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September 12, 2016

Superintendent
Yosemite National Park
P.O. Box 577
Yosemite, CA 95389

SUBJECT: WILDERNESS STEWARDSHIP PLAN

Dear Superintendent:

This letter transmits comments of the High Sierra Hikers Association regarding your staff's "Preliminary Ideas and Concepts" for Yosemite's wilderness management/stewardship plan. The High Sierra Hikers Association (HSHA) is a registered nonprofit association that represents thousands of hikers throughout the United States who are concerned about issues affecting hikers and Yosemite's wilderness. We appreciate this opportunity to provide comments for your consideration.

As an initial matter, the Park Service has not complied with the Wilderness Act or National Environmental Policy Act (NEPA) during the initial adoption of its Wilderness Management Plan (WMP), or during any subsequent amendment. It is imperative that the Park Service follow the public involvement process required by NEPA—including consideration of a range of reasonable alternatives and full disclosure of environmental consequences—before adopting or revising any plan to manage the three-quarters of a million acres of designated wilderness within Yosemite National Park. We hereby request that an in-depth environmental impact statement (EIS) be prepared.

It is likewise imperative that the Park Service fully comply with the mandates of the Wilderness Act—such as obeying the Act's prohibitions against commercial enterprise, permanent structures and improvements, and motorized/mechanized equipment within designated wilderness.

The existing WMP is replete with vague, general language, and is so full of "loopholes" that it is almost meaningless. The following shortcomings need to be acknowledged and corrected during the current review/revision:

1. **High Sierra Camps.** The High Sierra Camps are the disgrace of the Yosemite Wilderness. These commercial slums are incompatible with the whole idea of wilderness. Past NPS administrators have mistakenly considered the camps to be essentially permanent developments that must be "grandfathered"—i.e., perpetuated at any cost and regardless of their many impacts. The camps have experienced repeated sewage leaks and other problems, which the Park Service continues to cover up. The camps require massive inputs of high-impact maintenance, such as mule trains and helicopter flights that adversely affect and impair Yosemite's wilderness far beyond the boundaries of the camps themselves.

   In 1984—more than thirty years ago—Congress asked the Park Service to prepare a report on the impacts caused by the camps. The Park Service has never conducted the study. Congress also asked the Park Service to monitor environmental impacts at the camps, and to remove the camps if impacts ever increased above 1984 levels. In response, the NPS added flowery language to the WMP, but the monitoring has never been conducted—and when sewage systems failed at Vogelsang and Sunrise camps, instead of removing the camps as directed by Congress, the NPS replaced the sewage systems and even added new buildings to house toilets and showers. Such actions constitute radical defiance of the will of Congress and the American people.

   In its House Committee report on the 1984 Act that designated the Yosemite Wilderness, Congress recognized the incompatibility of the High Sierra Camps, and, in a rare move, deferred its authority to allow the Secretary of Interior to 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 promote continuance of the High Sierra Camps at all cost.

   The Park Service must face this issue in any new or revised WMP/WSP. Clear direction is needed in Yosemite's WSP to remedy this long-festering situation. The current planning process needs to include an alternative to immediately close the High Sierra Camps, restore the sites, and recommend the enclaves for wilderness designation. If this is not done, for any reason, a "compromise" alternative could also be considered, to require the following: 1) an independent study to document baseline conditions at each of the High Sierra Camps, funded by the Park Service and conducted under contract by a reputable California university; 2) a provision for low-intensity annual monitoring by the Resources Management Division (of parameters to be recommended by the initial study), **plus** intensive,

independent monitoring of conditions at each camp no less frequently than every five years (under contract as in #1 above); and 3) a definitive triggering mechanism (without any loopholes) to require that if any adverse environmental impacts resulting from operation of any or all of the High Sierra Camps should ever increase beyond those documented in the baseline study, that the offending camp(s) will be promptly removed and the area(s) recommended to the Secretary of Interior and to Congress for wilderness designation.

