 1991b, 1992, 1994a). These SEKI reports clearly show that stock trampling of high-elevation meadows in SEKI results in long-term adverse changes in meadow ecology. For example, the SEKI scientist who conducted the studies concluded that the numerous deep hoofprints created by stock animals contributed to soil loss, declines in species diversity, and shifts in species composition. He concluded that:

“These changes may have occurred in imperceptible stages, remaining fully vegetated and showing only moderate impact at any given time during the process, but the result is undeniably a negative change in the meadow that can be considered permanent.” (Neuman 1994a)

Unfortunately, the studies described in the preceding paragraphs were discontinued in 1994, due to “other priorities.” According to SEKI staff, the hoofprint impact studies were discontinued in favor of developing a “residual biomass” monitoring protocol that managers hope will allow them to assign forage utilization limits to specific meadows. (We have detailed in previous correspondence, and incorporate by reference, our concerns regarding the inadequacy of SEKI’s residual biomass scheme, i.e., lack of statistical power to reliably detect change, absence of management standards to maintain meadows in an “unimpaired” condition, lack of practical means to implement and enforce grazing limits in remote settings, lack of ability to adjust limits before overgrazing occurs, etc.).

Aside from the shortcomings of the residual biomass (RB) proposal, we find it very disturbing that managers at SEKI seem so willing to divert their limited resources to “dividing up the pie” for stock users, while ignoring readily available evidence that continued grazing and trampling by stock in the fragile SEKI high country is causing significant ecological impacts. SEKI’s obstinate focus on RB monitoring is especially disturbing since SEKI scientists have reported clearly that the RB monitoring program cannot address the key issues of physical damage resulting from stock animals being allowed to graze in fragile areas.¹

¹ A June 2000 report by the SEKI Division of Science and Natural Resources Management states: “This very wet meadow...continues to receive use while soils are still saturated. Given the hydrologic regime of this meadow, these soils are likely to remain too wet to withstand stock use without resulting in a net loss of soil during runoff. Reconnaissance surveys in 1997, 1998 and 1999 noted deep, persistent hoofprints in the meadow adjacent to the stock camp and along the streambanks on both sides of the creek. As mentioned in earlier reports, it is important to note that these concerns are not related to residual biomass, but rather to physical damage to plant roots and soil erosion resulting from animals being turned out into very wet soils.” (Haultain and Das 2000, discussing Upper Colby Meadow, which to this day remains open to grazing.)

Please consider for a moment that your agency quietly discontinued a study (the hoofprint impact study) which concluded that stock trampling of high-elevation meadows is “undeniably” resulting in **negative** and **permanent** changes in meadows. And instead of investigating further (or paying any heed to the available results), SEKI staff appears to be moving forward, heads down, in an effort to implement a flawed RB methodology that NPS managers have indefensibly been touting as a panacea to grazing management issues at SEKI. We believe that this example illustrates the strong bias of SEKI managers to defend continued livestock grazing at all cost.

In an attempt to address these issues, reports prepared by SEKI scientists (Schelz 1996b, 1996c) recommend and support an **immediate** ban on grazing in “Production Class 1” (i.e., high-elevation) meadows in SEKI:

“All production Class 1 meadows should be closed to grazing. This includes all measured Class 1 meadows and all others within the elevation limits of this class. In other words, all meadows above 9700 feet should be closed to grazing...Class 1 meadows are our very sensitive high elevation meadows that generally do not receive much use...but they are so sensitive to disturbance that the little use they do get causes high impacts and the available feed is exhausted quickly.” (Schelz 1996c, emphasis added)

This recommendation by SEKI’s professional scientific staff should have been implemented immediately via an order of the Superintendent, yet it has languished for years and still has not been implemented. While the public has been told repeatedly that the Superintendent has the discretion and authority to rapidly adopt restrictions whenever necessary to avoid adverse impacts to park resources, this authority is rarely used when the interests of stock users may be affected. Quoting from a recent United States District Court ruling:

“...the evidence demonstrates that SEKI management’s discretion may be too heavily impacted by political factors to have a predictable ability to protect the environment...” *High Sierra Hikers Association v. Kennedy*, No. C 94-03570 CW (N.D. Cal. June 14, 1995)

In sum, the failure to take a hard look at the relevant factors, and the failure to conclude the obvious—that grazing is inappropriate in the high elevations of SEKI—can only be characterized as arbitrary and capricious. The Draft GMP is fatally flawed because it does not synthesize the readily available information about the impacts of stock use in high elevation areas (i.e., above 9,700 feet), it does not consider all of the many significant aspects of the environmental impact of the proposed action, and it does not inform the public that it has indeed considered environmental concerns in its decision-making process. And by discarding the protective language of the 1971 Master Plan in favor of an inadequate and politically driven regulatory scheme, it would result in significant impairment of SEKI’s scenery, natural resources, and wilderness character.

