LYNN WOOLSEY
6TH DISTRICT, CALIFORNIA

COMMITTEES:
EDUCATION AND THE WORKFORCE
RANKING MEMBER, SUBCOMMITTEE ON EDUCATION REFORM
SUBCOMMITTEE ON WORKFORCE PROTECTIONS
SCIENCE
SUBCOMMITTEE ON ENERGY

WEB PAGE AND E-MAIL:
http://www.woolsey.house.gov

Congress of the United States

House of Representatives

Washington, DC 20515–0506

WASHINGTON OFFICE:
2263 RAYBURN BUILDING
WASHINGTON, DC 20515–0506
TELEPHONE: (202) 225–5161

DISTRICT OFFICES:
101 COLLEGE AVENUE, SUITE 200
SANTA ROSA, CA 95404
TELEPHONE: (707) 542–7182

NORTHGATE BUILDING
[illegible] DRIVE, SUITE 65
SAN RAFAEL, CA 94903
TELEPHONE: (415) 499–0284

April 8, 2005

Don Neubacher, Superintendent
Point Reyes National Seashore
Point Reyes, CA 94965

Dear Superintendent Neubacher:

I am writing you concerning the draft Environmental Impact Statement/ Non-native Deer Management Plan that has been prepared by the Park Service to address the problems posed by the growing populations of non-native axis and fallow deer at the Pt. Reyes National Seashore.

Over the past few weeks my office has received numerous letter from constituents deeply concerned about this issue. I'm sure that you know the arguments. On one side there is a wish to protect the native species, biodiversity, and historical uses of the park (and nearby private property), which are threatened by a rapidly expanding population of non-native deer. On the other side, there is strong and heartfelt support for the preservation of these very beautiful creatures.

Unfortunately, I've been told that many of these deer carry a contagious disease, which is both difficult to screen and incurable, and would preclude relocating them to the wild or other less sensitive preserve areas, which would be my first choice.

I believe, however, that the most positive action would be fertility control as a significant component of a non-native deer control program and urge the Park Service to engage in the research that will be necessary to develop and deliver long-acting contraception to the non-native deer population. While fertility control may not be the entire answer, however, research into these areas would have the beneficial effect of helping to develop the technologies to humanely deal with similar problems in the future.

Please know that I appreciate the difficult and very complex work that the Park Service does to protect our national treasures.

Sincerely,

Lynn Woolsey

Lynn Woolsey
Member of Congress

STATE OF CALIFORNIA—THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *GOVERNOR*

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

August 5, 2005

Don L. Neubacher
Superintendent,
Point Reyes National Seashore
ATTN: Natalie Gates
Point Reyes, CA 94956

Subject: Negative Determination ND-078-05, Non-Native Deer Management Plan, Point Reyes National Seashore, Marin County

Dear Mr. Neubacher:

The Coastal Commission staff has reviewed the above-referenced negative determination. The National Park Service (NPS) proposes to implement a management plan for the eradication of non-native axis and fallow deer from within Point Reyes National Seashore by the year 2020 through a combination of long-lasting contraceptives and lethal removal. Individuals of both species were purchased from the San Francisco Zoo in the 1940s and 1950s and released on the Point Reyes peninsula by a private landowner before the establishment of the Seashore. The NPS estimates that currently there are approximately 250 axis and 860 fallow deer within the Seashore. Populations of both species of deer have increased in recent years and the range of fallow deer appears to be expanding eastward, towards and beyond the seashore boundary.

Point Reyes National Seashore is comprised of land and water owned and controlled by the NPS. Section 304(1) of the Coastal Zone Management Act excludes from the coastal zone all lands held in trust by or whose uses are subject solely to the discretion of the federal government. Notwithstanding this exclusion, if proposed activities on excluded lands could affect land or water uses or natural resources of the coastal zone, those activities must be reviewed for consistency with the California Coastal Management Program. It is in this context that the proposed management plan for the removal of non-native deer within the Seashore is reviewed.

The Point Reyes National Seashore 1999 Resource Management Plan (RMP) states that:

> *Regardless of potential competition and disease issues, the presence of these non-native deer compromises the ecological integrity of the Seashore and the attempts to reestablish the native cervid fauna comprising tule elk and black-tailed deer.*

The proposed management plan states that removal of non-native deer would assist the NPS in the restoration of soils, water quality, aquatic habitat, riparian vegetation, forest understories, and threatened and endangered species habitat for salmonids and red-legged frogs within the Seashore that have been and continue to be damaged by the presence of non-native deer. In

addition, the proposed activity would prevent the spread of non-native deer into surrounding private and public lands (including lands within the coastal zone) and the consequent spread of natural resource impacts, and would address adverse impacts to agricultural permittees by non-native deer within the Seashore.

The NPS proposes to eradicate all axis and fallow deer within the Seashore by 2020. A percentage of fallow deer would be treated with a long-acting contraceptive, and both axis and fallow deer would be removed by NPS staff trained in wildlife sharpshooting. The NPS reports that population modeling for fallow deer at the Seashore suggests that total numbers of both species of non-native deer removed by 2020 are projected to be at least 1,350 (800 axis and 550 fallow deer), while total numbers of fallow does treated by 2020 with a contraceptive could range from 100 to 150. The population and distribution of non-native deer within the Seashore would continue to be monitored throughout the 2005-2020 time period.

Temporary area closures (excluding beaches) may be required for the safe capture and culling of non-native deer and may temporarily inconvenience visitors to the Seashore. Increased noise from aircraft use or firearms may temporarily result in the loss of peace and quiet in the Seashore during periods of non-native deer management activities. Over the long term, however, removal of two invasive animal species will enhance the quality of the visitor experience by contributing to the restoration of damaged habitats within the Seashore and providing increased opportunities for viewing native deer and elk in the Seashore. In addition, the proposed action would keep non-native deer from migrating into the coastal zone and adversely affecting environmentally sensitive habitats.

In conclusion, the Commission staff **agrees** that implementing the non-native deer management plan within Point Reyes National Seashore will not adversely affect coastal zone resources. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Larry Simon at (415) 904-5288 should you have any questions regarding this matter.

Sincerely,

PETER M. DOUGLAS
Executive Director

cc: North Central Coast District Office
California Department of Water Resources
Governor's Washington, D.C., Office

State of California – The Resources Agency ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov

1416 Ninth Street
Sacramento, California 95814
(916) 653-4673

March 24, 2005

Mr. Don L. Neubacher, Superintendent
Point Reyes National Seashore
Point Reyes, California 94956

Dear Mr. Neubacher:

The California Department of Fish and Game (Department) has reviewed the draft Environmental Impact Statement regarding the Non-Native Deer Management Plan. The National Park Service is proposing to remove axis and fallow deer within the Point Reyes National Seashore's boundary through a combination of long-duration contraception and lethal control. The Department has the following comments regarding the proposal:

1. The Department supports control of non-native species in natural areas where management goals are the protection of native ecosystems and species;

2. The Department supports all management actions that will prevent the movement of these non-native deer species outside the Point Reyes National Seashore's boundary;

3. Due primarily to disease concerns, the Department does not support the movement of any live, non-native deer within the State for any purposes.

Thank you for the opportunity to provide these comments. If you have any questions, please contact John Carlson, Jr., Chief, Wildlife Programs Branch, at (916) 445-3555.

Sincerely,

Sonke Mastrup
Deputy Director

cc: John Carlson, Jr., Chief
Wildlife Programs Branch

Conserving California's Wildlife Since 1870

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

March 2, 2005

Don Neubacher, Superintendent
Point Reyes National Seashore
Point Reyes, CA 94956

Subject: Non-Native Deer Management Plan Draft Environmental Impact Statement (DEIS)
[CEQ # 050030]

Dear Mr. Neubacher:

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced document. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR 1500-1508, and Section 309 of the Clean Air Act.

The DEIS analyzes alternatives for management of Axis Deer and Fallow Deer in Point Reyes National Seashore (PRNS) and Golden Gate National Recreation Area lands administered by PRNS. The intent of the plan is to assist the National Park Service in restoring native ecosystems within park lands and preventing the spread of non-native deer into surrounding private and public lands, and to address impacts to agricultural permittees within PRNS. We have rated this DEIS as LO -- Lack of Objections (see enclosed "Summary of Rating Definitions").

We appreciate the opportunity to review this DEIS and request a copy of the Final Environmental Impact Statement when it is filed with our Washington, D.C. office. If you have any questions, please call me at (415) 972-3854, or have your staff call Jeanne Geselbracht at (415) 972-3853.

