National Park Service
U.S. Department of the Interior

Valley Forge National Historical Park
Pennsylvania

White-Tailed Deer Management Plan/ Draft Environmental Impact Statement

Valley Forge National Historical Park

Public Comment Analysis Report

Volume I: Substantive Issues Report

August 2009

CONTENTS

Pursuant to the National Environmental Policy Act (NEPA), its implementing regulations, and National Park Service (NPS) guidance on meeting NEPA requirements, Valley Forge National Historical Park (NHP) must assess and consider comments submitted on the Draft White-tailed Deer Management Plan/Environmental Impact Statement (plan/DEIS) and provide responses to substantive public comments. This report describes how the NPS considered public comments and provides responses to the substantive comments.

The Draft plan/EIS was released for a 60-day public and agency review period beginning December 19, 2008 and ending February 17, 2009. This public comment period was announced through the park's website (<www.nps.gov/vafo>), posted on park kiosks, through postcards that were sent to interested parties elected officials, and appropriate local and state agencies, and through press releases and newspapers. The plan/DEIS was made available through several outlets, including the NPS's Planning, Environment, and Public Comment (PEPC) web site (<http://parkplanning.nps.gov>), and on CD or hardcopy at the Valley Forge NHP Welcome Center, the Chester County Library, the Lower Providence Community Library, the Tredyffrin Public Library, the Upper Merion Township Public Library, the Phoenixville Public, and at the Montgomery County-Norristown Public Library. Copies of the plan/DEIS also were mailed to interested parties, elected officials, and appropriate local and state agencies. After reviewing the plan/DEIS, the public was encouraged to submit comments through the NPS's PEPC web site, emailing the park, or by postal mail sent directly to the park.

Public Meetings

As noted above, the plan/EIS was available for public review and comment between December 19, 2008 and February 17, 2009. In addition, two public meetings were held to present the plan and solicit input in January 2009. Public meetings were held to present the plan, provide an opportunity to ask questions, and facilitate public involvement and community feedback on the plan/DEIS for deer management at Valley Forge NHP.

The two public meetings were held during the public comment period for the plan/DEIS. The first meeting was held on January 14, 2009 from 6:00 pm to 9:00 pm at the Tredyffrin Township Building in Chester County, Pennsylvania. The second meeting was held on January 15, 2009 from 1:00 pm to 4:00 pm at the Valley Forge NHP Education Center in Montgomery County. These public meetings were held to continue the public involvement and to obtain community feedback on the plan/DEIS for deer management at Valley Forge NHP. Release and availability of the draft plan, as well as public meetings, were advertised as described above.

A total of 83 meeting attendees signed in during the two meetings (see Appendix 1, Volume 2). The meetings began with a brief open house format where attendees had the opportunity to ask questions and observe displays illustrating the study area, the purpose, need, and objectives of the plan, and summaries of the four proposed alternatives, as well as chronic wasting disease (CWD), deer population monitoring, vegetation monitoring and impacts. The open house format was followed by a formal presentation by park staff, explaining the specifics of the plan and the proposed alternatives. The presentation was followed by break out sessions that allowed the attendees to submit comments, and discuss issues with the project team in small groups.

For breakout sessions, attendees assembled at their assigned tables (table numbers were distributed randomly as attendees arrived and signed-in). Members of the project team served as table facilitators at each table, and were the note takers for each breakout group. Comments made by attendees during the break out sessions were recorded by the table note takers on large flip

charts. If the commenter did not want to make comments at the break out sessions, comments sheets were available at the sign-in table and at each break out table. Attendees could fill out the forms and submit them at the meeting or mail them to the park at any time during the public comment period, which ended February 17, 2009. Those attending the meeting were also given a public meeting informational handout, which provided additional information about the NEPA process, commonly asked questions regarding CWD, a comparison of actions under each proposed alternative, and additional opportunities for comment on the project, including directing comments to the NPS's Planning, Environment, and Public Comment (PEPC) website at http://parkplanning.nps.gov/. Public comments received are detailed in the following sections of this report. Each comment recorded on flip charts at the meetings was counted as a separate comment.

Methodology

During the comment period, 1,168 pieces of correspondence were received. Correspondence was received by one of the following methods: email, hard copy letter via mail, comment sheet submitted at the public meetings, recorded on flipcharts during the public meetings, or entered directly into the Internet-based PEPC system. Letters received by email or through the postal mail, as well as the comments received from the public meetings, were entered into the PEPC system for analysis. Each of these letters or submissions is referred to as correspondence.

Once all the correspondence was entered into PEPC, each was read, and specific comments within each correspondence were identified. A total of 3,885 comments were derived from the correspondence received.

In order to categorize and address comments, each comment was given a code to identify the general content of a comment and to group similar comments together. A total of 105 codes were used to categorize all of the comments received on the plan/DEIS. An example of a code developed for this project is SRAL4000 Socioeconomic Resources and Adjacent Lands: Impact of Proposal and Alternatives. In some cases, the same comment may be categorized under more than one code, reflecting the fact that the comment may contain more than one issue or idea.

During coding, comments were also classified as substantive or non-substantive. A substantive comment is defined in the NPS Director's Order 12 (DO-12) Handbook as one that does one or more of the following (DO-12, Section 4.6A):

- Question, with a reasonable basis, the accuracy of information presented in the EIS;
- Question, with reasonable basis, the adequacy of the environmental analysis;
- Present reasonable alternatives other than those presented in the EIS; and/or
- Cause changes or revisions in the proposal.

As further stated in DO-12, substantive comments "raise, debate, or question a point of fact or policy. Comments in favor of or against the proposed action or alternatives, or comments that only agree or disagree with NPS policy, are not considered substantive." While all comments were read and considered and will be used to help create the Final Plan/EIS, only those determined to be substantive were analyzed for creation of concern statements for response from the NPS, described below.

Under each code, all substantive comments were grouped by similar themes, and those groups were summarized with a concern statement. For example under the code AL7000 - Alternatives: Cost and Funding (General), one concern statement identified was, "Commenters questioned the cost analysis regarding implementing reproductive control measures, suggesting that the estimates are too high." This one concern statement captured many comments. Following each concern statement are one or more "representative quotes" which are comments taken directly from the correspondence to illustrate the issue, concern, or idea expressed by the comments grouped under that concern statement.

Approximately 46% of the comments received related to 3 of the 162 codes. These codes were related to general lethal reduction, objectives in taking action, and the preferred combined lethal and nonlethal alternative, and were all non-substantive. The majority of the comments were categorized under code AL4185 – Alternatives: Lethal Reduction - General (Non-Substantive), which accounted for 20.70% of the total comments made. Comments in support of Alternative D: Combined Lethal and Nonlethal Actions were the second most common comment, representing 12.64% of the total comments made. Of the 1,168 correspondences, 889 (76%) came from commenters in the state of Pennsylvania, while the remaining correspondences came from 34 other states. The majority of correspondence (92%) came from unaffiliated individuals, with 7% of the correspondence coming from conservation/preservation organizations.

GUIDE TO THIS DOCUMENT

This report is organized as follows:

Volume I

Content Analysis Report: This is the basic report produced from PEPC that provides information on the numbers and types of comments received, organized by code and by various demographics. The first section is a summary of the number of comments that fall under each code or topic, and what percentage of comments fall under each code. Note that those coded "XX1000 – Duplicate Comment" represent comments that were entered into the system twice and are not additional comments on the document.

Data are then presented on the amount of correspondence by type (i.e., amount of comments through PEPC, emails, letters, etc.); and amount received by organization type (i.e., organizations, governments, individuals, etc.), and amount received by state and country.

Index by Organization Type Report: This report provides a listing of all groups that submitted comments, arranged and grouped by the following organization types (and in this order): conservation/preservation groups; county government; town or city government; and unaffiliated individuals. The commenters or authors are listed alphabetically, along with their correspondence number and the codes that their comments fell under, organized under the various organization types. Correspondence identified as N/A represents unaffiliated individuals.

Concern Response Report: This report summarizes the substantive comments received during the draft EIS public review comment process. These comments are organized by codes and further organized into concern statements. Representative quotes are then provided for each concern statement. An agency response is provided for each concern statement.

Additional information, including the meeting sign-in, correspondence list, index by organization type report, index by code report, and non-substantive issues report can be found in the full

version of the Public Comment Analysis Report for the Draft White-tailed Deer Management Plan/Environmental Impact Statement available on the PEPC website.

Volume II

Meeting Sign-in: All public scoping meeting attendees were asked to sign in. The name, address, and email of the attendees are provided.

Correspondence List: Provides a cross-reference list of the unique tracking number assigned to each piece of correspondence and the corresponding commenter name.

Index by Code Report: Lists which commenters or authors (identified by organization type) commented on which topics, as identified by the codes used in this analysis. The report is listed by code, and under each code is a list of the authors who submitted comments that fell under that code, and their correspondence numbers. Correspondence identified as N/A represents unaffiliated individuals.

Non-substantive Issues Report: Lists all non-substantive comments by code and provides the correspondence number, the comment text, the comment number, and the commenter who submitted the comment.

Content Analysis Report

Table 1 Content Analysis Report

Code	Description	# of Comments	% of Comments
AE10010	Affected Environment: Vegetation and Special Status Plant Species	8	0.21%
AE10015	Affected Environment: Vegetation and Special Status Plant Species (Non-Substantive)	39	1.00%
AE13500	Affected Environment: Cultural Landscapes	3	0.08%
AE13505	Affected Environment: Cultural Landscapes (Non-Substantive)	4	0.10%
AE14005	Affected Environment: Historic Structures (Non-Substantive)	1	0.03%
AE22505	Affected Environment: Visitor Use and Experience (Non-Substantive)	48	1.24%
AE24000	Affected Environment: White-tailed Deer Population	10	0.26%
AE24005	Affected Environment: White-tailed Deer Population (Non-Substantive)	75	1.93%
AE26005	Affected Environment: Socioeconomic Resources and Adjacent Land (Non-Substantive)	33	0.85%
AE28000	Affected Environment: Park Operations	1	0.03%
AE28005	Affected Environment: Park Operations (Non-Substantive)	3	0.08%
AE29005	Affected Environment: Public Safety (Non-Substantive)	72	1.85%
AE31005	Affected Environment: Other Wildlife, Wildlife Habitat, and Special Status Animal Species (Non-Substantive)	22	0.57%
AL1500	Alternatives: Elements Common to All Alternatives (Non-Substantive)	8	0.21%
AL2045	Alternatives: Alternative Eliminated - Reintroduction of Predators (Non-Substantive)	31	0.80%
AL2070	Alternatives: Alternative Eliminated - Capture and Relocation	1	0.03%
AL2075	Alternatives: Alternative Eliminated - Capture and Relocation (Non-Substantive)	55	1.42%
AL2100	Alternatives: Use of Volunteers	1	0.03%
AL2105	Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive)	101	2.60%
AL2160	Alternatives: Alternative Eliminated - Surgical Reproductive Control	3	0.08%
AL2165	Alternatives: Alternative Eliminated - Surgical Reproductive Control (Non-Substantive)	14	0.36%

Table 1	Content Analysis Report (continued)		
Code	**Description**	**# of Comments**	**% of Comments**
AL2195	Alternatives: Alternative Eliminated - Fencing Entire Park (Non-Substantive)	9	0.23%
AL2205	Alternatives: Alternatives Eliminated - Repellents, Plantings, and other Deterrents (Non-Substantive)	13	0.33%
AL2215	Alternatives: Alternative Eliminated - Poisons (Non-Substantive)	1	0.03%
AL2220	Alternatives: Alternative Eliminated - Supplemental Feeding	2	0.05%
AL2225	Alternatives: Alternative Eliminated - Supplemental Feeding (Non-Substantive)	13	0.33%
AL2235	Alternatives: Alternative Eliminated - Use the Deer Population as a Research Model (Non-Substantive)	4	0.10%
AL3000	Alternatives: Envir. Preferred Alt./NEPA § .101&102	2	0.05%
AL4000	Alternatives: New Alternatives Or Elements	75	1.93%
AL4040	Alternatives: Sharpshooting	8	0.21%
AL4045	Alternatives: Sharpshooting (Non-Substantive)	111	2.86%
AL4105	Alternatives: Non-Lethal Methods (General) (Non-Substantive)	96	2.47%
AL4180	Alternatives: Lethal Reduction – General	95	2.45%
AL4185	Alternatives: Lethal Reduction - General (Non-Substantive)	804	20.69%
AL4360	Alternatives: Reproductive Control of Does	42	600.00%
AL4370	Alternatives: Reproductive Control of Does (Non-Substantive)	148	2114.29%
AL4380	Alternatives: Rotational Fencing	4	57.14%
AL4390	Alternatives: Rotational Fencing (Non-Substantive)	17	242.86%
AL4410	Alternatives: Capture and Euthanasia (Non-Substantive)	1	0.03%
AL5220	Support Alternative A - No Action (Non-Substantive)	236	6.07%
AL5230	Oppose Alternative A - No Action (Non-Substantive)	66	1.70%
AL5400	Support Alternative B - Combined Nonlethal Actions (Non-Substantive)	36	0.93%
AL5500	Oppose Alternative B - Combined Nonlethal Actions (Non-Substantive)	17	0.44%
AL5600	Alternatives: Alternative C - Combined Lethal Actions	3	0.08%
AL5700	Support Alternative C - Combined Lethal Actions (Non-Substantive)	32	0.82%
AL5800	Oppose Alternative C - Combined Lethal Actions (Non-Substantive)	27	0.69%
AL6000	Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive)	491	12.64%

Table 1	Content Analysis Report (continued)		
Code	**Description**	**# of Comments**	**% of Comments**
AL6100	Oppose Alternative D - Combined Lethal Actions and Reproductive Control (Non-Substantive)	43	1.11%
AL7000	Alternatives: Cost and Funding (General)	4	0.10%
AL7500	Alternatives: Cost and Funding (General) (Non-Substantive)	11	0.28%
AR4000	Archeological Resources: Impact of Proposal and Alternatives	1	0.03%
CC1000	Consultation and Coordination: General Comments	27	0.69%
CC2000	Consultation and Coordination: General Comments (Non-Substantive)	7	0.18%
CWD1000	Chronic Wasting Disease Response Plan	9	0.23%
CWD2000	Chronic Wasting Disease Response Plan (Non-Substantive)	8	0.21%
ED1000	Editorial (Non-Substantive)	4	0.10%
GA1000	Impact Analysis: Impact Analyses	9	0.23%
GA2001	Impact Analysis: Use Trends And Assumptions (Non-Substantive)	2	0.05%
GA3000	Impact Analysis: General Methodology For Establishing Impacts/Effects	25	0.64%
GA3500	Impact Analysis: General Methodology For Establishing Impacts/Effects (Non-Substantive)	16	0.41%
HS2000	Historic Structures: Methodology and Assumptions	1	0.03%
MT1001	Miscellaneous Topics: General Comments (Non-Substantive)	268	6.90%
ON1000	Other NEPA Issues: General Comments	11	0.28%
PN1000	Purpose And Need: Planning Process And Policy	17	0.44%
PN11500	Purpose And Need: Other Policies And Mandates (Non-Substantive)	2	0.05%
PN2000	Purpose And Need: Park Purpose And Significance	6	0.15%
PN2500	Purpose And Need: Park Purpose And Significance (Non-Substantive)	3	0.08%
PN3000	Purpose And Need: Scope Of The Analysis	24	0.62%
PN3500	Purpose and Need: Scope of the Analysis (Non-Substantive)	8	0.21%
PN4000	Purpose And Need: Park Legislation/Authority	18	0.46%
PN8000	Purpose And Need: Objectives In Taking Action	11	0.28%
PN8500	Purpose and Need: Objectives in Taking Action (Non-Substantive)	482	12.41%
PO4000	Park Operations: Impact Of Proposal And Alternatives	4	0.10%
PO4500	Park Operations: Impact Of Proposal And Alternatives (Non-Substantive)	1	0.03%

Table 1	Content Analysis Report (continued)		
Code	**Description**	**# of Comments**	**% of Comments**
PS2000	Public Safety: Methodology and Assumptions	7	0.18%
PS2500	Public Safety: Methodology and Assumptions (Non-Substantive)	2	0.05%
PS4000	Public Safety: Impact of Proposal and Alternatives	3	0.08%
SRAL2000	Socioeconomic Resources and Adjacent Lands: Methodology and Assumptions	5	0.13%
VSSP1000	Vegetation and Special Status Plant Species: Guiding Policies, Regs, and Laws	2	0.05%
VSSP2000	Vegetation and Special Status Plant Species: Methodology and Assumptions	5	0.13%
VSSP4005	Vegetation and Special Status Plant Species: Impact of Proposal and Alternatives (Non-Substantive)	1	0.03%
VUE4000	Visitor Use and Experience: Impact of Proposal and Alternatives	17	0.44%
WDLF4005	Other Wildlife, Wildlife Habitat, and Special Status Animal Species: Impact of Proposal and Alternatives (Non-Substantive)	3	0.08%
WTD2000	White-tailed Deer Population: Methodology and Assumptions	5	0.13%
WTD4000	White-tailed Deer Population: Impact of Proposal and Alternatives	36	0.93%
WTD6000	White-tailed Deer Population: Impairment Analysis	3	0.08%
XX1000	Duplicate Comment	7	0.18%
XX2000	Duplicate Correspondence	7	0.18%
Total		**3885**	

Table 2	Correspondence Distribution by Correspondence Type
Type	**# of Correspondences**
Other	12
Web Form	975
Park Form	9
Letter	50
Fax	1
E-mail	121
Total	**1168**

Table 3	Correspondence Signature Count by Organization Type
Organization Type	**# of Correspondences**
Town or City Government	2
County Government	1
Federal Government	1
University/Professional Society	1
Conservation/Preservation	82
Recreational Groups	7
State Government	1
Unaffiliated Individual	1069
Civic Groups	3
Churches, Religious Groups	1
Total	**1168**

Table 4	Correspondence Distribution by State	
State	**Percentage**	**# of Correspondences**
NJ	2.40%	28
MN	0.08%	1
UN	0.51%	6
AK	0.17%	2
CA	1.11%	13
AL	0.26%	3
ND	0.08%	1
MA	0.86%	10
VA	0.60%	7
WI	0.26%	3
MD	0.34%	4
OH	0.34%	4
TN	0.08%	1
UT	0.08%	1
IL	0.51%	6
MI	0.08%	1
ME	0.08%	1
GA	0.08%	1

Table 4	Correspondence Distribution by State (continued)	
State	**Percentage**	**# of Correspondences**
KS	0.08%	1
NY	2.48%	29
DE	0.34%	4
DC	0.26%	3
SC	0.17%	2
MT	0.08%	1
IA	0.17%	2
CO	0.08%	1
WA	0.34%	4
FL	0.60%	7
NV	0.34%	4
CT	1.11%	13
TX	0.68%	8
IN	0.08%	1
PA	76.11%	889
OR	0.17%	2
NC	0.51%	6
KY	0.17%	2
Total	**100%**	**1168**

Table 5	Correspondence Distribution by Country	
Country	**Percent**	**# of Correspondences**
N/A	7%	84
United States of America	92%	1072
Spain	less than 1%	1
Hungary	less than 1%	1
Canada	1%	9
Albania	less than 1%	1
Total	**100%**	**1168**

Index by Organization

Table 6 Index of Coding by Organization

Churches, Religious Groups

First United Methodist Church of Germantown - 664; AL4105 - Alternatives: Non-Lethal Methods (General) (Non-Substantive). AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive).

Civic Groups

LIDA - 925; AL2045 - Alternatives: Alternative Eliminated - Reintroduction of Predators (Non-Substantive). AL4000 - Alternatives: New Alternatives Or Elements. AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive).

The Friends of Valley Forge Park - 1021; AE10015 - Affected Environment: Vegetation and Special Status Plant Species (Non-Substantive). AE24005 - Affected Environment: White-tailed Deer Population (Non-Substantive). AE31005 - Affected Environment: Other Wildlife, Wildlife Habitat, and Special Status Animal Species (Non-Substantive). AL5230 - Oppose Alternative A - No Action (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive).

VFW Post 8779 - 800; AL5500 - Oppose Alternative B - Combined Nonlethal Actions (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive).

Conservation/Preservation

"Humanity" - 633; AE22505 - Affected Environment: Visitor Use and Experience (Non-Substantive). AL4105 - Alternatives: Non-Lethal Methods (General) (Non-Substantive). AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL5800 - Oppose Alternative C - Combined Lethal Actions (Non-Substantive).

American Sanctuary Association - 921; AL5220 - Support Alternative A - No Action (Non-Substantive).

Animal Rights Asheville - 962; AL5220 - Support Alternative A - No Action (Non-Substantive).

Table 6	Index of Coding by Organization (continued)
Animal Welfare Institute - 1019; MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). 1108; AE10010 - Affected Environment: Vegetation and Special Status Plant Species. AE13500 - Affected Environment: Cultural Landscapes. AE22505 - Affected Environment: Visitor Use and Experience (Non-Substantive). AE24000 - Affected Environment: White-tailed Deer Population. AE28000 - Affected Environment: Park Operations. AE31005 - Affected Environment: Other Wildlife, Wildlife Habitat, and Special Status Animal Species (Non-Substantive). AL2205 - Alternatives: Alternatives Eliminated - Repellents, Plantings, and other Deterrents (Non-Substantive). AL2235 - Alternatives: Alternative Eliminated - Use the Deer Population as a Research Model (Non-Substantive). AL3000 - Alternatives: Envir. Preferred Alt./NEPA § .101&102. AL4000 - Alternatives: New Alternatives Or Elements. AL4105 - Alternatives: Non-Lethal Methods (General) (Non-Substantive). AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL4360 - Alternatives: Reproductive Control of Does. AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive). AL4390 - Alternatives: Rotational Fencing (Non-Substantive). AL5400 - Support Alternative B - Combined Nonlethal Actions (Non-Substantive). AL5500 - Oppose Alternative B - Combined Nonlethal Actions (Non-Substantive). AL5600 - Alternatives: Alternative C - Combined Lethal Actions. AL5800 - Oppose Alternative C - Combined Lethal Actions (Non-Substantive). AL6100 - Oppose Alternative D - Combined Lethal Actions and Reproductive Control (Non-Substantive). AL7000 - Alternatives: Cost and Funding (General). AR4000 - Archeological Resources: Impact of Proposal and Alternatives. CC1000 - Consultation and Coordination: General Comments. CWD1000 - Chronic Wasting Disease Response Plan. GA1000 - Impact Analysis: Impact Analyses. GA3000 - Impact Analysis: General Methodology For Establishing Impacts/Effects. HS2000 - Historic Structures: Methodology and Assumptions. ON1000 - Other NEPA Issues: General Comments. PN1000 - Purpose And Need: Planning Process And Policy. PN2000 - Purpose And Need: Park Purpose And Significance. PN3000 - Purpose And Need: Scope Of The Analysis. PN3500 - Purpose and Need: Scope of the Analysis (Non-Substantive). PN4000 - Purpose And Need: Park Legislation/Authority. PN8000 - Purpose And Need: Objectives In Taking Action. PO4000 - Park Operations: Impact Of Proposal And Alternatives. PS2000 - Public Safety: Methodology and Assumptions. SRAL2000 - Socioeconomic Resources and Adjacent Lands: Methodology and Assumptions. VSSP1000 - Vegetation and Special Status Plant Species: Guiding Policies, Regs, and Laws. VSSP2000 - Vegetation and Special Status Plant Species: Methodology and Assumptions. VUE4000 - Visitor Use and Experience: Impact of Proposal and Alternatives. WTD2000 - White-tailed Deer Population: Methodology and Assumptions. WTD4000 - White-tailed Deer Population: Impact of Proposal and Alternatives. WTD6000 - White-tailed Deer Population: Impairment Analysis.	
The ARK - 866; AL2075 - Alternatives: Alternative Eliminated - Capture and Relocation (Non-Substantive). AL2165 - Alternatives: Alternative Eliminated - Surgical Reproductive Control (Non-Substantive).	
Audubon Pennsylvania - 872; AE24005 - Affected Environment: White-tailed Deer Population (Non-Substantive). AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN8000 - Purpose And Need: Objectives In Taking Action. PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive).	
Clean Water Action - 629; AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive).	
Coalition to Protect Animals in Parks & Refuges - 401; AL4180 - Alternatives: Lethal Reduction - General. AL4390 - Alternatives: Rotational Fencing (Non-Substantive).	
FOA - 706; AL5220 - Support Alternative A - No Action (Non-Substantive). 709; MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). 735; AL5220 - Support Alternative A - No Action (Non-Substantive). 742; AL5220 - Support Alternative A - No Action (Non-Substantive). 913; AL5220 - Support Alternative A - No Action (Non-Substantive).	

