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8 April 2005

Don L. Neubacher,
Superintendent
Point Reyes National Seashore
Point Reyes, CA 94956
Transmitted via Mail and Email: ann_nelson@nps.gov

Re: Draft Environmental Impact Statement: Non-Native Deer Management Plan

Dear Mr. Neubacher:

On behalf of The Humane Society of the United States (HSUS) and our more than 8.5 million members and constituents, I appreciate this opportunity to provide input on the Draft Environmental Impact Statement (DEIS) on Non-Native Deer Management in Point Reyes National Park (PORE).

While we are sympathetic with the National Park Service's (NPS) concerns for the protection and restoration of native ecosystems on park lands, the DEIS demonstrates that there is, to date, very little documentation of negative impacts of fallow and axis deer on native wildlife, water resources, vegetation, soils, or other natural resources at PORE. The lack of documentation for such impacts calls into question the need for action.

Executive Order 13112 mandates environmentally sound control of invasive species but, as NPS is aware (see DEIS, p. 28), not all non-native species are invasive. While the Point Reyes National Seashore General Management Plan does not appear to differentiate between non-native and invasive species, and does require exotic plant and animal "reduction," it does not require eradication. The more recent PORE Resource Management Plan addresses the "control" of non-native animals (and plants) "that disrupt natural (ecosystems) or prevent their restoration." It apparently does not (at least according to the sections quoted in the DEIS) require eradication, and does not require control or eradication of non-native animals that do not disrupt natural ecosystems. The 2001 NPS Management Policies also require "management" of non-native species if the species "interferes with natural processes and the perpetuation of natural features, native species or natural habitats," but again do not require eradication.

In other words, none of the policies, executive orders, or management plans cited in the DEIS require eradication, and all or most recognize that there is a distinction between non-native species that are invasive vs. those that are ecologically relatively benign. While research into potential impacts of non-native species could become endless and may be viewed as a delay of necessary

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management, it appears that such research on the impacts of fallow and axis deer at PORE (or even at other similar sites) has hardly even begun. Before undertaking such an intensive, long-term, and controversial management action that will impact the welfare of fallow and axis deer, NPS must first demonstrate that fallow and axis deer are, indeed, having the detrimental effects that they are alleged to be having. And NPS must also demonstrate that the proposed action (Preferred Alternative) will measurably contribute to the restoration of native wildlife and natural ecosystems within PORE. This second point is important because, while the Preferred Alternative may effectively reduce non-native deer populations (or eradicate them), it is not clear whether control or eradication would help NPS achieve the desired ecological state of the park (e.g. by allowing native cervid populations to increase and reducing ungulate impacts to soil, vegetation, and water resources). At this point, NPS has neither documented negative impacts due to non-native deer, nor shown whether eradication (or control) of non-native deer has the potential to reverse any such negative impacts.

We acknowledge that NPS has done population modeling to roughly estimate the number of deer that would be killed or handled under different management scenarios, and to gauge the feasibility of different management techniques (sharpshooting and fertility control) in achieving eradication. This is an important component of any management plan and we appreciate that the modeling exercises indicate the possibility of reducing the number of deer killed by combining lethal control with fertility control. However, these careful predictive models should have been preceded by equally careful studies to document impacts of fallow and axis deer, determine whether their impacts go beyond those of native cervids (including whether they actually displace native cervids), and modeling to help predict how eradication versus control or no management would affect native ecosystems.

Furthermore, the dairy and beef cattle operations will apparently remain within PORE at least for the near term; these operations are, themselves, likely to be negatively impacting native ecosystems. Because NPS is not planning to remove the cattle operations from the park at this time, it will be impossible for the park to fully restore natural ecosystems. The presence of, not only non-native wildlife which may or may not be impacting native ecosystems, but also domesticated ungulates in PORE, also suggests that the eradication of non-native deer is, at the very least, not a crisis in need of immediate resolution and could be replaced with a plan to at least begin filling in the research gaps before taking action.

Specifically, the justification for the Preferred Alternative (Alternative E), or in fact for any alternative other than the No Action alternative, appears to be based almost entirely on *potential* impacts of fallow and/or axis deer populations, especially at population sizes larger than those that exist currently in PORE.

With respect to impacts of non-native deer on water resources and water quality, the DEIS acknowledges (p. 137) that "little is known about the specific impacts of non-native deer at the Seashore on water resources" and uses impacts of cattle, and/or ungulates generally, to approximate the impacts of non-native deer at PORE. Behavioral characteristics of fallow deer, such as their tendency to congregate in large numbers and remain in one area for long periods, are described anecdotally and are used to suggest that fallow deer impacts are probably similar to those of cattle or other confined ungulates. However, first, cattle are at PORE (even if fenced

from some sensitive areas) and will remain there for the near term at least, continuing to have whatever impact they may be having whether or not the non-native deer remain. Second, no evidence is presented in the DEIS to show that fallow or axis deer are having any negative impacts on water quality or that the anecdotally described "thrashing" behavior during the rut causes permanent damage to water resources. Third, the DEIS does not show that any impacts non-native deer may be having on water quality go beyond the impacts of the native cervids that evolved in association with the riparian ecosystems addressed in the DEIS. The behavioral characteristics of fallow deer (but probably not axis deer) might suggest a hypothesis of greater impacts on water resources, but such an hypothesis has not been empirically tested.