2. **Stock Use.** Your WSP/EIS should acknowledge, evaluate, and fully address the many significant adverse impacts of stock use in Yosemite's wilderness (including private, commercial, and administrative stock uses). 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."

We are very concerned about the myriad aesthetic impacts that result from stock use, such as the noise of annoying bells; the pollution of trails and campsites by dust, manure, urine, and flies; the proliferation of unsightly hoofprints and drift fences; the spread of invasive weeds; and impairment of the scenery due to the unnatural appearance of meadows grazed by domestic stock. (*See*, for example, Absher and Absher 1979, Cole 1990, Lee 1975, Stankey 1973, Watson *et al.* 1993.)

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). A study in Yosemite National Park found that the presence of horse manure and other signs of stock animals were key sources of visitor dissatisfaction (Lee 1975). A similar study 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 the Sierra Nevada documents similar findings (*see* 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 Yosemite continue to demonstrate reluctance to regulate stock use to comply with this mandate.

Put simply, park visitors have a right to view park meadows (i.e., scenery) in a healthy, natural, unimpaired condition. NPS Ranger Randy Morgenson perhaps said it best—that park visitors deserve and should have the opportunity to view:

> "...knee-high grasses, ripe and open panicles drifting in the moving air, luminous-bronze in the backlight." (NPS 1989)

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

Yosemite's current wilderness management paradigm is devoid of serious consideration of scenic or aesthetic impacts, and the experience of wilderness visitors has been substantially harmed. This void needs to be addressed in your WSP.

Your EIS should fully evaluate the impacts discussed above (in addition to the bio-physical impacts of stock use, as discussed further below), and incorporate provisions into the WSP that will protect (and restore where necessary) the precious scenery and wilderness character of this majestic national park.

A Range of Reasonable Alternatives for Stock Use

Addressing stock use in your EIS/WSP will necessarily include detailed evaluation of at least four reasonable alternatives regarding stock use:

a) a "no stock" alternative, precluding all stock use throughout Yosemite's wilderness. Detailed evaluation of this alternative is necessary to establish the environmental baseline against which the impacts of other alternatives are measured;

b) "no stock except for essential administrative uses." This alternative would allow for limited stock use as necessary to administer Yosemite's wilderness.

c) "no grazing" in Yosemite's wilderness. This would require all stock users (private, commercial, and administrative) to carry feed for their animals, as required by many

other national parks.

d) "no grazing except for essential administrative uses." This would allow for limited grazing if/when necessary to carry out essential administrative management actions.

The HSHA does not advocate a specific alternative at this time. We will await the outcome of the environmental analysis before taking a position as to which alternatives is preferred.

Bio-physical impacts of stock use

Parties traveling with stock have much greater biological and physical impacts on wilderness resources than groups traveling on foot. The disproportionate amount of impact created by stock users must be disclosed in your EIS and controlled by your WSP.

Impacts to meadows, stream zones, and lakeshores

Trampling and grazing by livestock are known to increase soil compaction and to contribute to streambank erosion, sedimentation, widening and shallowing of channels, elevated stream temperatures, and physical destruction of vegetation (Behnke and Raliegh 1978, Bohn and Buckhouse 1985, Kauffman and Krueger 1984, Kauffman *et al.* 1983, 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).

Numerous studies have documented impacts to meadows caused by recreational stock (Cole 1977, Merkle 1963, Nagy and Scotter 1974, Neuman 1990 & 1991a-b, Strand 1972, Strand 1979a-c, Sumner and Leonard 1947, Weaver and Dale 1978).

Such impacts necessitate strict limits on stock use and the inclusion of "No Stock" and "No Grazing" alternatives in your WSP/EIS, as discussed above.

Trail damage by stock animals

When compared to hikers, stock parties cause significantly greater impacts to trails (Dale and Weaver 1974, Frissell 1973, Kuss *et al.* 1986, Laing 1961, McQuaid-Cook 1978, Trottier and Scotter 1975, Weaver and Dale 1978, Weaver *et al.* 1979, Whitson 1974, Whittaker 1978, Wilson and Seney 1994).