Table 6	Index of Coding by Organization (continued)
Friends of Animals - 743; AL5220 - Support Alternative A - No Action (Non-Substantive). 783; AL5220 - Support Alternative A - No Action (Non-Substantive).	
Friends of Animals - 62; AE22505 - Affected Environment: Visitor Use and Experience (Non-Substantive). AE24005 - Affected Environment: White-tailed Deer Population (Non-Substantive). AL2045 - Alternatives: Alternative Eliminated - Reintroduction of Predators (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN2500 - Purpose And Need: Park Purpose And Significance (Non-Substantive). PN8000 - Purpose And Need: Objectives In Taking Action. 694; AL5220 - Support Alternative A - No Action (Non-Substantive). 696; AL5220 - Support Alternative A - No Action (Non-Substantive). 697; AL5220 - Support Alternative A - No Action (Non-Substantive). 699; AL4390 - Alternatives: Rotational Fencing (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive). CC1000 - Consultation and Coordination: General Comments. CWD2000 - Chronic Wasting Disease Response Plan (Non-Substantive). 700; AL5220 - Support Alternative A - No Action (Non-Substantive). 702; AL5220 - Support Alternative A - No Action (Non-Substantive). 704; AL5220 - Support Alternative A - No Action (Non-Substantive). 723; AL5220 - Support Alternative A - No Action (Non-Substantive). 727; AE10015 - Affected Environment: Vegetation and Special Status Plant Species (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive). 747; AL4105 - Alternatives: Non-Lethal Methods (General) (Non-Substantive). AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). 748; AL5220 - Support Alternative A - No Action (Non-Substantive). 761; AL4390 - Alternatives: Rotational Fencing (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive). 764; AL5220 - Support Alternative A - No Action (Non-Substantive). 765; AL5220 - Support Alternative A - No Action (Non-Substantive). PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive). 769; AL5220 - Support Alternative A - No Action (Non-Substantive). 773; AL5220 - Support Alternative A - No Action (Non-Substantive). 778; AL5220 - Support Alternative A - No Action (Non-Substantive). 782; AL5220 - Support Alternative A - No Action (Non-Substantive). 791; AE10015 - Affected Environment: Vegetation and Special Status Plant Species (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive). 796; AL5220 - Support Alternative A - No Action (Non-Substantive). 814; AL5220 - Support Alternative A - No Action (Non-Substantive). 830; AE24005 - Affected Environment: White-tailed Deer Population (Non-Substantive). 840; AL5220 - Support Alternative A - No Action (Non-Substantive).	
Friends of Animals, Inc. - 506; AE10015 - Affected Environment: Vegetation and Special Status Plant Species (Non-Substantive). AE29005 - Affected Environment: Public Safety (Non-Substantive). AL2045 - Alternatives: Alternative Eliminated - Reintroduction of Predators (Non-Substantive). AL2075 - Alternatives: Alternative Eliminated - Capture and Relocation (Non-Substantive). AL2205 - Alternatives: Alternatives Eliminated - Repellents, Plantings, and other Deterrents (Non-Substantive). AL4000 - Alternatives: New Alternatives Or Elements. AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4105 - Alternatives: Non-Lethal Methods (General) (Non-Substantive). AL4180 - Alternatives: Lethal Reduction - General. AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL4360 - Alternatives: Reproductive Control of Does. AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive). AL5500 - Oppose Alternative B - Combined Nonlethal Actions (Non-Substantive). AL5800 - Oppose Alternative C - Combined Lethal Actions (Non-Substantive). AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). AL6100 - Oppose Alternative D - Combined Lethal Actions and Reproductive Control (Non-Substantive). CC1000 - Consultation and Coordination: General Comments. GA3000 - Impact Analysis: General Methodology For Establishing Impacts/Effects. GA3500 - Impact Analysis: General Methodology For Establishing Impacts/Effects (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN1000 - Purpose And Need: Planning Process And Policy. PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive). WTD4000 - White-tailed Deer Population: Impact of Proposal and Alternatives.	
Friends of Fox Chase Farm - 777; AL4045 - Alternatives: Sharpshooting (Non-Substantive).	

Table 6	Index of Coding by Organization (continued)
Friends of Valley Forge Park - 54; AE10015 - Affected Environment: Vegetation and Special Status Plant Species (Non-Substantive). AE13505 - Affected Environment: Cultural Landscapes (Non-Substantive). AE24005 - Affected Environment: White-tailed Deer Population (Non-Substantive). AE26005 - Affected Environment: Socioeconomic Resources and Adjacent Land (Non-Substantive). AE29005 - Affected Environment: Public Safety (Non-Substantive). AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive). AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive).	
Friends of Valley Forge/NPCA - 27; AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive).	
Friends of the Wissahickon - 768; MT1001 - Miscellaneous Topics: General Comments (Non-Substantive).	
GeesePeace - 953; AE26005 - Affected Environment: Socioeconomic Resources and Adjacent Land (Non-Substantive). AL2225 - Alternatives: Alternative Eliminated - Supplemental Feeding (Non-Substantive). AL4000 - Alternatives: New Alternatives Or Elements. AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive). AL5800 - Oppose Alternative C - Combined Lethal Actions (Non-Substantive). AL6100 - Oppose Alternative D - Combined Lethal Actions and Reproductive Control (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN3000 - Purpose And Need: Scope Of The Analysis. PS2000 - Public Safety: Methodology and Assumptions.	
HUMANE Essex County - 555; AE31005 - Affected Environment: Other Wildlife, Wildlife Habitat, and Special Status Animal Species (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive).	
The Humane Society of the United States - 978; AE10010 - Affected Environment: Vegetation and Special Status Plant Species. AE24005 - Affected Environment: White-tailed Deer Population (Non-Substantive). AE26005 - Affected Environment: Socioeconomic Resources and Adjacent Land (Non-Substantive). AE28005 - Affected Environment: Park Operations (Non-Substantive). AL2160 - Alternatives: Alternative Eliminated - Surgical Reproductive Control. AL2165 - Alternatives: Alternative Eliminated - Surgical Reproductive Control (Non-Substantive). AL4040 - Alternatives: Sharpshooting. AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4180 - Alternatives: Lethal Reduction - General. AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL4360 - Alternatives: Reproductive Control of Does. AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive). AL5400 - Support Alternative B - Combined Nonlethal Actions (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN3000 - Purpose And Need: Scope Of The Analysis. PN4000 - Purpose And Need: Park Legislation/Authority. PN8000 - Purpose And Need: Objectives In Taking Action. VUE4000 - Visitor Use and Experience: Impact of Proposal and Alternatives. WTD2000 - White-tailed Deer Population: Methodology and Assumptions.	
Humane Society of the United States - 885; AL5230 - Oppose Alternative A - No Action (Non-Substantive). AL5400 - Support Alternative B - Combined Nonlethal Actions (Non-Substantive).	
Marion Co. Humane Society - 705; AL5220 - Support Alternative A - No Action (Non-Substantive).	
Mill Grove Audubon Bird Sanctuary - 720; VUE4000 - Visitor Use and Experience: Impact of Proposal and Alternatives.	
Mobilization for Animals - PA, Inc. - 998; AL4180 - Alternatives: Lethal Reduction - General. 1004; AE26005 - Affected Environment: Socioeconomic Resources and Adjacent Land (Non-Substantive). AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL7500 - Alternatives: Cost and Funding (General) (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive).	

Table 6 Index of Coding by Organization (continued)
NPCA - 30; AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL5400 - Support Alternative B - Combined Nonlethal Actions (Non-Substantive).
National Parks Conservation Association - 1100; AE10015 - Affected Environment: Vegetation and Special Status Plant Species (Non-Substantive). AE31005 - Affected Environment: Other Wildlife, Wildlife Habitat, and Special Status Animal Species (Non-Substantive). AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive). AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL4390 - Alternatives: Rotational Fencing (Non-Substantive). AL5230 - Oppose Alternative A - No Action (Non-Substantive). AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN3000 - Purpose And Need: Scope Of The Analysis. PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive).
PAFOA - 858; AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive). AL4045 - Alternatives: Sharpshooting (Non-Substantive).
PETA - 516; AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). 1076; AL4180 - Alternatives: Lethal Reduction - General. AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). WTD4000 - White-tailed Deer Population: Impact of Proposal and Alternatives.
Pennsylvania Deer Association - 659; AE31005 - Affected Environment: Other Wildlife, Wildlife Habitat, and Special Status Animal Species (Non-Substantive). AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive). AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive).
People for the Ethical Treatment of Animals - 58; AL4180 - Alternatives: Lethal Reduction - General. AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive).
Pike County Federation of Sportsmens Clubs - 658; AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL5700 - Support Alternative C - Combined Lethal Actions (Non-Substantive).
Quality Deer Management Association - 959; AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive). AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4390 - Alternatives: Rotational Fencing (Non-Substantive). AL5230 - Oppose Alternative A - No Action (Non-Substantive). AL5500 - Oppose Alternative B - Combined Nonlethal Actions (Non-Substantive). AL5800 - Oppose Alternative C - Combined Lethal Actions (Non-Substantive). PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive). XX1000 - Duplicate Comment.
Safari Club International - 972; AL2100 - Alternatives: Use of Volunteers. AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive). AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4105 - Alternatives: Non-Lethal Methods (General) (Non-Substantive). CC2000 - Consultation and Coordination: General Comments (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive).
The Science and Conservation Center - 1130; AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL4360 - Alternatives: Reproductive Control of Does. AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive). ED1000 - Editorial. GA3000 - Impact Analysis: General Methodology For Establishing Impacts/Effects. MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PS4000 - Public Safety: Impact of Proposal and Alternatives.
Sierra Club - Southeastern Group - 482; AL6100 - Oppose Alternative D - Combined Lethal Actions and Reproductive Control (Non-Substantive).

Table 6	Index of Coding by Organization (continued)
Sierra Club Southeast Pennsylvania Group - 33; AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive). AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). WDLF4005 - Other Wildlife, Wildlife Habitat, and Special Status Animal Species: Impact of Proposal and Alternatives (Non-Substantive).	
spca sarasota - 969; AL5220 - Support Alternative A - No Action (Non-Substantive).	
Valley Forge Citizens for Deer Control - 1018; AE13500 - Affected Environment: Cultural Landscapes. AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). AL7500 - Alternatives: Cost and Funding (General) (Non-Substantive). GA3000 - Impact Analysis: General Methodology For Establishing Impacts/Effects. PN8000 - Purpose And Need: Objectives In Taking Action. PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive).	
County Government	
Chester County Planning Commission - 49; AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). CC2000 - Consultation and Coordination: General Comments (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN11500 - Purpose And Need: Other Policies And Mandates (Non-Substantive).	
Federal Government	
Environmental Protection Agency - 939; AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive).	
Recreational Groups	
Community Garden Club at Wayne - 758; AL4185 - Alternatives: Lethal Reduction - General (Non-Substantive).	
dolphin fleet whale watch - 586; AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL5220 - Support Alternative A - No Action (Non-Substantive).	
PHC Archery - 684; AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive). AL4370 - Alternatives: Reproductive Control of Does (Non-Substantive).	
Public Eye: Artists for Animals - 790; AE24005 - Affected Environment: White-tailed Deer Population (Non-Substantive). AL2165 - Alternatives: Alternative Eliminated - Surgical Reproductive Control (Non-Substantive). AL4045 - Alternatives: Sharpshooting (Non-Substantive). AL4105 - Alternatives: Non-Lethal Methods (General) (Non-Substantive).	
UBP - 805; AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive). AL4045 - Alternatives: Sharpshooting (Non-Substantive).	
United Bowhunters of PA - 849; AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive).	
Wild Turkey Hunt Club - 784; AL2105 - Alternatives: Alternative Eliminated - Public Hunting (Non-Substantive). AL4045 - Alternatives: Sharpshooting (Non-Substantive).	
State Government	
Pennsylvania Game Commission - 1109; AL5230 - Oppose Alternative A - No Action (Non-Substantive). AL5500 - Oppose Alternative B - Combined Nonlethal Actions (Non-Substantive). AL5600 - Alternatives: Alternative C - Combined Lethal Actions. CWD2000 - Chronic Wasting Disease Response Plan (Non-Substantive). ED1000 - Editorial. GA2001 - Impact Analysis: Use Trends And Assumptions (Non-Substantive). GA3500 - Impact Analysis: General Methodology For Establishing Impacts/Effects (Non-Substantive). PS2000 - Public Safety: Methodology and Assumptions.	

Table 6	Index of Coding by Organization (continued)

Town or City Government

Lower Providence Township - 48; AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive).

Tredyffrin Township Board of Supervisors - 1028; AL6000 - Support Alternative D - Combined Lethal and Nonlethal Actions (Non-Substantive). PN8500 - Purpose and Need: Objectives in Taking Action (Non-Substantive).

University/Professional Society

Cummings School of Veterinary Medicine, Tufts University - 1131; AL4360 - Alternatives: Reproductive Control of Does. GA1000 - Impact Analysis: Impact Analyses. GA3000 - Impact Analysis: General Methodology For Establishing Impacts/Effects. GA3500 - Impact Analysis: General Methodology For Establishing Impacts/Effects (Non-Substantive). MT1001 - Miscellaneous Topics: General Comments (Non-Substantive). PN3000 - Purpose And Need: Scope Of The Analysis.

Concern Response Report

As described above, this report summarizes the substantive comments received during the Draft plan/EIS public review comment process. These comments are organized by codes and further organized into concern statements. Representative quotes are then provided for each concern statement. An agency response is provided for each concern statement. Codes are presented in the same order as the Draft plan/EIS.

Representative quotes provided below are taken directly from PEPC and represent the text provided by the commenter, exactly as it was entered. Grammar and font style have not been changed.

PN1000 - Purpose And Need: Planning Process And Policy

CONCERN ID: 19743

CONCERN STATEMENT: Commenters questioned the relationship of the plan/DEIS to other planning efforts. Specifically, they stated that the GMP included a future vegetation plan that should have been discussed and traffic calming measures that should have been included and discussed in the deer plan/DEIS. They also stated that deer management decisions were already made in the GMP process, making the plan/DEIS an irrelevant document.

REPRESENTATIVE QUOTE(S):

Corr. ID: 506 **Organization:** Friends of Animals, Inc.

Comment ID: 93325 **Organization Type:** Conservation/Preservation

Representative Quote: Planned expansion of the Penn Turnpike is a genuine threat to native vegetation with which deer are simply symbiotic -- yet that expansion is mentioned, but not critically questioned, in the Plan/EIS. Every time such construction occurs, there is less room for native plants. Where are the forward-thinking moves to work with state planners so that public transport can become more attractive to commuters and road-widening is avoided?

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93708 **Organization Type:** Conservation/Preservation

Representative Quote: The decision about deer management and the use of lethal deer control is not pending but, in fact, was made in September 2007. The NPS cannot argue otherwise. If the NPS selects Alternative A or B at the conclusion of this planning process, it would be violating an affirmative decision made in the GMP/EIS/RoD since, as the NPS itself concedes, Alternatives A and B cannot meet the objectives in the Draft EIS. Consequently, the selection of Alternative A and B would not comply with the decision made during the GMP planning process.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93738 **Organization Type:** Conservation/Preservation

Representative Quote: Of course, these are not the only relevant NPS Policies. Other relevant policies dictate that the NPS maintain as parts of the natural ecosystems of parks all native plants and animals. Draft EIS at 1-37. The NPS is directed to achieve this objective by "preserving and restoring the natural abundances, diversities, dynamics, distributions, habitats, and behaviors of native plant and animal populations and the communities and ecosystems in

which they occur." Id. Furthermore, NPS Policies specify that the NPS must "adopt park resource preservation, development, and use management strategies that are intended to maintain the natural population fluctuations and processes that influence the dynamics of individual plant and animal populations, groups of plant and animal populations, and migratory animal populations in parks." Id. Admittedly, given the small size of VFNHP and the significant development surrounding the park, restoring a completely naturally functioning ecosystem may not be possible. That does not, however, provide a green light for engaging in massive manipulation of the ecosystem rather, it poses a challenge, to develop management strategies that allow natural process, fluctuations, and dynamics to function, to the fullest extent possible, given the circumstances.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93705 **Organization Type:** Conservation/Preservation
Representative Quote: In this case, while the Draft EIS is clearly biased in favor of the preferred alternative and lethal deer control, there is nothing overt in the document that would suggest that the NPS has already decided to implement lethal management. Where the NPS erred, however, is in its General Management Plan/Environmental Impact Statement (GMP/EIS) planning process. In particular, in its GMP/EIS Record of Decision completed in September 2007, the NPS selected action includes the following decision:
The park's biological resources will be managed to promote preservation and restoration of the natural abundances, diversities, dynamics, and distributions of native plants and animals. This will be accomplished through active environmental restoration. GMP/EIS/RoD at 2 (emphasis added).

This is an affirmative decision. The NPS did not say that the biological resources "may" or "could" be managed to promote preservation and restoration of the natural abundances, diversities, dynamics, and distributions of native plants and animals. Instead, the NPS made a decision in September 2007 that those biological resources "will" be managed to achieve those objectives.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93713 **Organization Type:** Conservation/Preservation
Representative Quote: NPS made decisions about transportation corridor development and maintenance in its 2007 GMP/EIS. These decisions included road closures and the use of traffic calming measures (i.e., reduced speed limits, signage, road surfaces that encourage slower speeds, increased signage and signals to control traffic movements, Draft EIS at 4-4) to slow traffic in certain areas which will, among other things, affect deer-vehicle collisions. Given the concern over deer-vehicle collisions, the fact that public safety issues are one of the factors driving the NPS decision-making process in regard to deer management, and considering that transportation issues clearly qualify as connected (i.e., interdependent parts of a larger action), cumulative (i.e., have cumulative significant impacts), and similar (i.e., have similarities with other proposed agency actions) actions, the NPS should have deferred decisions regarding transportation management, particularly in regard to those specific actions that impact deer, to the Draft EIS process.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93715 **Organization Type:** Conservation/Preservation
Representative Quote: Of greater concern is the fact that the NPS failed to acknowledge in the Draft EIS that it has decided to prepare a vegetation management plan at some time in the future. This decision was made in 2007 as

part of the NPS GMP/EIS (see GMP/EIS/RoD at 8). Specifically, the NPS, in order to "take action to accelerate natural recovery through biological and physical remedial actions" decided to among other things, develop in the "future" a "vegetation management plan." GMP/EIS/RoD at 8. The vegetation management plan "will determine the best means to manage infestations of exotic invasive plants, as well as how to achieve subsequent revegetation of forests and meadows." GMP/EIS/RoD at 8.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93723 **Organization Type:** Conservation/Preservation

Representative Quote: Not only did the NPS fail to properly define the scope of the Draft EIS, particularly by failing to combine deer and vegetation management decisions in the same document, but it didn't even disclose the fact that it has decided to prepare a vegetation management plan which, by definition, will include efforts to manage infestations of exotic species and to revegetate forests and meadows. As a consequence, the NPS has illegally segmented the action into smaller component parts thereby simplifying the environmental analysis. By so doing, the NPS has attempted to avoid the preparation of a comprehensive EIS evaluating both deer and vegetation management (and arguably other issues) in the same document as required by NEPA.

RESPONSE: The National Park Service (NPS) is authorized and directed to prepare general management plans for each park unit. A purpose of a general management plan/environmental impact statement (GMP/EIS) is to identify and clearly describe specific resource conditions to be achieved, and to identify the kinds of management that would be appropriate in achieving and maintaining those conditions. For Valley Forge National Historical Park (Valley Forge NHP), the policy set forth in NPS *Management Policies 2006* Section 4.4 was adopted regarding biological resource management. The decisions made as part of the GMP/EIS planning process, including the decision to reflect current NPS management policies for biological resource management, are appropriate to that level of planning. The Record of Decision for the GMP /EIS notes that a "future deer management plan/EIS would determine the best means to manage the size of the white-tailed deer herd," thereby appropriately deferring alternatives for and decisions about the goals, objectives, and methods of management to this White-tailed Deer Management Plan/Environmental Impact Statement (plan/EIS).

The GMP/EIS called for a number of future implementation plans and actions, including a vegetation management plan and traffic studies. These activities are identified in the Cumulative Impact Scenario beginning on page 4-4 and addressed throughout the cumulative impact analysis in the plan/EIS.

PN2000 - Purpose And Need: Park Purpose And Significance

CONCERN ID: 19745

CONCERN STATEMENT: Commenters stated that the purpose of the park does not support the purpose for the plan/DEIS, or the proposed management actions.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93789 **Organization Type:** Conservation/Preservation

Representative Quote: The purpose of VFNHP, as specified in the enabling legislation, is "to authorize the Secretary of the Interior to enter into an

agreement with the Valley Forge Historical Society… to construct and operate a museum within the boundary within the boundary of Valley Forge National Historical Park …" PL 106-86, Sec. 201 (October 13, 1999). Section 202 of this public law includes details regarding the development and operation of the museum. Section 203, pertain to the preservation and protection of VFNHP, and specifies that neither the Secretary nor the Society (Historical Society) can take any actions "in derogation of the preservation and protection of the values and resources of Valley Forge National Historical Park."

None of this language, including the language in Section 203 of PL 106-86, authorizes the NPS to permit the proposed massive slaughter of deer within VFNHP. The language in Section 203 pertains to actions taken by the Secretary and/or the Society in regard to the affirmative decisions it makes to develop and operate the museum which is the primary purpose of the VFNHP. While the NPS may attempt to claim that Section 203 provides it with the authority to engage in the lethal control of deer, the Public Law must be read in its entirety in order to understand its meaning. When this is done it is clear that Congress, in 1999, was solely establishing the purpose of the VFNHP to construct and operate a museum to educate the public about the historical significance of George Washington's occupation of this area in 1777-1778. Even if Section 203 could be interpreted to apply to deer, it would apply to actions taken by the NPS (i.e., decisions to construct roads, trails, concession stands, renovation of historical structures) to ensure that those decisions don't adversely impact the preservation and protection of park resources not to decisions not made by the NPS (i.e., electing not to engage in any active management of deer).

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93790 **Organization Type:** Conservation/Preservation

Representative Quote: While the purpose of VFNHP as contained in the park's enabling legislation is not relevant here, the purpose of the Draft EIS, as previously referenced, "is to develop a deer management strategy that supports protection, preservation, and restoration of native vegetation and other natural and cultural resources throughout and beyond the life of this plan/EIS." Draft EIS at 1-2. As this purpose statement was concocted as part of the NEPA planning process, it has no relevance to the "purpose" of VFNHP. Consequently, though the NPS may attempt to claim that the "purpose" referenced as a basis for the management objectives is the purpose of the Draft EIS, this makes no sense since it has no relevance to the fundamentally legal mandates governing the management of VFNHP.

RESPONSE: The legislation cited by the commenter (PL 106-86) is not the legislation which established Valley Forge National Historical Park. As described on page 1-11 of the plan/EIS, Public Law 94-337, the park's enabling legislation, was signed by President Ford in 1976, and established Valley Forge as a unit of the National Park System. Park purpose, significance and mission are fully described in the park's GMP/EIS (NPS 2007j).

As stated on pages 1-11 and 1-12 of the plan/EIS, the purpose of the park is to educate and inform present and future generations about the sacrifices and achievements of General George Washington and the Continental Army at Valley Forge, and the people, events, and legacy of the American Revolution; preserve the cultural and natural resources that embody and commemorate the Valley Forge Experience and the American Revolution; and provide opportunities for enhanced understanding.

The GMP/EIS goes on to describe significant natural resources and the cultural

significance of the types of vegetation (forest and field), vegetation patterns throughout the park, and specific vegetative features (e.g., vegetative screenings, commemorative plantings). These elements of the natural environment and cultural landscape are reflected in the plan/EIS objectives (pages 1-2 and 1-3) and described in Section 3.2 Natural Resources (beginning on page 3-2) and Section 3.3.1 Cultural Landscapes (beginning on page 3-29). Therefore, the objectives laid out in the plan/EIS, to promote the protection, preservation and restoration of native plant communities and other natural and cultural resources, are consistent with the purposes of the park.

CONCERN ID: 19746

CONCERN STATEMENT: Commenters stated that the park was created for historical interpretation, and not a nature preserve, feeling that wildlife management is outside of the park's purpose.

REPRESENTATIVE QUOTE(S):

Corr. ID: 23 **Organization:** *Not Specified*

Comment ID: 92155 **Organization Type:** Unaffiliated Individual

Representative Quote: The mission of the Park is above all historical. The plant life is important and certainly valuable, BUT the Park must be committed to presenting the story of what happened in 1777-78 above any other goal or aspect of Park management. Again, the funds for deer control might be better used to help fulfill the historical mission of the Park. Perhaps try to schedule more one day seminars as is now being done, or use the funds to bring eminent scholars to the Park to talk about 1777-78 and the Revolution in general.

Corr. ID: 64 **Organization:** I can't seem to deselect "member"

Comment ID: 93622 **Organization Type:** Unaffiliated Individual

Representative Quote: Valley Forge is a national historic park, not a nature preserve. Stay true to the needs of the park and focus your efforts - and money - where they are supposed to be.

Corr. ID: 557 **Organization:** *Not Specified*

Comment ID: 91921 **Organization Type:** Unaffiliated Individual

Representative Quote: The park is NOT a nature preserve. It is a National Historic Park - it's purpose is to educate about through it's monuments, historic buildings (many of which are in need of repair, something the park claims it can't afford to do), and visitor center. Wildlife management should NOT be a part of the park's planning or a draw on the park's funds.

RESPONSE: See response to PN2000 – Purpose and Need: Park Purpose and Significance, Concern ID 19745 (page 29).

PN3000 - Purpose And Need: Scope Of The Analysis

CONCERN ID: 19747

CONCERN STATEMENT: Commenters stated that the analysis in the plan/DEIS was lacking and did not demonstrate that the proposed management actions were necessary. Specifically, they stated that other factors, such as climatic factors, canopy structure, seed production, soil moisture, edge effects, auto emissions, and erosion - all of which affect forest regeneration - were not explored within the plan/DEIS.

REPRESENTATIVE QUOTE(S):

Corr. ID: 14 **Organization:** *Not Specified*

Comment ID: 91944 **Organization Type:** Unaffiliated Individual

Representative Quote: Although deer are a part of the forest equation, a Penn State University professor said that the issues involving forest ecology and regeneration are complex with many contributing variables.
"Deer have been villainized, but in many cases forest soils are a bigger problem than the deer," he said.

"I've worked with forest soils, trees and acidic precipitation long enough to know that soil plays a critical role in the welfare of plants," he says. "You can't just assume that when a plant starts disappearing, it is caused by deer browsing."

He also said, “Without all of the acid in the soil, plants and trees would grow enough that the number of deer browsing would not make a difference.