The studies and reports cited above and elsewhere throughout these comments are but a fraction of the available information that the DEIS fails to synthesize. Numerous other range management and ranger patrol reports are readily available in SEKI's own files and elsewhere that document significant, adverse impacts due to stock use in the high elevations of SEKI. See for example the many "end-of-season" reports prepared annually by SEKI's backcountry rangers, and other documents in the files of the Division of Science and Natural Resources Management.

Your DEIS should evaluate and synthesize all of the accumulated knowledge about the impacts of stock use at high elevations, and conclude that the programmatic direction contained in the 1971 Master Plan should be retained or strengthened, not discarded in lieu of the woefully inadequate regulatory scheme proposed by the Draft GMP. The only logical, defensible approach to this issue is to adopt programmatic direction in this new GMP that prohibits all grazing above 9,700 feet elevation throughout SEKI—as has been recommended for years by SEKI's own scientists and rangers.

Livestock grazing—parkwide

Nearly all of the impacts described and referenced above could be avoided by prohibiting grazing throughout SEKI (i.e., requiring stock users to carry feed for their animals), as is required in most other national parks. As shown in Exhibit A, many national parks throughout the United States have recognized the myriad impacts caused by grazing and trampling by stock animals, and have adopted bans on consumptive use (i.e., grazing) by domestic stock within national park boundaries. **We, and numerous other commenters, strongly advocate a ban on grazing by domestic stock animals throughout SEKI, as required in most other national parks.** There is simply no valid justification for allowing the known and significant adverse impacts to continue within SEKI when feasible alternatives readily exist. The convenience of a minority special-interest group (i.e., stock users) must not be allowed to guide such key park management direction.

Throughout this planning process, the HSHA and numerous other commenters have repeatedly requested full consideration and adoption of a "no grazing" alternative for all of SEKI. The Draft GMP/EIS violates the National Environmental Policy Act (NEPA) because it fails to evaluate and consider a "no grazing" alternative. NEPA very clearly requires consideration of a range of reasonable alternatives. The NPS needs to back up, and carefully evaluate and consider the environmental benefits of a parkwide "no grazing" alternative.

The Draft GMP/EIS fails to take a hard look at (or even mention) the abundant number of comments that requested consideration of a "no grazing" alternative. It fails to consider that a "no grazing" alternative would be entirely feasible and in the best interest of these parks. A "no grazing" alternative would allow administrative, commercial, and private stock use to continue (because stock users could carry feed for their animals). A "no grazing" alternative would avoid nearly all of the on-going impacts of stock grazing and trampling of meadows, wetlands, and lakeshores. A "no grazing" alternative would eliminate most of the direct inputs of stock manure and urine into surface waters.

Instead of evaluating a “no grazing” alternative, which is eminently reasonable and was advocated by numerous commenters, the Draft GMP/EIS instead includes a “no stock” alternative, which nobody advocated or even suggested. The inclusion of a “no stock” alternative (supported by no one), while ignoring the many calls for a “no grazing” alternative, is completely arbitrary. A “no stock” alternative would unnecessarily prohibit all stock use. It would even prohibit the Park Service from using stock animals for essential administrative functions, such as re-supplying trail crews, ranger patrols, and search/rescue operations. This would necessitate the use of motorized transport (i.e., helicopters) for many such administrative functions, in tension with the Wilderness Act. For these reasons, the “no stock” alternative is in truth so radical that it will not even receive serious consideration by Park Service decision-makers.

Why is this issue of such concern? First, a strict “no stock” alternative will never be selected (or even seriously considered), and it diverts attention from an entirely reasonable alternative that could eliminate most stock impacts while still allowing stock use to continue (i.e., no grazing). And second, the Draft GMP/EIS justifies the “preferred alternative” (i.e., continuation of current damaging stock use practices) by claiming that it is somehow environmentally superior to the “no stock” alternative. How can this be?

Specifically, how can all of the documented impacts associated with current stock use possibly be “environmentally preferred” when compared to no stock use at all? Table 2 (Vol. 1, pp. 77-78) tells us: Because a strict “no stock” alternative doesn’t allow stock use and would “hamper resource protection efforts.” This is a circular, disingenuous, capricious argument. The Draft GMP/EIS first puts forth a strict “no stock” alternative, and then concludes that it’s not desirable because it doesn’t allow stock use! The document appears to be crafted in such a way as to make meaningful change in SEKI’s archaic stock use practices appear infeasible.