Whitson (1974) provides a good discussion of how horse impact differs from hiker impact. Dale and Weaver (1974) observed that trails used by horses were deeper than trails used by hikers only. Trottier and Scotter (1975) documented deterioration of trails used by large

horse parties. Weaver and Dale (1978) found that horses caused significantly greater trail damage 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."*** Recent research (Wilson and Seney 1994) has confirmed these earlier studies, concluding that ***"horses produced significantly larger quantities of sediment compared to hikers, off-road bicycles, and motorcycles."***

If stock use is to be allowed in Yosemite's wilderness, these impacts of stock use must be better controlled. Your WSP should at minimum include the following elements:

* Groups using stock should be limited to nine or fewer animals per party (*see* Cole 1989 & 1990; Watson *et al.* 1993)

* To reduce the impacts of stock use on trails, a core network of main trails should be designated and maintained to withstand stock travel. Proper maintenance of these trails (and reconstruction where necessary) would reduce (but not offset) the impacts of stock travel.

* A network of "foot travel only" trails should be designated so that hikers can enjoy a stock-free experience. These trails should be maintained for ***foot travel only***. Funds saved by designating a network of "foot travel only" trails could be used for intensive maintenance of the core stock trails (see Cole [1990], p. 461).

Stock animals pollute water

Horses and mules produce about 33 pounds of manure and 18 pounds of urine per-animal per-day (Lawrence *et al.* 2003). This means that a single group of 20 stock animals on a one-week trip produces **more than two tons** of manure and **more than 300 gallons** of urine that are left behind in the wilderness to contaminate streams, lakes, and wetlands.

Stock urine and manure contribute to eutrophication of streams and lakes (*see*, for example, Stanley *et al.* 1979, Hayden *et al.* 2010). Such impacts are a significant concern in the sensitive aquatic environments of Yosemite's wilderness. Livestock manure also pollutes water with pathogenic organisms such as *Giardia, Campylobacter,* and other disease-causing pathogens (*see*, for example, Derlet and Carlson 2002, Derlet *et al.* 2008).

There is an increasing body of evidence that *Giardia, Campylobacter, Cryptosporidium,* and *E. coli* (as well as other pathogens) can be spread from stock animals to humans (*see*, for

example, Bemrick 1968, Blaser *et al.* 1984, Buret *et al.* 1990, 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, Saeed *et al.* 1993, Stranden *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).

The Park Service at Yosemite has long failed to effectively control the discharge of stock animal wastes into surface waters. Your EIS must evaluate this issue and alternatives for addressing it, and your WSP should incorporate meaningful measures as needed to protect Yosemite's water resources from contamination due to livestock wastes.

Manure and urine discharged by stock animals have long been known to contaminate surface waters in Yosemite (*see*, for example, Derlet *et al.* 2008, Hayden *et al.* 2010), and to contribute to the accelerated eutrophication of streams and lakes (*see*, for example, Stanley *et al.* 1979, Hayden *et al.* 2010). Increased nutrient inputs to surface waters is also known to adversely affect instream aquatic organisms and alter their community assemblages (USEPA 1999). Such impacts are a significant concern in the sensitive aquatic environments of Yosemite, which should be fully protected from degradation (in part) by following the USEPA's Antidegradation Policy (40 CFR 131.12), a requirement that the NPS at Yosemite has long ignored.

It is indisputable that livestock manure pollutes water with disease-causing organisms (*see* references above). A study in 2002 by scientists from the U.C. Davis School of Medicine found that about 20 percent of packstock manure samples collected along the John Muir Trail contained pathogenic organisms (Derlet and Carlson 2002). A major five-year study conducted in the Sierra Nevada, including within Yosemite, found that recreation livestock (i.e., horses & mules) cause significant pollution of surface waters. More than 300 samples were collected and analyzed, including 111 samples from fifteen sites exposed to pack animals. The results were striking: 63% of the water samples from pack animal sites were positive for coliform bacteria, and eighteen of the pack animal site samples apparently breached the regulatory standard of 200 cfu/100ml (Derlet *et al.* 2008).