Corr. ID: 958 **Organization:** *Not Specified*

Comment ID: 93026 **Organization Type:** Unaffiliated Individual

Representative Quote: I realize the growing deer population is a problem in Valley Forge Park. To destroy 80% of the herd, however, seems like overkill. They have a right to be here, too. Can't you limit the sharpshooting to a lower percentage -- say 40%? Perhaps we could then evaluate the situation and determine whether we have culled the herd to a manageable number --taking into account the fact that auto emissions, nearby construction and tourists also must account for some percentage of the damage.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93761 **Organization Type:** Conservation/Preservation

Representative Quote: Consequently, while deer inevitably will impact the habitat in which they live, climatic factors can have an even more dramatic impact to vegetation viability. Indeed, depending on climatic data and patterns in the VFNHP area over time, the NPS may be blaming deer for the alleged impacts to forest health when it should be blaming, in part, the weather.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93760 **Organization Type:** Conservation/Preservation

Representative Quote: Climatic data. The NPS includes limited information about climate change and its expected impacts on Pennsylvania and its forests and other habitats in the Draft EIS. It also reports that the Piedmont physiographic province of Pennsylvania, where VFNHP is located, receives average annual precipitation of 46 inches. Draft EIS at 3-1.

No additional information about precipitation amounts, precipitation patterns, precipitation trends, ambient air temperature, temperature extremes, and/or temperature trends are disclosed in the Draft EIS. Considering the direct link between precipitation, temperature, and vegetation viability, composition, abundance, and quality, this omission of information is glaring and illegal. In addition, considering that a reduction in precipitation or an increase in temperature can impact vegetation growth characteristics, reduce soil moisture, or increase evapotranspiration, these changes can have a drastic impact on vegetation, including forest health. Even if average precipitation amounts have remained the same over time, changes in the timing of precipitation events with a reduction of precipitation during the growing season, can drastically impact vegetation health and productivity.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93779 **Organization Type:** Conservation/Preservation
Representative Quote: This is based on, among other things, the presumption that as the forest herbaceous and shrub layers return, forests experience successful regeneration, and nectar plants return to meadows, wildlife communities would be provided with more, high quality forage. Draft EIS at 4-45. This presumption ignores the wide range of other factors influencing forest regeneration (canopy structure, seed production, seed viability, temperature, precipitation, soil moisture holding capacity), wildlife species recovery (assuming they are in need of recovery at all)(increase in predators, edge effects, microhabitat conditions), and meadow production (temperature, precipitation, soil conditions, erosion, public use). To claim that by simply initiating a large scale reduction in the deer population that this will solve all other factors that may be at play in controlling the ecological dynamics and processes within VFNHP is nonsensical.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93741 **Organization Type:** Conservation/Preservation
Representative Quote: Though the NPS has attempted to highlight the alleged adverse impacts of deer within VFNHP throughout the Draft EIS, it has failed to disclose sufficient data or to provide adequate analysis to substantiate the purpose of this action. While the NPS cites to a number of studies, many are not of deer in VFNHP. Thus, while those studies may provide information and evidence about deer impacts to forests and other resources elsewhere, it is unknown how similar those study sites are to VFNHP and whether the two sites are comparable. For those studies that involve deer in VFNHP many are more than 10 years old and may no longer accurately reflect deer biology/ecology or impacts on their habitat.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93721 **Organization Type:** Conservation/Preservation
Representative Quote: In addition, the NPS also concedes that park forests with the greatest number of long-term monitoring plots are located in the dry oak forest type and in the successional tuliptree forest type. Regeneration in such forests may be related to the periodicity of seed production by overstory trees. Draft EIS at 2-27. For example, the NPS cites to the tuliptree (yellow poplar) as an example of a tree species that has good seed crops almost annually but whose seed viability is seldom more than 5 percent. Conversely, oaks have a good seed crop at 3-5 year intervals but, bumper acorn crops occur irregularly and may be as infrequent as 10 years apart. Id. Thus, in addition to the impact of closed canopies on forest regeneration, the species of tree present, its seed production, and its seed viability also may impact regeneration. Deer, it appears clear, are only one of many factors potentially impacting forest regeneration.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93767 **Organization Type:** Conservation/Preservation
Representative Quote: It fails to disclose, however, any evidence of whether and how climate change has or is impacting vegetation, wildlife, or other attributes (natural and cultural) within VFNHP.

Corr. ID: 1131 **Organization:** Cummings School of Veterinary Medicine, Tufts University

Comment ID: 93254 **Organization Type:** University/Professional Society

Representative Quote: Often, the DEIS is internally inconsistent in its treatment of deer population parameters, with figures apparently chosen to support different messages in different contexts. At 1-15, for example, the DEIS describes a range of annual mortality rates at VFNHP of 17-29%. When discussing requirements for number of does to be treated in administration of fertility control, the bottom of that range (17%) is selected; then finally, in the Appendix E discussion of population management efficacy of fertility control (E-5), the site-specific numbers are discarded entirely, and mortality rates are described as "very low (approximately 10%)." The DEIS also asserts (3-19) that deer birth rates at the park are likely to be similar to those reported for WMU 5 outside the park (1.8 embryos per year); this seems unrealistically high, given the reportedly high densities of deer at VFNHP, and at least some data suggesting that deer at VFNHP may be smaller and grow more slowly than other deer in PA (3-20).

More generally, at 3-12 3-19, the DEIS asserts that "the deer population has increased, and in the absence of any population management measures, this trend is expected to continue over time..." This is, at best, a stretch. Figure 10 suggests a rapid and steady rise from 1986-1995, but after that time the numbers fluctuate around 400 deer, with perhaps a rise to 600 and a fall back to 400 from 2001-2005. (Given the methodology, some of this fluctuation could easily be accounted for by behavior shifts.) Figure 11, which covers a shorter time span, suggests a rise from 1997-2003, and then a fall to 2007. But neither data set suggests that continued increase is inevitable, or even probable.

All these small distortions collectively serve to weaken any case for the application of fertility control as a population control agent.

RESPONSE: The NPS states on page 1-2, that other factors may affect tree regeneration, such as forest canopy, nonnative invasive species, pests/disease, and fire; however, this plan focuses on the role and impact of white-tailed deer in the ecological environment, which has been documented through research and long-term monitoring at Valley Forge NHP.

The impacts of climate change on vegetation in the park vary from season to season and year to year, but are consistent across the entire park at any given time. Our vegetation monitoring indicates that between 1993 and 2003, the number of fenced monitoring plots exhibiting adequate tree regeneration increased from 3% to 30%. The paired unfenced plots, where climate change impacts are the same as in fenced plots, have not exhibited adequate tree regeneration since 1995. The only real difference is the presence or absence of deer.

Please refer to pages 1-36 and 1-37 for a full description of how impacts related to climate change were addressed in the plan/EIS. NPS states on page 1-37, that Pennsylvania's climate has already begun changing in noticeable ways. Many of the specific effects, the rate of change, and the severity of impacts are not known. However, it is reasonable to expect that, given some of the documented climate changes in Pennsylvania to date, park resources are already experiencing changes and stresses associated with climate change, and that climate change can be expected to affect the park during the life of this plan and beyond. With regard to the impacts of climate change on deer management in

Valley Forge NHP, the impact topics of vegetation and wildlife analyzed in this plan/EIS may be affected by climate change, as well as actions proposed under any of the alternatives. Therefore, climate change is incorporated into the cumulative impact analysis for the impact topics of Vegetation and Special Status Plant Species, as well as Other Wildlife, Wildlife Habitat, and Special Status Animal Species in Chapter 4: Environmental Consequences.

A brief description of forest fragmentation as a factor influencing vegetation has been added to the plan/EIS in Section 1.5.4 Other Vegetation Management Issues. Regarding edge effects, please also refer to AE10010 – Affected Environment: Vegetation and Special Status Species, Concern ID 19654 (page 61).

Other factors, such as canopy structure, would be addressed through the adaptive management approach. Adaptive management is based on the assumption that current resources and scientific knowledge are limited. Nevertheless, an adaptive management approach attempts to apply available resources and knowledge and adjusts management techniques as new information is revealed. For example, as described on page 2-48, should ongoing monitoring indicate that there were factors other than deer that were limiting forest regeneration, adjustments would be made to the existing vegetation management. These adjustments could include silvicultural treatments, nonnative species management, or responses to the effects of global warming. Please refer to Section 2.9 on page 2-46 for a full description of the adaptive management process.

The commenter is correct that over the two decades deer have been studied at Valley Forge NHP, a range of mortality rates have been reported (17%-29%). However, the NPS has used a 17% mortality rate when "discussing requirements for number of does to be treated in administration of fertility control" because this represents the most recent information available on deer mortality rate in the park.

In Appendix E, reference to deer mortality rates as "very low (approximately 10%)" is in reference to suburban deer populations in general and within this context it was not appropriate to use park-specific data/mortality rate.

CONCERN ID: 19748

CONCERN STATEMENT: Commenters questioned the purpose and need of the plan/DEIS, stating that the NPS did not show that native vegetation, wildlife, or cultural landscapes were being impacted to justify these statements. They also stated that forest regeneration was not a need, as it is occurring in the park and that there should have been more of a balance between flora and fauna presented.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 936 **Organization:** *Not Specified*

Comment ID: 93192 **Organization Type:** Unaffiliated Individual

Representative Quote: The plan states, "The purpose of the plan/EIS at Valley Forge NHP is to develop a deer management strategy that supports protection, preservation, and restoration of native vegetation and other natural and cultural resources throughout and beyond the life of this plan/EIS. The purpose of the plan/EIS also is to provide appropriate response to chronic wasting disease at Valley Forge NHP.

The plan also states, "Forest regeneration has been selected as the primary

measure of plan success (PGC 2006b)."
" Why is forest regeneration selected as the primary measure of the plan's success and not a balance between the natural flora and fauna in Pennsylvania that exists within the boundaries of Valley Forge NHP? Does one believe that forest regeneration in itself will also provide a view of the health of the white-tailed deer herd? Or the health of any of the other animals that survive in the park? If so, please provide supportive evidence.

Corr. ID: 978 **Organization:** The Humane Society of the United States
Comment ID: 93118 **Organization Type:** Conservation/Preservation
Representative Quote: A review of the literature concerning deer and their impacts on individual plants, their populations and communities found that there are virtually no studies that examine the plant population and ecosystem level effects of white tailed deer herbivory. In fact, many studies have detected no overall effects on plant survival and reproduction and so called negative effects have only been observed on small temporal and spatial scales. It is also ironic that as recently as 1988, researchers were claiming that "[a]lthough the white tailed deer population within the park is not regulated and predation pressure is minimal, the herd has not adversely affected park vegetation." Proving that deer do, in fact, eat is a far cry from definitively proving that they are endangering the continued survival of a forested ecosystem.

The EIS also repeatedly states that deer are hampering forest regeneration at VFNHP. Generally, the term "regeneration" implies a re-growth or reestablishment after a disturbance or loss, hence the prefix "re-" which means "back" or "again". Throughout the EIS, it appears that the Park simply desires a carpet of seedlings and saplings in the absence of any disturbance. This requirement does not truly amount to regeneration in that the canopy is still intact. In the event that a tree were to fall and the canopy were to open, studies have shown that the mounds and pits formed by such events provide long - term refugia for seedling regeneration, even in the presence of intense deer herbivory.

However, the HSUS is aware that the park considers the deer populations at VFNHP to be "overabundant" and that such population levels may be viewed as "unnatural". This idea of native wildlife damaging its environment and necessitating lethal removal is held by some to be a logical consequence of that perception and by others to be illogical. This lethal removal scheme may be viewed as a contradiction to the central mission of NPS, which is to not intervene in natural processes unless a compelling case can be made that they have been suspended or prevented through human action. As the forest appears to regenerate itself after disturbance, it is difficult to understand how a lack of seedling under intact canopy constitutes a suspension of natural processes.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93740 **Organization Type:** Conservation/Preservation
Representative Quote: The need for the action is "to address declining forest regeneration and to ensure the production and restoration of native vegetation, wildlife, and the cultural landscape." Draft EIS at iii, 1-2. This need is further defined by the increasing number of deer in the park causing unacceptable changes in the species composition, structure, abundance, and distribution of native plant communities and associated wildlife; prevention of successful forest regeneration; and an elevated risk of chronic wasting disease occurrence within the park. Draft EIS at iii, 1-2.

For this need to be valid, the NPS has to disclose sufficient evidence that forest regeneration is declining and that native vegetation, wildlife, and the cultural landscape is in need of restoration as a result of damage attributable to deer. The NPS has also failed to meet this burden.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93739 **Organization Type:** Conservation/Preservation
Representative Quote: The NPS defines the purpose of the "this action (as) to develop a deer management strategy that supports protection, preservation, and restoration of native vegetation and other natural and cultural resources throughout and beyond the life of this plan/EIS." Draft EIS at cover page, 1-2.

For this purpose to be valid there must be, in addition to the legal authority for the NPS to act, evidence that the deer population within VFNHP is damaging the native vegetation and other natural and cultural resources to such an extent that action is necessary to protect, preserve, and restore these resources by regulating, including potentially by lethal means, the park's deer herd. The NPS has failed to meet this burden.

RESPONSE: As indicated in the plan/EIS on page 1-3, the purpose of the plan/EIS is to develop a deer management strategy that promotes the protection, preservation, and restoration of native vegetation and other natural and cultural resources. The need for action statements are based on park data demonstrating an increasing trend in deer abundance over the past two decades and changes in native plant communities, including tree regeneration. A full risk assessment, providing the justification for inclusion of chronic wasting disease (CWD) is provided in Appendix C of the plan/EIS.

Information on trends in deer population size is provided on pages 1-14 and 3-11. Park data indicate that between 1986 and 2009, the deer density in the park has increased from 31-35 deer per square mile to 241 deer per square mile.

As described on pages 1-17 and 3-11, in 1992, 30-paired vegetation monitoring plots (15 fenced, 15 unfenced) were erected within the park's forests to detect changes in the abundance and species composition of the forest understory plant community over time. Between 1993 and 2003, the number of species present in fenced plots increased 27-32%, and the number of species in unfenced plots decreased 6-15%. In 2003, unfenced plots generally contained about one-third the number of tree seedlings present in fenced plots. These data also revealed that in unfenced plots adequate forest regeneration has not occurred since 1995. In fenced plots between 1993 and 2003, the number of plots with adequate tree regeneration increased from 3% to 27%. In 2003, fenced plots contained tree seedlings in all six height categories ranging from 0 to 150 cm (0-59 inches) in height. In 2003, no tree seedlings were found taller than 25 cm (9.8 inches) in unfenced monitoring plots.

The NPS is not justifying a management action based on the effects of deer (browsing, trampling etc.) on other wildlife species or cultural landscape elements, such as earthworks. Tree regeneration has been selected as the metric used to evaluate plan success rather than wildlife diversity or specific elements of the cultural landscape. It is through the protection of native plant communities that the NPS proposes to protect and preserve other native wildlife species and cultural landscapes in the park. Information provided on the impacts of white-tailed deer on these resources is based on referenced scientific literature and consultation with technical experts, and the NPS believes it fully

substantiates the plan/EIS purpose, need for action, and objectives.

PN4000 - Purpose And Need: Park Legislation/Authority

CONCERN ID: 19751

CONCERN STATEMENT: Commenters questioned the legal authority of the NPS in relation to use of lethal actions to reduce the size of the deer population. Commenters also stated that the EIS does not provide a substantial purpose and need for lethal deer removal under current NPS management philosophy and guidelines. Some stated that the objectives presented were not grounded in the park's enabling legislation, purpose, significance, and mission goals, as is required, and that the objectives resulted in NPS having to select alternatives C or D. Other commenters questioned the policies that allow management of native species, and further stated that the impairment standard cannot be applied legally to a native herbivore in a national park. One commenter also questioned whether CWD was a native organism and how NPS policies might apply.

REPRESENTATIVE QUOTE(S):

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93122 **Organization Type:** Conservation/Preservation

Representative Quote: In summary, The HSUS believes that the EIS does not provide a substantial purpose and need for lethal deer removal under current NPS management philosophy and guidelines. With little evidence to suggest that deer have truly altered this ecosystem and prevented its perpetuation, it is incumbent upon the NPS to justify the killing of native wildlife in the absence of sustained threats to the VFNHP ecosystem.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93726 **Organization Type:** Conservation/Preservation

Representative Quote: In the Draft EIS, the NPS contends that the third element, the impairment standard, is the basis for its authority to engage in a large-scale lethal deer kill within VFNHP. Draft EIS at 1-37, 4-1. This interpretation of the Organic Act is simply wrong. At best it is a self-serving attempt to use the Organic Act's impairment standard to justify plans such as VFNHP's deer kill, Rocky Mountain National Park's elk shooting program, and other actions in other parks targeting wildlife for lethal control. At worst, the NPS is intentionally manipulating the historic interpretation of the Organic Act to permit actions to occur within units of the national park system that are entirely contrary to intent of Congress when it established the NPS.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93791 **Organization Type:** Conservation/Preservation

Representative Quote: The significance and mission of the VFNHP could not be immediately determined though, consider the purpose of the VFNHP as specified in the park's enabling legislation, it is unlikely that either the significance or mission of the park justifies these management objectives. Furthermore, given time restraints, these objectives could not be compared to the standards included in the VFNHP's 2007 GMP. However, even if there is agreement between the standards articulated in the GMP and these management objectives, that does not, by itself, suggest that these objectives are justified since the GMP was likely revised as, in part, the foundation for implementing a deer management plan, and specifically, lethal deer control.

Moreover, though it is clear that the management objectives are not consistent with VFNHP's enabling legislation, purpose, significance, or its mission goals, it is also clear that they were developed largely to be self-serving by justifying the NPS preferred alternative which calls for the large-scale slaughter of deer. Not surprisingly, the NPS uses the management objectives as a measure of the reasonableness of the various alternatives evaluated in the Draft EIS with Alternatives A and B determined not to meet

the objectives while Alternatives C and D do satisfy the objectives. Furthermore, these objectives provide additional evidence of the bias of the Draft EIS against deer and of the predetermined outcome of this decision-making process.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93736 **Organization Type:** Conservation/Preservation
Representative Quote: Given the lack of natural deer predators in VFNHP and the claim that the park and surrounding areas provide high quality deer habitat, the NPS believes, based on policy, it is permitted to engage in the lethal management of the park's deer herd. Assuming NPS policies were limited to those cited above (and that the policies themselves were consistent with NPS statutory and regulatory authority), the NPS must prove that its intervention will not cause "unacceptable impacts to the population of the species or to other components and processes of the ecosystems that support them" and that it is unable to mitigate the "human influences" that created the unnaturally high or low population concentration.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93788 **Organization Type:** Conservation/Preservation
Representative Quote: The NPS states that "objectives for managing deer populations must be grounded in the park's enabling legislation, purpose, significance, and mission goals, and must be compatible with the direction and guidance provided by the park's general management plan." Draft EIS at iii.

A careful review of each of these criteria reveal that they do not support the proposed lethal destruction of large numbers of deer in VFNHP, that they are silent on the issue of deer management and control, or that the NPS has effectively manufactured select criteria to use them to justify its proposed management action.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93725 **Organization Type:** Conservation/Preservation
Representative Quote: Of particular relevance here are the second and third of these requirements. The second requirement imposes a conservation mandate on the NPS. This mandate applies to scenery, natural and historic objects, and the wild life therein. There is nothing in this second mandate that can be interpreted to allow one element (e.g., scenery) to be favored over another (e.g., wild life) in regards to conservation. Moreover, considering the "natural regulation" mandate of the NPS where nature is supposed to be permitted to regulate ecological dynamics of park unit, the mere fact that deer may be affecting forest regeneration and/or the composition, abundance, distribution, and structure of vegetation in a park is not sufficient to justify the wholesale slaughter of a particular species.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93765 **Organization Type:** Conservation/Preservation
Representative Quote: While AWI questions the conclusion that CWD is a nonnative disease among cervids, of greater consequence for the NPS is whether CWD is a native organism. If it is, NPS Policies and legal mandates may not permit its extirpation. This is not to suggest that AWI desires to see CWD spread throughout this nation's deer or other ungulate population but, rather, it is to make the point that the NPS cannot simply elect to extirpate a native species solely because it is consistent with state policy.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93707 **Organization Type:** Conservation/Preservation
Representative Quote: The Draft EIS relies on similar language in describing the NPS

objectives in taking action to manage the deer population. Specifically, the NPS objectives include protecting and promoting the restoration of the "natural abundance, distribution, structure, and composition of native plant communities by reducing deer browsing" and maintaining "a white-tailed deer population within the park that allows for protection and restoration of native plant communities." Draft EIS at 1-3. The Draft EIS, not surprisingly, concludes that Alternatives A and B will not meet these objectives since "implementation of any of the nonlethal actions alone would be insufficient to address forest regeneration and would not meet the objectives of the plan/EIS," Draft EIS at 2-23. In other words, only Alternatives C or D can, according to the NPS, achieve the objectives delineated in the Draft EIS. This conclusion should be of no surprise since this outcome was identified and decided in the GMP/EIS/RoD.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 92716 **Organization Type:** Conservation/Preservation
Representative Quote: Based on the evidence, or lack thereof, presented in the Draft EIS, AWI is not convinced that the massive removal of deer through sharpshooting or capture and euthanasia is necessary to properly manage the VFNHP. That evidence, as presented in the Draft EIS, demonstrates that the park's deer population is decreasing in size, that the deer population is in the process of reaching an equilibrium consistent with the park's ecological carrying capacity, that the park has sustained and continues to sustain a high density deer population, that park deer occupy relatively small home ranges (suggesting higher quality habitat), that Chronic Wasting Disease is not an immediate threat to deer in VFNHP, that the NPS may not have the legal authority to eradicate the disease, that non-lethal reproductive controls can be implemented immediately, and that mitigation measures are available and would be successful in addressing the alleged threats to special status plant species.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93735 **Organization Type:** Conservation/Preservation
Representative Quote: Without evidence that visitor use has been adversely impacted because of the deer population and since the impairment standard cannot be legally applied to a native herbivore in a national park, the NPS has no legal authority to implement the preferred alternative and slaughter a large number of deer. In fact, the NPS may not have the legal authority, regardless of any evidence documenting the detrimental impact of an animal on public use, to engage in a large-scale slaughter of native animals. Again, if the Organic Act is read and interpreted in its entirety, the only way the "destruction of animals" authority provided in 16 USC §3 is consistent with the conservation mandate contained in 16 USC §1 is if the former was intended to be used sparingly and only against specific animals.

RESPONSE: The NPS believes that the plan/EIS is in compliance with the Organic Act and associated implementing regulations and policies, as well as the enabling legislation for the park. The NPS also believes that the plan/EIS fully and sufficiently discloses data that substantiates the purpose and need for action. (Refer to Concern ID 19748 on page 26 regarding park-specific data supporting the purpose and need for action.) The objectives of the plan/EIS were developed in support of the plan purpose and need for action and the NPS believes they are fully compliant with the park's enabling legislation, purpose, significance, and mission goals as described in the park General Management Plan/EIS (NPS 2007j). All alternatives presented in the plan/EIS met the plan objectives to some degree. How well each alternative met the plan objectives is provided in Table 6 of the plan/EIS (page 2-61).

As described on pages 1-3 and 1-4, the NPS has broad authority to manage wildlife and other natural resources within the boundaries of units of the national park system. As

stated in 16 USC § 1, the NPS, "shall promote and regulate the use of Federal areas known as national parks ...by such means and measures as conform with the fundamental purpose of the parks...to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations". In defining this discretion, the 10th Circuit Court of Appeals overturned a district court decision in New Mexico State Game Commission v. Udall (410 F.2d 1197, 1201), holding in part that the NPS "need not wait until the damage through overbrowsing has taken its toll on park plant life ... before taking preventative action" (10th Cir. 1969). This discretion has been reinforced over time.

NPS *Management Policies 2006,* Section 4.4.2.1, allows for the management of native species to prevent them from interfering broadly with natural habitats, natural abundances, and natural distributions of native species and natural processes. NPS *Management Policies 2006*, Section 4.4.2, also states that the NPS will rely on natural processes whenever possible, but may intervene to manage wildlife or plant populations under certain conditions. One such condition is when "a population occurs in an unnaturally high or low concentration as a result of human influences (such as the extirpation of predators and the creation of highly productive habitat through urban landscapes) and it is not possible to mitigate the effects of the human influences." Since the deer population at Valley Forge NHP is increasing at a rate that reflects the absence of effective predation and presence of high quality habitat found in the park and surrounding areas, active management of the species is permitted, including population reduction or lethal removal of individuals from a population.

NPS *Management Policies 2006,* Section 4.4.2.1, further states that, "[w]henever the Service removes native plants or animals, manages plant or animal populations to reduce their sizes, or allows others to remove plants or animals for an authorized purpose, the Service will seek to ensure that such removals will not cause unacceptable impacts on native resources, natural processes, or other park resources. Whenever the Service identifies a possible need for reducing the size of a park plant or animal population, the Service will use scientifically valid resource information obtained through consultation with technical experts, literature review, inventory, monitoring, or research to evaluate the identified need for population management..." A full analysis of impacts is provided in Chapter 4: Environmental Consequences.

Sections 1.4.4 to 1.4.7 of the NPS *Management Policies 2006* provide guidance for the evaluation of potential impacts to park resources. Those sections recognize that the source of the impacts that may lead to impairment can arise from a variety of causes. The guidance does not indicate that impacts leading to impairment could not be caused by a native species. NPS *Management Policies 2006* also allow for considerable discretion on the part of the park manager in determining whether or if impairment exists. As noted in *Management Policies 2006,* "Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts."

One commenter also questioned whether CWD was considered a native organism. The NPS states on page C-1 that "although the precise origin of CWD will probably never be determined, it is strongly suspected that CWD is a nonnative disease among cervids."