Sincerely,

Lisa B. Hanf

Lisa B. Hanf, Manager
Federal Activities Office

003944
Enclosure: "Summary of Rating Definitions"

Printed on Recycled Paper

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

MARIN MUNICIPAL
WATER DISTRICT

220 Nellen Avenue Corte Madera CA 94925-1169
www.marinwater.org

April 11, 2005

Mr. Don Neubacher
Superintendent
Point Reyes National Seashore
Point Reyes, CA 94956

Attention: Non-Native Deer Management Plan

Dear Mr. Neubacher:

On behalf of the Board of Directors of The Marin Municipal Water District (District) I am writing in support of Point Reyes National Seashore's Non-Native Deer Management Plan Draft Environmental Impact Statement (Plan) and specifically for the preferred Alternative E. As a neighboring landowner to the Seashore we share common interests in managing invasive species such as axis and fallow deer. You will recall that our agencies collaborated on successful feral pig control in the 1980s. Our watershed management polices promote the protection of native flora and fauna and specifically call for the control of exotic species. Your plan suggests male fallow deer are already leaving National Park Service lands and that without effective control, fallow deer may become resident on our lands. We are very concerned about this prospect.

We support Alternative E because it calls for the eradication of both non-native deer from the park because it is consistent with natural area management policies that protect native diversity. We also believe that it is a more humane alternative in the long run than maintenance of herds at pre-determined low levels (Alternatives B and C), because herd maintenance calls for culling herds in perpetuity. Alternative E calls for the application of long-acting contraceptives in combination with shooting by trained NPS staff. We applaud the park service for emphasizing non-lethal means even though they are experimental and unproven.

A successful deer management program is required to protect the ecological integrity of our wildlands. A no action alternative would lead to widespread ecological degradation beyond park boundaries and is therefore unacceptable. We commend you and your staff for the careful science-based evaluation and effective proposal for a difficult and controversial issue.

Sincerely,

Paul Helliker

Paul E. Helliker
General Manager

F:\DIVISION\BOARD\LETTERS\2005\NPS DEER MGMT LETTER.DOC

recycled
recyclable

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802- 4213

May 3, 2005

In Response Refer to:
151422SRW05SR00250:DL

Don L. Neubacher, Superintendent
National Park Service
Point Reyes National Seashore
Point Reyes, California 94956

Dear Mr. Neubacher:

This letter is in response to your request for written concurrence from the NOAA's National Marine Fisheries Service (NMFS) regarding the National Park Service's (NPS) three determinations related to its Non-native Deer Management Plan for the Point Reyes National Seashore: 1) the project is not likely to adversely affect threatened California Coastal (CC) Chinook salmon (*Oncorhynchus tshawytscha*), Central California Coast (CCC) coho salmon (*O. kisutch*), or CCC steelhead (O. mykiss); 2) the project is not likely to result in adverse effects to designated critical habitat for CCC coho salmon or the proposed critical habitat of CC Chinook salmon and CCC steelhead; and 3) the project is not likely to result in adverse modification of Essential Fish Habitat. NPS proposes to eradicate nonnative axis deer (*Cervus axis*) and fallow deer (*Cervus dama*) on its holdings throughout the Lagunitas Creek watershed in Marin County California. The proposed eradication efforts will occur in grassland or scrub areas where deer can be handled or culled safely. No management actions will occur in streams or riparian areas. Therefore, I concur with NPS's three determinations stated earlier in this paragraph.

This concludes informal section 7 consultation for this proposed project in accordance with 50 CFR section 402.14(b)(1). Consultation must be reinitiated if new information becomes available revealing the effects of the action on listed species in a manner or to an extent not previously considered, the project plans change, if the action is subsequently modified in a manner that causes an effect to listed species that was not considered, or if a new species or critical habitat is designated that may be affected by this action.

If you have questions concerning this consultation, please contact Daniel Logan at (707) 575-6053.

Sincerely,

for Rodney R. McInnis
Regional Administrator

cc: ARA-PRD, NMFS

State of California • The Resources Agency
Arnold Schwarzenegger, *Governor*
DEPARTMENT OF PARKS AND RECREATION • P.O. Box 942896 • Sacramento, CA 94296-0001
Ruth Coleman, *Director*
(916) 653-6725

April 7, 2005

Don L. Neubacher
Superintendent
Point Reyes National Seashore
Point Reyes, California 94956

Dear Superintendent Neubacher:

Thank you for the opportunity to comment on the Draft Non-Native Deer Management Plan Environmental Statement (EIS).

California State Parks manages property in close proximity to both Point Reyes National Seashore (Tomales Bay State Park) and to Golden Gate National Recreation Area (Mount Tamalpais SP, Marconi State Historic Park, and Samuel P. Taylor SP). These State and Federal parks make up a landscape level reserve of statewide significance that protects the natural resource values representative of the Coastal Steppe Mixed Forest Province. Given this proximity, and the population models presented in the Draft Plan, it seems highly likely that California State Parks will become populated by non-native deer if prompt corrective actions are not taken. Non-native deer have already been reported to occur in Tomales Bay State Park according to a Natural Resources Condition Assessment our Department conducted in 2001-02.

Similar to the National Park Service, California State Parks is mandated to protect and preserve native ecosystems. The presence of non-native animals is generally inconsistent with the Department's mission of maintaining native species and natural systems. It is the general policy of California State Parks that non-native animals not be maintained in the State Park System except to fulfill unit-specific State Park management goals.

The non-native deer population clearly competes with native deer populations and with other species for food, water, and cover. The non-native deer populations also have deleterious impacts on soils, water quality, and vegetation. Diseases known to be present in the non-native deer population must be prevented from spreading to native wildlife to the extent feasible.

California State Parks supports the preferred alternative, Alternative E, in the Draft Non-Native Deer Management Plan. To not undertake, or to delay, action to control the population of axis and fallow deer would perpetuate and exacerbate the problem so that an even more extensive and expensive control effort involving the eradication of more animals would be required.

Superintendent Neubacher
Page Two
April 7, 2005

Thank you for the opportunity to comment on this document. If you have any questions, please call Cynthia Roye, Associate State Park Resource Ecologist, at (916) 653- 9083.

Sincerely,

Richard G. Rayburn, Chief
Natural Resources Division

cc: Diablo Vista District
North Bay District

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

April 11, 2005

Don Neubacher
National Park Service
Point Reyes National Seashore
Point Reyes, CA 94956

Subject: Non-Native Deer Management Plan
SCH#: 2005022060

Dear Don Neubacher:

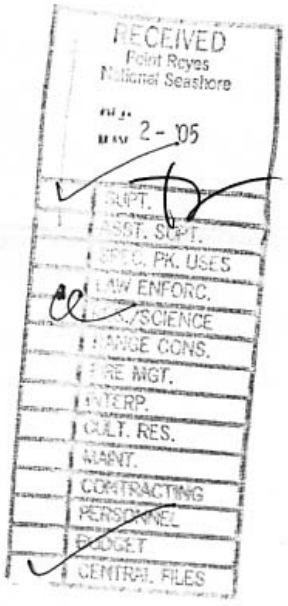
The State Clearinghouse submitted the above named Draft EIS to selected state agencies for review. The review period closed on April 8, 2005, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse



1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer to:
1-1-05-I-0035

April 7, 2005

Memorandum

To: Park Superintendent, Point Reyes National Seashore, National Park Service, Point Reyes, California (Attn: Ranger Natalie Gates)

From: Deputy Assistant Field Supervisor, Endangered Species Program, Sacramento Fish and Wildlife Office, Sacramento, California

Subject: Concurrence with Not Likely to Adversely Affect Determination for Nine Listed Species and Proposed Critical habitat for the California Red-legged Frog as a result of the Non-Native Deer Management Plan at the Point Reyes National Seashore and Golden Gate National Recreation Area in Marin County, California

This memorandum is in response to the U. S. National Park Service's March 10, 2005, request for the concurrence of the U.S. Fish and Wildlife Service (Service) for the proposed Non-Native Deer Management project at the Point Reyes National Seashore and Golden Gate National Recreation Area in Marin County County, California. Your request was received by this Field Office on March 14, 2005. Additional information was received from the National Park Service in a letter to the Service dated March 30, 2005, that was received by us on April 6, 2005. At issue are the potential effects of the proposed project on the threatened California red-legged frog (*Rana aurora draytonii*), threatened western snowy plover (*Charadrius alexandrinus nivosus*), threatened northern spotted owl (*Strix occidentalis caurina*), endangered California freshwater shrimp (*Syncaris pacifica*), endangered Myrtle's silverspot butterfly (*Speyeria zerene myrtleae*), endangered Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*), endangered beach layia (*Layia carnosa*), endangered clover lupine (*Lupinus tidestromii*), endangered Sonoma spineflower (*Chorizanthe valida*), and proposed critical habitat for the threatened California red-legged frog. This response is provided pursuant to section 7(a) of the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*)(Act), and in accordance with the regulations governing interagency consultations (50 CFR § 402).

This document is based on your March 10, 2005, letter and associated information; your March 30, 2005, letter; *Point Reyes National Seashore Threatened and Endangered Species Locations as of 2001*, undated, that was prepared by the National Park Service; and other information available to the Service.