It is an undeniable fact that stock animals released to graze openly on park lands deposit large quantities of manure and urine both <u>directly</u> into surface waters and near enough surface waters that the waste products may be easily carried via overland runoff into streams, lakes, and wetlands. Therefore, a "no grazing" alternative is necessary to consider the benefits to water resources of requiring that stock animals be tied and fed without open grazing on park lands. Packing feed and keeping animals tied up could (along with other

measures discussed below) avoid most discharges of stock manure and urine into and near surface waters.

The contamination of Yosemite's surface waters by livestock manure and urine violates State of California water quality standards—in particular, the water quality objectives for nutrients, bacteria, taste & odor, and the Nondegradation Objectives contained in the ***Water Quality Control Plan (Basin Plan) for the Central Valley Regional Water Quality Control Board***. The State's objectives for protecting drinking water (MUN) and recreation (REC-1, REC-2) are violated due to bacteria concentrations, and the State's objectives for preventing problems due to taste & odors are violated by the foul odors created by discharges of stock manure into surface waters, including wetlands.

Wilderness visitors do not want to drink water contaminated by controllable discharges of stock manure and urine, and visitors are repulsed when they see direct discharges of stock manure and urine into surface waters that they drink. Visitors are also offended by the odors created by discharges of stock manure and urine into streams, lakes, and wetlands.

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 the Park Service at Yosemite, 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. To date, these requisite findings have not been made.

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 lessened by a "no grazing" alternative—if such an alternative is accompanied by wilderness-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 manure catchers (which are now readily available) that are emptied away from surface waters to minimize discharges of waste.

Your environmental document must evaluate and disclose the effects of animal wastes on the wilderness environment, and your wilderness management plan should (at minimum) include the following elements to minimize the amount of animal waste that reaches water courses:

* Campsites for stock users should be designated away from water, on level and dry sites. Stock users should be required to camp at these designated sites, and to keep their animals tied at all times when not in use. This will require stock users to carry feed for their animals, as is required in many other national parks. Managers should carefully select and designate campsites and hitching sites for such use (*see* Cole [1990], pp. 457-462).

* Manure catchers should be required for all animals, and the captured manure should be scattered away from water sources, trails, and campsites.

Aesthetic effects—adverse impacts to the experience of wilderness visitors

As discussed above, we are also concerned about the many aesthetic impacts that result from stock use, such as the presence of annoying bells, dust, manure, urine, and flies, and the proliferation of unsightly hoofprints, drift fences, and overgrazed areas (*see* Absher 1979, Cole 1990, Stankey 1973, Watson *et al.* 1993). Most of the elements suggested above would have the added benefit of offsetting these "social" impacts. For instance, designating campsites for stock users at popular destinations would prevent sites used by hikers from being littered with stock manure. Tying stock and supplying feed will eliminate the need for bells and drift fences, and will prevent overgrazing and trampling of sensitive areas by stock. Designation of a network of "foot travel only" trails will provide hikers with a stock-free experience (i.e., no manure or dusty trails churned by stock, etc.). Adoption of group size limits based on science (*see* Cole 1989 & 1990, Watson *et al.* 1993) will reduce the impacts of large stock groups on the experience of hikers.

3. **Commercial Outfitters and Commercial Services.** The Yosemite Wilderness is so popular that limits/quotas on its use were long ago implemented to reduce impacts. We support the adoption and implementation of restrictions as needed to protect wilderness values. But in doing so, commercial outfitters should never be granted easy or priority access when the general public is turned away due to use quotas. All commercial services must be limited to the extent necessary as mandated by the Wilderness Act.