CONCERN ID: 19922

CONCERN STATEMENT: Commenters questioned the legal authority of the park in relation to the protection of state-listed species.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93769 **Organization Type:** Conservation/Preservation

Representative Quote: Though the NPS claims that is has a duty to consider state-listed or protected species when making management decisions, the NPS fails to disclose the legal significance of a state listing. In other words, what specific prohibitions apply to the management of use of lands where state-listed species exist under state law? This question is not intended to discount the significance of the state-listing of these species and/or their fragility, but only to seek additional information about the legal significance of a state-listing.

RESPONSE: Discussion regarding the legal obligation of the NPS to manage state-listed species has been clarified in Chapter 4 (see page 4-14). The NPS does not have a legal obligation to manage for state-listed species. However, it is required by the Organic Act to, "conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." In addition, NPS *Management Policies 2006* Section 4.4.2.2 state that, "the National Park Service will...manage state and locally listed species in a manner similar to its treatment of federally listed species to the greatest extent possible.

Section 4.4.2.2 of the NPS Management Policies provides for consideration of state species in the conduct of NPS activities. Specifically, “The National Park Service will inventory, monitor, and manage state and locally listed species in a manner similar to its treatment of federally listed species to the greatest extent possible. In addition, the Service will inventory other native species that are of special management concern to parks (such as rare, declining, sensitive, or unique species and their habitats) and will manage them to maintain their natural distribution and abundance. The Service will determine all management actions for the protection and perpetuation of federally, state, or locally listed species through the park management planning process, and will include consultation with lead federal and state agencies as appropriate." In including the consideration of impacts to state listed species within this document, the NPS is in compliance with NPS policies.

PN8000 - Purpose And Need: Objectives In Taking Action

CONCERN ID: 19752

CONCERN STATEMENT: Commenters stated that the purpose and need for taking action presented in the plan/EIS is incorrect, citing that CWD is not a concern in this area and is not a threat to deer populations.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 62 **Organization:** Friends of Animals

Comment ID: 93593 **Organization Type:** Conservation/Preservation

Representative Quote: The Pennsylvania Gaming Commission stated on their web site that CWD (Chronic Wasting Disease) has NOT been found in any of the deer in Pennsylvania so reducing herds for this reason has no effect on the herds in Pennsylvania.

Corr. ID: 358 **Organization:** *Not Specified*

Comment ID: 93433 **Organization Type:** Unaffiliated Individual

Representative Quote: Most of the park's reasons for calling the deer a problem are inaccurate

or invalid. For example, chronic wasting disease is no threat what so ever as far as deer numbers are concerned. CWD has NOT even been reported anywhere in PA. Not to mention, indiscriminately reducing the number of deer in a park has never been show to impact CWD rates. (source: http://www.pgc.state.pa.us/pgc/cwp/view.asp?a=458&q=163873)

RESPONSE: The NPS has stated on page C-5 of Appendix C: CWD Response Plan for Valley Forge NHP, that no cases of CWD have been confirmed in Pennsylvania. Similar language has been added on pages 1-44, 2-14 and C-2 of the plan/EIS for clarification in the body of the document.

A full risk assessment, providing the justification for inclusion of CWD in the plan/EIS is provided in Appendix C. As stated on page C-5, the entire state of Pennsylvania is considered to be at high risk for the introduction of CWD, due to the presence of the disease in an adjacent state. The need for action presented in the plan/EIS is based on changes in the proximity of CWD to the park boundary. As described in Appendix C, CWD was thought to be isolated to the west and midwest regions of the United States, until 2005, when it was confirmed in both New York and West Virginia. This places the closest confirmed case of CWD only 200 miles from the park boundary. NPS believes data used in the plan/EIS is sufficient to justify plan/EIS purpose and need for action related to CWD.

CONCERN ID: 19754

CONCERN STATEMENT: Commenters stated that the objectives of the plan/DEIS should focus more strongly on the historical justification for deer management, and the impacts deer have on historically important vegetation.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1018 **Organization:** Valley Forge Citizens for Deer Control

Comment ID: 92450 **Organization Type:** Conservation/Preservation

Representative Quote: 4. The EIS is missing an important historical justification for deer reduction directly related to deer destruction of the Park's woodlands.

The negative effect of excessive deer browse in the Park's woodlands is the destruction of an important interpretive linkage between various flora species and the use of such species by the Continental Army.

The woodlands have a medical connection to the Continental Army. The Army's first pharmacopoeia developed in Lititz in the spring of 1778 by Dr. William Brown to treat various illnesses of the soldiers specified woodland ingredients for medical compounds. Tree species in the Park present in these compounds include the Sassafras tree (bark, wood & root), the Sugar maple (for its syrup), and White pine (for its pitch). The pharmacopeia also specified use of the roots of herbaceous plants found in the woods: Wild licorice; Sarsaparilla; Snakeroot; Wild ginger.

In addition, the woodlands have a practical connection to the Continental Army. Gen. Washington gave an encampment order specifying roof shingles be made of split oak, and at least five species of oak are found in the woods. Wagons of the era, such as Army supply wagons, used hickory for wheel hubs and single-trees. Bark from the American Chestnut was used as the principal supply of tannin for the leather industry, and thus was likely used for military straps, belts, etc. Black walnut was the preferred wood for rifle or musket gunstocks because it is dimensionally stable. Sycamore was the preferred wood used for butcher blocks because its curved grain is highly resistant to splitting, and thus was likely used by encampment butchers to carve meat rations for the troops.
The above is just a sample of the historical interpretive possibilities of the Park's woodlands with regard to the Valley Forge encampment of 1777-78.

RESPONSE: The purpose of the plan/EIS is to develop a deer management strategy that promotes the protection, preservation and restoration of native vegetation and other natural and cultural resources (page 1-2). Important natural elements of the cultural landscape, such as the pattern of open versus wooded habitat, are described in Section 3.3.1 Cultural Landscapes of the plan/EIS. Tree regeneration has been selected as the measure of plan success rather than plant diversity or the presence/absence of specific plant species that may have occurred historically (1700's). Actions that support plan/EIS objectives related to native vegetation would be sufficient to protect and preserve those native species referred to by the commenter that still occur in the park today. In other cases, as described on page 1-24 of the plan/EIS, species such as the American Chestnut will likely never occur in the park again regardless of deer density.

CONCERN ID: 19870

CONCERN STATEMENT: One commenter stated that preventing deer-vehicle collisions should be included as an objective in taking action.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 872 **Organization:** Audubon Pennsylvania

Comment ID: 92939 **Organization Type:** Conservation/Preservation

Representative Quote: During 2007, Audubon Pennsylvania, commissioned an independent statewide survey of the general public across Pennsylvania asking citizens to rank deer management goals in the order of their priority. Managing deer to promote healthy, sustainable forest ecosystems was the number one goal identified for deer management by the public and by hunters, followed by minimizing conflicts with humans (Reed Haldy McIntosh 2003). Both of these efforts suggest that the most important deer management goal for the people of Pennsylvania is for deer to be managed to allow for healthy forest ecosystems and to reduce deer/human conflicts.

RESPONSE: The plan/EIS purpose is to develop a deer management strategy to promote the protection, preservation, and restoration of native vegetation and other natural and cultural resources. As described on page 1-2, the plan/EIS objectives are what must be achieved to a large degree for the action to be considered a success. The action alternatives selected for detailed analysis must resolve the purpose of and need for action and meet the plan objectives. Objectives related to deer-vehicle collisions were not developed because they are not relevant to the plan/EIS purpose and need for action. Please note that deer-vehicle collisions are addressed under sections related to Public Safety throughout the document. Chapter 4: Environmental Consequences, provides a full evaluation of the impacts of implementation of deer management alternatives on public safety, including the likelihood of being involved in a deer-vehicle collision. Refer to Section 4.7: Public Safety (beginning on page 4-84).

AL2070 - Alternatives: Alternative Eliminated - Capture and Relocation

CONCERN ID: 19673

CONCERN STATEMENT: One commenter questioned whether the studies referenced regarding capture and relocation were conducted in Pennsylvania and, if not, do they remain relevant to the decision not to accept translocation as a viable alternative.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 936 **Organization:** *Not Specified*

Comment ID: 93221 **Organization Type:** Unaffiliated Individual

Representative Quote: Were the studies conducted by Coffey and Johnston, DeNicola and Swihart and Warren performed in Pennsylvania? If not, are they relevant?

RESPONSE: As stated in NPS *Management Policies 2006*, Section 4.1, "decisions about the extent and degree of management actions taken to protect or restore park ecosystems or their components would be based on clearly articulated, well-

supported management objectives and the best scientific information available." No park-specific data related to capture and relocation of white-tailed deer exists and, in part, because the Pennsylvania Game Commission does not support capture and relocation as a deer management tool in Pennsylvania, no data from areas surrounding the park is available. Although the references cited by the commenter are not specific to Pennsylvania, the information/data presented is considered applicable to white-tailed deer in general, regardless of the state in which they occur. NPS *Management Policies 2006*, Section 4.4.2.1, states that information may be obtained through "consultation with technical experts, literature review, inventory, monitoring, or research to evaluate the identified need for management..." The NPS believes that the information presented in the plan/EIS is sufficient to justify elimination of capture and relocation as a reasonable alternative.

AL2100 - Alternatives: Use of Volunteers for Lethal Actions

CONCERN ID: 19674

CONCERN STATEMENT: One commenter stated that the NPS is obligated to revisit the question of whether qualified volunteers should be part of the deer management solution.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 972 **Organization:** Safari Club International

Comment ID: 93094 **Organization Type:** Conservation/Preservation

Representative Quote: In summarily rejecting the use of qualified volunteers for deer population reduction in Valley Forge National Historical Park, the NPS has ignored valid evidence of a strategy that is being successfully and economically employed for deer management. SCI and SCIF strongly recommend that it is the NPS's responsibility to give adequate consideration to a tool that could enhance the preferred alternative designated by the EIS. Before issuing a Final EIS, the NPS is obligated to revisit the question of whether qualified volunteers should be part of the deer management solution.

RESPONSE: The Secretary of the Interior has broad discretion in managing wildlife. Section 4.4.2.1 of NPS *Management Policies 2006* states that the destruction of animals may be carried out by NPS personnel or their authorized agents. In some situations, authorized agents can be volunteers. However, the NPS has determined that Valley Forge NHP is not an NPS unit conducive for the use of public volunteers as authorized agents of the park for the purposes of handling firearms.

On page 2-12 of the plan/EIS, NPS states that volunteers would not be involved in activities involving the use of firearms for the purposes of lethal removal. The justification for this decision is provided on page 2-13, and is based on the nature of development on the park boundary, nature of the unconfined recreational activities in the park, presence of landform restrictions which would not enable complete closure of access, and related safety concerns. As stated in the plan/EIS, although volunteers would be excluded from using firearms, they may assist in other activities such as the transport and processing of carcasses, maintenance of bait stations, and implementing park closures (page 2-13). Therefore, as described on page 2-37 of the plan/EIS, use of firearms for the purposes of lethal removal would be carried out by qualified federal employees or contractors with demonstrated expertise and training in the implementation of successful wildlife/deer management actions including firearms handling, storage, and proficiency, lethal removal techniques, and wildlife capture and handling.

Additional details have been added to Section 2.5.1 Use of Volunteers and throughout the document as appropriate, to clarify how volunteers would be used to implement both lethal reduction and reproductive control and to provide general volunteer training requirements and/or qualifications.

AL2160 - Alternatives: Alternative Eliminated - Surgical Reproductive Control

CONCERN ID: 19675

CONCERN STATEMENT: Commenters stated that the dismissal of surgical reproductive control of does based on mortality rate wasn't consistent with the proposed removal of deer in the park and that the effectiveness of this procedure in other locations was not considered. Further, another commenter stated that sterilization ensures the continuity within the social framework of the herd.

REPRESENTATIVE QUOTE(S):

Corr. ID: 961 **Organization:** *Not Specified*

Comment ID: 93083 **Organization Type:** Unaffiliated Individual

Representative Quote: A typical example of confused thinking can be found under "Surgical Reproductive Control" (2.10.3). The draft plan states that surgery in the field to eliminate reproduction was "considered but rejected" for the following reasons: 1) because it would take "a great deal of time per deer," 2) because "the number of deer that would need to be treated makes it technically unfeasible" and 3) "the mortality rate associated with the procedure (6%) is greater than the acceptable level of mortality for this procedure (5%)." Using the figures in the draft plan once again means that if 6% of the 460 females assumed to belong to the herd died, there would 27 or 28 deaths while the acceptable number of deaths for this procedure is only 23. Your solution to this problem is for sharpshooters to kill 450 -550 deer.

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93127 **Organization Type:** Conservation/Preservation

Representative Quote: While the EIS briefly discusses the option of surgical sterilization, it quickly dismisses it as infeasible. And yet, from 2002-2005, the city of Highland Park, Illinois conducted a trap sterilize release program on the city's deer. In that study, does were sterilized through tubal ligation so they were not susceptible to the behavioral alterations typical of methodologies that halt hormone production. This methodology was both safe and humane and resulted in very low mortality rates due to surgery. Computer models of surgical sterilization from this and other research revealed that areas can maintain their deer populations at target densities by sterilizing 32% of the does per year. Based upon these results, VFNHP may do well to reconsider surgical sterilization as a viable option for deer management.

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93132 **Organization Type:** Conservation/Preservation

Representative Quote: Sterilization is superior to lethal control in that it leaves animals in a population as "placeholders" that are reproductively "dead ends" yet continue to occupy consistent home ranges and exhibit natural herding behaviors. The presence of these adult "placeholders" ensures continuity in the social framework of the herd while limiting the number of young and more mobile animals that might pose increased risks of collisions with vehicles and dispersal to adjoining private properties.

RESPONSE: An alternative may be considered but dismissed from detailed evaluation if its implementation would be [remote and] speculative. There is little scientific information available in the published literature evaluating the use of surgical sterilization as a deer management tool. Existing research has focused on computer modeling or implementation in relation to small, isolated, low density deer populations and is not considered directly applicable to the large, free-ranging, high density deer population at Valley Forge NHP. Relevant studies are referenced in the plan/EIS. Language in the plan/EIS, Section 2.10.3: Surgical Reproductive Control, has been updated to provide additional details presented in the referenced literature and to include dismissal of surgical reproductive control in combination with other actions.

As stated on page 2-53 of the plan/EIS, Mathews et al. (2005), concluded that sterilized deer in Highland Park, IL died at a significantly higher rate than control [unsterilized] deer. Higher mortality associated with surgical sterilization is considered by the NPS to be a valid justification for elimination of this action, as well as being consistent with how other alternatives presented in the plan/EIS were evaluated. The fundamental assumption of a management alternative such as surgical sterilization would be the use of non-lethal methods to manage the deer population. Mortality associated with use of a "non-lethal" method is an important consideration in the evaluation of alternatives. Similarly, lethal methods that were not considered highly successful in humanely removing animals from a population were dismissed from further consideration (e.g., predator reintroduction).

The NPS has been unable to identify any source documenting the commenter's suggestion that sterilized deer serve as a "placeholder" on the landscape, preventing other deer from moving in. Mathews et al. (2005) concluded that sterilized deer moved more than fertile deer. This may negate their effectiveness as placeholders on the landscape.

AL2220 - Alternatives: Alternative Eliminated - Supplemental Feeding

CONCERN ID: 19676

CONCERN STATEMENT: One commenter stated that the plan/DEIS does not provide factual evidence that supplemental feeding would not achieve the desired goal.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 936 **Organization:** *Not Specified*

Comment ID: 93222 **Organization Type:** Unaffiliated Individual

Representative Quote: 2.10.7 Supplemental Feedings
Providing supplemental food to deer is often suggested as a way of reducing damage to natural or ornamental vegetation. However, increasing food sources through supplemental feeding could increase survivability and reproduction in the deer population, thus compounding problems that already exist.
"The plan is hypothesizing in this statement and showing no relevant supportive facts.
" If factual evidence is available please make the data available for public review prior to making a decision on how to move forward with the draft.
Providing alternative food sources may provide temporary relief from browsing on plants needing protection but would not provide a long-term solution.
" If the farming were sustained, why would it not be a long-term solution?
Again, statements are being put forward without supportive or factual evidence.
Please provide evidence for the aforementioned statement in this draft.

In addition, supplemental feeding on a parkwide basis would be logistically and economically impractical (Maryland DNR 2002). For these reasons, supplemental feeding was dismissed as a management option.

RESPONSE: Supplemental feeding was considered but dismissed as a deer management alternative in Section 2.10.7 of the plan/EIS. The NPS believes that the information presented is sufficient to eliminate supplemental feeding as a reasonable alternative; however, additional references have been included in the plan/EIS to lend support to the dismissal justification (see page 2-55). No scientific evidence could be found to suggest that in large, free-ranging deer populations supplemental feeding could reasonably be expected to allow the park to achieve its target level of tree regeneration.

AL3000 - Alternatives: Envir. Preferred Alt./NEPA § .101&102

CONCERN ID: 19678

CONCERN STATEMENT: One commenter questioned the validity of the environmentally preferred alternative, based on the six criteria established by NEPA Section 101(b).

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93782 **Organization Type:** Conservation/Preservation

Representative Quote: These are the objectives that the NPS attempts to use in defining an environmentally preferred alternative. The problem is that the objectives related to the policy which pertains to the profound impact of man on the environment. Thus the objectives are applicable to human impacts and influences on the environment. For example, the fifth objective which calls for achieving a balance between population and resource use is referring to the human population not, as the NPS attempts to claim in the Draft EIS, to the deer population in VFNHP. Similarly, the third objective does not apply to any alleged degradation of the environment caused by a wildlife species, like deer, as it applies to degradation attributable to human use of the environment. While some of the objectives can be more easily applied to wildlife than others, doing so represents a complete misinterpretation of the objectives and their intent as specified in the statute. Thus the NPS assessment of the environmentally preferred alternative in the Draft EIS is entirely useless as it is based on a misinterpretation of the statutory language.

RESPONSE: In accordance with NPS Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making, and the National Environmental Policy Act (NEPA), the NPS is required to identify the environmentally preferred alternative in its NEPA documents. The Council on Environmentally Quality defines the environmentally preferred alternative as the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. As discussed in Section 2.12: Environmentally Preferred Alternative in the plan/EIS, ordinarily, this means the alternative that causes the least damage to the biological and physical environment, and the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. The NPS stands by its selection of the environmentally preferred alternative as presented in Section 2.12 of the plan. Alternative C best protects the biological and physical environment by ensuring an immediate reduction in deer population numbers that could be sustained with proven methods over the life of the plan. Section 2.11: Consistency with Sections 101(b) and 102(1) of the National Environmental Policy Act has been clarified to better present a discussion of how each alternative meets the six criteria of

NEPA Section 101 and to distinguish that section from the identification of the environmentally preferred alternative in the following section.

AL4000 - Alternatives: New Alternatives Or Elements

CONCERN ID: 19681

CONCERN STATEMENT: Commenters stated that the plan/DEIS did not contain a reasonable range of alternatives. They further stated that the range of alternatives presented were too similar to each other to be an adequate range. Commenters provided alternative elements to be analyzed within the plan/DEIS. Alternative elements stated by commenters generally fell into three categories: (1) actions outside the scope of the plan/EIS and/or do not contribute to achieving the purpose, need and objectives of the plan/EIS; (2) actions the park is already involved in or have already been addressed in the plan/EIS; and (3) actions not within the authority of the NPS to undertake.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 64 **Organization:** I can't seem to deselect "member"

Comment ID: 93618 **Organization Type:** Unaffiliated Individual

Representative Quote: As someone who frequently drives through the park, I can safely say deer are not a problem in reference to deer-car collisions unless one is speeding (and the speed limit should be reduced to 25 mph to reflect the fact that the park is a residential area for the wildlife that live there). And in those cases, the person speeding is the problem not the deer! As a side note, deer-car collisions peak on the first day of hunting season because they deer run in fright anywhere they can to escape the hunters (insurance statistics prove this).

Corr. ID: 492 **Organization:** *Not Specified*

Comment ID: 91747 **Organization Type:** Unaffiliated Individual

Representative Quote: Course taken should be less development in and around the park. We need people and development control - not animal control.

Corr. ID: 506 **Organization:** Friends of Animals, Inc.

Comment ID: 93345 **Organization Type:** Conservation/Preservation

Representative Quote: Coyotes are beginning to re-establish themselves in the area. Should these natural predators gain a presence in the Park, they will remove some of the young, and also the sick, and thus check the deer numbers while promoting health in the deer. Unlike larger predators, coyotes could do well in the range Valley Forge Park provides.
The EIS in fact acknowledges that animals of some species to whom deer are a food source, including foxes and coyotes, could benefit from high deer density and open understory conditions. Other animals, such as box turtles, vultures, crows, and chickadees, may also eat deer carcasses. Small predators, such as foxes, hawks, owls, and skunks may also benefit from a more open understory, as prey would be easier to find.

The coyote population will, of course, take time to rebound, but this means we should promote their role in the ecosystem of our region. These predators, rather than be considered vermin by local residents, must be encouraged to prosper and to keep the ecological balance intact. The park administrators could and should diligently publish information to promote safety and respect for coyotes.

Corr. ID: 554 **Organization:** *Not Specified*

Comment ID: 93649 **Organization Type:** Unaffiliated Individual

Representative Quote: If the park says that it's concerned about deer/vehicle collisions then I say why is the average speed through the park 48 mph and why, in the last year, have I not seen a park ranger or other police officer stop a single vehicle near the park on Route 252, Route 23 or Walker Road. Speeders leaving the park treat the two schools on 252 and Walker Road like they don't even exist.

Corr. ID: 554 **Organization:** *Not Specified*
Comment ID: 91914 **Organization Type:** Unaffiliated Individual
Representative Quote: Try an experiment, everyone: drive no more than 25 mph through the park, even at night and in the rain, and see if you can even imagine hitting a deer at that low speed. I doubt that you can.

Corr. ID: 573 **Organization:** *Not Specified*
Comment ID: 91954 **Organization Type:** Unaffiliated Individual
Representative Quote: We suggest developing a broader, more thoughtful plan to address the multiple causes of environmental damage to the park area. Specifically, in terms of control of the deer population as one aspect of the plan, the park managers should consider a less aggressive, less damaging approach. For example, pilot an intervention to reduce the deer population by 25-30 % over the next 2 years, while using contraceptives and strategic fencing to control the population.

Corr. ID: 627 **Organization:** *Not Specified*
Comment ID: 92036 **Organization Type:** Unaffiliated Individual
Representative Quote: If you are so concerned with the park's appearance, why don't you shut down the highway that runs through the park?

Corr. ID: 757 **Organization:** *Not Specified*
Comment ID: 92498 **Organization Type:** Unaffiliated Individual
Representative Quote: "Designated areas" for deer herds would protect the herd and also make it easier to control their reproductive activity because you would know where they are and would better understand their behavior. It would also create better interaction between deer and man.

Corr. ID: 936 **Organization:** *Not Specified*
Comment ID: 93211 **Organization Type:** Unaffiliated Individual
Representative Quote: Volunteers could assist in the implementation of most elements included in the action alternatives, including closing off areas to the public or assisting in the removal and processing of deer carcasses.

From a budgeting perspective, especially considering the economic state our country and region are in at this moment in 2009, it is clear that based on only having these four alternatives, Alternative A is the most fiscally responsible.
" It would be helpful to understand what a variation of Alternative A, with incorporated farming or test farming of crops to help provide a food source for the fauna, would be estimated at. Please consider this prospect and provide some discussion for it pro and con.

Corr. ID: 946 **Organization:** *Not Specified*
Comment ID: 93113 **Organization Type:** Unaffiliated Individual
Representative Quote: As a national park, Valley Forge has the opportunity to take a leadership role in implementing responsible development that takes

wildlife into account. Since a growing number of people are concerned about this issue, such innovations could, of themselves, make the park a destination for many. First, we need to establish the premise that deer have as much right to be here as we do. Let's focus on creative and practical ways to avoid conflicts with them, as we also nurture the expansion of other native species. The park can sponsor programs to foster respect for wildlife and encourage the spread of native species. Instead of surrounding our homes with little artificial environments, suburbanites can learn to create woodlands on private property and incorporate the trees and plants that are already here into our yards, as well as choose plants that won't attract deer to places where they're unwelcome.

In addition, the park can add to its mission protection and expansion of open space near the park. The Park could work with land grant trusts to preserve any existing open space close to the park and connecting land bridges between open areas so animals can access these. It can also take a role in educating the public on the value of careful land management, and encourage alternative ways of generating revenue for the county instead of building more shopping complexes and hotels.

Corr. ID: 946 **Organization:** *Not Specified*
Comment ID: 93111 **Organization Type:** Unaffiliated Individual
Representative Quote: Vehicle collisions can better and more humanely be eliminated by creating safe means of passage for all wildlife. We need culverts under roads for animals to cross safely, speed bumps at wildlife crossings where culverts can't be built and enforced reduced speed limits in and near the park

Corr. ID: 949 **Organization:** *Not Specified*
Comment ID: 92931 **Organization Type:** Unaffiliated Individual
Representative Quote: Volunteers could replant saplings.

Corr. ID: 953 **Organization:** GeesePeace
Comment ID: 93106 **Organization Type:** Conservation/Preservation
Representative Quote: Use salt substitutes along roads for deicing or use sand. Salt attracts deer to the roadways and forest edge increasing herbivory at the forest edge and incidence of deer vehicle collisions. When salt substitutes are used deer will spend less time in the vicinity of roadways. Reduced use of sodium chlorine will also improve stream water quality.

Corr. ID: 953 **Organization:** GeesePeace
Comment ID: 93107 **Organization Type:** Conservation/Preservation
Representative Quote: Mix seeds from desirable native plants with the corn in the 4-poster system so that deer disperse seeds in forest exterior with their feces.

