



January 29, 2016

Superintendent, Yosemite National Park
Attn: Wilderness Stewardship Plan
P.O. Box 577
Yosemite, CA 95389

Dear Superintendent Neubacher:

Back Country Horsemen of America (BCHA) and Backcountry Horsemen of California (BCHC) appreciate this opportunity to provide the following scoping comments regarding the park's Wilderness Stewardship Plan (WSP). We applaud the park's public outreach efforts to date that include public meetings in Berkeley, at Yosemite National Park, and via several webinar forums that allowed the participation of persons unable to attend the meetings.

About Back Country Horsemen

Our mission is to perpetuate the common sense use and enjoyment of horses in America's back country and wilderness and to ensure that public lands remain open to recreational stock use. A large part of our mission includes assisting the various government agencies and non-profit organizations in the maintenance and management of public trails and horse camps, and to **educate, encourage and solicit active participation in sustainable use of the back country resource by horsemen and women and the general public commensurate with our heritage.**

We work in cooperation with government agencies to help clear trails, maintain historic sites, assist ecological restoration activities, sponsor educational seminars and clinics, and assist with service projects as requested. In 2014 alone, BCHA volunteers documented in-kind contributions to the tune of approximately \$14.4 million for various projects throughout the nation. BCHA currently maintains a 5-year general agreement with the National Park Service, signed by Director Jarvis in August 2014. The agreement provides a framework for cooperation wherein BCHA units can work with local park units on mutually-beneficial projects, including training seminars, living history events, ecological restoration activities, Leave No Trace™ equine education programs, and service projects including trail and horse camp maintenance.

Several BCH chapters currently maintain unit-specific Memorandums of Understanding with the National Park Service. Examples include Buffalo National River and Great Smoky Mountains and Mammoth Cave national parks, where local BCHA units are authorized to conduct light trail and campsite maintenance and to assist in search and rescue operations. We strongly encourage Yosemite staff to tier from the national BCHA-NPS Agreement and consider how it might partner with BCHC units to complete trail maintenance and other stewardship projects within Yosemite National Park. The Superintendent of Sequoia-Kings Canyon National Parks, for example, recently met with BCHC's High Sierra Unit to discuss a partnership to develop front country horse camps approved via the parks' recently completed WSP.

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We greatly appreciate and value the recreational experience provided to horsemen and users of recreational pack and saddle stock in Yosemite National Park. We take seriously our responsibility to demonstrate BCHA's ethic and commitment to preserving wilderness character. This includes BCHA's [Leave No Trace Stock Users Education Program](#). BCHA has become the primary trainer of stock users in *Leave No Trace* principles and practices nationally through our *Leave No Trace* Master's Education Program. The program is a partnership between BCHA, state and affiliate members, the U.S. Forest Service the *Leave No Trace™ Center for Outdoor Ethics*. Significantly, in 2015, BCHC was selected by the U.S. Forest Service Pacific Southwest Region (California) for a five-year contract to serve as the sole provider of the agency's *Leave No Trace™* Equine Master Educator Course.

Cultural Significance of Recreational Stock Use

The use of pack stock has played an important role in American culture. There is a long tradition of using pack and saddle stock not only in Yosemite National Park but throughout the West. BCHA carries on this tradition in modern times, as does the robust and highly-respected pack stock program administered by Yosemite National Park that is used in support of park management and scientific investigation. Today's horsemen and women relish this cultural heritage and readily embrace the responsibility and obligation to care for our parks and public lands through application of traditional methods and a primitive mode of travel.

We recognize the seemingly conflicting policy directives under which the NPS operates, including the 1916 Organic Act and 1964 Wilderness Act, and the demanding task the agency faces in simultaneously devoting much of the park to recreation while also protecting wilderness character. BCHA is committed to the long-term sustainable management of Wilderness in a way that ensures compatible recreational uses are allowed to occur to perpetuate the use and enjoyment of present and future generations. Our specific comments on the Yosemite WSP follow.