It is our understanding the proposed project consists of the lethal removal and fertility control of all axis deer (*Axis axis*) and fallow deer (*Dama dama dama*) by the year 2020. A percentage of the fallow deer would be treated with an existing long-acting contraceptive, and both species of deer would be removed via shooting. The proposed management activities will take place in open flat grassland or scrub areas where deer can be safely handled for contraceptive administration or safely culled. No management activities will take place in creeks, waterways, or riparian areas. The culling would be conducted by National Park Service staff specifically trained in wildlife sharpshooting. Deer carcasses will be removed when possible; in cases where carcasses could not be accessed, they will be left in place to recycle nutrients into the ecosystem. Monitoring would continued until all non-native deer area eradicated by the year 2020.

The measures in the proposed project are sufficient to reduce any direct, indirect, and cumulative effects on the California red-legged frog, western snowy plover, northern spotted owl, California freshwater shrimp, Myrtle's silverspot butterfly, endangered Sonoma alopecurus, endangered beach layia, endangered clover lupine, endangered Sonoma spineflower to an insignificant or discountable level, or result in adverse modification or destruction of the proposed critical habitat of the California red-legged frog. Critical habitat for the other eight species has not been proposed, designed, or is located in the action area. Therefore, the Service concurs that the project, as described within your March 10, 2005, and March 30, 2005, letters and accompanying material, is not likely to adversely affect these nine listed species and proposed critical habitat for the California red-legged frog. If project work descriptions or time frames change, or were not evaluated, it is our recommendation that the changes be submitted for our review. This concludes our review of the actions outlined in the March 10, 2005, and March 30, 2005, letters and accompanying material, and no further coordination with the Service under the Act is necessary at this time. Please note that this memorandum does not authorize the take of listed species.

As provided in 50 CFR § 402.14, initiation of formal consultation is required where there is discretionary Federal agency involvement or control over the action (or is authorized by law) and if: (1) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this review; (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (3) a new species is listed or critical habitat designated that may be affected by the action.

We appreciate your proactive efforts to conserve and recover endangered species. Please contact Chris Nagano, Deputy Assistant Field Supervisor (Endangered Species Program), at the letterhead address or at 916/414-6600 if you have questions regarding this response.

cc:
Ranger D. Hatch, GGNRA, NPS, San Francisco, California
Ranger N. Hornor, GGNRA, NPS, San Francisco, California
Ranger D. Fong, GGNRA, NPS, San Francisco, California
Ranger S. Allen, PRNS, NPS, Point Reyes Station, California
Gary Fellers, USGS, Point Reyes Station, California

4/6/2005 7:41 PM FROM: visualpoint.com-usr TO: 84,,14156638132 PAGE: 001 OF 001

Wednesday, April 6, 2005

Ann Nelson
Point Reyes National Seashore
National Park Service
Point Reyes National Seashore
Point Reyes, CA 94956

Dear Point Reyes National Seashore Nelson,

Thank you for the opportunity to contribute to the planning process at Point Reyes National Seashore. I applaud the excellent work you've done in the past, and as you finalize your management plan I encourage you to choose Alternative D – a proactive approach to the problem of axis and fallow deer.

The park is at a critical juncture in its relationship with non-native deer. Because of the deer's expansive nature, the disruption they cause to Point Reyes' native ecosystem could become irreparable. With the Park Service mandate to protect and restore native ecosystems, I believe the park must adopt a plan that can address these issues based on its human and financial resources. If action is not taken soon, proactive solutions will pass us by. Point Reyes must have a roadmap to deal with these ever-expanding species before it's too late.

As you well know, the invasive axis and fallow deer are disruptive in a number of ways. In addition to disturbing native flora and out-competing native fauna, they pose threats to endangered species like the red-legged frog and coho salmon that you've worked so hard to protect. As they grow in population and gain more ground, the deer might become more aggressive toward park visitors. In addition, the financial drain is significant for nearby ranchers, the community at large, and a Park Service already struggling with inadequate budgets. I understand that you have limited staff and resources to deal with monitoring the spread of disease through these invasive animals, which is why an aggressive program that begins now will make all the difference in the future.

Thanks again for this opportunity to voice my support for Alternative D for Point Reyes National Seashore.

Sincerely,

Frank Holmes
6965 Holt Drive
Colorado Springs, CO 80922 - 1608
fsholmes2@msn.com

joslynb@sbcglobal.net
03/01/2005 06:26 PM
GMT

To: ann_nelson@nps.gov
cc:
Subject: Possibly Spam: Spare the Exotic Deer of Point Reyes National Seashore

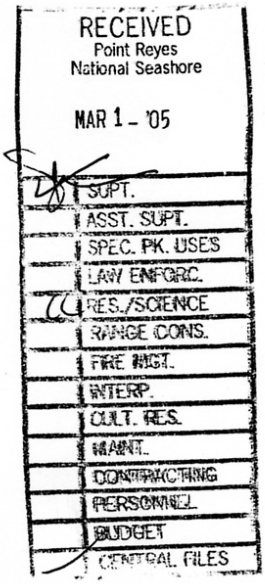
Ms. Ann Nelson

Dear Ms. Nelson,

Please cancel plans to kill deer in the Reyes Point National Seashore. The exotic deer are in the park because of human action. They were placed on a private ranch for hunting purposes in the 1940's. We now have an ethical responsibility to devise a humane and non-lethal approach to managing them. The culling plan is inhumane and further, the Draft Environmental Impact Statement (DEIS) lacks evidence to indicate that the fallow and axis deer are negatively impacting the environment or other species in the park. The DEIS lacks full and objective information about the feasibility of wildlife contraception methods. The Statement should include an analysis of the feasibility of wildlife contraception, written by experts in the field. Further, the DEIS lacks an alternative that just considers management of the axis and fallow deer through contraception alone. The axis and fallow deer are a special and important part of the visitor experience to the National Seashore and this unique wildlife viewing opportunity should not be destroyed. Please let me know that you will cancel this plan. Thank you for your time and attention.

Sincerely,

Joslyn Baxter
3907 26th Street
San Francisco, California 94131



THE HUMANE SOCIETY OF THE UNITED STATES

OFFICERS
David O. Wiebers, M.D.
Chair of the Board
Anita W. Coupe, Esq.
Vice Chair of the Board
Eugene W. Lorenz
Board Treasurer
Wayne Pacelle
President & CEO
G. Thomas Waite III
Treasurer & CFO
Roger A. Kindler, Esq.
General Counsel & CLO

STAFF VICE PRESIDENTS
Andrew N. Rowan, Ph.D.
Executive Vice President Operations
Michael Markarian
Executive Vice President External Affairs
Patricia A. Forkan
Senior Vice President International Programs & Regions
Martha C. Armstrong
Senior Vice President Domestic Animal Programs
John W. Grandy, Ph.D.
Senior Vice President Wildlife & Habitat Protection
Heidi Prescott
Senior Vice President Campaigns
Michael C. Appleby, B.Sc., Ph.D.
Farm Animals
Katherine Benedict
Administration, Information Services, & Technology
Nicholas Braden
Communications
Richard M. Clugston, Ph.D.
Higher Education
Randall Lockwood, Ph.D.
Research & Educational Outreach
Jonathan R. Lovvorn, Esq.
Animal Protection Litigation
Steve Putnam
Business Development
Robert G. Roop, Ph.D., SPHR
Human Resources & Education Programs
Melissa Seide Rubin, Esq.
Field & Disaster Services
Martin L. Stephens, Ph.D.
Animal Research Issues
Richard W. Swain Jr.
Investigative Services
Gretchen Wyler
Hollywood Office

DIRECTORS
Leslie Lee Alexander
Patricia Mares Asip
Peter A. Bender
Donald W. Cashen, Ph.D.
Anita W. Coupe, Esq.
Neil Fang
Judi Friedman
Alice R. Garey
David John Jhirad, Ph.D.
Jennifer Leaning, M.D.
Eugene W. Lorenz
William F. Mancuso
Patrick L. McDonnell
Judy Ney
Judy J. Peil
Marian Probst
Joe Ramsey, Esq.
Jeffery O. Rose
James D. Ross, Esq.
Marilyn G. Seyler
Walter J. Stewart, Esq.
John E. Taft
David O. Wiebers, M.D.
K. William Wiseman

John A. Hoyt
Paul G. Irwin
Presidents Emeriti

Murdaugh Stuart Madden, Esq.
Vice President & Senior Counsel

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

Promoting the protection of all animals
2100 L Street, NW, Washington, DC 20037 ▪ 202-452-1100 ▪ Fax: 202-778-6132 ▪ www.hsus.org

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

The
NATIONAL HUMANE
EDUCATION SOCIETY
Fostering a sentiment of kindness to animals

April 8th, 2005

Superintendent John Dell'Osso
Point Reyes National Seashore
Point Reyes, CA 94956

Dear Superintendent Dell'Osso,

I am writing on behalf of The National Humane Education Society (NHES) and its 400,000 supporters nationwide—many of whom are California residents—to strongly urge the Point Reyes National Seashore to implement only humane methods of population control for the growing number of Fallow and Axis deer on the national park land.