Corr. ID: 953 **Organization:** GeesePeace
Comment ID: 93104 **Organization Type:** Conservation/Preservation
Representative Quote: Within each open space used for food, shelter or browse place one "4-poster" tick elimination station. "The 4 poster" was developed by the USDA Agricultural Research Service and has resulted in 98% tick reduction. http://www.ars.usda.gov/is/AR/archive/may01/lyme0501.htm. Considering the size of the herd, the tick reduction will be rapid and broad ranging as deer move about the park meadows and forested areas. After three to five years the tick population will be so low that Lyme disease will not be considered a significant issue. Paradoxically, the more deer there are in the area the more effective is the

4-poster system.

The benefit of using the 4-poster and elimination of the risk of Lyme disease is worth taking the very small risk that deer feeding at the 4-poster will spread CWD. The transmission of CWD between deer and the environment is yet unknown, although direct contact is one of suspected mechanisms. Furthermore CWD is not present in the Valley Forge herd, whereas ticks infected with Lyme disease are very likely.

Also, the trough at each end of the 4-poster is very small, which means only one deer at a time will feed at either end.

Corr. ID: 955 **Organization:** *Not Specified*
Comment ID: 93017 **Organization Type:** Unaffiliated Individual
Representative Quote: If we want to protect the vegetation, plant more mature specimens. If we want to protect other fauna from starvation, promote even more plants.

Corr. ID: 993 **Organization:** *Not Specified*
Comment ID: 92620 **Organization Type:** Unaffiliated Individual
Representative Quote: DEER/CAR collision/accidents Educate the public. To avoid accidents; reduce speed during deer peak season and at dawn and dusk. Abide by the safe driving speed limits; refrain from talking and texting on cell phone or using Ipods while driving in high risk areas. Here are some other proven means to deter deer from entering the roadway:
·Install "Streiter lights" These lights are engineered to reflect the light from car headlights. In approaching these unnatural moving light patterns deer have been observed to either retreat or wait until the lights cease and cross safely. See: http://www.strieter-lite.com/index.html

·Install Deer Fencing

·Post deer signs in high traffic areas; increase public outreach and announcements

Corr. ID: 993 **Organization:** *Not Specified*
Comment ID: 92617 **Organization Type:** Unaffiliated Individual
Representative Quote: UNDERSTORY IN THE PARK Choose green options. To minimize the impact of deer browsing on the Woods' understory, use various forestry techniques to spur forest growth. Fertilize soil to overwhelm the deer with more browse than they can eat; spread lime to counter the acidity in the soil (as a result of acid rain) which impedes forest growth; install temporary, movable fencing of select parcels to allow for patch regrowth and prune select overstory trees to allow for more sunlight and rapid understory growth.
There are also a variety of solutions, such as multi-strand solar-powered (or non-solar powered) electric fencing, 8 foot woven wire fence, and various netting options, along with aversive conditioning devices such as electronic stakes and motion-activated garden hoses that squirt deer with a blast of water.

Corr. ID: 1089 **Organization:** *Not Specified*
Comment ID: 93548 **Organization Type:** Unaffiliated Individual
Representative Quote: Sierra Club would like to include in park monitoring BBC, CBC, PBA to see if bird populations change with deer control.

Corr. ID: 1093 **Organization:** *Not Specified*
Comment ID: 93464 **Organization Type:** Unaffiliated Individual
Representative Quote: I am concerned about Lyme. Why would the ticks leave the deer?

Why not treat the deer for ticks? Why not treat the mice for ticks?

There is a township near here that does this (treats deer for ticks) using bait. It is also available for mice.

With no deer, or less deer, might there be more ticks on other hosts?

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93706 **Organization Type:** Conservation/Preservation
Representative Quote: In describing the basis for its decision, the NPS provides the following explanation:

Within forested and other naturally occurring biological communities, the NPS will actively manage the park's biological resources in order to preserve and restore natural abundances, diversities, dynamics, and distributions of native plants and animals. In cases in which species populations occur in unnaturally high or low concentrations as a result of human influences or extirpations of predators, and these occurrences cause unacceptable impacts on natural resources and processes, the NPS will take action to accelerate natural recovery through biological and physical remedial actions. This includes a future vegetation management plan that will determine the best means to manage infestations of exotic invasive plants, as well as how to achieve subsequent revegetation of forests and meadows. A future deer management plan/EIS will determine the best means to manage the size of the white-tailed deer herd. GMP/EIS/RoD at 8 (emphasis added).

While the NPS may claim that the last sentence in this cited paragraph demonstrates that had not predetermined the outcome of the Draft EIS, this claim cannot withstand even limited scrutiny. Most importantly, it is contradicted by the affirmative decision reflected in use of the word "will" in the GMP/EIS/RoD. In other words, the NPS decided that it will use physical remedial actions to manage the deer herd to "accelerate natural recovery" and to "to promote preservation and restoration of the natural abundances, diversities, dynamics, and distributions of native plants and animals."

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93752 **Organization Type:** Conservation/Preservation
Representative Quote: NEPA regulations require federal agencies to "rigorously explore and objectively evaluate all reasonable alternatives ..." 40 CFR 1502.14(a). The range of "reasonable alternatives" must include a no action alternative, id. at 1502.14(d), and "reasonable alternatives not within the jurisdiction of the lead agency." Id. at 1502.14(c). The NPS has failed to meet this requirement in the Draft EIS.

The Draft EIS offers four alternatives; Alternative A (no action); Alternative B (combined nonlethal action); Alternative C (combined lethal actions); and Alternative D (combined lethal and nonlethal actions). While each of these alternatives includes different components, in many cases the alternatives are so similar in structure and impact that they are effectively the same.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93714 **Organization Type:** Conservation/Preservation

Representative Quote: Had it done so then, in addition to the traffic calming measures that the NPS has decided to implement, it could have considered other management strategies that would have further addressed the issue of deer-vehicle collisions (i.e., additional road closures, creation of additional speed zones, use of reflectors or other technologies to frighten deer or warn motorists when approaching dangerous road sections, temporary signage to promote caution, altering vegetation planting/maintenance procedures on roadways to discourage deer use, creating deer under or overpasses). Inexplicably, though the NPS could have included such additional options in the Draft EIS, it has elected to simply defer to the decision made as part of the GMP planning process.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93795 **Organization Type:** Conservation/Preservation

Representative Quote: Furthermore, the NPS has failed to seriously consider alternative strategies to mitigate some of these alleged impacts such as the use of non-palatable species when needed for landscaping or commemorative purposes, the installation of fencing systems that may better blend into the surrounding landscape to reduce any visual impacts, or the preparation of educational materials explaining the history of white-tailed deer in America and, specifically, in the Valley Forge area to make the deer part of the park's history lesson.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93718 **Organization Type:** Conservation/Preservation

Representative Quote: Given these statements and recognizing that many of the forests in VFNHP are, according to the NPS, closed canopy forests, the NPS would be well advised to consider the option of selective tree removal to increase sunlight access to the forest floor to stimulate forest production. Indeed, it must consider such an option before it implements a massive deer kill as proposed or, at a minimum, those options should be considered together. That would not change the opinion of AWI in regard to its opposition to the lethal deer control proposal but it would reflect a recognition on the part of the NPS that there are an abundance of factors, not just deer that are likely affecting forest regeneration.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 95930 **Organization Type:** Conservation/Preservation

Representative Quote: Furthermore, the NPS has not proven that it can't mitigate for the "human influences" that created the alleged overabundance of deer in VFNHP. In this case, while the NPS can't undo the excessive development that has occurred outside of VFNHP, it can engage in mitigation measures (i.e., use of rotational fencing within the park, planting of unpalatable ornamental species when needed for landscaping or commemorative purposes, acquisition of additional lands, support for conservation easements with local landowners to provide additional/improved deer habitat, use of various non-lethal techniques to reduce deer-vehicle collisions, use of non-lethal reproductions controls, and extensive educational efforts to increase tolerance for deer) to increase tolerance for deer both within and outside of VFNHP.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93759 **Organization Type:** Conservation/Preservation
Representative Quote: Management actions outside the park:
In this alternative the NPS would cooperate with the PGC, other agencies, and interest groups to maximize the effectiveness of deer management and education efforts outside of the park. The NPS has the legal authority to consider such an alternative under NEPA. The components of such an alternative could include expanded hunting opportunities for deer outside the park, increased public outreach and education to increase tolerance for deer, installation of various technologies to reduce deer-vehicle collisions, enactment of county ordinances prohibiting the supplemental feeding of deer, creation of regulations or voluntary agreements to close or relocate the captive cervid facilities that existing in Chester and surrounding counties to reduce the potential for CWD transmission to native wildlife. This is not to suggest that AWI would necessarily support this alternative or its individual components, but it is a reasonable alternative that could help address many of the concerns associated with deer in VFNHP.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93755 **Organization Type:** Conservation/Preservation
Representative Quote: While three alternatives (recognizing that Alternatives C and D are the same) cannot possibly constitute a "reasonable range" of alternatives, the NPS also erred in failing to consider other reasonable alternatives. Such other alternatives would include a more rapid and aggressive non-lethal alternative (i.e., a modified version of Alternative B), a non-lethal/research alternative, and a emphasize management actions outside the park alternative.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93808 **Organization Type:** Conservation/Preservation
Representative Quote: Instead of attempting to further vilify deer and to use such inaccurate assessment to persuade people to support the predetermined outcome of this process, the NPS should consider, at a minimum, embarking on a massive educational campaign to educate park visitors and those living outside the park on how to live in harmony with deer including how to protect themselves against Lyme disease and how to reduce the risk of a deer-vehicle collision.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93756 **Organization Type:** Conservation/Preservation
Representative Quote: Aggressive non-lethal alternative:
This alternative would employ non-lethal contraceptive agents to regulate and reduce the park's deer population. Unlike Alternative B, this alternative would drastically increase the number of employees, contractors, or volunteers available to rapidly administer the appropriate vaccine/agent to a maximum number of female deer each year until the population objective is achieved. At that point, non-lethal management would continue though the number of employees/contractors/volunteers needed to implement the program would decline.

RESPONSE: The NPS believes that it has developed and presented an adequate range of alternatives within the plan/EIS to satisfy the purpose, need, and objectives of the plan as required by NEPA.

• Actions outside the scope of the plan/EIS or do not meet the purpose, need, and objectives of the plan/EIS. Examples of commenter suggestions include "treating deer and mice for ticks" and use of the "4-poster system" to eliminate ticks and reduce Lyme disease, lowering the speed limit in the park and other actions to reduce deer vehicle collisions.

The purpose of this plan/EIS is to develop a deer management strategy that supports protection, preservation, and restoration of native vegetation and other natural and cultural resources. Tree regeneration has been selected as the measure of plan success rather than tick density or number of deer-vehicle collisions. Actions to specifically address tick populations/Lyme Disease and deer-vehicle collisions are outside the scope of the plan/EIS and fail to meet the plan purpose, need, and objectives. However, the impact of proposed alternatives on public safety, including the likelihood of encountering a deer tick and/or being involved in a deer-vehicle collision, are described in Section 4.7 (beginning on page 4-84).

• Actions the park is already involved in or are addressed in the plan/EIS. Examples of commenter suggestions include park monitoring of bird populations, using volunteers to assist in planting trees and implement deer management actions, providing educational materials on deer, providing habitat for coyote populations, silvicultural treatments (open canopy) to promote regeneration, providing supplemental feeding for deer (incorporated farming), aversive conditioning devices such as electronic stakes and motion-activated garden hoses, and use of the park as a research model for fertility control.

In spring 2009, the park initiated a long-term, volunteer bird monitoring program to evaluate trends in breeding bird populations parkwide. This program was developed and is being conducted in cooperation with the NPS Inventory and Monitoring Program. Monitoring results would be made available to the public as they become available.

Coyotes were first observed in the park in 2006. The amount of forest and grassland habitat in the park provides conditions (e.g., abundant prey, cover) favorable for coyotes to continue to exist. NPS regulations provide protection from harassment and harvest. However, as indicated in Concern ID 19727 (page 83), it is through the protection and restoration of native plant communities and thus wildlife habitat that the NPS proposes to protect and preserve other native wildlife species.

Refer to pages 2-9 and 2-12 of the plan/EIS for descriptions of NPS involvement with local communities and educational materials. Refer to page 2-12 of the plan/EIS for a description of how public volunteers could assist with implementation of the deer management plan.

Supplemental feeding, repellents and other deterrents and use of the park as a research model for fertility control were considered but dismissed because they failed to meet the purpose and objectives of the plan/EIS. Refer to page 2-55.

Refer to page 2-46 of the plan/EIS for a description of the adaptive management approach which includes the potential for adjustments in vegetation management if other factors are determined to be limiting forest regeneration. These

adjustments could include silviculture, nonnative species management, or responses to the effects of global warming. Silvicultural treatments would be used if it were determined, for example, that the existing forest structure was preventing sunlight and/or water from reaching new seedlings. If this were the case, additional actions would be taken to provide the necessary resources to promote forest regeneration, such as the creation of canopy openings.

• Actions not within the authority of the NPS to undertake. Examples of commenter suggestions include closing the highway that runs through the park, limiting development outside the park, and expanding hunting opportunities for deer outside the park.

The Organic Act provides that NPS shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations; however, it does not provide authority to directly manage lands or resources located on non-federal lands outside the park boundary. Land development outside the park boundary or closing of state roadways is determined by state and local governments. Management of game populations, including white-tailed deer, outside the park boundary, is the responsibility of the Pennsylvania Game Commission (see page 1-19). The park has a long history of working cooperatively with partners in the surrounding community to encourage decision-making that promotes the protection of park resources (e.g., participation with the Valley Creek Restoration Partnership).

Lastly, alternatives that consider different combinations of actions that are already proposed in the plan/EIS were not carried forward because the alternatives presented in the plan/EIS represent the combination the NPS believes most reasonable to implement and with the highest potential to successfully achieve the purpose and objectives of the plan/EIS. These alternatives capture the full range of options required by the Council on Environmental Quality (CEQ). Examples of commenter suggestions include reducing "the deer population by 25-30 % over the next 2 years, while using contraceptives and strategic fencing to control the population," "creating designated deer areas," and a "more rapid and aggressive non-lethal alternative" which would require more staff support than Alternative B.

AL4040 - Alternatives: Sharpshooting

CONCERN ID: 19683

CONCERN STATEMENT: One commenter stated that the plan/DEIS does not sufficiently address the dangers and difficulties in sharpshooting activities, while others provided concerns and information about the dangers of sharpshooting. Commenters also stated that closing the roads in the park may be beneficial as deer may run into the roads during sharpshooting activities.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 15 **Organization:** *Not Specified*

Comment ID: 93816 **Organization Type:** Unaffiliated Individual

Representative Quote: I want point out here, and make sure that it is part of this record, the potential danger and liability to NHP with regard to hiring a firm to shoot high powered rifles on park property. I'm very familiar with the firms that provide sharp shooting services, and I have found that this term in most cases is being improperly applied. For example, below are some safety concerns reported by the National Security Academy that was hired to do the USDA APHIS Wildlife Services 2008 Firearm Safety Review.

1. No uniform method of transporting firearms.
2. An unsafe practice of rounds in the magazine, but not in the chamber was observed and must be addressed.
3. 85% of employees interviewed were deficient in firearm safety and handling training, including live fire training.
4. Only 2% of all employees who use firearms were drug tested.
5. Accidents: Seven cases were cited due to ignorance, negligence, or carelessness.
6. 100% of employees could not name all four Wildlife Services Fundamental Gun Safety Rules.
7. Wildlife Services is being faced with the possibility of hiring Biologists or Field Employees with little or no firearm experience.

This safety report is alarming and raises serious questions about the expert qualifications of these so called sharp shooters. In addition, if the USDA Wildlife Services has these safety concerns, then I can only imagine what the safety issues are with the smaller sharp shooting outfits that aren't required to have an independent safety review.

Corr. ID: 56 **Organization:** *Not Specified*
Comment ID: 93629 **Organization Type:** Unaffiliated Individual
Representative Quote: Even in the hands of experts, firearms and compound bows can cause unintended injury and death to human beings and companion animals. What precautions will be taken in the surrounding neighborhoods to ensure the safely of residents when the killing starts? I understand this killing is planned under the cover of darkness, but this wouldn't prevent deer from running into cars that are using the local roads.

Corr. ID: 550 **Organization:** *Not Specified*
Comment ID: 91893 **Organization Type:** Unaffiliated Individual
Representative Quote: Even the wildlife biologist consultant on the Deer Mgt Plan for Valley Forge NHP, Michele Batcheller, warned participants on Jan. 15, 2009, in the small group discussion which was part of the Public Hearing @ the plan, that sharpshooters would cause deer to run across roads to escape and into nearby neighborhoods. Is this what motorists or the neighbors want?

Corr. ID: 914 **Organization:** *Not Specified*
Comment ID: 92906 **Organization Type:** Unaffiliated Individual
Representative Quote: Using high powered rifles is a danger for visitors to the park, drivers on the public roads through the park, and to nearby residences. Once the shooting starts, won't the deer run out onto Rt. 422?

Corr. ID: 978 **Organization:** The Humane Society of the United States
Comment ID: 93137 **Organization Type:** Conservation/Preservation
Representative Quote: Related to this, the EIS does not indicate how it plans to ensure that no visitors are in the park while the proposed sharp shooting would be taking place. While it is easy to close parking lots and post signs, it is not as simple to close off foot trails that traverse the park and enter onto adjacent land. Some hikers do prefer to begin their activities around dawn or plan to stop hiking right around dusk.

Corr. ID: 1017 **Organization:** *Not Specified*
Comment ID: 92463 **Organization Type:** Unaffiliated Individual
Representative Quote: The plan fails to recognize the extent of the dangers and difficulties associated with sharpshooting as a management technique.

Corr. ID: 1095 **Organization:** *Not Specified*
Comment ID: 93545 **Organization Type:** Unaffiliated Individual
Representative Quote: Deer will run/move during sharpshooting. Close roads?

RESPONSE: A complete analysis of the impacts of implementing alternatives involving lethal methods (Alternatives C and D) is provided in Chapter 4, including potential impacts related to lethal removal actions and public safety (see pages 4-88 to 4-91). As described on pages 4-88 and 4-89, measures taken to ensure the safety of Valley Forge NHPs visitors during implementation of lethal removal actions would include conducting removal activities at night in late fall or winter months when park visitation is lowest, use of equipment to promote accuracy and safety (e.g., night vision, scope), closing areas to visitors when shooting is required, notifying the public in advance of any park closures, providing exhibits regarding deer management actions in the visitor center, and posting information on the parks website. Park law enforcement personnel would patrol the perimeter areas where sharpshooting would occur to ensure that no visitors (e.g., on foot) or vehicles entered the area. Sharpshooting would not occur within 300 feet of any building within the park boundary or on adjacent land or within 300 feet of an open roadway. Bait would be used to attract deer to safe removal locations. Park staff would approve the location of bait stations before sharpshooting took place. The park would comply with all federal firearm laws administered by the Bureau of Alcohol, Tobacco, Firearms and Explosives. The majority of deer reduction activities would occur during the first two years of this plan, decreasing in scope during ensuing years as the deer population declined. The safety measures used under this alternative would ensure the safety of all employees, visitors, and adjacent property owners.

The plan/EIS suggests that sharpshooting activities may temporarily increase the likelihood of visitors and/or park staff being involved in a deer-vehicle collision (see page 4-89). Actions to reduce this likelihood are described above. However, as the population is reduced and deer reduction activities become less prevalent, a reduction in deer-vehicle collisions could be expected. This impact is a similar to that expected to result from implementation of reproductive control of does. Overall, implementation of Alternatives C or D would be expected to have a long-term beneficial impact on public safety as the risk of being involved in a deer-vehicle collision decreased with the decrease in deer population size.

The NPS is familiar with the 2008 U.S. Department of Agriculture-Animal and Plant Health Inspection Service (APHIS) Wildlife Services review. The decision on who would implement lethal management actions in the park would occur using a selection process that rigorously evaluates qualifications (e.g., firearm proficiency), relevant experience, and requires demonstrated success in implementation of similar programs in a safe and efficient manner.

AL4180 - Alternatives: Lethal Reduction - General

CONCERN ID: 19688

CONCERN STATEMENT: Commenters stated that sharpshooting and otherwise lethally removing the deer herd from the park may be ineffective, as more deer may move in from surrounding areas to fill the newly vacant niche, and that an acute reduction in the deer herd will prompt remaining does to breed, causing the population to increase.

REPRESENTATIVE QUOTE(S):

Corr. ID: 56 **Organization:** *Not Specified*

Comment ID: 93628 **Organization Type:** Unaffiliated Individual

Representative Quote: *To reduce populations, deer kills would have to target does rather than bucks. Even then, nearly 75% of the herd would have to be killed to overcome compensatory reproductive rates (the "rebound" effect that would result from the kill). Even this drastic level of killing would not solve the problem, however, because new animals would simply migrate into the area to take advantage of the vacated habitat and abundant food supply. And thanks to suburban sprawl, there continues to be less deer habitats and this scenario is likely.

Deer kills typically start out with a target number of deer to be killed and that number is rarely met since once the kill starts, deer flee the area and take cover in the deepest woods or in the neighboring suburbs where there is no killing.
* Most deer kills, no matter at what level the initial targets are set; end up with a lower kill level that is offset the following year by the rebound effect. Killing deer is NOT the "magic bullet" to solve this issue.

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93690 **Organization Type:** Conservation/Preservation

Representative Quote: The EIS must also discuss how the park can justify the increased levels of reproduction that are known to occur in O. virginianus populations subjected to lethal harvest when alternatives are available.

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93131 **Organization Type:** Conservation/Preservation

Representative Quote: While chemical and physical sterilization has been shown to effectively reduce deer fertility, lethal control may sometimes have the opposite effect. It has been shown that the reproductive rate of O. virginianus is greatly reduced at high population densities while deer in areas subjected to periodic harvest have enhanced fertility rates resulting in increased population growth to compensate for harvested animals. Further research also indicates that harvest of both sexes does nothing to stop fluctuations in deer populations due to forage competition and natural mortality as a result of severe winter weather.

Corr. ID: 998 **Organization:** Mobilization for Animals - PA, Inc.

Comment ID: 92611 **Organization Type:** Conservation/Preservation

Representative Quote: I will open by stating that I vehemently object to lethal methods of dealing with human-wildlife conflicts not only have they proven to be scientifically ineffective, they also punish the victims of human encroachment and irresponsibility when it is in fact the human behaviors that should be modified.

I'm sure you've heard of the scientific phenomenon of "compensatory rebound", which refers to marked increase in births in heavily hunted populations, and leads to a never-ending killing cycle. The article about deer in Valley Forge Park, which ran this Sunday (February 15, 2009) in the Philadelphia Inquirer, backs this up again by coming right out and indicating that ongoing shooting would take place basically into eternity.

With mass kills, the deer herd is initially reduced, leaving more food for the remaining deer, which, in turn, leads to increased reproduction. The following spring, there are more deer, not less.

Studies show annual killing does not keep the remaining deer out of gardens, does not reduce Lyme disease and does not decrease deer/vehicle collisions. The inevitable conclusion: Killing does not solve any problem.

I hope you will take all of this into consideration. I can't see justifying the spending of public money on an ongoing 'solution" to deer-human conflicts, which will be perpetual and therefore NOT BY ANY MEANS expeditious or permanent. We must move forward with better land-use planning, slowing of unnecessary development, and other options which are truly a solution.

Corr. ID: 1016 **Organization:** *Not Specified*

Comment ID: 92479 **Organization Type:** Unaffiliated Individual

Representative Quote: There is no scientific, peer-reviewed data to support killing deer - no proof that hunting (sharp shooting) has had a positive impact on deep population in parks that use this method.
Ridley Creek State Park has been hunting every year since 1999, and has also allowed archery hunting as an additional tool to reduce the deer herd in the park. There is no plan to stop killing year after year.

Gettysburg Park used hunting to reduce their deer herd in 1996, 1997, and from 1999 to date. A quote from a public affairs officer, Katie Lawhon, "We are going to have to continue to remove deer from the park. We are not going to become able to get to our goal and then stop. This will have to be an ongoing objective."

Fairmont Park began hunting to cull their deer in 2001 and continues to date. According to wildlife biologists, deer regulate their own numbers in balance with available resources. In times of famine, does will absorb their embryos when food is scarce. When hunting is introduced, in times of plenty, does will increase their reproduction by producing twins and even triplets, as well as begin reproducing at a younger age. This is called a rebound effect.

The void created by hunting in one area will soon be filled in by deer migrating from adjacent areas, eventually drawing deer from other states, perhaps sick ones.

Corr. ID: 1135 **Organization:** *Not Specified*

Comment ID: 92944 **Organization Type:** Unaffiliated Individual

Representative Quote: I am writing our of concern about the National Park Service's (NPS) decision to recommend lethal methods to control deer at Valley Forge National Historical Park.
Gunning down deer is a cruel way to manage deer populations. Many deer who are shot are merely wounded, and their deaths can be slow and painful. Mass killings tear apart families, leaving young and weak animals vulnerable to

starvation, dehydration, and predators. Lethal methods for deer population control are also ineffective. As long as the areas of concern remain attractive and accessible to these animals, more will move in from surrounding areas to fill the newly vacant niche. In addition, an acute reduction in the deer herd will prompt remaining does to breed, causing the population to increase!

I urge you to halt plans to kill deer at Valley Forge and instead push for long-term deer management methods that are more effective and humane.

RESPONSE: White-tailed deer have a high reproductive capacity and reproductive rate is considered a primary indicator of deer condition. The plan/EIS states on page 4-35, that under Alternatives C or D, deer reproductive rate would be expected to remain high or to increase over time in adult females. Reproductive rate in fawns and yearlings would be expected to increase over time as deer density was reduced and habitat quality improved. This is considered a long-term beneficial impact, because it would indicate deer are in good or improved condition.