Guiding Principle

In preparing the WSP one of the guiding principles should be that horseback riding, including the use of pack stock and mules, are primitive, non-mechanized modes of travel that are appropriate in Wilderness and consistent with the purposes and provisions of the Wilderness Act. These are historic and culturally significant uses that preceded congressional designation of current park Wilderness (1984) and the establishment of the park itself. In other words, horseback riding, packing and hiking have occurred in harmony within current boundaries of what is now park Wilderness for well over a century and a half. These sentiments are confirmed by wording included in the park's 1989 Wilderness Management Plan, which states the following:

Stock – horses, mules, and burros – has been an historically important factor in the use and enjoyment of Yosemite wilderness and remains a significant recreational activity. **Wilderness designation increases the importance of stock** for National Park Service administrative and maintenance purposes by restricting aircraft alternatives (p. 22, emphasis added).

Purpose of the Plan

According to the park's November 2015 newsletter announcing the public scoping period:

The purpose of this planning effort is to review the management direction in the 1989 Yosemite Wilderness Plan and update it as necessary to better align with contemporary use patterns and National Park Service policy.

It is our understanding that the baseline datum against which all wilderness management activities will be compared in the WSP is the date when Public Law 98-425, the “California Wilderness Act of 1984,” was enacted. In other words, the goal of the WSP will be to “restore, protect, and enhance overall wilderness character of the Yosemite Wilderness” using as a baseline those conditions that existed in 1984, when Congress deemed 677,600 acres (and potential wilderness additions) within the park as suitable for designation as Wilderness. **We would appreciate clarification in the Draft WSP as to the timeline by which the Park Service has established its baseline datum.**

Range of Alternatives

The 1989 Yosemite Wilderness Management Plan makes no mention of documented resource concerns or documented incidents of user conflict associated with the use of pack stock. We acknowledge this may or may not be the case at present, but we have yet to see any indication by the National Park Service that such concerns or conflict, to the extent that they have been documented, are either widespread or amount to a level of concern that would necessitate significant changes in the park’s management of pack stock. As described further below, the issue of open meadow grazing may represent one exception.

Our understanding is that pack stock use by private parties has decreased substantially since park Wilderness was designated in 1984. It would follow that the potential for adverse or unacceptable impacts resulting from stock use on Wilderness trails would therefore be lessened at present than the WSP baseline datum of 1984. Further, we are not aware of Park Service documentation of “unacceptable impacts”—be it to water quality, cultural or natural resources—that can be attributed to use of horse and pack stock in park Wilderness. Thus, it appears to us that any WSP alternative that includes proposals to either significantly reduce available trail miles, impose broad camping restrictions, or otherwise restrict pack stock use would be unwarranted and unjustifiable. **We therefore request that the WSP refrain from proposing alternatives that substantially limit or restrict the use of pack stock in the absence of verifiable data to demonstrate that park Wilderness is experiencing overuse or unacceptable impacts as a result of pack stock use.**

Need for Data on Recreational Use and Trends to Shape WSP Alternatives

To better understand use trends and the context of pack stock use in park Wilderness, we recommend inclusion of a table in the draft WSP that outlines the following:

- Total trail miles available for hiking/backpacking and total trail miles available for private stock use in 1984 (or date closely matching Wilderness designation at Yosemite National Park);
- Total trail miles currently available for hiking/backpacking and total trail miles available for pack stock use (including private, commercial and administrative stock use);
- Total trail miles proposed to be available for hiking/backpacking and total trail miles proposed to be available for pack stock use for each WSP action alternative.

We respectfully request that the draft WSP include also a table depicting overall use levels (i.e., annual visitation), per trail user group, beginning the year park Wilderness was established to the most current date for which data is available. In other words, a table that depicts use levels by hikers, backpackers and recreational stock users from at least 1984 to present. The table will be useful to demonstrate trends and any notable changes in trail-related recreational activities within the past 30 years.