What the Park Service needs to do at this point is to craft an alternative that allows stock use to continue, while also mitigating the known, documented, significant effects of that use. The best way to accomplish this is with a “no grazing” alternative.² The GMP/EIS simply cannot satisfy NEPA requirements without consideration of such an alternative.

Water Pollution

The Park Service does not effectively control the direct deposition (or surface runoff) of stock animal wastes into surface waters. Stock urine and manure deposited by grazing animals is known to contaminate surface waters in SEKI (Schelz 1996c, p. 22), and to contribute to the accelerated eutrophication of streams and lakes (Stanley et al. 1979). Increased nutrient inputs to surface waters is also known to adversely affect instream aquatic organisms and alter their community assemblages (USEPA 1999). Such impacts

² If the Park Service truly believes and can demonstrate that grazing by administrative stock is necessary for administrative “resource protection efforts,” then it should also evaluate an alternative that allows grazing by administrative stock to the extent necessary, yet which requires all commercial and private stock users to carry feed for their animals.

are a significant concern in the natural aquatic environments of SEKI, which should be protected from impairment.

Because stock animals that are released to graze openly on park lands deposit large quantities of manure and urine directly into surface waters, a “no grazing” alternative should consider the benefits of requiring that stock animals be tied and fed without open grazing on park lands. Packing feed and keeping animals tied up would avoid most discharges of stock manure and urine into surface waters.

The contamination of SEKI’s surface waters by livestock manure and urine violates State of California water quality standards (objectives)—in particular, objectives for nutrients, bacteria, and the nondegradation objective contained in the *Water Quality Control Plan (Basin Plan) for the Central Valley Regional Water Quality Control Board*. The State’s objectives for drinking water are violated because park visitors do not want to drink water when they see controllable discharges of stock manure and urine into them. The objectives for recreation are violated because park visitors are repulsed when they see direct discharges of stock manure and urine into surface waters. Visitors will avoid contact with the water, and their recreational experience is significantly impaired.

Regarding the State’s nondegradation objective, the California State Water Resources Control Board’s Resolution 68-16 (“Statement of Policy with Respect to Maintaining High Quality of Waters in California”) lays out mandatory requirements that apply to Park Service lands in California. State water quality objectives and policies, including Resolution 68-16, which must be adhered to by SEKI, require that specific, formal findings be made by State officials before water quality may be degraded by controllable sources such as direct inputs of stock manure and urine into park waters. These findings have not been made (or even discussed) in the draft GMP/EIS.

Livestock manure can also pollute water with organisms such as *Giardia*, *Campylobacter*, and *Cryptosporidium* which may be pathogenic to humans and other animals. Some “pro-livestock” interest groups often claim that recreational livestock do not spread these organisms, and that the strains of *Giardia*, *Campylobacter*, and *Cryptosporidium* spread by domestic livestock may not be infective to humans. Neither of these claims is substantiated. While the cross-transmission of enteric pathogens from stock animals is certainly controversial, there is ample evidence to demonstrate the potential for cross-transmission of these diseases between stock animals and humans. (see Bemrick 1968, Blaser et al. 1984, Buret et al. 1990, Butzler 1984, Capon et al. 1989, Davies and Hibler 1979, Faubert 1988, Isaac-Renton 1993, Kasprzak and Pawlowski 1989, Kirkpatrick and Skand 1985, Kirkpatrick 1989, LeChevallier et al. 1991, Manahan 1970, Manser and Dalziel 1985, Meyer 1988, Rosquist 1984, Rush et al. 1987, Saeed et al. 1993, Strandén et al. 1990, Suk 1983, Suk et al. 1986, Taylor et al. 1983, Upcroft and Upcroft 1994, Weniger et al. 1983, Xiao et al. 1993, Xiao and Herd 1994).

The contamination of surface waters due to stock manure and urine, and all of the resulting significant and potentially significant impacts to water quality (e.g., eutrophication, alteration of instream community assemblages, spread of diseases), could

be substantially avoided by a “no grazing” alternative, if such an alternative includes park-wide mitigation measures, such as requiring that all campsites for stock users be designated (away from water sources, on level and dry sites), and that stock animals wear diapers, which are now readily available (see Exhibit B), and could be emptied away from surface waters to minimize discharges of waste.

The Park Service might be able to make a case that such a stock management strategy could replace the Master Plan language without causing significant impacts. But it certainly can't make a credible case that the “preferred alternative” won't produce substantial impacts compared to the current programmatic direction (i.e., the Master Plan).