The plan/EIS is intended to guide long-term management of white-tailed deer over the next 15 years and beyond. While the reproductive rate of deer may increase in response to a decrease in the overall population, as stated by commenters, future deer removal actions would take into consideration any population growth (increased reproductive rate, deer moving into park from adjacent lands) and adjust management actions (e.g., number of individuals removed) as needed through the adaptive management process. The adaptive management process is described in the plan/EIS on pages 2-46 to 2-50.

CONCERN ID: 19691

CONCERN STATEMENT: Commenters made statements regarding the age composition of the deer in the park, and which deer should be targeted with lethal actions, with some questioning the genetic preference to remove does. They also stated that the analysis was not complete and should have considered impacts to the gene pool and long-term impacts on herd health. One commenter stated that the analysis did not consider all relevant studies, citing a study by Chris Dairmont specifically.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 506 **Organization:** Friends of Animals, Inc.

Comment ID: 93348 **Organization Type:** Conservation/Preservation
Representative Quote: The more highly controlled the environment, the lower the genetic diversity. These changes make no evolutionary sense and ultimately threaten the viability of a species.

The idea that target species evolve in response to predation is not new, but the results of study by Chris T. Darimont et al, "Human Predators Outpace Other Agents of Trait Change in the Wild," encompasses research in the U.S. and Canada taking in decades of observation, and provides new scientific information in a field in which "a comparison of the rate at which phenotypic changes in exploited taxa occurs relative to other systems has never been undertaken." It also explains why this study is of vital importance to a change in the way humans think about managing other animals. Its ramifications will challenge not just on the level of how we should manage them (it describes, for example, the deleterious effects of hunting and the commercial fish trade on evolution), but that we think we can and should manage them in the first place. The authors state that the study is "providing a new appreciation for how fast phenotypes are capable of changing" and that animals targeted by humans

"show some of the most abrupt trait changes ever observed in wild populations," and adds: "Specifically, the widespread potential for transitively rapid and large effects on size- or life history-mediated ecological dynamics might imperil populations, industries, and ecosystems."

The study focuses on hunting and commerce, but will clearly be relevant to the problems resulting from human management and control generally.

Corr. ID: 595 **Organization:** *Not Specified*

Comment ID: 92012 **Organization Type:** Unaffiliated Individual

Representative Quote: A deer management plan should not be implemented by the Park until the potential impacts have been thoroughly evaluated and considered. Has the Park considered the impact of indiscriminately killing off 80% of the herd on the gene pool? What will be the long-term impact on herd health? A thoroughly and carefully conceived plan will likely produce a more desirable outcome than an easy fix, the consequences of which do not appear to have been adequately considered.

Corr. ID: 936 **Organization:** *Not Specified*

Comment ID: 93216 **Organization Type:** Unaffiliated Individual

Representative Quote: There would be a preference for removing does because this would reduce the population level more efficiently over the long term. During the first three years of treatment, both does and antlered deer (bucks) would be removed based on opportunity. Buck-only removal would not control population growth; however, as deer populations are largely dependent on the number of does with potential for
reproduction. Harvest of does is necessary to stabilize or reduce populations. Records would be kept on the age and gender of all deer removed from the park to aid in defining the local population composition. This information would be compared with data used in population models to improve model accuracy.
" How would genetic preference be taken into consideration? Obviously genetics play a major factor on all reproduction and endurance of a species; especially since the plan is also to, "develop a deer management strategy that supports protection, preservation, and restoration of native vegetation and other natural (including the whitetails) and cultural resources throughout and beyond the life of this plan/EIS.

Corr. ID: 936 **Organization:** *Not Specified*

Comment ID: 93217 **Organization Type:** Unaffiliated Individual

Representative Quote: A healthy heard would be more resistant to CWD and act as a better preservation of the white-tailed deer natural resource. How have genetics been addressed if a culling method is employed?

Corr. ID: 1141 **Organization:** *Not Specified*

Comment ID: 92959 **Organization Type:** Unaffiliated Individual

Representative Quote: One thing you must consider is the age of these deer. Experience has shown us these deer in the overpopulated areas are not all young. While you may find only a few bucks 3+ years of age, it is very common to find many does three-to-six-years-old and many over ten years of age. Elimination of a portion of these older deer is the key to developing a permanent plan for deer management.

RESPONSE: Gender preference associated with implementation of lethal (sharpshooting) and non-lethal (reproductive control) actions are described on pages 2-29 and 2-39 of the plan/EIS. Removal or treatment (with a fertility control agent) of female deer is necessary to achieve reduction or stabilization of deer populations. Deer population reduction and/or maintenance is the desired outcome of implementing both lethal (sharpshooting) and non-lethal (reproductive control) actions. Therefore, gender is the primary selection factor determining which deer in the population are removed or treated with a fertility control agent. As described on page 2-42, due to the size of the deer population, during the first two years of sharpshooting, both female and male deer across age classes would be removed based on availability/ opportunity. Thereafter, at least 15 does should be taken for every 10 bucks.

NPS *Management Policies 2006*, Section 4.4.1.2, states that when native animals are removed for any reason, such as culling, to reduce unnatural population conditions resulting from human activities the Service would maintain the appropriate levels of natural genetic diversity. Current technology does not allow for evaluation of genetic make-up based on visual estimation, nor is there a body of literature related to what genes would be selected for or against in white-tailed deer. Therefore, genetics as a selection factor in determining in the field which individual deer would be removed or treated with a fertility control agent would not be a consideration. As described on page 2-39 of the plan/EIS, deer would be removed in proportion to their availability during the first two years of sharpshooting and this action would occur parkwide. The ability of deer to immigrate into the park would continue to promote gene flow with surrounding deer populations. This removal strategy would be expected to be sufficient to maintain existing levels of natural genetic diversity (see pages 4-35 of the plan/EIS).

Darimont et al. (2009) considered twenty-nine species (only two were ungulates or even vertebrates) in a meta-analysis of phenotypic (and therefore implied genotypic) change resulting from recreational or commercial removal of organisms from their environment. They suggest recreational and commercial exploitation result in phenotypic selection, stating human predators select directly on the phenotypes (visual expression of genotype such as coat color) of populations and often adjust their effort in ways that maintain consistent strength and form of selection over time. In other words, when organisms are removed from the environment under a scenario of commercial or recreational use, humans often select for one or more particular traits. For example, they may select for the largest body size, largest antler size, or some other preferred trait. This puts selective pressure on the population, which results in relatively rapid evolution of the species. They suggest that this evolutionary change is much faster than would be expected in a natural system, and could be deleterious to a population. Deer removal under Alternatives C or D of the plan/EIS is neither commercial nor recreational in nature. As described on page 2-39, due to the size of the deer population, during the first two years of sharpshooting, both female and male deer across age classes would be removed based on availability/opportunity. Thereafter, at least 15 does should be taken for every 10 bucks. Phenotypic considerations would not be used as a selection factor in determining which individual deer would be removed or treated with a fertility control agent. Therefore, this study is not considered directly relevant to deer management at the park.

CONCERN ID: 19899

CONCERN STATEMENT: Commenters questioned what would happen to the meat after lethal removal actions. Many stated that the meat should be donated in some fashion.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 9 **Organization:** *Not Specified*

Comment ID: 91860 **Organization Type:** Unaffiliated Individual

Representative Quote: Another option to consider is having all meat from the deer harvested donated to food banks and soup kitchens which are hit hard right now due to the economy. Donations are way down since people are having trouble making ends meet. There is also an influx of people needing that assistance at this time. This would ensure that none of the harvested deer go to waste and help feed the hungry.

Corr. ID: 560 **Organization:** *Not Specified*

Comment ID: 91927 **Organization Type:** Unaffiliated Individual

Representative Quote: For deer that end up being killed, can they be used as food? It seems like a waste to kill them and bury them when they could be used to feed the hungry or could be delicacies in restaurants.

Corr. ID: 585 **Organization:** *Not Specified*

Comment ID: 91990 **Organization Type:** Unaffiliated Individual

Representative Quote: What is going to happen to the deer meat? Perhaps a "Hunters against Hunger" Program should be considered. www.wildlifedepartment.com

Corr. ID: 942 **Organization:** *Not Specified*

Comment ID: 92877 **Organization Type:** Unaffiliated Individual

Representative Quote: I think that the plan is a good one I would just like to suggest that these deer be processed and turned into food that would be used at shelters, food pantries, etc to feed our hungry and underserved populations. Perhaps a trade (Meat) for service would work to get processors to help out.

Corr. ID: 1110 **Organization:** *Not Specified*

Comment ID: 92752 **Organization Type:** Unaffiliated Individual

Representative Quote: I did not see it stated in the article as to how the dead deer would be handled. If you stated that by giving the deer to the homeless shelters and the old folks home (as I believe as done wit the road kill years ago) it would lessen some tax money and therefore be beneficial to the residents of the state and USA.

RESPONSE: Under both Alternatives C and D (preferred alternative) it is the park's intention to donate as much harvested meat as possible to local food banks or food pantries for the purpose of redistribution for human consumption (See page 2-37). Should CWD occur within 60 miles of the park boundary or the park fall within a state-established CWD containment zone, then carcass disposal would occur in accordance with NPS Public Health Program guidelines for meat from an "Area Affected by CWD" and the Pennsylvania Chronic Wasting Disease Response Plan (see pages 2-14 through 2-23).

AL4360 - Alternatives: Reproductive Control of Does

CONCERN ID: 19692

CONCERN STATEMENT: Commenters stated that the plan/DEIS does not provide a sufficient explanation on how the park would monitor the status of ongoing reproductive control research, adding that the NPS should evaluate new wildlife contraception literature at least yearly to stay current with the latest research. Other commenters stated that the data used to analyze the impacts of PZP is out-dated, that more research on the use of reproductive control agents is necessary, that the criteria used to analyze the appropriateness of the various reproductive control agents may be biased considering reproductive control agents have been used in other National Park units, and questioned if CWD was considered in the decision to use reproductive control.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1096 **Organization:** *Not Specified*

Comment ID: 93526 **Organization Type:** Unaffiliated Individual

Representative Quote: With CWD in the equation, does it impact the decision to use reproductive control?

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93783 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS has relied on these criteria to contend that there is no non-lethal reproductive control product that can meet these standards at this time and, therefore, any potential use of such controls has to be deferred to a later date. This contention is simply wrong and, again, demonstrates a bias within the NPS against any management option other than using lethal control. It is important to note that the Draft EIS makes clear that any non-lethal reproductive agent option does not have to precisely meet each of these criteria.

Moreover, the origin of these criteria is not disclosed. Considering that the NPS has elected to utilize contraceptive agents in horses (Assateague Island National Seashore), deer (Fire Island National Seashore), and Tule Elk (Point Reyes National Seashore), these criteria must have been developed specific for VFNHP. This raises concerns of potential bias in crafting these criteria as mentioned previously.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93787 **Organization Type:** Conservation/Preservation

Representative Quote: Finally, the NPS claims that it "would monitor the status of ongoing reproductive control research," Draft EIS at 2-29, but it provide no explanation of how this would be done, how frequently the literature would be reviewed, and how the NPS would announce its decision regarding the use of non-lethal reproductive control options. Even if, for the same of argument, the NPS has correctly determined that none of the currently available vaccines or agent meet its stated criteria, research on these agents is being conducted fast and furious. At a minimum the NPS must, therefore, specify that it will evaluate the new wildlife contraception literature at least yearly and will publish a summary of those new developments along with a new decision regarding the use of non-lethal reproduction control in VFNHP each year.

Corr. ID: 1131 **Organization:** Cummings School of Veterinary Medicine, Tufts University

Comment ID: 93255 **Organization Type:** University/Professional Society

Representative Quote: At 4-22, the DEIS refers to a "population model developed for the park in 2008" which "estimates that the time required for the population to be reduced to the deer density goal would be approximately 18-19 years," and refers the reader to Chapter 2 for a description of the model. I was unable to find any such model described in Chapter 2 or anywhere else in the DEIS. However, a population model with plausible, site-specific assumptions could and should be developed to seriously evaluate the likely effects of PZP treatments on population size. Such a model ought to incorporate the use of current multi-year, single-shot vaccines, which might well produce more rapid decreases than previous efforts (Rutberg and Naugle 2008b, Turner et al. 2008).

RESPONSE: As described on page 2-31 of the plan/EIS, the park would monitor the status of ongoing reproductive control research on a periodic basis through consultation with subject matter experts and review of new publications in the literature. When advances in technology could benefit deer management in the park and established criteria were met, the final choice of an appropriate chemical reproductive control agent would be determined. The NPS considers this approach to be sufficient for remaining current on this subject.

In January 2009, the NPS requested an independent review of Appendix E Review of White-tailed Deer Reproductive Control from two respected researchers in the field of wildlife reproduction and contraception. These comments have been provided in the NPS Public Comment Analysis Report (2009) for the plan/EIS and reviewers are identified in Section 5.4.2 List of Recipients. NPS staff also conducted an updated literature review including information related to the implementation of reproductive control in other NPS units. Appendix E Review of White-tailed Deer Reproductive Control has been updated to reflect recent publications in the literature, to address comments by reviewers, and to provide a more detailed explanation of criteria for an acceptable reproductive control agent and how various agents met or did not meet the criteria.

As stated on page 2-29 of the plan/EIS, only when established criteria are met would reproductive control be implemented as a management tool. Criteria for an acceptable reproductive control agent were considered necessary because review of the literature across the broad array of immunological and nonimmunological reproductive control agents indicated significant variation in key elements such as duration of contraceptive effect and behavioral impacts as well as logistical issues related to the administration of these drugs that could have significant implications related to the success of implementation and sustainability of a reproductive control program. NPS considers the established criteria for an acceptable reproductive control agent, specific to Valley Forge NHP, to be a necessary tool in selecting an agent that would minimize impacts to deer and other park resources and ensure program success and sustainability. This is particularly important when considering a tool proposed for use in long-term management.

Fertility control agents have primarily been used in NPS units within a research context (e.g., Fire Island National Seashore and Point Reyes National Seashore). Research proposals are reviewed by individual park units and evaluated based on their scientific validity, researcher and institutional qualifications, benefit to the park service and the public, actual or potential impacts to park resources,

visitor experiences, wilderness, safety, and other issues. NPS units using fertility control agents within a long-term management context have often been previously involved with the agent within a research context to correctly understand the effects of a particular agent on the target species. For example, Assateague Island National Seashore has used immunocontraceptives to manage horse populations since 1994. However, the selected reproductive control agent was researched for nine years prior to that (1985-1993), in an effort to determine whether it would be safe and effective in controlling/reducing horse populations as directed in the 1985 Feral Pony Management Plan. Criteria for determining what represents an acceptable reproductive control agent to be applied in a long-term management context may be very different from how an acceptable agent may be evaluated within a research context.

A description of the population model developed by Dr. Christopher Rosenberry (PGC Deer Management Section Supervisor) to determine the number of deer to be removed and/or treated with a reproductive control agent under alternatives B, C and D is described on page 2-38 of the plan/EIS.

CONCERN ID: 19693

CONCERN STATEMENT: Commenters discussed the various side effects that some reproductive control agents have on the targeted animal, including prolonging the lifespan of the targeted animal, and abnormal antler development and stated that these needed to be considered in the plan/DEIS.

REPRESENTATIVE QUOTE(S):

Corr. ID: 506 **Organization:** Friends of Animals, Inc.

Comment ID: 93339 **Organization Type:** Conservation/Preservation

Representative Quote: Currently, no contraceptive has been formally approved by the Food and Drug Administration for use on free-living animals in the United States; various contraceptives have, however, been tested on deer, and proponents of this form of control call it an effective way to alter sexual activity and reproductive patterns of deer. For years, the development of this concept has involved experiments with porcine zona pellucida and gonadotropin-releasing hormone on captive white-tailed deer at Pennsylvania State University. In the male deer, results included "immunological castration, compromised libido and abnormal antler development." Abscesses, inflammation, pain, and reduced fat content in bone marrow are some of the side effects observed in other studies.

Controlling the fertility of free-ranging animals is physically intrusive and can alter the social structure of the entire group. It is also misguided. It prevents future generations from appearing in targeted areas, even as our own species spreads out ever further with our roads, malls, and mansions.

Corr. ID: 506 **Organization:** Friends of Animals, Inc.

Comment ID: 93341 **Organization Type:** Conservation/Preservation

Representative Quote: It's illogical that local environmentalists would adamantly promote the reduction of deer population in the name of saving birds, yet have little to say about the introduction of contraceptive substances into the environment and into the natural food web. Moreover, to use the park's deer experimentally (at the time the alternatives were issued, and at the time of this writing, fertility control can only be considered experimental) makes no sense. Experimental fertility control has prolonged the six-year lifespans of the Assateague Island mares to 20 years due to eliminating the biological stress of

reproduction. To artificially prolong animals' lives does not reduce their numbers and thus it contradicts the Valley Forge biologists' stated preference.

RESPONSE: Appendix E: Review of White-tailed Deer Reproductive Control has been updated in the plan/EIS to reflect recent publications in the literature, to address comments by outside reviewers (including side effects), and to provide a more detailed explanation of criteria for an acceptable reproductive control agent and how various agents met or did not meet the criteria.

The plan/EIS, including Appendix E, does not contain any discussion of the impacts of fertility control agents on male deer (e.g., abnormal antler development) because Alternatives B and D clearly state that only female deer would be targeted for treatment. See response to AL4180 – Alternatives: Lethal Reduction – General, Concern ID 19691 (page 49) regarding gender preference.

CONCERN ID: 19695

CONCERN STATEMENT: Some commenters questioned, and disagreed with, the analysis used in the plan/DEIS regarding reproductive control agents, specifically whether PZP can be administered remotely, whether reproductive vaccine components pose a human health risk, and why behavioral studies are analyzed for reproductive control actions but not lethal actions. Some commenters were concerned about the possibility of utilizing reproductive control agents in the park when the research regarding effects to the animals, as well as effects to humans and the natural environment, are still ongoing.

REPRESENTATIVE QUOTE(S):

Corr. ID: 874 **Organization:** *Not Specified*

Comment ID: 92934 **Organization Type:** Unaffiliated Individual

Representative Quote: I appreciate the opportunity to comment on the White-Tailed Deer Management Plan which I found to be fairly comprehensive with one major exception. The section dealing with reproductive control is based on long out-dated information despite the fact that scientific data and publications have been provided to VHNHP proving the success with PZP immunocontraception in field situations in multiple species worldwide. In fact, the National Park Service has successfully used PZP immunocontraception in White-Tailed Deer for long term management in other parks.

Corr. ID: 950 **Organization:** *Not Specified*

Comment ID: 93267 **Organization Type:** Unaffiliated Individual

Representative Quote: I also have concerns that the contraceptives may have negative secondary impacts on our environment. For example: What will the side effects be on the wildlife that feed off of the carcasses of chemically altered deer? How will the chemicals impact the bodily waste of the deer and how would this affect the land and water run-off?

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93130 **Organization Type:** Conservation/Preservation

Representative Quote: In the interim, with all due respect, we disagree with the blanket claim about the "status of chemical reproductive agents" since the chemical agent known as Porcine Zona Pellucida (or PZP) meets all but one of the listed criteria, has been shown to effectively reduce fertility in white-tailed deer, and has been associated with population reductions of 7.9% on average over the course of an 8 year study at the National Institute of Standards and

Technology, Maryland, with similar results from Fire Island National Seashore, New York. This technique was originally developed for use on wild horses at Assateague Island National Seashore, Maryland, and is also currently in use for wild horse management at Cape Lookout National Seashore, North Carolina.

The PZP vaccines used at these other NPS sites require annual boosters to be effective, but significant progress has been made since 2002 on long-acting single shot PZP vaccines. The effects of the vaccine are reversible after three years of treatment, and no adverse health effects have been apparent among treated deer or among fawns they carried at the time of treatment.

Furthermore, on October 22, 2002, the HSUS submitted a proposal to Valley Forge National Historical Park to conduct research on the efficacy of PZP on deer in the park. The proposal was rejected on the grounds that the park did not have any plans to manage its deer populations. Now that the park has decided to implement a deer management program, we hope that you will reconsider our offer to conduct immunocontraception research at Valley Forge. The site is an ideal area for the use of immunocontraception due to its high density of deer, the documented site fidelity of females, and the approachability of individual animals for treatment. Please consider these comments a reaffirmation of The HSUS' willingness to work with the Park to establish an immunocontraception research site at the Park. A copy of the original 2002 proposal has been included with these comments for your reference; any new proposal would be submitted only after extensive consultation with VFNHP.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93785 **Organization Type:** Conservation/Preservation
Representative Quote: For example, the PZP Vaccine and the GnRH Vaccine both are effective for up to two years satisfying the first criteria that the agent have multiple year efficacy. Both vaccine can also be delivery remotes in darts and, likely, in the form of biobullets thereby meeting the second criteria. According to the information in Table E-1 neither the PZP Vaccine nor the GnRH vaccine leave any hormonal residues in the meat thereby meeting the third criteria. In regard to the fourth criteria, the NPS claims that the PZP Vaccine may result in repeated cycling of female deer potentially leading to out-of-season breeding, Draft EIS at 4-33, Table E-1, while the only identified behavior consequence relevant to the GnRH vaccine is the possibility that the vaccine may remove primary and secondary sexual characteristics.

Corr. ID: 1130 **Organization:** The Science and Conservation Center
Comment ID: 93606 **Organization Type:** Conservation/Preservation
Representative Quote: Additionally, at this time, PZP vaccines require periodic boosters in order to maintain infertility, which requires hands-on access on a moderately regular basis.

NOT TRUE. THIS VACCINE WAS SPECIFICALLY CHOSEN BECAUSE IT CAN (AND HAS AND IS) BEEN DELIVERED REMOTELY WITHOUT ANY HANDS-ON.

Corr. ID: 1130 **Organization:** The Science and Conservation Center
Comment ID: 93607 **Organization Type:** Conservation/Preservation
Representative Quote: Finally, the Food and Drug Administration (FDA), the current regulatory agency, has not determined whether vaccine components pose a human health risk.

THERE ARE TWO PROBLEMS WITH THIS ASSESSMENT. FIRST, NO ONE AT FDA OR ANYWHERE ELSE FOR THAT MATTER CAN SITE A SINGLE INCIDENCE OF A 55,000 MW PROTEIN MOLECULE PASSING THROUGH THE DIGESTIVE SYSTEM OF ANY SPECIES AND RETAINING ITS PRIMARY, SECONDARY OR TERTIARY STRUCTURE AND SUBSEQUENT BIOLOGICAL ACTIVITY. THAT FAILURE IS BECAUSE THIS IS AN AXIOM OF FUNDAMENTAL CHEMISTRY. THE FDA APPROVED BOVINE GROWTH HORMONE FOR USE IN CONSUMABLE ANIMALS (MONSANTO) AND THAT MOLECULE IS MUCH SMALLER AND LESS COMPLEX THAN PZP. THIRD, EARLY EXPERIMENTS, YEARS AGO, BY THE USDA SHOWED THAT PZP COULD NOT BE FED TO DEER AND RETAIN ANY ABILITIES TO RAISE ANTIBODIES. FOURTH, VIRTUALLY ALL OF THE USDA APPROVED VACCINES FOR FOOD ANIMALS ARE FAR MORE DANGEROUS, UTILIZING ATTENTUATED OR KILLED PATHOGENS. THE ASSESSMENT ABOVE, TO WHICH I REFER, HAS NO SCIENTIFIC UNDERPINNING. I GUESS THE MOST TELLING CRITICISM HERE CAN BE BEST EXPRESSED WITH A QUESTION: WHY, IF PZP COULD PASS THROUGH THE FOOD CHAIN, WOULD WE LABOR TO DART ANIMALS RATHER THAN JUST FEED IT TO THEM? THE ANSWER IS, WE CAN'T JUST FEED IT TO THEM BECAUSE IT WON'T WORK.

Corr. ID: 1130 **Organization:** The Science and Conservation Center
Comment ID: 93612 **Organization Type:** Conservation/Preservation
Representative Quote: HAS ANYONE CONDUCTED BEHAVIORAL STUDIES OF CULLED DEER POPULATIONS? WHY NOT? WHY IS THIS ONLY AN ISSUE WITH CONTRACEPTIVES? THE WHOLE BEHAVIORAL ISSUE IS HYPOCRITICAL. IN ORDER FOR ANY MANAGER TO ASSESS HIS TOOLS, IF THIS IS AN IMPORTANT QUESTION, HE/SHE MUST APPLY THESE SAME QUESTIONS AND SOME FORM OF TESTING TO ALL ALTERNATIVE MANAGEMENT STRATEGIES. (SEE KIRKPATRICK 2007. MEASURING THE EFFECTS OF WILDLIFE CONTRACEPTION: THE ARGUMENT FOR COMPARING APPLES WITH ORANGES. . REPROD. FERT. DEV. 19:548-552. □ WHICH SOMEHOW DIDN'TMAKE IT INTO THE LITERATURE REVIEW EITHER!) . SOMEHOW I AM NOT SURPRISED. BLM IS VERY CONCERNED ABOUT THE BEHAVIORAL EFFECTS OF CONTRACEPTION ON ITS WILD HORSES (PUBLISHED STUDEIS HAVE SHOWN THERE ARE NONE) BUT WON'T EVEN ALLOW STUDIES ON THE BEHAVIORAL EFFECTS OF GATHERS AND REMOVALS.

Corr. ID: 1131 **Organization:** Cummings School of Veterinary Medicine, Tufts University
Comment ID: 93253 **Organization Type:** University/Professional Society
Representative Quote: Although fertility control may or may not ultimately serve to achieve VFNHP's deer management objectives, the treatment of the subject in the DEIS is unfairly slanted against the technology. Most egregiously, the DEIS misapplies theoretical models to predict the level of effort needed to achieve population-level effects and the magnitude of those projected effects, while ignoring published empirical data on the subject. This omission (which occurs at 2-30, 4-21, E-6, and elsewhere) is especially perplexing to me because the DEIS cites in other contexts some of the very papers that contain data on the population effects of PZP (Naugle et al. 2002, Rutberg et al. 2004). Additional data on the population impacts of PZP are provided in more recent papers that

are not cited (Rutberg and Naugle 2008a, Rutberg and Naugle 2008b).