Proposal to Limit Use of Pack Stock Must be Supported by Science

It is our understanding that current visitation by private stock users is substantially less today than it was in the 1980s. **Again, we would appreciate confirmation of that assumption with data presented in the draft WSP.**

In areas of known or recently documented stock-related resource damage, the WSP should consider alternatives beyond simply limiting pack stock use. Such alternatives could include reroutes of trails or trail segments, hardening of trail surfaces, use of designated camping areas, and the use of portable electrical fencing or other means to contain pack stock in open meadows. As described below, we believe that methods exist to mitigate most any stock-related impact or conflict and which allow the Park Service to maintain a wilderness experience wherein “Regulatory restrictions will be minimized to allow as much freedom as possible consistent with wilderness resource objectives,” as stated in the park’s 1989 Wilderness Management Plan (p. 13). We offer the following issue-specific recommendations.

Pack Stock Grazing in Open Meadows.

The WSP should incorporate recent and relevant information on the general lack of pack stock-related impact to park and wilderness resources, such as statements made in the Environmental Impact Statement (EIS) for the Merced Wild & Scenic River Plan (Draft EIS page 9-195) that summarizes recent surveys, which found that “pack stock impacts were absent or uncommon in most subalpine meadows, with the exception of Merced Lake–East,” (and for which the Park Service acknowledges is adversely affected by administrative use of pack stock).

We understand that the Park Service increasingly has become concerned about the health and function of subalpine meadow ecosystems, including “fens,” and the effects of high levels of grazing by pack stock in Yosemite National Park¹. Yet science-based grazing limits have yet to be established. **We ask that the WSP describe the current state of the science with respect to the effects of pack stock grazing in subalpine meadows within the park and what measures, if any, have proven to be effective in minimizing documented threats to the ecological integrity of fens and meadows.**

Whether or not a cause-and-effect relationship can be scientifically documented at this time with respect to pack stock grazing, **we encourage park personnel to consult with BCH California and other experts in Equine Leave No Trace™ practices to develop Best Management Practices for meadow grazing that might be analyzed among management alternatives included in the WSP** (be it applied to private, commercial and/or administrative uses). In other words, we encourage the NPS to reach out early in the WSP process to knowledgeable outside parties and embrace them as partners in the development of such solutions.

Waterborne Pathogens Resulting from Pack Stock Use (or Lack Thereof)

As part of the WSP scoping process, we encourage park personnel to explore the implications of recent research conducted by Dr. Rob Atwill of the University of California, Davis, including his study of waterborne pathogens in Yosemite National Park. Dr. Atwill’s work demonstrates the (insignificant) level by

¹ Park Operations: Managing overnight stock use at Yosemite National Park: A science-based approach. PARK SCIENCE • VOLUME 28 • NUMBER 3 • WINTER 2011–2012

which adult pack stock might shed, via their manure, detectable oocysts of *Cryptosporidium*², a parasite that can affect humans. Dr. Atwill's research also demonstrates that native mammals at Yosemite, including squirrel, raccoon, marmot and some avian species, are far more likely to be the source of waterborne pathogens than either pack stock or domestic livestock³. In one study at Yosemite National Park, Dr. Atwill found that a population of Belding's ground squirrel was documented to shed *Cryptosporidium* oocysts at a rate that might be matched by no less than 3,000 horses.⁴ **The WSP should consider the implications of scientific findings and recommendations made by Dr. Atwill and others to shed light on appropriate measures to employ, if any, in the WSP to mitigate the potential negative effects and spread of waterborne zoonotic pathogens and parasites.** According to personal communications with Dr. Atwill, an individual's personal hygiene habits—and whether they wash/disinfect their hands effectively after digging/using a cat hole or pit toilet—is the greatest factor in avoiding zoonotic pathogens and parasites in the Yosemite Wilderness.