Aesthetic impacts—adverse impacts to park scenery and the “wilderness experience” (i.e., wilderness character)

The 1916 Organic Act that created the National Park Service establishes its mission:

“...to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

And the 1964 Wilderness Act establishes the Park Service's duty when managing designated wilderness:

“...each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character.”

The many members of the High Sierra Hikers Association (and other commenters) are very concerned about the myriad aesthetic impacts that result from stock use, such as the presence of annoying bells, dust, manure, urine, and flies; the proliferation of unsightly hoofprints and drift fences; and impairment of the scenery due to the unnatural appearance of meadows grazed by domestic stock (see Absher and Absher 1979, Cole 1990, Lee 1975, Stankey 1973, Watson et al. 1993).

In an attempt to rationalize the “preferred alternative” (i.e., continue stock use at “present levels”) the Draft GMP/EIS purports to analyze the many concerns about stock impacts in two sentences:

“Impacts of horse use (feces, eroded trails, dust) would continue to cause minor, adverse, long-term impacts on a small number of backcountry hikers, but increased regulation and stock-free areas would somewhat mitigate this impact. Monitoring, regulation, and education would gradually improve trail and backcountry conditions.” (Vol. 2, p. 274)

First, the Draft GMP proposes no new “stock-free areas” and no programmatic direction to establish stock-free areas (even though we have long advocated a ban on off-trail use by stock and the designation of a network of foot-travel-only trails). Second, case law is clear that monitoring does not—and cannot—constitute mitigation of environmental impacts. Third, the record is abundantly clear that SEKI’s regulation of stock use is inadequate to prevent ongoing significant adverse impacts, and the “preferred alternative” would essentially codify SEKI’s current deplorable regulatory scheme by tossing out protective language in the current Master Plan while requiring nothing new. And fourth, to claim (without any supporting evidence) that the impacts of stock use are “minor,” or that those impacts affect only “a small number of backcountry hikers,” is absolutely arbitrary.

One study in the Sierra Nevada found that 60 percent of groups surveyed thought that the use of stock was entirely inappropriate (Absher and Absher 1979). Another study found that 59 percent of visitors preferred not to meet horse users in the wilderness (Stankey 1973). Another study in Yosemite National Park found that the presence of horse manure, and facilities such as hitch rails, were key sources of visitor dissatisfaction (Lee 1975). A study in Rocky Mountain National Park showed that a majority of hikers who disapproved of horse use—57 percent of all users—did so because they disliked horse manure and urine, and the flies and other insects attracted to it (see Cole 1990). A recent study in Sequoia and Kings Canyon National Parks documents similar findings (Watson et al. 1993).

One key provision of the Organic Act directs the Park Service to protect the scenery of the national parks. Yet managers at SEKI continue to demonstrate complete reluctance to regulate stock use in any way to comply with this mandate. Put simply, park visitors have an absolute right to view park meadows (i.e., scenery) in a healthy, natural, unimpaired condition. Ranger Randy Morgenson perhaps said it best—that park visitors should have the opportunity to view:

“...knee-high grasses, ripe and open panicles drifting in the moving air, luminous-bronze in the backlight.” (Morgenson 1989)

Such an experience simply cannot be had in meadows that are open to grazing and trampling by domestic livestock. The Park Service needs to acknowledge this truth.

The year-end reports prepared by SEKI’s backcountry rangers should be a key source of information to your planning team. Those reports document many of the impacts discussed above, as well as complaints registered by the public. For example, one such report states:

“McClure Meadow is one of the most unique examples of an alpine meadow in the Sierra. Even after twenty years of fairly strict grazing regulations, it still shows much evidence of poor recovery....in the summer heat—even a week

after a stock party leaves—the entire meadow smells like a corral....a major source of complaints by hikers.”

The preponderance of public comments and other evidence readily available to SEKI staff show that the majority of park visitors who encounter stock impacts are significantly and adversely affected, and that the impacts of stock animals are “a major source of complaints.” The statement in the Draft GMP/EIS that stock impacts are “minor” and affect only a “small number” of park visitors are without any basis in fact. Such statements are false, and arbitrary, and render invalid the conclusions that the “preferred alternative” poses no significant effects and is environmentally superior to the “no stock” alternative.