   As it considers visitor carrying capacities and limits on commercial services, the Park Service needs to acknowledge a simple reality: One horse (or mule) creates ***at least*** as much impact as several people (see references below in section on recreational stock use). Your management plan should state clearly that: (1) Commercial stock use of the Yosemite Wilderness is a privilege—not a right; and (2) Commercial stock use shall not be given priority over private foot travel; and (3) Wherever rationing (i.e., a quota system) is necessary, commercial stock use shall be reduced to maximize the number of **people** allowed to enjoy the area.

Without exception, all commercial outfitters (or their clients) should have to wait in line with the rest of the public to obtain wilderness reservations and permits. Commercial pack stations should never be allowed to write/issue their own permits. (This is a ridiculous notion, and one that illustrates the special treatment that commercial packers still receive from land managers in some areas.)

Finally, the operation of livestock pack stations is contributing to the demise of songbird populations in the Sierra Nevada 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). Elsewhere in the Sierra, individual female cowbirds 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 1991). The impacts of continued operation of pack stations that service the Yosemite Wilderness must be evaluated. Your EIS should clearly disclose the environmental consequences of, and alternatives to, the continued operation of pack stations servicing the Yosemite Wilderness, and alternatives to stock use—such as the use of human porters—should be fully explored.

4. **Per the Wilderness Act, the WSP must prohibit commercial enterprises within designated wilderness; commercial services may be authorized only under the Act's very narrow exception.** Prior to allowing any commercial services in Yosemite's wilderness, the NPS must make credible and substantiated findings that: 1) any authorized commercial service is both necessary and proper per the Wilderness Act; and 2) any authorized commercial service is allowed only to the extent that it is truly necessary. Under existing law, commercial services are not necessary for those seeking to circumvent trailhead quotas, to haul unnecessary items, or to serve persons who do not truly need commercial assistance.

   Before commercial stock services are authorized for any person in Yosemite's wilderness, the NPS should apply meaningful criteria in keeping with the Act's very narrow exception for commercial services. For example, at least four criteria should be met regarding necessity: **1)** the potential commercial client must <u>be physically incapable of hiking and/or carrying a backpack on their own</u> (i.e., not simply be "out of shape," or desiring to not hike or carry a backpack). Even those persons who are physically challenged in some way, but still able to hike and carry a pack, do not "need" stock support to enjoy a wilderness experience; **2)** the potential client must <u>need stock support to facilitate a wilderness-dependent activity</u> (i.e., not

simply desiring a horse ride or pack trip in a scenic setting; not seeking convenience, comfort, or luxury; not seeking to evade or circumvent trailhead quotas or other access limits; not seeking simply to save time or get a "head start" on a longer hiking trip, etc.); **3)** the potential client must be willing to travel with the minimum necessary gear—that normally carried by a backpacker (i.e., approx. 50 lbs./person—any more is unnecessary for a two-week trip); and **4)** the potential client must have no access to non-commercial stock animals, or be otherwise unable to pack their own stock.

5. **Age and physical limitation(s) by themselves do not and cannot determine need for commercial stock support.** The commercial stock interests and their lobbyists often claim that commercial mule-packing services are necessary for the young, the old, and the disabled to enjoy a wilderness experience in the High Sierra. This is a canard, and must be critically examined. Young and old people can and do routinely visit and enjoy Yosemite's wilderness without stock support. It may be sometimes easier, or more convenient, or more comfortable to hire commercial stock services, but it isn't "necessary" simply due to age.

   For commercial stock support to be "necessary," there must be some disability or lack of ability aside from age alone (such as the inability to hike or carry a backpack), and there also must be a genuine need for the stock animal itself. For example, an aged person who is able to hike but cannot carry their own gear could, instead of using stock animals, have their 50-lb. pack spot-hauled to their campsite by a human porter—all with far less impact on the environment than hiring commercial packstock services to haul the load. Or, a llama outfitter could be used instead of horses and mules, which would also greatly reduce the environmental impact. Such alternatives should be fully considered.