Noxious/Invasive Weeds Resulting from Pack Stock Use (or Lack Thereof)

As part of the WSP scoping process, we encourage park personnel to explore the implications of recent research conducted by Dr. Stith T. Gower of the University of Wisconsin, Madison. Dr. Gower's studies indicate that horses and pack stock are unlikely, if at all, to spread invasive weeds along trails under the conditions he studied in the U.S. in both eastern ecosystems⁵ and nine western ecosystems, including the Sierra Nevada.⁶ For example, his 2013 study of western ecosystems concludes with the following statement:

The 0% germination and establishment rate of weeds from hay, manure and hoof debris plots on the horse trails at the nine study sites illustrates the difficult physical and environmental conditions that seedlings experience during the critical germination and establishment phase.

Consequently, although the science has found that horses and pack stock are capable of excreting seeds (both native and non-native) along backcountry trails, such seeds face harsh conditions and are highly unlikely to germinate. Based on recent studies by Dr. Gower, the WSP should start with the assumption that the use of horses and pack stock is not considered as a significant vector for the spread of invasive or noxious weeds. **The WSP should consider the implications of scientific findings by Dr. Gower and others that shed light on appropriate measures to employ, if any, in the WSP to mitigate the potential negative effects and spread of noxious or invasive weeds.**

² Atwill, E.R. 2008. *Hetch Hetchy watershed pack stock and microbial water quality study*, University of California, Davis, CA. Report prepared for Yosemite National Park.

³ Atwill, E.R. Environmental loading of *Cryptosporidium* spp. from Belding's ground squirrels and pack stock in Yosemite National Park. International Conference on Diseases of Nature Communicable to Man. Fairbanks, Alaska. August 8-10, 2010.

⁴ National Park Service, Yosemite National Park, 2008 Pack Stock Use Assessment in Subalpine Meadows of the Tuolumne River Watershed. November 2010. Resources Management and Science, Yosemite National Park.

⁵ Gower, ST. 2008. Are horses responsible for introducing nonnative plants along forest trails in the eastern United States? *Forest Ecology & Management* 256:997-1003.

⁶ Horses and Invasive Plants: The Western USA Study by Dr. Stith T. Gower, Professor of Forest Ecosystem Ecology, Department of Forest & Wildlife Ecology. University of Wisconsin-Madison. (note: the article originally appeared in the April 2013 issue of *Endurance News*, official publication of the American Endurance Ride Conference, www.aerc.org)

Development of WSP Alternatives with Respect to Recreational Carrying Capacity Must Follow Relevant NPS Policies

It is not clear at this time whether the WSP will analyze specific carrying capacity limits for recreational uses in Yosemite Wilderness or whether it will continue to focus instead on existing trailhead quotas. If the former is to be applied, please keep in mind that current NPS *Management Policies* describe a series of steps to be taken by park superintendents in order to determine visitor carrying capacity (Section 8.2.1). Only after that process has completed its course, such as via the current WSP, should decisions to restrict an otherwise “appropriate” visitor use be considered. NPS policy regarding visitor carrying capacity can be summarized as follows:

1. Superintendents will identify ways to monitor for and address **unacceptable impacts** on park resources and visitor experiences.
2. The level of analysis necessary to make decisions about carrying capacities is commensurate with the potential impacts or consequences of the decisions. **The greater the potential for significant impacts or** consequences on park resources and values or the opportunities to enjoy them, **the greater the level of study and analysis and civic engagement needed** to support the decisions.
3. If and when park uses reach a level at which they must be limited or curtailed, the preferred choice will be to continue uses that are encouraged under the criteria listed in section 8.2, and to limit or curtail those that least meet those criteria.

NPS Management Policies, Section 8.2.1, emphasis added.

Section 8.2, Visitor Use, of the NPS Management Policies defines “unacceptable impacts” on park resources and visitor experiences as “impacts that, individually or cumulatively, would:

- be inconsistent with a park’s purposes or values, or
- impede the attainment of a park’s desired conditions for natural and cultural resources **as identified through the park’s planning process**, or
- create an unsafe or unhealthy environment for visitors or employees, or
- diminish opportunities for current or future generations to enjoy, learn about, or be inspired by park resources or values, or
- **unreasonably interfere** with park programs or activities, or an appropriate use, or the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park, or NPS concessioner or contractor operations or services.”