In both field studies whose results are reported in these papers, observed population effects are more dramatic than those hypothesized in the DEIS. As the DEIS indicates, the rapidity of population decreases depends on vaccine effectiveness, proportion of females treated, mortality rates, reproductive rates in untreated animals, immigration, and emigration. The population projections and effort requirements that are presented in the DEIS are wrong because their estimates of fertility of untreated animals are higher and estimates of mortality lower than found in existing data, including those for VFNHP. The annual population growth rate reported in the DEIS for VFNHP, for example, falls far short of the 1.49 assumed in the models of Hobbs et al. (Hobbs et al. 2000).

Corr. ID: 1141 **Organization:** *Not Specified*
Comment ID: 92961 **Organization Type:** Unaffiliated Individual
Representative Quote: I am extremely concerned about proposing and relying on unproven and perhaps unavailable fertility control methods. Since we still do not know what all the negative effects the chemicals will have on the deer - i.e. continuous estrus, tainting the meat for hunters hunting on adjacent private lands, no commercially approved products (other than experimental the last time I investigated this), unproven reliability in an open population, expensive application procedures, etc. - I believe that offering this option as a viable alternative is an expensive waste of money and merely promotes unscientific emotional policy that simply does not work at this point.

RESPONSE: The plan/EIS, (Section 2.6.1 Additional Actions Proposed Under Alternative B), including Appendix E: Review of White-tailed Deer Reproductive Control, has been updated to reflect recent publications in the literature, to address comments by outside reviewers and to provide a more detailed explanation of criteria for an acceptable reproductive control agent and how various agents met or did not meet the criteria.

The impacts of the alternatives on white-tailed deer, including deer behavior are fully evaluated and described in Chapter 4: Environmental Consequences. Impacts specifically associated with lethal reduction are described on pages 4-34 through 4-38. The evaluation of behavioral impacts associated with use of a reproductive control agent represents changes in the behavior of individual treated deer that cumulatively represent behavioral changes at the population-level. The same evaluation of impacts is not relevant to the analysis of sharpshooting, since treated deer under this scenario are lethally removed from the population. However, the impact of lethal and non-lethal activities (e.g., discharge of firearms, maintaining bait piles, traveling to and from bait sites) on the behavior of deer was fully analyzed and is described for all alternatives.

Statements in the plan/EIS regarding the magnitude of population decline related to the use of reproductive control agents have been updated to reflect estimates of change based on the population model used in plan development rather than based on population models reported in the literature. After five years of treatment with a fertility control agent (treating 90% of the female population), the park population model suggests that a population reduction of up to 33% could be expected. After ten years, a reduction in population of up to 60% could be expected (see page 2-32). However, statements relating to the total time to achieve the desired deer density (18-19 years) remain unchanged in the plan/EIS, consistent with the park population model (e.g., page 4-20 - 4-21).

AL4380 - Alternatives: Rotational Fencing

CONCERN ID: 19697

CONCERN STATEMENT: One commenter noted that there are already other fences within the park that can be seen by park visitors. Other commenters stated fencing associated with NPS long-term monitoring plots does not and proposed fencing would not prove that deer are exclusively responsible for the destruction of the vegetation.

REPRESENTATIVE QUOTE(S):

Corr. ID: 56 **Organization:** *Not Specified*

Comment ID: 93625 **Organization Type:** Unaffiliated Individual

Representative Quote: It is important to keep in mind that ecosystems are extremely intricate mechanisms and there are many possible reasons for loss of biodiversity. One of your examples point to the study of specific fenced-in areas within the park built around vegetation to exclude deer. According to this study, the cordoned off vegetation quickly regenerates, however, what the study does not indicate is that deer are by no means the only animals that eat vegetation, and the fenced area keeps out ALL wildlife.

Corr. ID: 550 **Organization:** *Not Specified*

Comment ID: 91890 **Organization Type:** Unaffiliated Individual

Representative Quote: Building fencing @ vegetation, which subsequently regenerates, does not prove deer browsing destroyed the previous site. When exclosures are built around plants it keeps all wildlife out, not simply deer.

Corr. ID: 936 **Organization:** *Not Specified*

Comment ID: 93199 **Organization Type:** Unaffiliated Individual

Representative Quote: It is stated that, "The installation of any fencing could create visual impacts in the park and also prevent visitors from accessing certain areas."
" Are there not currently areas that are "fenced" due to the dumping of asbestos within the park? Which is worse for a VFNHP visitor to view, an unobtrusive fence that mentions the protection of vegetation or one that calls out, "KEEP OUT - Hazardous Waste Area."?

RESPONSE: A description of other factors affecting plant communities and tree regeneration is provided in Section 1.5.4 of the plan/EIS, including invasive non-native plants, pests and disease, forest fragmentation, and fire. Refer also to response to Concern ID 19747 (page 23).

As described on page 2-23, "rotational fencing proposed under Alternative B would be a
minimum of 8-10 feet high and would consist of woven wire with 3- to 4-inch openings
to allow most small animals to move freely through the fence." Animals that cannot
move freely through the fence, such as raccoons or opossums, would be able to climb
over this fence. Fencing used for NPS long-term monitoring plots also allows most small animals to move freely through or over the fence. The plan/EIS has been updated to include this fact on page 3-10.

Fencing is used on a small scale, temporary basis throughout the park as needed to protect plants (e.g., riparian buffer fencing, newly planted trees) and promote public safety. Fencing around the Asbestos Release Site, referred to by the commenter, is only four feet in height and composed of only two strands of brown plastic fencing. In many locations actual fencing is absent but posts with signs advise visitors that the area is closed due to hazardous waste. This fencing is considered critical to the protection of public health and safety and would be removed upon remediation of the site. Fencing as described under Alternative B would be “woven wire, 8-10 feet in height, covering 10% to 15% of the park's forested habitat including significant archeological and cultural sites” is considered to be at a much larger scale and impacting significantly more of the park landscape than current fencing within the park.

AL5600 - Alternatives: Alternative C - Combined Lethal Actions

CONCERN ID: 19704

CONCERN STATEMENT: Commenters were confused by the impact analysis of alternative C and D, stating that they are both extremely similar, and that the impact analysis associated with alternative C is contradictory within the plan/DEIS . One commenter stated the selection of Alternative D as the NPS Preferred Alternative needed clarification and asked why alternative D would cost twice as much as alternative C if they are equally efficient.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93753 **Organization Type:** Conservation/Preservation

Representative Quote: Alternatives C and D, for example, both call for a significant slaughter of deer to reduce the deer density from the estimated 193 deer per square mile to 31-35 deer per square mile (with the possibility of reducing the population to 10 deer per square mile if CWD is detected in or near the park). Draft EIS at viii. The only difference between these alternatives is the Alternative C relies on lethal action to maintain deer numbers while Alternative D would rely on non-lethal reproductive control (if successful) to maintain post-slaughter deer numbers. Since the methods employed to reduce the deer population (i.e., sharpshooting and capture and euthanasia) are the same and the impacts of the slaughter are the same for Alternatives C and D, they are effectively a single alternative.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93809 **Organization Type:** Conservation/Preservation

Representative Quote: Another error in the Draft EIS is made on pages 4-46 and 4-47. First the NPS states that "when added to the impacts of Alternative C, the overall cumulative impacts would likely remain long-term and adverse." Draft EIS at 4-46. Yet, on the next page, the NPS states that "these projects, along with Alternative C would result in a long-term beneficial cumulative impact on other wildlife and wildlife habitat." Draft EIS at 4-47. The cumulative impact of Alternative C cannot be both long-term and adverse and long-term and beneficial. This needs to be corrected

Corr. ID: 1109 **Organization:** Pennsylvania Game Commission

Comment ID: 93002 **Organization Type:** State Government

Representative Quote: Selection of alternative D as preferred to C is confusing. The plan initially indicates that alternative C is the most efficient, but then unclearly explains how D becomes as efficient as C (page 2-56). However, if both C & D achieve the same goal, how can D be as efficient as C if it costs twice as much (page 2-63). If some other factor makes D more appealing, it

needs to be more clearly stated.

RESPONSE: In many cases, as stated by one commenter, the impact analysis for Alternatives C and D is very similar. As described in Chapter 2, Alternative C proposes lethal methods to both reduce the size of the deer population and to maintain it at the desired deer density. In contrast, Alternative D proposes lethal methods to reduce deer population size but nonlethal methods (chemical reproductive control) to maintain the population at the desired deer density. Selection of the NPS Preferred alternative was based on ability to meet the individual plan objectives and the potential impacts on the environment. Alternatives C and D were closely ranked in their ability to meet all of the objectives. However, under Alternative D, the time that shooting would occur in the park would be limited to population reduction actions. By maintaining the efficiency of Alternative C in meeting the plan objectives and improving safety by reducing the time that sharpshooting activities would occur in the park, Alternative D proved to be the preferred alternative. Section 2.13: NPS Preferred Alternative has been updated to clarify this information.

With respect to impact analysis, alternative actions can result in both adverse and beneficial impacts. Using the example from the representative quote, the commenter is quoting text related to cumulative impacts associated with a cumulative action (climate change = long-term and adverse) and the overall cumulative impact (long-term and beneficial). The overall cumulative impact has been clarified throughout the plan/EIS, where appropriate, to note the long-term, minor, adverse and long-term beneficial cumulative impacts. (See impact analysis for Vegetation and Special Status Plant Species and Other Wildlife, Wildlife Habitat, and Special Status Animal Species.)

As indicated in Appendix D: Detailed Cost Estimates of the plan/EIS, the annual cost under Alternative D to implement reproductive control is significantly greater than annual costs associated with the use of lethal methods to maintain the desired deer density as proposed under Alternative C. Please refer to tables D-3 (page D-9) and D-4 (page D-12) for detailed information on costs to implement Alternatives C and D.

AL7000 - Alternatives: Cost and Funding (General)

CONCERN ID: 19711

CONCERN STATEMENT: Commenters questioned the cost analysis regarding implementing reproductive control measures, stating that the estimates are too high.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 946 **Organization:** *Not Specified*

Comment ID: 93114 **Organization Type:** Unaffiliated Individual

Representative Quote: I believe birth control for deer is the best plan. I think the estimated cost of implementing Plan B is inflated and that the commission has established some arbitrary criteria for accepting a birth control drug in order to make this option seem less viable. I would, however, also support Plan A and allow natural fertility cycles stabilize the existing population.

Corr. ID: 961 **Organization:** *Not Specified*

Comment ID: 93082 **Organization Type:** Unaffiliated Individual

Representative Quote: The treatment in the draft plan of contraception is very inadequate and misleading. To take only one example, the report states that "the expected costs for implementing reproductive controls range from $1,000 to

$1,900 per deer (D-4) while sharpshooting costs, according to various studies range from $71 -$260 according to one study, $121 according to another, $128 according to another while still another study from the National Park Service itself showed it cost $400 per deer." The draft concludes that "It is estimated that this alternative [sharpshooting] would cost $200 per deer for the first four years and would increase to $400 per deer as the population decreased and deer became more wary of human activities. However, with a smaller population even though the cost per deer might increase because of the additional time needed to locate deer, the overall removal costs could decrease, because fewer deer would have to be removed:" (D-7) The higher estimate by the Park Service corresponds more closely with information published in the 2002 Wildlife Society Bulletin (Beringer et al, 30:7657) that gives the sharpshooting cost per deer as $354. On the other hand, the use of a contraceptive such as PZP would save taxpayers money and thin the herd effectively. PZP has been researched for a number of years and has an extensive history of publication that you have largely ignored. It costs between $21 and $25. Darting has taken approximately 1.8 hours (less than 2 hours) per deer even in difficult circumstances (not 20 hours). Simple arithmetic will show that the hourly pay rate of someone darting deer would have to be very high to equal even the $200 estimate of sharpshooting.

Corr. ID: 1017 **Organization:** *Not Specified*
Comment ID: 92462 **Organization Type:** Unaffiliated Individual
Representative Quote: 1. The plan significantly understates the potential of immunocontraception to reduce the population density in a timely and affordable fashion.

At a mere $21 per dose, the porcine zona pellucida (PZP) vaccine has been proven to effectively reduce free-ranging, suburban white-tailed deer populations like those at Valley Forge. On Fire Island, a 30-mile long stretch of land just off the coast of New York, PZP reduced the overall deer population density by nearly 60% between the years of 1996 and 2006. Studies carried out at the National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland yielded similarly positive results, with a reduction of 50% between the years of 1997 and 2005. These findings are a far cry from the unfounded suggestion that injecting 460 does at Valley Forge would only produce a population reduction of 5% after several years.

The actual cost of PZP is also a far cry from the estimated $1000-$1900 per deer quoted in Appendix D. Even with labor costs factored in, the expense incurred per deer on Fire Island did not exceed $66 in the first two years. This disparity is largely due to the misconception that the administration of PZP requires tranquilizing, trapping, and permanent tagging. In fact, dart guns were used on Fire Island to inject deer remotely and simultaneously mark the animals with brightly colored paintballs. These markings were only temporary, but they ensured that no deer was injected too many times. Given that PZP is not passed down through the food chain, humans can safely eat the meat of deer injected with the vaccine, and there's therefore no need for permanent tagging of treated deer.

Further financial considerations include the following:

" Trained volunteers can safely administer PZP for free.
" Independent, nonprofit organizations such as Pity Not Cruelty, Inc. would be willing to fund a significant part of any immunocontraception program in

Pennsylvania, a state infamous for being trigger-happy towards its wildlife.

" On account of the compensatory rebound effect, (see below), fewer deer will ultimately need to be treated with immunocontraceptive vaccines than would otherwise have had to be shot under a lethal management program.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93813 **Organization Type:** Conservation/Preservation
Representative Quote: The NPS should amend its estimate of the cost of administering non-lethal reproductive controls to 460,000 to 920,000 dollars (see Draft EIS at 4-93) since the low per deer estimate is $1,000 and the objective is to treat 460 deer per year. By citing only the larger figure the NPS is, again, attempting to dissuade the public from seriously considering and advocating for non-lethal reproductive control due to the costs. This claim is based solely on the cost per deer estimated in the Draft EIS. AWI is not suggesting that said estimate is correct. Indeed, even the NPS reports in the Draft EIS that the cost of administering non-lethal reproductive control treatments to deer has been documented to be as low as $200 per deer with handling/processing costs not included. Draft EIS at D-4.

RESPONSE: The NPS believes the cost range presented in the plan/EIS related to implementation of reproductive control is accurate and sufficiently justified. Explanation of costs presented in the plan/EIS is provided in Appendix D: Detailed Cost Estimates. The cost range of $1,000-$1,900 per deer to implement reproductive control is based on figures provided in referenced literature and through consultation with subject matter experts, as described in Appendix D, page D-4. The high range is based on an initial estimate provided by APHIS Wildlife Services, a government agency with extensive experience implementing actions described in the plan/EIS including administration of reproductive control agents. Costs are based on the administration of Leuprolide ($200/dose) because this agent most closely met the established criteria for an acceptable reproductive control agent (See page 2-29 and D-4). As described on page D-4, cost per deer as presented in the plan/EIS includes not only the relatively minor cost of the fertility control agent but also the anesthetic agents, labor and equipment, and bait piles (as appropriate) which constitute the majority of the overall cost. Use of volunteers could potentially reduce costs associated with implementation of reproductive control depending on the circumstances (e.g., what activities volunteers were involved with). Additional details have been added to Section 2.5.1 Use of Volunteers and throughout the document as appropriate, to clarify how volunteers would be used to implement both lethal reduction and reproductive control and to provide general volunteer training requirements and/or qualifications. On page 2-14 of the plan/EIS, the NPS states that volunteers could be involved in activities related to the administration of reproductive agents under the direct supervision of NPS employees. Volunteers would not be permitted to fire dart rifles but may be involved in wildlife handling activities and the handling/transport of chemical agents if such volunteers meet required training standards.

Regarding the rate of population reduction associated with reproductive control, please refer to the response for Concern ID 19695 (page F-56).

Regarding the need for permanent marking of treated deer and temporary marking of deer at Fire Island National Seashore, please refer to Appendix E Review of White-tailed Deer Reproductive Control (Pages E-4 and E-5).

AE10010 - Affected Environment: Vegetation and Special Status Plant Species

CONCERN ID: 19654

CONCERN STATEMENT: Some commenters stated that the reduced understory vegetation growth is due to forest fragmentation, and not caused by the deer in the park and stated this was not captured in the plan/EIS. Similarly, another commenter stated that edge effect and human activities likely also contribute to the deteriorating vegetation within the park and is not considered in the plan/EIS.

REPRESENTATIVE QUOTE(S):

Corr. ID: 545 **Organization:** *Not Specified*

Comment ID: 91997 **Organization Type:** Unaffiliated Individual

Representative Quote: WE HAVE FRAGMENTATION WHICH AFFECTS THE GROWTH OF FOREST VEGEATION, IT DOES NOT GROW SO MUCH WHEN YOU FRAGMENT THE FOREST.ALL OF THESE INFLUENCES AND MANY OTHERS IS WHAT IS HAPPENING TO OUR FORESTS, NOT DEER.

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93123 **Organization Type:** Conservation/Preservation

Representative Quote: The EIS fails to demonstrate what, if any, affect deer herbivory will have on forest health or any other feature of the VFNHP ecosystem.

Edge effects are well - known and their effects on plant species composition and diversity are well - documented. In fact, research in Pennsylvania and Delaware shows that the species composition of plants along forest edges is different than that found in interior forests. These effects may be observed well over 40 meters from the edge of the forest and after 50 years of succession on the edge. There has been no detailed analysis on the edge effects at VFNHP nor the influence of human land use practices on the existing forest habitat. Considering the high human population density in the areas near the Park and the presence of surrounding farmlands, it is safe to assume that edge effects are having a major impact on the vegetative communities in the park.

RESPONSE: The NPS believes that the dominant role of white-tailed deer within ecological systems is recognized throughout the document including the analysis of impacts which is based on the fact that deer are the primary factor influencing native vegetation (and thus other wildlife and wildlife habitat). Regarding the role of deer as a keystone herbivore, please refer to response to Concern ID 19778 (page 80).

A description of other factors affecting plant communities and tree regeneration is provided in Section 1.5.4 of the plan/EIS, including invasive non-native plants, pests and disease, and fire. A brief description of forest fragmentation as a factor influencing vegetation has been added to the plan/EIS in Section 1.5.4 Other Vegetation Management Issues. All forests at Valley Forge NHP are considered to be fragmented and, due to the importance of the current mix of field and forest as a feature of the cultural landscape, no significant loss or gain of forested land is expected to occur. “Edge effects” are already captured in existing vegetation descriptions presented in the plan/EIS (e.g., Modified Successional Forest or VAFO-Type described on page 3-2) and the results of long-term vegetation monitoring which include sites close to the forest edge

(See Figure 3 for location of monitoring plots relative to forest edge).

Regarding the effects of deer herbivory on forest resources in the park, refer to response to Concern ID 19747 (page 23).
Regarding human land use in the park in relation to park forests, refer to response to Concern ID 19903 (page 64).

CONCERN ID: 19655

CONCERN STATEMENT: One commenter questioned whether the locations of the special status species have been identified, and if these locations will receive protection from the deer. Another commenter stated that because the park has chosen not to place protective fencing around various species of vegetation within park boundaries, it would appear that the park is not concerned about protecting these species from deer browsing, thus challenging the park's purpose of the plan.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1089 **Organization:** *Not Specified*

Comment ID: 93560 **Organization Type:** Unaffiliated Individual

Representative Quote: Do we know where the special status species are, and how they are protected?

Will particular areas be targeted for deer to protect special status species?

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93771 **Organization Type:** Conservation/Preservation

Representative Quote: The information about the species in the park is interesting. See Draft EIS at 3-7. The single known population of possumhaw in the park is fenced and, therefore, is no longer threatened by deer browsing. The broadleaf ironweed is alleged known from one location in the park but its population will not be fenced until 2009. Why the NPS is delaying the protection of this population is unclear but suggests a lack of serious concern over the potential impacts of deer browsing. The sundial lupine is believed to be extirpated from the park (whether deer browsing caused this extirpation is unknown) and, therefore, is not relevant to the discussion in the Draft EIS. The netted chainfern has only recently been identified in the park and has yet to be fenced. Again, the delay in fencing this species is of concern given the alleged high susceptibility of this species to deer browsing. The toothcup may be removed from the state list because it may be more common than once thought. If so, it also should not be of concern in regard to deer management issues. The remaining species, bush bluestem, Elliott's broomsedge, and sand blackberry, though documented in the park, face less of a threat from deer browsing due to palatability issues and/or their location in the park environment. Draft EIS at 3-8.

RESPONSE: In 2008, the park completed a survey to determine whether plant species of special concern that historically occurred in the park are still present. Species documented as present are listed in Table 9 (page 3-7) and the locations where they were identified have been documented. The two plant species that are state-listed endangered (possumhaw viburnum and broadleaf ironweed) within the park have already been fenced to protect them from deer browse. The plan/EIS has been updated to reflect this fact. Please refer to Special Status Plant Species (pages 3-7 and 3-8).

Broadleaf ironweed was documented in the park at the end of the growing season in 2008. It was not fenced until spring 2009 because there was no need to

provide protection during the fall and winter of 2008/2009 when vegetative portions of the plant were no longer visible and the ground was frozen.

CONCERN ID: 19903

CONCERN STATEMENT: Commenters questioned the EIS statements regarding quantity of flora and fauna species the park supports, given the size of the park and the population density of deer. They also stated that secondary forests (such as the park's) naturally contain less vegetation species diversity but that even under intense levels of herbivory they will attain a climax community similar in species composition to unbrowsed forests. One commenter states the plan/EIS must explain how deer herbivory will affect the health and continued survival of forests into the future.

REPRESENTATIVE QUOTE(S):

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93662 **Organization Type:** Conservation/Preservation

Representative Quote: While it is true that white tailed deer consume plants and that this activity may affect some species more than others and result in community wide changes, any value judgment placed on these changes is by definition, purely subjective. The effects of herbivory are better interpreted in terms of vegetation state transition rather than on biased notions of perceived negative impacts. The reality of the supposed deleterious impacts of deer herbivory has not panned out in the long term.

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93125 **Organization Type:** Conservation/Preservation

Representative Quote: Another factor which is seldom considered when assessing the plant species composition in forests with deer herbivory is the successional status of that particular forest. Research has shown that plant species diversity is higher in primary forests than in secondary forests regardless of the herbivory regime. As the forest of VFNHP has been cleared in the past, it is secondary forest and, therefore, will not attain the levels of species diversity found in primary forests regardless of the herbivory regime.

Simulation models based upon field data have also shown that even at the most intense levels of deer herbivory, forest succession may slow down, but final forest composition is the same as would be found in unbrowsed areas. In other words, while deer herbivory may influence plant species composition, especially in mid successional stages, a browsed forest will attain the same climax community as a completely unbrowsed forest over the long term.

Based upon these findings, the Final EIS must explain how deer herbivory will affect the health and continued survival of the forest into the future. If the Park cannot do so, it will seriously call into question the purpose of this lethal control in the absence of eminent threats to any aspect of the VFNHP ecosystem.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93746 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS states that the VFNHP supports over 1,300 species of flora and fauna and a variety of habitats within the park including oak/tulip forests, tall grass meadows, wetlands, and forested floodplains. Draft EIS at v, 1-4. Considering the alleged size and high density of the deer population, the fact that, according to NPS estimates, the park's deer population was even larger in the past, and the litany of adverse impacts that the NPS

attributes to deer, it is rather remarkable that VFNHP supports that diversity of flora and fauna.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93749 **Organization Type:** Conservation/Preservation
Representative Quote: Information contained in the Draft EIS in regard to some of the floral habitat and communities in VFNHP contradict the NPS claim that the deer are causing significant damage to park vegetation. For example, the Draft EIS reports that the "park's tall grass meadows represent one of the largest occurrences of remnant open grasslands in eastern Pennsylvania and have been identified as important habitat for breeding grassland bird species. Draft EIS at 3-5. It goes on to report that, in 2007, an inventory of this meadow habitat "documented the presence of 337 plant species, dominated by warm and cool season grasses" with the "warm season meadow community ... dominated by native grasses." Id. Though nonnative species are also found in this community type, the large proportion of native species calls into question whether the park's deer are adversely impacting such habitats.

RESPONSE: The land within Valley Forge NHP has a long history of use and significant changes in forests associated with industry (e.g., quarrying limestone), clearing for development and agriculture, harvesting for charcoal, fenceposts, fuel, and building materials and the 1777-1778 winter encampment of the Continental Army (See Section 3.3.1: Cultural Landscapes). Through ecosystem management, Valley Forge protects the natural processes and functions of the forest appropriate to its successional stage. One of the most important processes is forest regeneration. Plant diversity is not the metric that has been chosen to assess the impact of deer on forest plant communities. Rather, it is the impact of deer on tree regeneration that is being used to evaluate plan success.

As stated on pages 1-17 and 3-11 of the plan/EIS, unfenced monitoring plots have not exhibited adequate tree regeneration since 1995. This failure will lead to a net loss of forested habitat over time as trees die and are not replaced through recruitment.

Formal inventories of park flora (vegetation mapping, description of plant communities, meadow plant communities) and fauna (amphibians, bats, birds, mammals, and reptiles) species were completed between 2001 and 2008 as part of the NPS Inventory and Monitoring Program. Inventories were conducted by qualified professionals using sound scientific methods. The results of these inventories are presented in Chapter 3 and they are considered by the NPS to represent a reliable baseline for species occurrence, abundance, and distribution. High diversity within the park is primarily attributed to the large size of the park compared to surrounding areas of open space and the presence of a variety of habitats, particularly relatively large areas of forest and grassland.