   Outfitters (such as local mountain guides and llama guides) have expressed interest in providing human-porter and llama-packing services in the High Sierra, but the commercial mule packers have a strangle-hold monopoly because the agencies discourage and/or refuse to issue permits to those who might compete with the long-entrenched mule packers. There are in fact many young, able-bodied persons who would like to have summer jobs hauling packs or dunnage to assist those genuinely not able to do so. And such services could probably be offered at lower cost to the client, and far less impact to the wilderness. This discrimination against human-powered outfits and llama packers should end. The WSP should fully explore minimum-impact means of providing assistance for those Yosemite visitors who truly need it.

   Further, even people with substantial physical limitations can often enjoy a wilderness experience without commercial stock services. For example, a guide who assists disabled people on wilderness trips has written:

> "The means for successful wilderness travel by mobility impaired people are no secret—hard work and determination...If the desire is there, every person can go out and discover the beauty and mystery of Wilderness, regardless of their level of ability." (Lais 1997)

While the above guide's company sometimes uses stock animals to serve disabled persons, his need to resort to high-impact stock use is the exception and not the rule.

Finally, we are aware of no credible evidence to support the claim by some stock interests that commercial packstock services are needed at Yosemite to provide wilderness access to persons with disabilities. In fact, there is evidence that commercial packers throughout the Sierra Nevada do not serve people with disabilities. Commercial packers "generally decline to provide accommodation" for people with disabilities for insurance reasons and because they lack the experience, qualified staff, or equipment necessary to do so (Graber 2000).

The obvious conclusion is that most commercial stock services occurring at Yosemite are not necessary. People hire the commercial packers to circumvent trailhead quotas, to haul unnecessary items, and for reasons of comfort, convenience, and luxury. Your WSP needs to take a fresh look at these issues, and not simply assume that existing commercial services must be continued because of desire, convenience, comfort, tradition, monopoly, or the political connections of your current commercial permittees.

6. **Group size limits.** The existing WMP takes the irresponsible (and unlawful) position that limits on group size will only be adjusted in conjunction with surrounding land units. This ignores the mandate of the Wilderness Act to preserve wilderness values regardless of how other neighboring areas might be managed (or mismanaged). The WMP must be revised to state that the NPS will adequately protect the wilderness resources of Yosemite National Park, regardless of how responsibly—or irresponsibly—surrounding land managers may regulate group sizes. The fact that officials throughout the central and southern Sierra agreed decades ago on a "consistent" number for maximum group sizes is no excuse to ignore the mandates of the Wilderness Act. This is especially true since the 1991 decision to allow 25 stock animals per group throughout the Sierra was adopted without following the NEPA process, and was implemented over the strong objections of hundreds of citizens and scores of conservation groups.

> "A foolish consistency is the hobgoblin of little minds..."
>
> —Ralph Waldo Emerson

The current group size limits have been shown to significantly and adversely affect wilderness values. In order to adequately protect wilderness values, the limits must therefore be revised downward.

Number of persons per group (on trails). Dr. David Cole, of the Forest Service's Wilderness Management Research Work Unit, has written: **"Limits on party size must be quite low (certainly no larger than 10) to be worthwhile"** (Cole 1989). We propose that group size (on trails) be limited to 10 persons or fewer, as suggested by Dr. Cole.

Number of persons per group (off trail). Large groups traveling "cross-country" cause significantly greater impacts to resources and the experience of visitors (Cole 1989 & 1990, Stankey 1973). Dr. Cole (1989) has written: **"...small parties are critical to avoid the creation of new campsites and trails in little-used places...Once a party exceeds a certain number (perhaps four to six), special care must be taken in off-trail travel."** As suggested by Dr. Cole, group size should be limited to no more than four to six persons for all off-trail travel.