As a non-profit organization which promotes the humane treatment of all animals, NHES is opposed to cruelty to animals in any form, and we are therefore, adamantly opposed to the use of mass killing as a form of wildlife population control. Specifically, NHES is strongly opposed to the proposal of exterminating the Fallow and Axis deer population via hunting.

Further issues of consideration:

- *Net Loss of Revenue:* Many wildlife watchers stop going to parks when they feel unsafe and displeased by hunting; this comes as significant loss of revenue as there are far more wildlife watchers then hunters.
- *Unnecessary Strife:* Often wildlife must endure hunting seasons outside of park lands, and must also adjust to increasing human development. National parks may be the last safe haven wild animals have from unnaturally arduous stresses.
- *Not Effective Population Control:* There is currently no solid evidence supporting hunting as an effective management tool for overpopulation, diseases, nuisance animals, or protection of endangered species.
    - Furthermore, at this time there is no solid evidence supporting the suggestion that Fallow and Axis deer are negatively impacting the environment or harming the native Black Tail deer.

NATIONAL OFFICE:
P.O. Box 340
Charles Town, WV 25414-0340
Phone 304/725-0506
Fax 304/725-1523
www.nhes.org

PROGRAM:
SPAY TODAY
P.O. Box 340
Charles Town, WV 25414-0340
Phone 304/728-8332
Fax 304/724-6765
www.nhes.org

AFFILIATE:
PEACE PLANTATION
ANIMAL SANCTUARY
12752 State Hwy. 206
Walton, NY 13856-2327
Phone 607/865-5759
Fax 607/865-6334
www.ppasny.org

PROGRAM:
BRIGGS ANIMAL
ADOPTION CENTER
P.O. Box 1023
Charles Town, WV 25414-10
Phone 304/724-6558
Fax 304/724-6765
www.baacs.org

With these facts in mind, NHES adamantly requests that Point Reyes National Seashore pursue humane methods of population control for the Fallow and Axis deer. In place of killing these sentient creatures, we highly encourage the park to use humane methods such as relocation of deer to less population areas of land, and the use of contraceptives to deter excessive reproduction.

In closing, NHES feels that the creation and enactment of laws pertaining to the humane treatment of *all* animals is of utmost importance. To allow animals neglect and/or abuse is a definite risk to a community and society as a whole. By utilizing humane wildlife population control within national parks, we can remain one step closer to a more humane society.

Thank you very much for your time and effort regarding this issue. NHES will also continue to work for animal welfare and responsible and humane communities nationwide. I look forward to your positive influence on this situation.

For the animals,

Maria Keith

Maria Keith
Humane Education Assistant

IN DEFENSE OF ANIMALS

April 3, 2005

Mr. Don Neubacher
Superintendent
Point Reyes National Seashore
Point Reyes Station, CA 94956

Via Fax (415/663-8132) and Email: ann_nelson@nps.gov
16 Pages

Dear Mr. Neubacher:

Please accept this letter as comments on the Non-native Deer Management Plan Draft Environmental Impact Statement (DEIS) submitted on behalf of In Defense of Animals.

We are disappointed in this document because we believe it is not an objective assessment of the situation with the non-native deer at the park, nor is it an adequate evaluation of the non-lethal alternatives available to the park for controlling the exotic deer populations.

In reading the DEIS document, we are struck by the lack of scientific documentation indicating that the deer are negatively impacting the natural resources of the Pt. Reyes National Seashore (PRNS). We are also struck by the lack of hard data to support the Berkeley computerized population projections. We recall how far off these projections were regarding the carrying capacity of the tule elk range in the early 1990's.

While we recognize your legitimate concerns about the deer colonizing outside the park, it is also clear that the deer are not having significant negative impacts on the park environment at present. As a result, the park has the luxury of time to undertake non-lethal fertility control programs that could impact population growth of both species over the long run.

We believe that the DEIS is woefully inadequate in its exclusion of a strictly non-lethal, alternative for managing the deer population. The section describing the feasibility of immunocontraception and immuno-sterilization is also woefully inadequate and appears to have been written by biologists philosophically opposed to wildlife contraception.

We believe that no discussion of non-native deer extirpation through lethal means can occur while cattle graze nearly 20,0000 acres. These cattle are far more destructive to the park's natural resources than the non-native deer could ever be. The park should conduct an Environmental Impact Statement (EIS), in accordance with NEPA, thoroughly addressing the significant environmental impacts of agricultural lease renewals on the PRNS before completion of the non-native deer management plan. NEPA requires that the cumulative

IN DEFENSE OF ANIMALS • 131 CAMINO ALTO, SUITE E • MILL VALLEY, CA 94941 • 415/388-9641

process for only non-native species, you have looked at only one side of the equation. More is required under NEPA before lethal extirpation of the non-native deer could be legally or ethically justified.

Clearly public opinion favors non-lethal, humane management of these deer species. The DEIS should be re-written to include a preferred alternative of non-lethal management methodologies and the PRNS should rely on actual experts in the field of wildlife fertility control in its assessment of this alternative.

More detailed comments are attached to this letter.

Sincerely,

Suzanne Roy
Program Director
In Defense of Animals
919/732-8978
Suzanne.e.roy@earthlink.net

Attachment: Specific comments on DEIS
U.S. District Court, District of Columbia Civil No. 98CV2355 (RMU)
Abstract: Zoo Biology, Vol. 22, Issue 3, Pages 261-268

IN DEFENSE OF ANIMALS

April 4, 2005

Mr. Don Neubacher
Superintendent
Point Reyes National Seashore
Point Reyes Station, CA 94956

Via Fax (415/663-8132) and Email: ann_nelson@nps.gov

1 Page: Addendum to IDA's Comments on the PRNS Non-native Deer Management Plan Draft Environmental Impact Statement (DEIS)

Dear Mr. Neubacher:

I have just been in touch with Dr. Jay Kirkpatrick. He reports not only does pZP work fine in fallow deer (as stated in the Zoo Biology article included with my comments), but also that the antibody titers remain very high for a long period of time. This means that after the first two or three years of treatment, the deer do not have to be treated annually. His current estimate is that they would have to be treated once every four to five years after that. He reports that this is different from white-tail deer and seems to be species-specific in fallow deer.

The omission of the latest published research on immunocontraception in fallow deer, and the failure of the DEIS author to contact Dr. Jay Kirkpatrick, the leader in the field of immunocontraception is a major shortcoming of this document. It is disappointing that your staff did not prepare a more objective assessment of this cutting-edge wildlife management technology.

Sincerely,

Suzanne Roy
Program Director
In Defense of Animals
919/732-8978
Suzanne.e.roy@earthlink.net

IN DEFENSE OF ANIMALS • 131 CAMINO ALTO, SUITE E • MILL VALLEY, CA 94941 • 415/388-9641

APR-04-2005 17:15 99% P.01

IDA COMMENTS ON PRNS NON-NATIVE DEER MANAGEMENT PLAN DRAFT ENVIRONMENT IMPACT STATEMENT
April 3, 2005

I. Overview

The 2001 NPS policy regarding non-native species "specifically requires managers to manage all non-native species not maintained for an identified park purpose, up to, and including eradication, if control is prudent and feasible and the species "interferes with natural processes and perpetuation of natural features, native species or natural habitats."

In its preferred alternative, PRNS seeks to eradicate the non-native deer primarily through lethal culling activities, supplemented by small-scale immunosterlization trials. Through the DEIS, however, the park has failed to demonstrate that this extermination of the axis and fallow deer from PRNS is justified.

The DEIS lacks evidence that the non-native deer species are interfering with the natural resources of the park in any significant way. Further, the DEIS failed to adequately explore the impacts of culling on the natural resources of the park, a factor that could render massive sharpshooting and extirpation of the deer imprudent. Finally the DEIS failed to realistically assess the ability of culling to eradicate non-native deer from the park, a factor that would make the PRNS preferred alternative infeasible and not in accord with the 2001 NPS directive.

II. There is no scientific documentation to indicate that the axis and fallow deer are negatively impacting native species in the park.

The NPS has clearly failed to ensure the scientific integrity of the DEIS's analysis of the impacts of culling non-native deer on the Park's resources, as is required by the Council on Environmental Quality (CEQ) regulations. See 40 C.F.R. § 1502.24. This is demonstrated clearly in the summary statement:

> "Some of the more serious effects these non-native deer have at the seashore include possible competition with, and displacement of native tule elk and black-tailed deer... the *potential* for transmitting disease to these native ungulates, and heavy use of and resulting impacts to riparian habitat and *presumably* to the native wildlife dependent on these habitats." (p. 24, Emphasis added)

A. Many of the impacts cited are either minor or speculative:

> "Current impacts to water quality and resources from non-native deer in the park are minor. . ."
>
> "Soils *could* be affected by non-native deer in several ways. . ."