Simply stated, SEKI’s current management paradigm is devoid of any serious consideration of scenic or aesthetic impacts. Your GMP/EIS should fully evaluate the impacts discussed above, and incorporate provisions into the GMP that will protect (and restore where necessary) the precious scenery and wilderness character of these majestic national parks. This should include careful evaluation and adoption of a park-wide “no grazing” alternative (as discussed above), programmatic direction allowing commercial stock use only to the extent necessary,³ and adoption of programmatic direction requiring other park-wide mitigation measures for stock use, such as designated campsites and horse diapers (see Exhibit B) to keep manure off trails and out of waterways and campsites. Programmatic direction to designate campsites for stock users would prevent sites used by hikers from being polluted with stock manure and urine. Programmatic direction to keep stock tied and to supply feed would eliminate the need for annoying bells and unsightly drift fences, and would prevent grazing and trampling impacts, and water pollution. Programmatic direction to designate a network of “foot travel only” trails would provide hikers who so desire with a “stock-free” experience (i.e., free of the manure, urine, flies, and dust characteristic of trails churned by stock). And direction to adopt lower group size limits based on scientific principles (see Cole 1989 & 1990, Watson et al. 1993) would reduce the substantial impacts of large stock groups on scenery, natural resources, the experience of other park visitors.

In the defense of continued heavy stock use in SEKI, the Park Service invariably recites the mantra of “historically and culturally significant,” which makes it sound as if stock users have grandfather rights to exploit these parks because they’ve been doing it for so long. But no one has such grandfather rights. There is nothing in the Organic Act, the Wilderness Act, or the California Wilderness Act that grants grandfather rights to any individual, group, or category of people to conduct activities harmful to the scenery, natural resources, or wilderness character of SEKI. Nor is there any language that

³ We suggest that the GMP provide programmatic direction to limit commercial stock use in SEKI only to those persons who cannot walk, hike, or carry a backpack. Using stock animals for comfort, convenience, or “fun” is not truly necessary, and due to the known significant adverse impacts, should be discouraged. Any unnecessary stock use should be confined to lower-elevation, non-wilderness trails that are designed, constructed, and maintained to fully withstand the impacts of stock use. Only the GMP can provide such programmatic direction.

specifies—or even permits—harmful commercial exploitation of SEKI by private interests for their own gain.

Impacts to wetlands

High-elevation meadows, due to their characteristic short growing seasons, saturated conditions from snowmelt, high ground water tables, and wetland-dependent plant communities, often meet the definition of jurisdictional wetlands. Unfortunately, the hundreds of meadows in the SEKI high country that qualify as jurisdictional wetlands have never been adequately disclosed or protected from the adverse impacts of stock trampling. (See hoofprint impact studies and other discussion above re: physical trampling impacts.)

Federal statute, regulation, executive order, and policy call for the protection and enhancement of wetlands. At minimum, the following items should be addressed in any GMP to be adopted for SEKI (see also NPS-77, “Natural Resources Management Guideline”):

- Inventory wetland resources in the SEKI wilderness as a part of the planning process. Clearly, many wetlands exist within SEKI. National Park Service policies (see NPS-77) require that wetlands be inventoried as part of the planning process in order to facilitate management of wetland resources. At minimum, the GMP should provide strong programmatic direction to protect wetlands area, functions, and values from the impacts of human activities, including stock use.
- Specify mitigation measures that will “avoid any action with the potential for adversely impacting wetlands.” In order to prevent loss of wetlands area, functions, or values due to livestock trampling of wetlands, this will necessarily include closures of sensitive wetlands (such as those exhibiting low “soil strength”) to all domestic livestock grazing. The current system of opening dates and grazing management at SEKI is clearly inadequate, because it allows trampling (i.e., numerous deep hoofprints, shearing of streambanks and lakeshores, etc.) to significantly impact wetlands. Hoofprint impacts have been shown to cause long-term ecosystem changes in wetland areas, as discussed above. A “no grazing” alternative could feasibly achieve the needed wetlands protection.
- Specify what actions will be taken to restore wetland functions and values where they have been harmed by previous human actions. Examples include: re-routing existing trails out of wetland areas where practical alternatives exist, and prohibiting all grazing in wetland areas that have been degraded by past livestock trampling.
- Specify “requirements for monitoring programs and other actions to ensure protection, enhancement, and successful restoration of wetland values to the greatest extent feasible.” The GMP should include a specific monitoring element

to track the progress of wetlands protection and restoration measures. The current monitoring programs at SEKI are incapable by design of detecting adverse impacts to wetlands caused by stock trampling.

Programmatic direction is clearly needed in the GMP if the broad federal and state wetlands protection requirements are to be met. Clearly, those mandates are not currently met; sensitive wetlands in SEKI continue to be significantly impaired by stock trampling, and the NPS needs to address this issue in its GMP.

Bearpaw Camp (and proposed new commercial camp on Hockett Plateau)

The ugly commercial camp at Bearpaw Meadow should be removed, and this planning process is the best time and place to direct its removal. The polluting camp is an affront to the national park, an intrusion on the wilderness, and requires continual massive inputs of high-impact maintenance, such as mule trains and helicopter flights. The camp creates adverse impacts due to sewage disposal, greywater disposal, food storage, helicopter use, stock use, noise, and impairment of the scenery.