Emphasis added. **We view these definitions as very descriptive and useful and we recommend they be applied in the current WSP effort** irrespective of whether specific carrying capacity analyses will be conducted.

The policies go on to state the following:

“If and when a superintendent has a reasonable basis for believing that an ongoing or proposed public use would cause unacceptable impacts to park resources or values, the superintendent must make adjustments to the way the activity is conducted to eliminate the unacceptable impacts. **If the adjustments do not succeed in eliminating the unacceptable impacts**, the superintendent may (1) temporarily or permanently close a specific area, or (2) place limitations on the use, or (3) prohibit the use” (Section 8.2, emphasis added).

At present, we feel there is no reasonable basis for WSP alternatives that place limitations on recreational pack stock use in park Wilderness in the absence of compelling data on the existence of “unacceptable impacts” on park resources or use of pack stock’s unreasonable interference with the visitor experience of other uses. **We recommend that NPS personnel incorporate these criteria into the shaping of management alternatives in the WSP that are relevant to address pressing wilderness management needs while meeting the National Environmental Policy Act’s requirement to explore in detail a “reasonable range of alternatives.”**

Use of Adaptive Management in Lieu of WSP Alternative-based Restrictions

Should the NPS find adequate justification for detailed analyses of WSP alternatives that restrict either the use of saddle and pack stock (or hiking/backpacking for that matter), we encourage the Park Service to disclose the body of science being relied upon to form the basis of the proposed restrictions. Moreover, references in the WSP to the scientific literature should discern between the effects of pack stock use by private users versus the effects of parties using commercial pack stock outfitters versus the park’s own administrative use of pack stock. In the absence of such science, the WSP should not seek to disproportionately burden private stock users, who comprise a small percentage of overnight Wilderness visitation.

As an alternative to restrictions proposed to these uses in the WSP, we propose the application of adaptive management techniques like visitor education and interpretive opportunities, the rerouting of segments of trail where conflicts are known to occur—or other less onerous restrictions including quotas regarding either the number of parties or temporal zoning—in lieu of WSP alternatives that **begin with an assumption that public recreational access must somehow be limited.** If warranted, existing adaptive management frameworks like Limits of Acceptable Change (and the NPS version, Visitor Experience and Resource Protection) could be employed in the WSP in order to lay a foundation for the collection of visitor data on potential user conflicts and management options to minimize or avoid conflict before such issues reach critical thresholds.

Use of Social Science Must Take into Account the Views of Stock Users

If social science literature is to be used to determine social carrying capacity, we would ask that the science is even-handed with respect to whose perceptions are being taken into account in making management decisions (i.e., hikers, horsemen or both). We strenuously object to closures proposed for the use of pack stock based on narrowly-applied studies from which the social preferences of backpackers and hikers is either cited or implied. For example, limitations proposed for stock use should not be justified as necessary to enhance the enjoyment of “solitude” by users who prefer not to share trails with stock and stock users.

Rarely do we see social science that takes into account also the views and desired experience of traditional horsemen and stock users. **Accordingly, we hope and expect that any application of social science in the WSP to be balanced with respect the range of Wilderness visitors whose opinions have been sought.** We remain optimistic that most types of visitor conflict can be resolved through education and broader awareness of the history and role of horse and pack stock use in the park. What remains clear, however, is that both the level and measurements regarding the intensity of reported visitor

perceptions of conflict in the Yosemite Wilderness associated with the use of pack stock have substantially decreased over time.⁷

Restrictions to Recreational Uses Must be Limited to the Minimum Necessary

With regard to mitigating adverse impacts from or between park uses, NPS Management Policies (2006, Section 8.1.2) state:

“In all cases, impacts from park uses must be avoided, minimized, or mitigated through one or more of the following methods:

- visitor education and civic engagement
- temporal, spatial, or numerical limitations on the use
- the application of best available technology
- the application of adaptive management techniques”

NPS Management Policies (8.2.2 Recreational Activities) further state that “Restrictions placed on recreational uses that have been found to be appropriate will be **limited to the minimum necessary** to protect park resources and values and promote visitor safety and enjoyment” (emphasis added). Therefore, we encourage park personnel to consider options to mitigating any real or perceived conflicts associated with recreational stock use in Wilderness prior to including alternatives in the draft WSP oriented toward restrictions in use of pack stock. Doing so would appear consistent with NPS policy, as described above.

In order to reduce the potential for visitor conflict, **the WSP should include proactive methods of visitor education, including the use of interpretive materials available at Wilderness trailheads**, to convey to hikers and backpackers to expect encounters with parties with pack stock. **The WSP also should detail methods by which visitors traveling via foot and with pack stock could enhance communication and work toward minimizing "conflict" between user groups.** Changing the expectations of individuals prior to their embarking from the trailhead appears to represent a first step in doing so.

The WSP Should Consider the Logistical Needs of Pack Stock Users

Access to the Yosemite Wilderness at present by private horsemen is very difficult. **The WSP should consider, and make efforts to accommodate, the logistical needs of pack stock users** who do not enter park Wilderness via adjacent national forests or private land. For example, **the WSP should address the need for adequate trailer parking at park trailheads and front country camping areas for person who haul their own horses and mules.** The WSP should also include a discussion of the current availability of, or the need or demand for, additional infrastructure to support camping with pack stock in the Park’s front country areas. Such a need can be implied from recent recreational use projections documented by the U.S. Forest Service.⁸

The WSP Should be Viewed as a Vehicle to Engage Partners

Over the anticipated life of the WSP, the Park Service may find that it has insufficient resources to maintain trails in Yosemite Wilderness to standards necessary to maintain visitor safety and resource protection. Given that the WSP represents a long-range (10- to 15-year) plan, **it would be prudent to**

⁷ Social Science Program, National Park Service, U.S. Department of the Interior, Visitor Services Project: Yosemite National Park Visitor Study, Summer 2005. Prepared by the University of Idaho Park Studies Unit. Visitor Services Project Report 168.

⁸ See ‘Outdoor recreation trends and futures’, <http://www.srs.fs.usda.gov/pubs/40453>

consider in the WSP the option of enlisting additional qualified partners in routine trail maintenance.

For example, establishing formal agreements with qualified non-profit organizations, such as Backcountry Horsemen of California and its partner, the Pacific Crest Trail Association, would serve to augment the agency's beleaguered trail maintenance budget and could preclude the need to either close trails or reclassify some trails as either "unmaintained" or minimally maintained.

In addition, as stated earlier in this scoping letter, park personnel should work in partnership with Backcountry Horsemen of California (BCHC) to develop a park-wide Equine Leave No Trace™ (LNT) program that is included in the WSP. BCHC remains the sole authorized Equine LNT Master Educator trainer for the U.S. Forest Service Pacific Southwest Region (California). We also encourage Yosemite staff to tier from the national BCHA-NPS Agreement and **consider in the WSP how it might partner with local BCHC units and other partners to complete trail maintenance and other stewardship projects within Yosemite Wilderness.** BCHC has multiple units on both sides of the Sierra Nevada that would happy to enter into a Memorandum of Understanding or other such service-type agreement for the planning, maintenance and upkeep of these facilities.

Conclusion

Thank you for this opportunity to submit public scoping comments on Yosemite WSP. We appreciate the efforts of park personnel to seek every opportunity to include the pack and saddle stock community in this important planning effort. It is our belief that only through strong partnerships and effective collaboration can our mutual goals of preserving Wilderness character and maintaining publicly-supported trail systems be achieved.

Sincerely,



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