IDA COMMENTS ON PRNS NON-NATIVE DEER MANAGEMENT PLAN DRAFT ENVIRONMENT IMPACT STATEMENT
April 3, 2005

> "Deer, and other ungulates, *can cause* a variety of impacts on vegetation"
>
> "Damage to riparian and understory vegetation within the seashore is currently considered minor in intensity."
>
> "Non-native deer, *can* affect native wildlife . . ."
>
> "To date, no direct effects have been noted on the productivity or survival of [spotted] owls."
>
> "Western snowy plovers nest along the sandy beaches of the Seashore that *may* also be used sporadically by axis deer."
>
> "Fallow deer regularly frequent riparian areas where California red-legged frog live and/or breed. They *can* destroy vegetation by trampling or eating plants, and by thrashing their antlers during the rut. Overall the adverse impacts . . .. would be minor and long term."
>
> "To date it is not known whether the non-native deer browse on the preferred nectar or larval host plants of the [Myrtle's silverspot] butterfly. However, research elsewhere suggests that they *may* graze on species similar to the one plant that serves as a larval host for Myrtle's silverspot butterfly at PRNS."

B. Future impacts are based on questionable computer models of population growth curves.

These computer models have been demonstrated to be faulty before, as in the case of wrong estimates of the carrying capacity of the tule elk range, which have been revised upwards by hundreds of animals since the original modeling projections – made by the same U.C. Berkeley scientists – were generated in the early 1990's.

The computer models are not based on real field data. Data that PRNS lacks include:

- Studies that look at the reproductive rate for fallow, axis, black tailed deer and tule elk as impacted by amount and distribution over a year of rainfall. This actual data could be collected through fecal samples and weather records.
- Evaluation of whether vegetation in areas where fallow deer live is different in biomass and/or species varieties than in areas where they do not live;
- Examination of the degree of overlap in the diet between the fallow, axis, and black-tailed deer and tule elk.

IDA COMMENTS ON PRNS NON-NATIVE DEER MANAGEMENT PLAN DRAFT ENVIRONMENT IMPACT STATEMENT
April 3, 2005

This real data could be generated by scientists doing work in the field as opposed to those sitting behind their desks working on computer models that have been proved wrong in the past.

One actual study is apparently underway. Page 123 of the DEIS states that an analysis of ungulate fecal pellets by Humboldt State University has been ongoing since 2000. The DEIS states that this study should be able to identify any overlap between the tule elk diet and the fallow deer diet in the Limantour area of the PRNS. However, the data is not yet in, and the assumptions in the DEIS about fallow deer impact on vegetation and native tule elk species are premature.

C. The DEIS relies on anecdotal information to suggest a negative impact of the non-native deer on native species.

- For example, the DEIS mentions unpublished data of fallow bucks observed sparring with tule elk bulls and chasing them off. No information is given on the number of bulls involved or of the frequency with which this behavior has been observed. IDA is aware that one male fallow buck was seen challenging tule elk males around the time of the rut. This was considered to be an odd an exceptional animal – who has been seen trying to herd female elk around but not being very successful at it.

D. The DEIS makes speculations that do not seem to be grounded in reality.

The DEIS states:

> "resource managers are concerned that [the tule elk] *may* be kept from fully occupying habitat in PRNS [at the Limantour site] by competition from fallow and/or axis deer."

With 38 elk on 22,0000 square acres at that site, this speculation stretches the limit of credibility.

E. The DEIS relies on studies of questionable relevance to the situation at PRNS.

The relevance of studies in New Zealand of high-density populations of fallow deer out-competing native red deer is questionable. Too few variables are described to know whether extrapolation from that situation to the PRNS situation

III. There can be no justification for extirpation of non-native deer through lethal means while non-native, environmentally destructive, cattle continue to graze tk acres of the PRNS.

A. Cattle have far greater environmental impacts on the park than do non-native species.

IDA COMMENTS ON PRNS NON-NATIVE DEER MANAGEMENT PLAN DRAFT ENVIRONMENT IMPACT STATEMENT
April 3, 2005

PRNS cites a Biological Assessment, conducted under the Endangered Species Act, to analyze the effect of agricultural lease renewals on special status species in the park. PRNS reaches the illogical conclusion that ranching with 6,350 non-native cattle on 18,900 acres of the national seashore is not likely to jeopardize these species, while it uses speculation, anecdote and supposition to conclude that the 860 fallow deer and the 250 axis deer in the park will negatively impact these species.

PRNS should undertake an objective assessment, in accordance with NEPA, of the environmental impacts of ranching lease renewals in the park. The final EIS on the management plan for the non-native deer should include an alternative that considers eliminating ranching and dairy operations from the park. Such a plan would create thousands of acres more habitat for native species and would change the equation with regard to concerns about non-native deer.

NEPA requires that "connected actions, which means they are closely related" should be "discussed in the same document. (CEQ Regulation 1502) The DEIS considers only one side of the equation – the impacts of non-native deer – without considering the impacts of cattle and their interrelatedness with overall impacts to the PRNS ecosystem.

The DEIS also discusses the impacts of the non-native deer on ranching operations. In doing so, it exaggerates these impacts – in reality only 4 of 26 ranches reported problems of minor intensity. IDA does not believe that the objective of the park to eliminate the non-native deer to lessen impacts on ranching within the PRNS is legitimate or legally justified.

The DEIS discusses the potential that non-native deer carry paratuberculosis, but does not state that the deer got the disease from the cattle in the first place. Paratuberculosis is endemic to the West Marin region, due to the predominance of ranching activities there. The DEIS states the prevalence of paratuberculosis was about 10% and 8% in axis and fallow deer, respectively, but does not state the prevalence of the disease in cattle in the region.

Again, this is an issue that has been distorted in the DEIS – suggesting that the non-native deer are vectors for this disease without reporting that the disease, is in fact, endemic to cattle and dairy ranching in West Marin. It is the cattle that are the real reservoir of this disease and pose the most risk to native wildlife.

In addition, the chances that paratuberculosis will become more of a problem will be increased by culling, as a stressed population is more susceptible to this disease. Culling could increase chances of disease transmission to cattle and native wildlife. This impact should have been explored in the DEIS.

IDA COMMENTS ON PRNS NON-NATIVE DEER MANAGEMENT PLAN DRAFT ENVIRONMENT IMPACT STATEMENT
April 3, 2005

III. The DEIS failed to include an alternative that involved a strictly non-lethal fertility control program for management of the deer.

A. The DEIS did not objectively evaluate the potential of immuno-contraception and immuno-sterilization for control of the non-native deer species.

NEPA requires that an environmental impact statement should "rigorously explore and objectively evaluate all reasonable alternatives . . . " (CEQ Regulation 1502).

The PRNS officials dismissed the feasibly of non-lethal population management without out consulting leaders in the field of wildlife contraception for their assessment.

The DEIS appears to have been prepared by biologists who are philosophically opposed to wildlife fertility control

- Park biologists met with community groups as long as 2 years ago and stated that contraception was not feasible. This conclusion was reached before any environmental analysis was prepared.

- Park biologists used unscientific statements to support their contention about the infeasibility of fertility control. One example is the claim that immunocontraceptives could get into the food chain if a deer is preyed upon by a mountain lion or hunted by people and used for meat. This is untrue. According to Dr. Jay Kirkpatrick, the pioneer of the immunocontraceptive porcine Zona Pellucida (pZP), "The vaccine is a non-microbial protein molecule, which can't go through the food chain even if you wanted it to." Dr. Kirkpatrick states if that was possible scientists wouldn't have to go out and dart the animals, they could just feed them the contraceptive drug. (email communication 3/14/2005)

B. The DEIS selectively quotes the scientific literature to make a case against the use of fertility control in non-native deer.

The DEIS states:

> " No published reports exist of pZP's effectiveness in preventing fallow deer from reproducing; however Kirkpatrick concludes from unpublished data that a yearly pZP vaccine would be "ineffective in fallow deer" (Kirkpatrick, et. all 1996a and b)." (Pg. 42, Emphasis added.)

The DEIS ignores recent published data indicating that fawn production was "reduced significantly" in two herds of semi-free ranging fallow deer inoculated

with pZP. ("Immunocontraception of captive exotic species: Contraception and population management of fallow deer," Zoo Biology, Vol 22, Issue 3, p. 261-268, June 2003. (See attached abstract.)

C. The DEIS, without foundation, rejects out of hand the use of SpayVac, a longer-acting immunocontraceptive on axis deer.

It states:

> "No long-acting contraceptive currently exists for axis deer. . . .annual contraception is ineffective in reducing the population of axis deer to 350." (p. 44)

Yet on Page 42, the DEIS states,

> "Immunocontraception with the porcine Zona Pellucida (pZP) vaccine has also been shown to prevent conception for 1 year in a variety of deer species, including axis deer. (Kirkpatrick, et. al. 1996) "

The DEIS fails to state that SpayVac, the immunocontraceptive/sterliant the park proposes to pilot is just a longer-acting version of the pZP vaccine.