Travel with stock. Dr. Cole has written that thresholds in group size that result in unacceptable impacts ***"...would certainly differ between backpackers and parties with stock"*** (Cole 1989). It is clear that, if stock use is to be allowed in Yosemite's wilderness, lower limits are necessary for stock parties, since they cause greater social ***and*** ecological impacts. Yosemite National Park must acknowledge the obvious: that hikers and stock users have different impacts and should be regulated according to their varying degrees of impact. The current group size regulations in effect for Yosemite's backcountry—which employ the same limits for hikers and stock users—were arbitrarily adopted for "ease of management." This scheme does not comply with either the Wilderness Act or the Park Service's own wilderness management policies.

We propose that groups be limited to no more than nine head of stock per party in the Yosemite Wilderness (see Cole 1989 & 1990, Watson *et al.* 1993), and that **all** off-trail travel by stock be prohibited. If all members of a particular stock party wish to ride, this would effectively reduce stock groups to fewer than nine persons. This is appropriate based on existing knowledge of ecological and social impacts caused by stock use.

Modern research has shed light on the effects of large stock groups on the experience of wilderness users. Watson *et al.* (1993) documented that the average hiker in the central/southern Sierra is unacceptably affected by encountering stock groups with over ***nine*** animals. Even stock users themselves are negatively affected by encounters with large groups—the average ***stock user*** in the central/southern Sierra is unacceptably affected by encountering groups with over ***fifteen*** animals (Watson *et al.* 1993, Table 29 & Table 10).

Thus it is clear that ***twenty-five*** animals in a group will degrade the wilderness character for the vast majority of visitors. The Park Service must take action to preserve the wilderness character by lowering the group size limit for stock parties.

7. **Cross-country travel.** One shining star in the existing WMP is the prohibition on cross-country travel by groups with stock animals or groups over 8 persons. The plan states:

> "It is Service policy to deemphasize cross-country travel by limiting such travel in Yosemite Wilderness to groups of eight people or fewer. This plan recognizes actual and potential environmental deterioration from off-trail use."
>
> and
>
> "Stock must travel on designated trails or authorized stock routes and remain within one quarter mile of trails for watering, rest stops, and camping."

This important language must be retained (and strengthened as per comment #3 above). We strongly oppose any attempt to weaken this language or to open new areas to stock use.

Two loopholes must be addressed. First, the exceptions in Appendix G for cross-country travel by stock animals must be removed. Secondly, nowhere does the plan list or define "designated" or "established" trails. (Appendix G lists "authorized" exceptions but not the "designated" or "established" trails on which large groups are inadvertently permitted). Some older maps, still in use, show trails that are no longer maintained, and which are not suitable for travel with stock or by large groups. A list or map clearly defining what trails/routes are open to travel with stock and by groups over 8 persons should be added as an appendix to the WMP. This would make clear, to both the public and agency personnel, which routes are open and closed to travel with stock and to large groups.

We request the opportunity to review the map or list described above before it is adopted. It should be included in the draft environmental impact statement (DEIS).

8. **Monitoring of stock impacts.** The existing WMP contains numerous statements emphasizing the importance of monitoring the impacts of recreational uses (pages 6, 7, 13, 14, 16, 23, 38).

The plan states (p. 23) that: *"Grazing impact will be monitored by the Resources Management Division."* However, the chapter on Park Operations (the actual plan of implementation) lists no such task for the Resources Management Division. The section pertaining to the

Resources Management Division (pages 38-45) discusses in detail a dozen wilderness-related tasks to be performed by the Resources Management Division, none of which include monitoring of grazing impacts.

The WMP desperately needs a program of monitoring for stock-related impacts, including but not limited to: (1) impacts to wildlife, soil, water and vegetation due to grazing **and** trampling, (2) impacts to water quality and aquatic ecosystems due to stock manure and urine, (3) impacts of stock use (e.g., presence of large groups, presence of grazing animals, construction and maintenance of improvements such as fences and high-standard trails) on wildlife and the wilderness experience of human visitors.

These monitoring programs need to be peer-reviewed and specified in detail in the WSP, including the specific monitoring questions to be answered, monitoring schedules, limits of acceptable change, and actions to be triggered if/when those limits are exceeded. Any less would represent only a continuation of the lip service offered by the present plan.