Regarding impacts on vegetation and soil, the DEIS again relies upon the literature regarding the impacts—or ecological interactions—of ungulates generally, both native and non-native. Any impacts that the cattle may have on vegetation and soil will, of course, continue indefinitely because the cattle will remain in the park under this management plan. Furthermore, the DEIS fails to acknowledge that native wild cervids in PORE are likely to have effects on vegetation and soils that are very similar to those of fallow and axis deer. The DEIS indicates (p. 147) that at "one riparian restoration area in particular, John West Fork of Olema Creek, NPS staff has observed extensive damage to native willows (*Salix spp.*) in areas excluded from livestock access...." But there is no indication of whether native cervids might have similar impacts in the future (or currently). At Yellowstone National Park, for example, it has been widely reported in both the scientific literature and the media that the return of the gray wolf to Yellowstone has helped reduce elk pressure on willows, which has in turn been a boon to wetland and riparian ecosystems. If the untested assumption that non-native deer compete with native cervids were correct, then non-native cervid removal would likely allow tule elk and/or black-tailed deer populations to increase and to use areas currently used more by non-native deer. This in turn would likely allow elk and/or black-tailed deer to impact vegetation and soil (as well as other wildlife and other park resources) in a way that may be qualitatively and quantitatively equivalent to that of the non-native deer currently.

Regarding impacts of non-native deer on native wildlife, the DEIS again relies on untested assumptions or "potential" impacts, as well as a few studies of ungulate diet and dietary overlap among species. The key finding of concern to the NPS appears to be the overlap between the diet of black-tailed deer and that of both non-native deer species in times of drought and at the end of the summer, as well as the overlap in diet among elk and the two non-native deer species. As the DEIS acknowledges (p. 149), information about diet or dietary overlap is not sufficient to conclude that interspecific competition is occurring and is limiting black-tailed deer or tule elk populations in PORE. The DEIS describes the scientific literature regarding poor condition of female cervids and reduced fertility as a result of food shortage. This is certainly a concern if it is occurring, but the DEIS presents no evidence that it is happening. The observations of behavioral displacement of tule elk by fallow deer suggest that research is needed to quantify this displacement and to determine whether it is associated with decreased foraging, lower body condition, or reduced reproductive output in elk. With respect to the susceptibility of native (and non-native) cervids to livestock diseases, we have found nothing in the DEIS to suggest that the mere presence of non-native deer actually increases the risk of disease transmission to tule elk or black-tailed deer (i.e. above the risk that would exist if all cervids in the park were native).

3

We appreciate that NPS is not considering public hunting as an option in non-native deer management. The HSUS believes that public hunting is an inappropriate activity for National Parks and National Seashores. We agree that, even if non-native deer eradication (by any method) could be justified, public hunting is unlikely to be effective in achieving such an eradication and would likely result in unnecessary pain, injury, and distress to affected deer.

We also appreciate that NPS has selected a Preferred Alternative that combines non-lethal management with lethal control, rather than selecting a lethal-only alternative. However, as we explain above, there is little evidence of "invasiveness" of the non-native deer at PORE. Again, we understand NPS' concerns that are based on anecdotal evidence and limited research on diet and dietary overlap. But we suggest that, at this point, rather than initiating a long-term and intensive management action that may prove to have little real benefit, the NPS instead withdraw this DEIS and initiate much needed research into the impacts of fallow and axis deer on native ecosystems within PORE, both at current population sizes and at projected future population sizes. Examples of research questions include, but are not limited to: (1) whether displacement of tule elk by fallow deer results in reduced time foraging by elk, reduced body condition of elk, or reduced reproductive output by elk; (2) whether dietary overlap between native and non-native cervids reduces forage or cover available to native wildlife and in turn limits the survival and/or reproduction of native wildlife; (3) whether non-native deer impacts on soil, vegetation, and water resources is qualitatively or quantitatively different from impacts of native cervids; and (4) whether presence of non-native deer measurably increases the risk of transmission of livestock diseases to native cervids. Addressing these and other research questions would provide a solid scientific basis for any future management decisions and would allow the NPS to determine whether management of non-native deer is necessary to restore and protect native ecosystems, whether and how eradication or control will benefit native ecosystems, and whether fertility control alone could be used to achieve eradication (or control) especially if long-lasting (or permanent) or easily delivered contraceptives become available in the near future.

In addition, we suggest that NPS fully explore an alternative that would result in elimination or a gradual phase-out of livestock operations within PORE. The livestock diseases to which native cervids are susceptible will continue to pose a risk to native cervids as long as livestock remain in the park, with or without the presence of non-native cervids. Furthermore, as the DEIS acknowledges, the concentrated livestock operations are almost certainly degrading park resources (e.g. DEIS p. 148). Though the DEIS notes that these ranching operations have been reduced to "only 25%" of the overall land area, we find it incredible that a National Seashore would maintain so much land in agricultural operations that "might adversely affect several threatened and endangered species at the park," according to the U.S. Fish and Wildlife Service's Biological Opinion (referenced on p. 34 of the DEIS). A full quarter of the park's land area is used for concentrated dairy and beef cattle operations, and this will be allowed to continue while fallow and axis deer will be eradicated in an attempt to restore natural ecosystems despite a lack of evidence that these deer are degrading ecological processes in the park. The DEIS notes that changes in policies regarding livestock operations are possible in the near future with the next round of general management planning. We strongly urge the NPS to make such policy changes the management priority for the near future. With respect to non-native deer, the immediate need is research, as suggested above.

4

However, if NPS undertakes management actions to control or eradicate non-native deer despite the current lack of scientific justification, we believe that a more reasonable approach at this time would be an alternative combining research on non-native deer impacts with fertility control. We suggest that NPS revise this DEIS to evaluate an alternative that would combine research (such as that suggested above) with fertility control. This would allow NPS to shore up scientific understanding of non-native deer impacts at PORE but would also allow for non-native deer management to begin, even in the absence of scientific support for the need for or effectiveness of such management.

Again, we appreciate the opportunity to comment on this important matter.

Sincerely,

Bette Stallman, Ph.D.
Wildlife Scientist
Wildlife and Habitat Protection

5