D. The latest information about immunocontraception in fallow deer is not included in the DEIS.

No mention is made of the pilot study currently underway on private land in South Carolina with SpayVac on fallow deer. In that project, a South Carolina marsh of 3 square miles and 600 deer, 87 deer were caught, tagged and immunized in a one-month period. (Allen Ruttberg, Tufts University, telephone conversation, 3-22-05)

D. The DEIS states that a fertility control program large enough to manage the non-native deer without lethal control is too labor and cost intensive without considering the volunteer expert assistance and private funding that would be available to PRNS for a progressive, non-lethal fertility control program.

As one example of private funding availability, the Bosack Kruger Foundation awarded PRNS a $40,000 grant to underwrite the tule elk immunocontraception project in the mid- 1990's. In addition, public support for a non-lethal program is strong; contributions from the public to underwrite such a program could be made to the Pt. Reyes National Seashore Association. This aspect of resource availability for the park was completely overlooked in the DEIS.

E. DEIS rejects out of hand the feasibility of fertility control programs, again basing its conclusion on unverified, theoretical computer models and as cited above, selective citing of the scientific literature. This conclusion is reached before the results of the pilot study of SpayVac on fallow deer (Exotic Deer Immunosterilant, PORE *PMIS Number 67856*) are known.

IDA COMMENTS ON PRNS NON-NATIVE DEER MANAGEMENT PLAN DRAFT ENVIRONMENT IMPACT STATEMENT
April 3, 2005

IV. The DEIS does not adequately explore the effectiveness or the impacts of culling on the park.

A. The DEIS overestimates the ability of park sharpshooters to exterminate the non-native deer from the park.

The DEIS does mention that once shooting begins, deer may move to various inholdings of private land in and around the park. One of these, the Vendanta property, has stated unequivocally that they will not allow park sharpshooters to kill any deer on their property. This means that there will be a refuge for the non-native deer in Olema Valley, making their total elimination highly unlikely.

B. The DEIS failed to explore the likelihood that culling will actually increase the incidence of non-native deer leaving the park.

Sharpshooting activities will create pressure on the non-native deer population to leave park boundaries for private inholdings or areas beyond park boundaries where hunting is rare. The low incidence of hunting in Marin County means that it will be safer for non-native deer outside the park then inside the park. This action could actually create an effect opposite to PRNS's goal of decreasing the number of deer leaving park boundaries.

C. The DEIS failed to examine the impact of culling on paratuberculosis infection of the non-native deer herds.

Published research shows that paratuberculosis affects young, old and weakened animals. A stressed population will be more vulnerable to paratuberculosis. If the incidence of paratuberculosis in the non-native deer populations increases, and the non-native deer leave the park in increasing numbers, then spread of paratuberculosis could become a real issue. Currently, only a small percentage of deer carry the disease and few seem to be affected by it.

D. The DEIS failed to adequately assess the impact of culling on other wildlife species in the park.

- The DEIS did not adequately examine the impacts of culling activities on native deer. These include: increased human intrusion into deer habitat, noise, stress from shooting, and increased predation due to decrease in non-native deer population.
-

IDA COMMENTS ON PRNS NON-NATIVE DEER MANAGEMENT PLAN DRAFT ENVIRONMENT IMPACT STATEMENT
April 3, 2005

- The DEIS did not adequately assess the impact of culling activities on endangered and threatened species, such as the spotted owl, in the park, including any site-specific discussion of where sharpshooting is expected to take place, and what ESA-listed species may be affected. These include: increased human intrusion into habitat, including wilderness areas, noise, stress from shooting and possible conflicts with Fish and Wildlife Service Species Recovery Plans.

- The DEIS presents insufficient details on culling activities, such as numbers of sharpshooters, duration of shooting, specific vehicular intrusions on habitat, etc. for the public to make an informed decision about the impacts of culling activities on wildlife in the park.

- The DEIS does not address the fact that culling activities and the resultant increased human intrusion onto habitat are counter to the goals of minimizing human impact on wilderness areas and habitat for special status species.

- The PRNS does not appear to have undertaken a Section 7 consultation with Fish and Wildlife Service with regard to the impact of culling/extirpation activities on protected species, as required under the Endangered Species Act. Particularly with respect to the ESA-listed bird species in the Park, including the Northern spotted owl and the plover, acoustical disturbances from sharpshooting will undoubtedly have an effect on any species that are in the vicinity. Although the EIS failed to identify, much less discuss in any meaningful detail, the impacts that culling in the Park may have on these species, and has nowhere explained exactly where sharpshooting is to occur, all of the impacts discussed above warrant further analysis by the NPS and the FWS through ESA section 7 consultation. Indeed, without such analysis, there is certainly a risk that sharpshooting in the project area could result in a prohibited "take" of these species under ESA section 9, by either "harm[ing]" or "harass[ing]" them within the meaning of the ESA. See 16 U.S.C. § 1538(a)(1)(B); 50 C.F.R. § 17.3.

MARIN CONSERVATION LEAGUE
1623A Fifth Avenue • San Rafael, CA 94901
(415) 485-6257 • Fax (415) 485-6259
e-mail: mcl@marinconservationleague.org • website: www.marinconservationleague.org

April 8, 2005

Mr. Don Neubacher, Superintendent
Point Reyes National Seashore
Point Reyes Station, California 94956

Re: National Park Service Non-Native Management Plan/Draft Environmental Impact Statement – Point Reyes National Seashore

Dear Superintendent Neubacher:

On behalf of the Marin Conservation League's Board of Directors, I am writing to voice MCL's strong support for the National Park Service's Preferred Alternative which would eradicate both species of non-native deer from the Point Reyes National Seashore by 2020 in the December 2004 Non-Native Management Plan/Draft Environmental Impact Statement - Point Reyes National Seashore (hereinafter Draft Plan). The League, whose mission is to preserve, protect and enhance the natural assets of Marin County, is deeply concerned about the significant impacts that exotic species are having on biological diversity and our ecosystems – both locally and worldwide.

The presence of hundreds of Axis deer (*Axis axis*) and Fallow deer (*Dama dama*), both non-native cervids introduced decades ago into what is now the Point Reyes National Seashore, not only are competing directly with native species for food and cover, but are also degrading their habitats by adversely impacting the area's soils, vegetation and water. Failing to address these problems through a scientifically-based deer management plan will only perpetuate and amplify these impacts within the National Park boundaries and eventually throughout Marin County.

MCL has carefully reviewed the Draft Plan alternatives and believes that the Service compellingly demonstrates that Alternatives B and C, which call for controlling non-native deer numbers for both species at a pre-determined level, are biologically and scientifically misguided and uneconomic. If adopted, these actions would result in thousands of animals being killed in perpetuity, millions of dollars in public funds being expended, and valuable staff time being diverted, with only limited benefit to the National Seashore's ecosystems. It is clear that

the most environmentally responsible alternative must include complete eradication of both Axis and Fallow deer, as proposed in Alternative E.

The Draft Plan reviews the current state of contraceptive technology and argues convincingly that contraception alone will not remove all the non-native deer from the National Seashore. Although lethal removal is clearly the most effective and economical method for management and removal of non-native deer populations, the Service needs to develop contraceptive methodology for potential application to other federal lands and so includes the use of limited contraception in its Preferred Alternative. That said, the Service's overriding management goal must be the timely removal of both Axis and Fallow deer and eliminating the environmental impacts these non-native species are having on the Seashore's ecosystems.

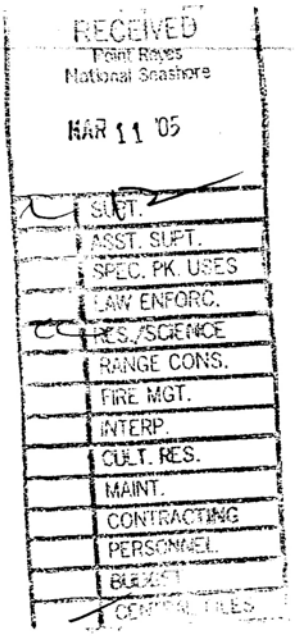
While there are those who oppose the use of lethal means for removing Axis and Fallow deer, these concerns should not override critical management decisions made by park professionals charged with overseeing the protection and restoration of federal lands. The Service's mandate is to protect and restore native wildlife and plant life on its lands. For this reason MCL believes that preserving an introduced invasive species at the expense of the health of an entire ecosystem would be unjustified and a poor use of American taxpayers' money.

Thank you for the opportunity to comment on this important matter and we look forward to reviewing the Final Environmental Impact Statement in the coming weeks.