In 1984—two full decades ago—Congress instructed the National Park Service to prepare a report on the impacts caused by the Bearpaw commercial camp. In defiance of the will of Congress and the American people, the Park Service has apparently never conducted the intended studies. Congress also asked the Park Service to regularly monitor environmental impacts at the camp, and to remove the camp if impacts ever increased above 1984 levels. In its House Committee Report on the 1984 Act that designated the SEKI Wilderness, Congress recognized the incompatibility of this “High Sierra camp,” and, in a rare move, deferred Congressional authority so that the Secretary of Interior may designate the enclaves as wilderness once the nonconforming developments are removed. This vision will never be realized as long as the Park Service continues to ignore Congressional direction and to blindly promote continuance of the Bearpaw camp.

Clear direction is needed to remedy this situation. Put simply, the GMP should direct that the Bearpaw camp be removed as soon as possible, and the site restored. At minimum, the GMP should require the following: (a) an independent study to document baseline conditions at the Bearpaw Meadow camp, funded by the Park Service and conducted under contract by a reputable third party (such as a California university), (b) a provision for mandatory monitoring (of parameters to be recommended by the initial study), no less frequent than every two years (under contract as in “a” above), and (c) a provision (without loopholes) that if any adverse environmental impacts resulting from operation of the Bearpaw Meadow camp should ever increase beyond those documented in the baseline study, that the camp will be promptly removed and the area immediately recommended to the Secretary of Interior and to Congress for wilderness designation. This is the process that Congress intended to put in motion more than 20 years ago.

Not only does the Draft GMP fail to address the ongoing substantial impacts at the Bearpaw camp, it proposes to study the construction of a new such camp on the Hockett

Plateau. The document provides no information about how such a ridiculous proposal came into being. The Park Service knows full well that the Bearpaw camp is causing adverse impacts to SEKI's scenery, natural resources, and surrounding wilderness character, yet it denies culpability on grounds that it cannot afford to conduct the detailed monitoring of those impacts as directed by Congress. And it proposes to build another such camp?

In 1992, then Superintendent J. Thomas Ritter wrote:

“Our policies regarding the Bearpaw Camp have long documented a policy of no further development at that site. We have also established that no additional camps of this nature would be established.” (Exhibit C, emphasis added)

Given that SEKI has previously established that no additional camps of this nature would be allowed, it is both arbitrary and capricious to now propose direction to consider a new such camp on the Hockett Plateau. There is no valid justification—and in fact no justification at all—for such a bizarre idea. The public doesn't want it, the park can't afford it, and it would result only in more pollution and commercial exploitation. This senseless proposal must be stricken from the GMP without further discussion.

Removal of commercial pack stations from park lands

Due to resource impairment, all commercial packstock facilities should be removed from SEKI.⁴ The Draft GMP/EIS instead proposes to retain or relocate all existing pack stations. The GMP/EIS should carefully evaluate the impacts of these facilities, and use this planning opportunity to address those impacts. It would be especially damaging to direct that pack stations be built where none currently exist (i.e., relocated). This would simply move the impacts to new areas.

The operation of pack stations is contributing to the demise of songbird populations in SEKI by creating artificial habitat for the parasitic brown-headed cowbird. Cowbirds are obligate brood parasites that can significantly impact native passerine species. One study in the northern Sierra found that up to 78 percent of warbler nests are parasitized by cowbirds, resulting in significant decreases in the reproductive success of those species (Airola 1986). Individual female cowbirds in the Sierra Nevada have been reported to lay an average of 30 eggs per season (Fleischer et al. 1987). These high rates of parasitism and fecundity by cowbirds indicate that significant local impacts occur wherever cowbird populations are present. Habitat modifications and the presence of livestock throughout the Sierra may contribute significantly to regional declines in songbird populations (Graber 1996). Pack stations in particular are known to be breeding centers for cowbirds.

⁴ This would not preclude commercial stock use. In fact, most commercial stock outfitters that operate in SEKI are based outside the parks. The Park Service should be looking for actions that allow recreational activities to continue, but that also protect park resources. At the top of the list should be removal of packstock facilities from park lands. The few affected operators have held monopolies on these facilities for years, and should be grateful for the privileges they have enjoyed. They could continue to operate from outside the parks, if they so choose, just like the other outfitters, via incidental business permits.