9. **Aircraft use.** The WMP states that *"Aircraft will not be used in Yosemite other than flights in response to emergencies dealing with fire suppression, search and rescue, medical assistance, or law enforcement. The Superintendent must approve each nonemergency administrative flight in wilderness. Nonemergency administrative uses of aircraft subject to approval are listed in Appendix C."*

   The first sentence states that nonemergency aircraft use will not occur. This lofty language makes bureaucrats and the public feel good. However, the remainder of the language entirely negates the first sentence. All the exceptions and loopholes should be stricken from the WMP, and it should state that all nonemergency use of aircraft must receive prior written approval from the Regional Director. Administrators at Yosemite have proven that they cannot be relied on to police themselves. A contract helicopter, sitting on the landing pad, already paid for, is too tempting. Authority to approve use of the helicopter for nonemergency purposes must be taken away from local bureaucrats, and vested in a third party who can evaluate the need for aircraft use from afar, without being pressured by staff who favor easy, convenient transportation in lieu of protecting wilderness values.

10. **Campfire impacts.** The existing WMP states that the no-wood-fire zone *"was selected for ease of management."* This is clearly counter to the NPS management policies for wilderness, which state that administrative convenience (i.e., ease of management) is not a standard of wilderness management. Protecting wilderness resources must come first.

The existing WMP states that whitebark pine forests are unable to produce enough dead wood each year to sustain fuel wood collection. Whitebark pine exists down to 9,400 feet in the north half of the park, and 9,800 feet in the south. An entirely arbitrary and bureaucratic decision was made to "split the difference" and settle for 9,600 feet. This does not adequately protect the many areas where whitebark pine forest exists down to 9,400 feet. If one consistent regulation is needed, it should be set at an elevation that will protect the most sensitive areas (i.e., 9,400 feet or lower). Only then will administrators at Yosemite have fulfilled their responsibility under the Wilderness Act and the Park Service's Organic Act, both of which require that park resources be maintained in an "unimpaired" condition.

11. **Motorized/mechanized equipment.** Your WSP should acknowledge the Wilderness Act's prohibitions on the use of motorized equipment and mechanized transport. Specifically, the indiscriminate use of chainsaws by NPS trail crews—used most often for administrative convenience (i.e., ease of management)—must end. Your WSP should adopt strict criteria limiting the use of chainsaws for administrative purposes, and include a specific prohibition on the use of bicycles in Yosemite's wilderness.

12. **Permanent Improvements, Installations, and Structures.** Your WSP should acknowledge the Wilderness Act's prohibitions against permanent improvements, installations, and structures. In particular, the cables at Half Dome should be removed, and climbers of Half Dome should be limited to the number that existed at the time of wilderness designation. The WSP should prohibit all fences and other improvements, installations, and structures.

CONCLUSION

We urge you to adopt a plan for Yosemite's wilderness that is fully consistent with the letter and spirit of the Wilderness Act, and befitting of the Park Service's 100-year anniversary. In order to accomplish this, the protection of wilderness character must be paramount. Convenience, economy, commercial profits, and "traditional" uses (such as stock grazing, the cables on Half Dome, developments at the High Sierra Camps, etc.) must be considered subordinate to the preservation of wilderness. This fundamental premise is echoed throughout the Wilderness Act as well as the NPS's Management Policies for wilderness.

The High Sierra Hikers Association supports the adoption of strict regulations, restrictions, and use limits as necessary to protect wilderness values, including those that would inconvenience hikers or limit or preclude our own members' uses. The preservation of wilderness character always comes first.

Please prepare an environmental impact statement (EIS) for the purpose of amending or superseding Yosemite's Wilderness Management Plan to incorporate the above-stated concerns. Please send copies of all environmental and decision documentation, and keep us informed of all opportunities for comment.

Please contact us if you have any questions regarding the issues raised in this letter. We would be happy to clarify any of our concerns.

Yours sincerely,

Jeff Kane, Director
High Sierra Hikers Association

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