Sincerely,

Jana Haehl
President

The Marin Humane Society



March 10, 2005

Superintendent Donald Neubacher
Pt. Reyes National Seashore
Pt. Reyes, CA 94956

RE: Non-native deer management

Dear Superintendent Neubacher:

I am writing on behalf of the Marin Humane Society to express our concern about the lethal elements of the proposed Management Plan for the axis and fallow deer at the seashore.

Over the past 50 years the community has hiked the seashore trails and picnicked on its slopes seeing axis, fallow and black-tail deer along with the reintroduced Tule elk. Although labeled "non-native" and scheduled for eradication in the Plan, after a half-century the axis and fallow species are now an integral part of the landscape.

Adding the label "invasive" to "non-native", the deer are blamed for a range of sins that sidesteps our collective responsibility for releasing the animals in West Marin. If there is an environmental imperative to address the number of deer, then there is also a moral imperative to do so humanely. In doing so we must keep in mind that individual animals as well as species have moral standing in our worldview and actions.

The Humane Society sees the deer as easy targets in 2005 for a Park that is totally out of sync from the landscape of 1905. What meaning does non-native have anymore? Are there plans to eliminate the red fox and opossum? What makes these two cervid species dangerous to the continued integrity of the Park?

171 Bel Marin Keys Blvd. Novato, CA 94949
(415) 883-4621 • FAX (415) 382-1349 • www.MarinHumaneSociety.org

If a compelling argument can be made for reducing the number of axis and fallow deer, then the Marin Humane Society urges the Park Service to explore and implement a 100% nonlethal approach. In such an approach you would find the Humane Society and its 10,000 constituents both partners and allies.

I would appreciate the opportunity to speak with you before the April 8 comment deadline. I can be reached directly at (415) 506-6200 or dallevato@marinhumanesociety.org.

Sincerely,

Diane Allevato
Executive Director

cc: Senator Barbara Boxer
Senator Dianne Feinstein
Representative Lynn Woolsey

NPCA NNDMP Final Comments

Point Reyes National Seashore
Non-Native Deer Management Plan Comments

Submitted by
Neal Desai
on behalf of
National Parks Conservation Association
April 8, 2005

The National Parks Conservation Association (NPCA) submits the following comments and suggestions to help guide the process of creating the Non-Native Deer Management Plan (NNDMP) for Point Reyes National Seashore (PORE). NPCA is a non-profit organization with a primary mission to protect and enhance America's National Parks for present and future generations. As the nation's largest membership organization dedicated solely to national parks, we represent a broad array of existing and potential park users. We have more than 300,000 members nationwide, with more than 40,000 members in the state of California.

NPCA would first like to recognize the excellent work of the National Park Service (NPS) in the overall management of this unit to date. Having been established in 1962 to "preserve, for the purposes of public recreation, benefit, and inspiration, a portion of the diminishing seashore of the United States that remains undeveloped," we feel that the management of PORE has generally been successful in serving the various stakeholders and user groups the park's enabling legislation intended it for.

NPCA supports PORE's proactive approach in developing the NNDMP, as past management of the non-native deer (NND) did not involve the breadth and depth of analysis, both scientific and park management, which this plan displays. Because of the NND's expansive nature, the known and anticipated disruption they cause to PORE's native ecosystem, and the NPS mandate to protect and restore native ecosystems (*Management Policies*, Executive Order 13112), NPCA believes that the park must adopt a plan that can address the above issues thru a plan based on its human and financial resources.

Therefore, Alternative A/The No-Action Alternative would be ruled out since it does not contribute to the NPS mandate to remove non-native species. NPCA acknowledges that even though some analysis and modeling of the NND is based on deer data outside PORE, this is not ground to discredit the findings as it applies to PORE and the pursuit of an action alternative. It is only a matter of time, if not acted upon, that the park will be forced to take a reactive stance in managing the NND. PORE must have a roadmap to deal with these ever-expanding species.

Currently, both species of NND are:

- **Disruptive to natural ecosystem, which will increase the risk and probability of a future crisis situation, perhaps irreparable.** These NND eat

NPCA NNDMP Final Comments

more than 1 ton of forage a day (this will mean competition for food with native tule elk and black-tailed deer, especially during the dry season). Unacceptable high levels of congregation in riparian and woodland habitat by NND have the potential to negatively affect endangered species, such as red-legged frog and Coho Salmon. We ask that PORE consider visitor safety in adopting an alternative, as fallow deer are known to be very aggressive to other wildlife and potentially to, as their population and geographic range grows, park visitors.

- **Financial burden for NPS, ranchers, and community at large.** Some ranchers spend up to $4K repairing damage caused by deer. When the geographic range of the NND expands, this financial burden will also carry. Relating to PORE, as long as the NND exist, there are infinite staff time and resource costs for monitoring disease/spread of disease in NND.

NPCA supports the need to take action in Alternatives B and C, however both fall short in adequately addressing control (i.e. deer that will eventually leave the park as time increases), known negative impact of NND to native habitats, and perhaps most important in overall park management: minimizing long-term diversion of staff time and Seashore resources from other resource management projects. By taking into account other projects in resource management, and also other areas in the PORE's operations that fulfill the mission of the park (e.g. interpretation), we recommend PORE adopt an eradication alternative, as too much human and financial resources are consumed by both Alternatives B and C over the long run, given each has no time limit. Because axis deer breed year-round and as early as the age of 4 months, plans to successfully contracept females of this species appear less feasible.

Considering eradication is the end goal over the same time period, NPCA supports Alternative D. Alternative D, compared to the preferred Alternative E, is less painful/and one can argue less cruel to the deer, more manageable than contraception procedure (i.e. capture/immobilize, inject contraceptive, tag deer for monitoring), safer for PORE staff (risk of injury from struggling deer and aerial net gunning), and less expensive (D costs $300/animal, and E costs $3,000/animal).

NPCA would recommend that PORE devise a detailed plan for Alternative D, outlining the logistics for the process, from sharpshooter training to removal of deer, and alternatives within, taking into account any roadblocks, such as the monitoring of the deer.

Thank you in advance for this opportunity to contribute to the planning process at PORE. NPCA looks forward to working further with NPS and other stakeholders to develop a NNDMP that will guide non-native species management for years to come and protect the park for future generations.

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO

SANTA BARBARA • SANTA CRUZ

COLLEGE OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL SCIENCE, POLICY, AND MANAGEMENT
DIVISION OF ECOSYSTEM SCIENCES
151 HILGARD HALL # 3110

BERKELEY, CA 94720-3110

28 March 2005

Mr. Don Neubacher, Superintendent
Attention: Non-Native Deer Plan
Point Reyes National Seashore
Point Reyes Station CA 94956

Re: Exotic Deer Control Plan

Dear Mr. Neubacher:

I want to express my support for the Exotic Deer Management Plan currently open for comment, and endorse the preferred alternative.

I had been a professor of wildlife biology and management for 40 year until my retirement last fall, but still remain active in research and management issues. I spent most of my career studying the ecology and behavior of large mammals and, in fact, did much of the basic work supporting the models used in this report. I have had a long involvement with wildlife policies at Point Reyes National Seashore, having visited there before its establishment, and served on a number of formal and informal reviews of issues. Therefore, I feel qualified to make professional judgments concerning the exotic deer report.

First of all, technical matters. I think the report is strongly supported by the science available now, and it is more than adequate to the purpose. Yes, some things will prove to be a bit in error, but the essential facts are well founded on objectively pursued research, both at Point Reyes and elsewhere. It further should be noted that because of its inherent natural values, Point Reyes National Seashore has been blessed with an inordinate amount of large mammal research. On-site documentation is available, and has been for a long time.

The two modelers (Barrett and Hobbs) who submitted analysis of the impacts are well known to me (literally since they were students), and both are excellent at this work. The results are as close to accurate as can be had, firstly because the basic principles underlying the models have withstood the test of time, and secondly because of the rich body of information specifically from Point Reyes peninsula. Although no rational scientist would claim that the results are exact, the predictions are almost certainly within 5-10% of the correct ones, and this degree of accuracy is far more than need to support

the management actions being proposed. In general, the report is modest in its claims, and gives a conservative evaluation, given the abundance of data and length of time things have been studied at Point Reyes.

Second, I will address the emotional issues. I am well aware that animal protection groups will find the use of lethal means objectionable on moral grounds, and this is a position with which I sympathize. I too regret that such an approach is necessary, especially in a National Seashore, and wish it was not. Still, these objections must be balanced against countervailing moral issues, and must take into account the practical consequences of what needs to be done.

Thus, the need for lethal control of exotic deer at Point Reyes must be weighed against the imperative that we stop and, to the extent possible, reverse the effects of wholesale transporting of exotic species about the globe by humans. The devastating ecological effects of so-called "invasive species", which label masks that most of them are not "invasive" having been put there against their will by humans, is one of the moral outrages of our time. These deer simply should not have been put at Point Reyes in the first place. What about our moral obligation to native species? Just because it takes more diligence to see the losses due to exotics do we claim ignorance, and give greater weight to exotics and less to native species? That the exotic deer were introduced through ignorance in the past only heightens the moral obligation for us to avoid further ignorance now. Yes, it is easy to sympathize with the exotic deer. But we should not use that as a façade to hide our even greater moral obligation to native species.