As discussed above, the Draft GMP/EIS evaluates a radical “no stock” alternative, but it fails to evaluate an alternative that would allow stock use to continue while truly mitigating the effects. A “no grazing” alternative that includes removal of the commercial packstock facilities is eminently reasonable, because it would allow stock use to continue while mitigating most of the adverse effects.⁵ The mandates of NEPA cannot be satisfied unless the Park Service evaluates such feasible alternatives.

Group size limits

The group size limits currently in effect at SEKI are inadequate to sufficiently protect the scenery, natural resources, and wilderness character of SEKI. Group size limits (for both number of persons and number of stock animals) must be lowered.

The “preferred alternative” proposes to put this issue off to later consideration (i.e., during development of the parks’ wilderness management plan). The issue should be addressed now—by providing programmatic direction that group size limits be lowered to protect natural resources and visitors’ experiences—because this issue affects the whole park, not just the wilderness and backcountry portions.

The group size limits selected by the Sierra interagency wilderness managers group in the early 1990s (15 persons, 25 stock animals) were dictated without the benefit of any formal environmental analysis or NEPA documentation. Those limits were chosen by a small group of pro-stock managers, and adopted without NEPA compliance—over the strong objections of the vast majority of commenters. The managers knew at the time that if they went through the public involvement procedures and conducted a scientific analysis as required by NEPA, that those numbers could not be justified. This is evidenced by a memorandum from the Forest Supervisor of the Inyo National Forest (Exhibit D) which states:

“...we did not feel that it was necessary to go through the NEPA process on this....as an aside, I will assure you as I have Tanner and London, that if we take this through NEPA the numbers will, in all likelihood, come out lower, and all of our packers will be significantly impacted.”

It is truly disheartening that the interagency wilderness managers placed a higher priority on protecting the interests of the commercial packers than protecting the natural resources under their charge. We can only hope that this attitude has changed.

⁵ If the Park Service cannot muster the will to remove all of the commercial packstock facilities, it should at minimum remove the Mineral King Pack Station (without relocating it, as proposed). This pack station services a particularly sensitive portion of SEKI that is not well-suited to stock use. The trails in Mineral King are both rugged and very popular with day hikers and backpackers, and conflicts between hikers and stock (even injuries) have been documented. The trails leaving the pack station have become severely eroded due to heavy stock use. The soils of the Great Western Divide (the main area accessed by this pack station) are fragile and remain very wet and susceptible to severe trampling damage throughout even the driest years. The operating season of this pack station would be prohibitively short if it were opened after the snowmelt and songbird breeding season (i.e., early August).

Impacts of group size on the experience of park visitors. The fact that large groups have an adverse impact on the experience of park visitors was documented in the early 1970s by Dr. George H. Stankey (1973). A 1990 wilderness management manual co-authored by Dr. Stankey and endorsed by federal agencies, including the National Park Service (Hendee et al. 1990), concludes:

“Large parties are not common in most wildernesses, but the few that occur seriously diminish other visitors’ experiences.”

Recent research conducted in SEKI confirms Dr. Stankey’s early work, and demonstrates that the current group size limits in SEKI (both for number of persons and stock animals) are inadequate to protect the experience of park visitors (Watson et al. 1993). This is key research that deserves full consideration by your planning team. It documents that even the average stock user in SEKI strongly supports smaller group sizes than those currently in effect. For example, the average stock user in SEKI recommended 13 as the maximum allowable number of stock animals per group. The average hiker in SEKI recommended six animals per group as a maximum. Regarding the maximum number of persons per group, the average stock user in SEKI recommended 12; the average hiker in SEKI recommended nine. These recommendations by the visiting public are approximately equal to the limits suggested by scientists and adopted by many other national parks (discussed below, and see Exhibit A).

There simply is not any valid justification for the higher limits currently in effect at SEKI. Although the commercial outfitters would prefer the existing (or larger) group size limits, the existing (or larger) limits cannot be supported by either the scientific evidence or public opinion.

Numerous comment letters contained in the administrative record for this planning process also demonstrate that SEKI’s current group size limits are having significant adverse impacts on the experience of SEKI park visitors.

Impacts of group size on the biological-ecological wilderness character. Other research scientists specializing in wilderness management have also documented the social and ecological impacts caused by large groups. For instance, Dr. David N. Cole (1989) concluded:

“The effectiveness of reduced party sizes in reducing resource damage is greatest where impact is likely to occur quickly (for example, in fragile areas, in little-used and relatively undisturbed areas, and where parties travel with stock). Limits on party size must be quite low (certainly no larger than 10) to be worthwhile.”

Concerning group size limits for numbers of stock animals, Dr. Cole (1990) concluded:

“A large party detracts much more from visitor satisfaction than a small party (Stankey 1973). Although a limit on party size is currently the most common packstock management technique in wilderness—almost one-half of all areas have a limit—the number allowed ranges from five to 50 animals per party, with 20 the most common limit (Washburne and Cole 1983). Such high limits will have very little beneficial effect; both social and campsite impacts are unlikely to be reduced unless limits are 10 animals or less.”