In many cases it is impossible to correct the consequences of unwise introductions. That it is possible to do so in the case of exotic deer on Point Reyes, however, places a heavy moral burden on us to act responsibly to protect native species from the impacts of exotics. And, we must do it sooner rather than later. Fallow deer are now spreading eastward rapidly, as I have seen myself, and we will soon loose the containment that, fortunately, we have had up to this time. I do not want to repeat my regret that the eastern fox squirrel, once found solely on the Berkeley campus (and fed by well-meaning people), could have been eradicated easily in the 1960s. Now, it has not spread throughout the East Bay and is moving into the Central Valley, displacing the native gray squirrel along the way. It is too late to eradicate them now. I sincerely hope we do not make the same mistake with fallow deer.

This brings me to means. It would be wonderful if reproductive intervention was magic, but it is not. The methods available to date are far from perfect, which is why so few of them are approved for use. In situations where animals can be captured and handled easily, they work fairly well, but not without trauma. These are wild animals, and all of their stress responses are triggered by capture, predation-like events. They simply can not know that we are subduing them with such noble and caring intentions, and hope to release them without harm. Still, the big problem is that we do not have the means to deliver the contraceptives or surgical alterations to a sufficient proportion of the population to achieve the goal—either control or eradication in most cases in the wild.

I think the preferred alternative in the plan presents a balanced application of contraceptive and lethal methods to the exotic deer problem. In essence, contraception is used to the extent it can be applied successfully, and that, in turn, reduces the need to use lethal means. It is impossible to know in advance the optimum mix of the two approached to minimize the total mortality. This depends on how contraception works out. To the extent contraceptive fails to meet the objective, however, lethal means will have to be employed.

Sincerely,

Dale R. McCullough

Dale R. McCullough
Emeritus Professor of Wildlife Biology

SIERRA CLUB
FOUNDED 1892

SIERRA CLUB MARIN GROUP
Box 3058 San Rafael CA 94912sanfranciscobay.sierraclub.org/marin

March 28, 2005

Superintendent, Point Reyes National Seashore:

The Sierra Club, on behalf of its 7,000 Marin County members and its 750,000 members nationally, supports the 12/04 Point Reyes National Seashore (PRNS) Non-Native Deer Management Plan draft Environmental Impact Statement (dEIS) Preferred Alternative E.

The impact of invasive species on biodiversity and native and threatened species is a core issue for the Sierra Club. The National Invasive Species Council, which helps coordinate federal activities, notes that total costs of invasive species in the United States are more than $100 billion each year and that invasive species impact nearly half of the threatened or endangered species. PRNS is rich in biological diversity with over 45% of North American avian species, nearly 18% of California's plant species, and 23 threatened and endangered species. If PRNS were to become a monoculture of invasive plants and animals, that would greatly diminish a biodiverse haven for wild creatures and humans while relegating the remnants of our native species to museums.

Use of ungulate habitat at PRNS is a zero-sum game with winners and losers. Any decision that PRNS makes, including no decision, will result in the death of animals; the only question is which animals. The environmental impacts from the No Action Alternative of letting invasive deer expand at PRNS would reduce habitats for and thus increase deaths of native black-tailed deer, native tule elk, endangered coho and steelhead, and riparian songbirds. These impacts on native, threatened and endangered species far outweigh the impacts from removal of a small portion of the large worldwide population of these deer.

The Sierra Club does not believe that an invasive deer species in PRNS increases biodiversity because of significant later consequences. The first introductions of yellow star thistle, west nile virus, scotch broom, and sudden oak death could have been said to momentarily increase biodiversity in California, but the subsequent impacts from these invasive species have caused huge economic and environmental damage. Goats introduced on San Clemente Island are responsible for the extinction of 8 endemic plant species. Rats introduced to Anacapa Island threatened several native species -- including the Xantus' murrelet.

The Sierra Club does not support the idea that the need to manage the invasive deer implies that all exotic species are inherently bad. In their native habitats these same species are usually well integrated into the local biological diversity.

However, these otherwise harmless species, when removed by human action from their native habitat, sometimes find themselves with no natural limits to their populations and invade, displace and destroy native flora and fauna. It is when the behavior of these displaced species becomes aggressive and threatens their neighbors that the National Park is mandated to take action. A failure to take action on invasive deer threatens not only the native species being displaced but also the entire program to control invasives of all kinds.

National Parks have wide-open spaces and cannot feasibly keep an invasive species separate from the local species it is displacing. Zoos, of course, maintain biodiversity by keeping predator/invasive species in separate cages from the prey/refugee species, but National Parks must reduce or eliminate invasive populations in order to maintain diversity. These invasive deer cannot legally be removed or feasibly contained, and managing these deer at PRNS is not simple. If some females are contracepted and the population reduced below carrying capacity, the remaining females respond by greatly increasing their fertility; if some males are sterilized, the females respond by greatly increasing their estrous cycles for remaining males. Unless 100% of the deer are treated, populations will increase. But treating 100% of deer running wild over 70,000 acres is likely impossible, so some level of lethal removal will likely be required. Although these invasive deer were introduced to this area for the purpose of hunting, the Sierra Club agrees with the dEIS that hunting in PRNS would be inappropriate, although if State Fish and Game removed the limit on legal hunting outside the park, then that action could help control spread of the invasive deer beyond park boundaries.

The Sierra Club understands that lethal removal is controversial. Opposing lethal removal is an agreeable position to take, but the Sierra Club acknowledges that maintaining a diverse ecosystem is a complex task in which all actions, including no-action, have to have both risks and benefits assessed. We believe that the dEIS does a reasonable job in this assessment by using local studies combined with studies elsewhere to draw logical conclusions about the impacts from the invasive deer on PRNS habitat, flora and fauna. We agree that the risks from not managing the deer far outweigh the risks of management. However disagreeable it is to kill any animal, protecting a fertile and complex genetic biodiversity is fundamental to National Parks. Allowing the invasive deer to expand does not account for the pain and suffering of native species that would be displaced and thus indirectly killed.

The Sierra Club supports the prioritization of contraception over lethal removal within the framework of a continued decline in population so that if new methods are discovered for feasible contraception, then the percentage of deer lethally removed would be lowered. However, PRNS should not divert dollars that could go to native and endangered species protection to attempt at any and all cost to avoid any lethal removal of invasive deer. The Sierra Club supports PRNS's proposal to explore all feasible contraception options, but we also encourage PRNS to set up a fund for contributions from individuals that could provide additional funds for research on contraception. The effectiveness of

experimental contraceptive techniques must be measured against the standard of a constantly declining population. Invasive deer cannot be allowed to continue to expand in the hope that future contraceptive action may prove effective. Furthermore, for any wild free-ranging animal, trauma, injury and mortality result even from use of contraceptives. The Preferred Alternative's complete removal of invasive deer results in the lowest number of total deaths compared to Alternatives that only reduce populations, because allowing even a few invasive deer to remain and breed would require continued removal actions in the future and greatly increases the number of animals needed to be contracepted or lethally removed.

Therefore, to the extent that contraceptives prove unable to reduce populations, the Sierra Club understands that specially trained park sharpshooters with a mandate for only taking sure, euthanizing shots must be the backstop insuring the success of the invasive deer removal. We ask that special precautions be taken if lethal removal is undertaken to ensure minimum impact to native species, including use of non-lead bullets, and that both the lethal removal program and its participants be monitored to insure effectiveness and humaneness. The Sierra Club supports donation of deer meat, when feasible, to local charity dining facilities.

The Sierra Club does not support the idea that since there are already considerable numbers of non-native species (cattle) living in PRNS, then no action can be taken on any other non-native species (invasive deer) until the last cattle are removed. PRNS was established in part to allow the continuation of "cattle ranching and dairying" (not wild deer raising) for those willing to continue those operations after the ranches were purchased for incorporation into PRNS. The Sierra Club is well aware that cattle impact the environment, but those impacts are declining as PRNS works with cooperative ranchers towards more "sustainable" agriculture. Furthermore, management difficulties for domestic cattle are minimal compared to the great difficulty of managing wild, invasive deer.

The Sierra Club understands that there are no easy solutions to management of non-native deer. A March 20 editorial in the New York Times captured the essence of the dilemma: "*Unfortunately, deer contradict our innate assumption that only ugly creatures can be vermin…But wise conservation means looking at the environment as a whole - from the smallest wildflower on forest floor to the biggest brown-eyed herbivore. The whole system - not just the prettiest mammals - needs protection.*" The Sierra Club supports protecting the whole system and therefore supports the 12/04 PRNS Non-Native Deer Management Plan draft Environmental Impact Statement (dEIS) Preferred Alternative E.

Sincerely,

Gordon Bennett, Marin Group Chair