Group size limits for off-trail travel. Off-trail travel by stock parties is of particular concern because of the damage that is often caused when stock animals leave constructed trails. Dr. Cole (1989) concluded:

“Trampling impacts of packstock are particularly severe because considerable weight is carried on a small bearing surface (Weaver and others 1979). Therefore, vegetation and soil damage occur rapidly where stock leave the trail...The size of stock parties influences the severity of a number of problems. Particularly in little-used and off-trail places, it is critical that stock party size is minimized.”

Many other park and forest areas throughout the nation acknowledge the potential adverse impacts of off-trail stock use by prohibiting all cross-country travel by stock animals.

Summary and conclusion re: group size. National parks throughout the western United States have adopted maximum group size limits significantly lower than those in effect at SEKI (see Exhibit A). This GMP should be used as an opportunity to provide programmatic direction that SEKI's maximum group size limits, both for numbers of persons and numbers of stock, will be lowered to protect natural resources and visitors' experiences. Better still, the GMP should: (1) evaluate and establish lower limits for maximum number of persons per group on trails (i.e., ~10 persons per group); (2) establish appropriate limits for maximum group size “off-trail” (i.e., 4-6 persons per group); (3) evaluate and establish lower limits for maximum number of stock animals on trails (i.e., 6-10 animals per group); and (4) prohibit all cross-country (off-trail) travel by stock animals.

Mineral King Cabins

The HSHA supports removal of all permittee cabins at Mineral King, and restoration of the sites, at the earliest possible time. This is what Congress intended when it added Mineral King to the national park, and it is what should happen. The Park Service should make no concessions to the permittees to extend the permits or to grant any further privileges. All of the cabins should be removed as soon as the permittee-of-record dies. Period.

Aircraft overflights

The natural quiet of SEKI is an invaluable resource. Aircraft (military, commercial, and private) overflights are a significant intrusion on the peace and quiet of these parks. The problem has been well documented in reports by SEKI staff. The GMP should fully evaluate impacts from overflights, and propose strategies to reduce impacts associated with overflights. Simply eliminating low-flying jets will **not** be enough. The currently voluntary ceiling (2,000-3,000 feet AGL) is inadequate to protect the natural quiet. The GMP should incorporate a provision that the Park Service shall make a recommendation to the Federal Aviation Administration that it adopt a **mandatory** ceiling and other limits as necessary to fully restore and protect the natural quiet over SEKI. The military agencies claim that their inaction is justified because the Park Service has never made any such recommendations to protect the natural quiet. This GMP is an historic opportunity to address noise from aircraft overflights, and the Park Service must seize this opportunity.

Other Issues and Concerns

There are several other issues raised in our scoping comments that do not appear to be addressed in the Draft GMP/EIS. The following issues should be addressed as discussed in our comments dated March 30, 1998: (1) fish stocking; (2) bighorn sheep; (3) user fees; (4) establishment of stock-free areas and foot-travel-only trails; and (5) wilderness designation. We strongly oppose mechanized (i.e., bicycle, downhill go-cart, overland skateboards, etc.) use of the old mill road (Yucca Mountain area), and we support wilderness designation for the following areas: Hockett Plateau, Mineral King, Yucca Mountain, Bearpaw & Pear Lake additions.

Summary and Conclusions

The Draft GMP/EIS fails to comply with important legal mandates, as discussed above. The draft needs to be substantially supplemented and revised to comply with all relevant laws, regulations, and policies.

All of the above issues are “park wide” issues, and addressing them cannot properly be put off to some future planning process (such as SEKI’s wilderness planning process). These issues require park-wide programmatic direction, and need to be addressed in the GMP. We urge bold, concerted action to do what’s right for the future of these parks.

Again, we appreciate this opportunity to comment. Please revise and supplement the draft GMP in light of the above comments, contact us at the letterhead address if you desire clarification of these comments, and keep us informed of all opportunities for comment.

Sincerely yours,

/Original signed by/

Peter Browning, Coordinator
High Sierra Hikers Association

Enclosures (4):

- EXHIBIT A – “Grazing Regulations at other Western National Parks” (1 page)
- EXHIBIT B – “Horses in Diapers Help Beach Clean-up” (3 pages)
- EXHIBIT C – correspondence regarding Bearpaw camp (4 pages)
- EXHIBIT D – 4/93 memo from Inyo Forest Supervisor D.Martin to D.Bosworth (2 pp)

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