AE13500 - Affected Environment: Cultural Landscapes

CONCERN ID: 19658

CONCERN STATEMENT: Commenters stated that deer should not be blamed for the destruction of the cultural landscape at the park, but rather this destruction is a result of management decisions not to return the cultural landscape back to the conditions of 1777, as well as the development inside and outside the park.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93794 **Organization Type:** Conservation/Preservation

Representative Quote: According to the Draft EIS, at that time the area had been cleared of all trees so that the timber could be used for hut construction, earthworks, or burned as fuel. Draft EIS at 3-28. Since then the NPS concedes that the character of the park has changed and has elected to not to return the cultural landscape to the conditions of 1777 and instead manage to preserve certain historical landscapes along with subsequent changes to the park's landscape. Since the current cultural landscape is very different than the landscape of the encampment period, both because of industrial/residential development outside VFNHP and also because of management decisions within the park, it is inappropriate to blame deer for damage done to the cultural landscape.

RESPONSE: The commemorative landscape is, in fact, the cultural landscape of the park. The Valley Forge NHP GMP/EIS clarifies that the commemorative landscape, with its relative patterns of forested and open lands, would be preserved. The potential loss of forests due to lack of recruitment would result in loss of the cultural landscape as defined by the GMP/EIS. Reconstruction of an 18th century landscape was specifically rejected by the GMP/EIS.

AE24000 - Affected Environment: White-tailed Deer Population

CONCERN ID: 19661

CONCERN STATEMENT: Commenters stated that the plan/EIS does not provide adequate data on the current deer herd in the park, such as population size, sex ratio, and age structure, thus impeding the ability for the public to sufficiently choose a preferred alternative.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 951 **Organization:** *Not Specified*

Comment ID: 92921 **Organization Type:** Unaffiliated Individual

Representative Quote: Speaking of deer, according to the Plan, the deer population in the Park ranges from 375 (a decline of 150 in three years) to over 1,000 depending on the measurement used. A more exact count is needed before choosing any Alternative, especially one that is deadly, not merely to wildlife.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93781 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS fails to provide any data on the herd's age structure, age-specific mortality or productivity rates, it provides contradictory data on the sex-ratio of the population, and it fails to disclose the full complement of deer data that it has collected. For example, instead of disclosing all of its spring compartment count or fall spotlight count data collected over time, the NPS simply summarizes that data. By doing so, the NPS makes it impossible to compare deer demographics to, for example, climatic data to identify potential patterns linking a particularly severe winter or extended drought conditions to changes in deer demographics.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93780 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS contends that "data on demographic factors such as sex ratio, age structure, and abundance are easily collected by natural

resource managers and are used in modeling wildlife population dynamics." Draft EIS at 4-26. Such demographic factors also include productivity, survival, harvest rate/mortality rate, and rate of population growth." Id.

Despite the apparent ease in collecting demographic data on deer, the NPS has failed to disclose much of that data for VFNHP deer either because it hasn't collected such data or because it simply ignored its legal obligation to disclose such information.

RESPONSE: The park has presented all available data related to estimated deer population size and trends in abundance over time (See pages 1-14 through 1-15 and 3-11 through 3-24). The plan/EIS has been updated throughout to include the most recent information on deer population size in 2008 and 2009. In Chapter 3, the section on mortality has been updated to include available information on sex ratio and age structure of deer involved in deer-vehicle collisions (See page 3-21). The NPS considers this data sufficient both for the development of alternatives and evaluation of impacts.

CONCERN ID: 19664

CONCERN STATEMENT: Commenters stated that incorrect assumptions about the deer population and their health were reported in the plan/DEIS, specifically that it is either unclear why the deer population has decreased over the last three years, or that the decrease in population can be attributed to the deer herd naturally controlling their reproduction rate.

REPRESENTATIVE QUOTE(S):

Corr. ID: 15 **Organization:** *Not Specified*

Comment ID: 92029 **Organization Type:** Unaffiliated Individual

Representative Quote: COMMENT ON NHP'S POPULATION ESTIMATES: NHP's population estimates of 193 deer per sq. mile, and the estimate process used to get this figure is not accurate or based on science. NHP needs to do an aerial survey to get an accurate population estimate at Valley Forge.

Corr. ID: 215 **Organization:** *Not Specified*

Comment ID: 93414 **Organization Type:** Unaffiliated Individual

Representative Quote: I have also read that it has been established that over the last three years the deer population @ Valley Forge NHP has been reduced not increased. I am unclear what brought this decrease in population?

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93751 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS's own spotlight survey data demonstrate that the park's deer population size has declined rather dramatically from 2002 to 2007. According to the data, graphically illustrated in Figure 10 (Draft EIS at 3-12) the number of deer observed on fall spotlight surveys have declined from nearly 600 in 2002 and 2003 to approximately 350 in 2007. This nearly 50 percent decline in deer observed during spotlight surveys combined with the declining condition of park deer would suggest that the park's deer population is in decline as it naturally adjusts to the ecological carrying capacity within VFNHP.

The foregoing evidence provides sufficient cause to question the assertions made by the NPS that the VFNHP deer population is "overabundant," that its density is too high, or that it is causing excessive or unacceptable impacts to

vegetation, forest health, other wildlife species, special status plant and animal species, park operations, visitor use, and public safety.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93747 **Organization Type:** Conservation/Preservation
Representative Quote: The average home range for female deer who have greater than 50 percent of their home range area within the park is 0.46 square miles (Draft EIS at 1-7, 1-15, 3-11) compared to 0.35 square miles for female deer with "less than 50% of their home range area outside the park." Draft EIS at 1-15, 3-11. The majority of the female deer (79%) spent most of their time within the park traveling, on average, only 401 feet beyond the park border. Draft EIS at 1-15. For those female deer with the majority of their range outside the park, they traveled an average of 1,325 feet beyond the park boundary. Draft EIS at 3-11.

Considering that the statewide average home range size for female deer is 1.0 square miles, this would suggest that habitat quality within VFNHP is better than the average habitat quality in the remainder of Pennsylvania. Considering that most of the deer populations throughout the state are controlled by hunting and that the average estimated density of deer statewide is approximately 30 deer per square mile, it is inconceivable that -- given the estimated high density of deer in VFNHP, the claim that the deer have persisted at such densities for years, and the alleged impacts of those deer on VFNHP habitats (including forest and meadow habitat) -- deer within the VFNHP maintain such small range sizes. Thus, the density and home range estimates in the park are wrong, the density and home range estimates outside the park are wrong, or allegations that the VFNHP deer herd is decimating the park's habitat conditions are wrong.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93748 **Organization Type:** Conservation/Preservation
Representative Quote: The NPS has assessed the condition of deer over several decades. Studies in 1983-84 determined that the VFNHP deer were in "good physical condition." Draft EIS at 1-15, 3-20. Survey efforts by park staff between 1992 and 1995 resulted in no trends in body size in fawn, yearling, or adult deer. Draft EIS at 1-15, 3-20. Yet, when certain body size statistics were compared with other Pennsylvania deer populations, the NPS found that park deer were generally smaller. Draft EIS at 1-16, 3-20. A second assessment in 1997-99 indicated that adult deer within the park were similar in size to other Pennsylvania deer populations. Draft EIS at 1-15. However, based on body measurements, female deer in the park exhibited a decreasing trend between 1997 and 1999 compared to non-park deer and male fawn weight also decreased between 1997 and 1999. Draft EIS at 3-21, 4-28.

Despite these trends and the fact that the most recent deer condition assessment was conducted ten years ago, the NPS claims that "there is no clear indication that the health of the deer at Valley Forge NHP is declining." Draft EIS at 3-21. Conversely, in citing to data more than ten years old the NPS claims that "signs of declining condition are just being detected in yearlings and fawns ... which may be a first indicator of change in habitat quality for deer," Draft EIS at 4-34. Similarly, when assessing the impact of Alternative A on the park's deer population, the NPS contends that "it is assumed that the physical condition of deer at Valley Forge will decline/continue to decline over time."

Either the health of the deer at VFNHP is declining or it's not. The NPS cannot make both claims in the same environmental document. Doing so demonstrates,

at best, a lack of care in proofreading the document or, at worst, a purposeful attempt to make the public support the proposed alternative by suggested that, at present, the existing deer are unhealthy and suffering. Even if the condition of the deer is declining, this should be interpreted as a sign that the population is coming into a sort of equilibrium with its habitat and not a trigger for lethal control.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93750 **Organization Type:** Conservation/Preservation
Representative Quote: Though no productivity data is available for park deer, PGC data for deer surrounding the park indicates low reproduction in yearlings (0.4 fawns per doe) and relatively high reproduction in adult females (1.8 fawns per doe) while the average reproductive rate for does across the state is 1.0 fawns per doe. Draft EIS at 4-29, 2-37 (referring to embryos per doe or fawn).

Assuming that these statistics can be applied to park deer is a mistake since the density of deer inside and outside the park are, according to the NPS, so different. The density outside the park is estimated at 29 deer per square mile, Draft EIS at 2-17, while the NPS claims its deer density is at 193 deer per square mile. Though the latter estimate is likely a significant overestimate, the higher the deer density in the park, the lower the deer reproduction rate unless park habitats are of exceedingly high quality.

Of course, if park deer were producing 1.8 fawns per doe or if the quality of the park habitat maintained such high levels of productivity in the deer herd (despite the herd's estimated large number, high density, and so-called adverse impacts to the park), then the NPS proposal to engage in a large-scale deer slaughter would have not legitimate justification and would purely be the product of an inherent bias against deer, an unwillingness to wait for the deer population to stabilize itself around a dynamic equilibrium, and a wanton disregard for NPS legal mandates.

RESPONSE: Regarding downward trends in deer population size between 2005 and 2007, see response to GA3000 – Impact Analysis: General Methodology for Establishing Impacts/Effects, Concern ID 19858 (page 90). As described in the plan/EIS, the deer population at Valley Forge NHP has exhibited fluctuations in size since 1996, which is typical for white-tailed deer. Over the 13 years (1997-2009) since implementation of spring compartment counts, the population density has varied but has exhibited an overall upward trend in deer density from 146 and 241 deer per square mile. Even the lowest population density of 146 deer per square mile, the deer density was 5 times higher than the target deer density goal to promote adequate tree regeneration.

The plan has been updated to reflect estimated deer population size in 2008 and 2009, which supports a continuing upward trend in deer population size (See pages 1-14 and 3-13). These data show that we cannot rely upon natural population controls to protect the forest and accomplish the plan/EIS goals and objectives.

The plan/EIS has been updated to clarify information related to deer condition (see pages 1-15 through 1-16 and 3-22). Available data on deer condition is presented solely for the purpose of background information. This data has been collected using different methods (e.g., qualitative versus quantitative) that do not allow for comparison across studies or therefore over time. No research has been conducted specifically for the purposes of rigorously evaluating herd

health or condition in the park. Overall, existing data indicate that as of 1999, deer at Valley Forge were in average condition compared to other deer populations in Pennsylvania and there was no strong evidence indicating that the physical condition of the deer at Valley Forge NHP was declining. However, available data also suggests that the population was likely experiencing some level of nutritional stress at that time. This statement is supported by the generally smaller size of younger deer (fawns and yearlings) compared to other deer populations (Heister 1996) and the slight downward trend in fawn body size reported between 1997 and1999 (Rowe and Heister 1999). Although the impacts of nutritional stress are often first evident in younger animals, habitat at the park appears to have been sufficient for older to grow and recover to a point where they were similar in size to other Pennsylvania deer populations as described by Lovallo and Tzilkowski (2003).

The NPS states on pages 1-16 and 3-22 of the plan/EIS, that it does not believe there is strong evidence indicating that the physical condition of the deer at Valley Forge NHP was declining as of 1999. However, the NPS does suggest that signs of nutritional stress were starting to be detected at this time as suggested by smaller body size in young deer. Current body size and condition of deer in the park is unknown, however anecdotal evidence from park resource management and law enforcement staff suggests the trend toward smaller body size has continued to the present. Based on the wide body of literature related to habitat condition, nutritional stress, and deer condition, the NPS also believes it would be reasonable to assume that continued habitat degradation in the park would likely increase the level of nutritional stress experienced by the deer population and could result in a change in deer condition (decline) in the future.

AE28000 - Affected Environment: Park Operations

CONCERN ID: 19667

CONCERN STATEMENT: One commenter stated that the current policies of the park, particularly the Agricultural Leasing Program, is at fault for the increase in deer population within the park, as well as the carrying capacity, adding that the park should first address this leasing program before lethally removing any deer.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93773 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS Agricultural Leasing Program: Remarkably, despite the concerns that the NPS has regarding deer at VFNHP, it continues to permit agricultural use of VFHNP lands north of the Schuylkill River. Draft EIS at 4-7. Considering the benefits that such agricultural lands may provide to deer in regard to providing an easily accessible food source, the failure of the NPS to terminate this lease and to rehabilitate this land to restore it to more natural conditions is disconcerting. While the NPS claims that the high deer density in VFNHP has led to only wheat and hay being grown in these fields during the last several years, Draft EIS at 4-7, these crops remain palatable to deer and, consequently, this operation likely increased the ecological carrying capacity for deer in VFNHP. It is unconscionable that the NPS would even contemplate the mass slaughter of park deer while continuing to permit an agricultural operation in VFNHP.

RESPONSE: The plan/EIS has been updated on page 4-7 to make clear the fact that no lands in the park have been leased for the purposes of agriculture since 2003. There are no current plans to implement agricultural leasing as a means to manage park fields however, this action would be re-evaluated when the Field

Management Plan is revised in 2010-2011.

AR4000 - Archeological Resources: Impact of Proposal and Alternatives

CONCERN ID: 19713

CONCERN STATEMENT: One commenter stated that the impact analysis for archeological resources does not consider potential mitigation measures, such as utilizing a qualified archaeologist on-site during construction activities, and further questioned whether the potential adverse impacts to archeological resources justifies lethal reduction of the deer herd.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93797 **Organization Type:** Conservation/Preservation

Representative Quote: Recognizing the historical significance of VFNHP, the possibility for archaeological damage exists as a result of any activity within VFNHP. In this case, the NPS claims that the installation of fence posts associated with the construction of protective fencing (Alternative A) or rotational fencing (Alternative B) could impact archaeological resources. It could, but do such impacts negate these alternatives as valid management options and/or justify the large-scale slaughter of deer in VFNHP. Moreover, such impacts can be minimized or eliminated by ensuring that a qualified archaeologist is on site during construction activities, imposing construction plans that require the reporting of any potential archaeological resource, and requiring the cessation of construction activities if such resources are found.

RESPONSE: Page 4-66 of the plan calls for an archeologist to survey the potential locations for fencing and to be onsite during construction activities to supervise the work and ensure that no resources were impacted. This level of mitigation is acceptable to the NPS; however, it is not the reason an alternative with lethal reduction methods was selected. Alternative B was not selected as the NPS preferred alternative because it fails to meet many of the objectives of the plain, including reducing deer browsing pressure enough to promote tree and shrub regeneration that results in a diverse forest structure dominated by native species.

HS2000 - Historic Structures: Methodology and Assumptions

CONCERN ID: 19739

CONCERN STATEMENT: One commenter stated that the plan/DEIS did not contain sufficient data to state that there would be impacts to historic earthworks. Commenters requested pictures of damaged earthworks and information on how much damage is caused by deer versus humans.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93796 **Organization Type:** Conservation/Preservation

Representative Quote: In regard to historic structures, the primary concern is with the earthworks that the NPS claim are being damaged by deer resulting in trampling, compaction of soil, and erosion. Draft EIS at 31. The NPS has failed to disclose sufficient information about these impacts. For example, there is little information contained in the Draft EIS identify the location of these earthworks, explaining what specific areas have been subject to the alleged damage by deer, the severity of the damage, whether mitigation measures have been employed to halt the alleged damage, and whether those measures have been successful. The Draft EIS does concede that trampling attributable to people also pose a threat to the earthworks, Draft EIS at 4-8, though it fails to

specify what proportion of the alleged existing damage is attributable to humans versus deer. Indeed, the Draft EIS contains no pictures of damaged earthworks. Without such evidence, including visual evidence, it is not entirely clear how significant this alleged impact is or whether the NPS is exaggerating this impact as another example of its inherent bias against deer.

RESPONSE: As indicated in the plan/EIS on page 1-2, the purpose of the plan/EIS is to develop a deer management strategy that promotes the protection, preservation, and restoration of native vegetation and other natural and cultural resources. The NPS is not justifying a management action based on the effects of deer on historic structures. Tree regeneration has been selected as the metric used to evaluate plan success rather than the integrity of historic earthworks. However, promoting the growth of native plant communities to minimize soil erosion is considered one of the most important strategies for the protection of this type [earthen] of structure and is considered a critical step toward long-term preservation. Actions to preserve encampment-period earthworks outside the scope of the plan/EIS were analyzed in greater detail in the Valley Forge NHP GMP/EIS (2007i).

PO4000 - Park Operations: Impact Of Proposal And Alternatives

CONCERN ID: 19756

CONCERN STATEMENT: Commenters questioned the analysis of impacts to park operations, stating that it cannot be assumed that other areas of park management would be impacted through implementation of the alternatives, and that the cost analysis for implementing the alternatives is incomplete and needs to be reevaluated.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93812 **Organization Type:** Conservation/Preservation

Representative Quote: In regard to the cost of purchasing and installing rotational fencing, despite the assumption made by the NPS that it would receive full funding to cover the cost of the alternative selected, it claims that costs associated with the construction, maintenance, and moving the rotational fencing would be in addition to the park's present budget result in a long-term, major, adverse impact. Draft EIS at 4-93. This doesn't make sense. If there is an assumption that funding will be sufficient to cover the cost of whichever alternative is selected, then the impact to the park's present budget would be inconsequential. If there were no such increase in the park's budget, then the impacts could be significant though this distinction is not made in the analysis.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93811 **Organization Type:** Conservation/Preservation

Representative Quote: In regard to the assessment of the impacts of the proposed action on park operations, the NPS specifies that it assumes that under all alternatives the park's annual budget would be increase to implement a particular alternative but that this funding is not guaranteed. Draft EIS at 4-90. As a result, the NPS states that each alternative discussed the impacts of receiving or not receiving additional funding. Id. This was not done. In it assessment of the impact of the proposed alternative on park operations, the NPS assumed that it would not have sufficient funding thereby necessitating the reallocation of funds from other park programs thereby reducing the effectiveness of those programs. See e.g., Draft EIS at 4-91. While that may be a reality given current budget limitations, suggesting that other park programs may suffer because of funding shortfalls to implement deer management serves only to garner greater condemnation for the park's deer herd among those park loyalists who ay be concerned that they may be deprived of unique educational,

cultural, and historical experiences in the park because of deer.

RESPONSE: In fiscal year (FY) 2007, the NPS requested additional funding for implementation of the plan/EIS through the Operations Formulation System (OFS). At the time the draft plan/EIS was released, this increase had not been approved by Congress. The FY2009, federal appropriation provided Valley Forge NHP with $140,000 for implementation of the plan/EIS. It is anticipated that this funding would continue to be received annually; however, funding is not guaranteed and current funding is not expected to cover the full costs of implementation (see page 4-90). Additional funds may be received in the future. Impacts of each alternative on park operations have been updated to reflect the increase described above.

CONCERN ID: 19897

CONCERN STATEMENT: One commenter stated that, based on the cost of alternative D, implementation of alternative D would have adverse effects on education and restoration activities. Another commenter stated alternative D could be improved by imposing a spending limit.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1016 **Organization:** *Not Specified*

Comment ID: 92478 **Organization Type:** Unaffiliated Individual

Representative Quote: I am against your plan to kill the deer in the Valley Forge park. Your proposal using Alternative D will cost, per your estimates, $2,778,282 to $2,845,782 for the 15 years of the plan. Using the highest amount, that is $189,718 per year, and from your website you list sharpshooting costs to be $121 on average per deer removed.

Using this much money just for removal of deer will mean that education and restoration will be compromised. It is a huge waste of taxpayer dollars in this time of economic disaster.

Corr. ID: 1088 **Organization:** *Not Specified*

Comment ID: 93641 **Organization Type:** Unaffiliated Individual

Representative Quote: Improve alternatives by putting a spending cap on Alternative D.

RESPONSE: As described in Section 4.8: Impacts on Park Operations, plan/EIS implementation under Alternative D would be expected to result in increased educational and interpretive activities that would require additional funding and staff time to implement. This would result in long-term, minor, adverse impacts to resource interpretation staff, depending on the level of activities required. However, over the long-term this alternative would result in a greater decrease in the deer population over a shorter period of time, when compared to Alternative A or B. As the number of deer declined in the park, the need for deer management and associated educational/interpretative activities would decline, allowing park staff to apply their efforts to other management areas. This would result in a long-term beneficial impact, with adverse impacts being reduced to negligible over the long-term.

As described in Section 4.8: Impacts on Park Operations, plan/EIS implementation under Alternative D would result in long-term, minor, adverse impacts to park operations in terms of staff time. Under Alternative D, the significant reduction in deer density would be expected to have a long-term

beneficial impact on vegetation, which would increase the success of park restoration efforts by reducing deer browse, eliminating the need for small-scale fencing, and promoting the growth of native species. Actions under this alternative would not be expected to reduce staff time available to conduct restoration activities because these activities occur during the growing season (April-October) and deer management actions would occur between November and March. Additionally, elimination of actions currently needed to protect native vegetation from deer browse may result in a reduction of costs and staff time associated with restoration activities.

Imposing a "spending cap" on any deer management alternative presented in the plan/EIS would be inappropriate. Costs presented in the plan/EIS reflect the amount of funding required to fully implement an alternative and achieve the plan objectives. The plan/EIS has been updated to reflect the fact that the FY2009 federal appropriations provides an increase of $140,000 for implementation of the plan/EIS and restoration of native vegetation (page 4-90). It is anticipated that this funding would continue to be received annually; however, funding is not guaranteed and current funding is not expected to cover the full costs of implementation. Additional funds may be received in the future. Impacts of each alternative on park operations have been updated to reflect the increase described above. Cost is only one consideration in the identification and development of reasonable alternatives under NEPA. Alternatives that were fully developed and presented in the plan/EIS are considered by the NPS to be both technically and economically feasible.

PS2000 - Public Safety: Methodology and Assumptions

CONCERN ID: 19758

CONCERN STATEMENT: One commenter stated that while the plan/DEIS claims that deer pose a risk to public safety as a result of their role in transmitting Lyme disease, the plan/DEIS does not provide sufficient information regarding the number of confirmed cases of Lyme disease in the region. Other commenters stated that the assumptions regarding Lyme disease in the plan/DEIS were not correct because a decreasing the number of deer would not result in a decrease in Lyme disease.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 28 **Organization:** *Not Specified*

Comment ID: 93187 **Organization Type:** Unaffiliated Individual

Representative Quote: I'm also concerned about Lyme disease on my property. I attended one of the public meetings this week and some of the members of the public stated that reduction in the deer population had been proven not to decrease the incidence of Lyme disease and even increased the number of ticks on people and pets. No reference was given, but a search of the literature revealed that this assertion is probably in reference to Jordan RA, Schulze TL, Jahn MB. "Effects of reduced deer density on the abundance of Ixodes scapularis (Acari: Ixodidae) and Lyme disease incidence in a northern New Jersey endemic area." J Med Entomol 2007;44(5):752□7. In this study, the deer population in a suburban area was reduced by approximately 50% and there was no measureable decrease in the number of ticks or incidence of Lyme disease. There are several reasons not to conclude from this study that deer reduction in Valley Forge will not impact the occurrence of Lyme disease. First, it is important to note that the deer population in this study was only cut in half. It could be that there is a positive correlation between deer population and Lyme disease occurrence, but that the error inherent in the measurements masked the effect. Second, if the deer population was only decreased by 50%, the remaining deer might still eat all the food in their preferred habitats and travel to the same yards and spread ticks in the same pattern as the larger herd.

Corr. ID: 993 **Organization:** *Not Specified*

Comment ID: 92618 **Organization Type:** Unaffiliated Individual

Representative Quote: LYME DISEASE Get the facts. MYTH: An overabundance of deer causes Lyme disease. FACT: Black-legged ticks (so-called "deer ticks") are actually carried by 49 bird species and nearly all mammals. Studies have shown that even if the vast majority of deer are killed, the overall number of "deer ticks" are not significantly reduced because the ticks simply move to other host animals or occur at higher densities on the remaining deer. No studies show that deer hunting reduces the tick population enough to eliminate Lyme disease risk to humans. Therefore, the proposed hunt will do little or nothing to reduce the possibility of Lyme disease infection. However, public education and awareness will help.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93803 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS also claims that deer pose a risk to public safety as a result of their alleged role in the transmission of Lyme disease to humans. The NPS fails to provide any data on the number of confirmed Lyme diseases cases in humans in the local area or region yet it continues to vilify deer because they may act as a host for the deer tick during a portion of the tick's life. To its credit, the NPS does concede that "deer cannot transmit the disease to humans or ticks," Draft EIS at 1-32, that white-footed mice the primary carrier of the disease are abundant in the park, that even in the absence of any deer within the park, Lyme disease would likely still occur, Draft EIS at 3-35, and that on 3 percent of the tick population sampled in 1995 revealed the presence of Lyme disease. Id. Yet, it claims, without citing to any evidence, that "a high deer population provides more hosts and may support a higher than normal tick populations compared to lower deer densities." Draft EIS at 1-32.

RESPONSE: As stated on page 3-36, Pennsylvania ranks second in the nation for number of reported cases of Lyme disease, with the majority being reported from southeastern areas of the state near Valley Forge NHP. Between 2003 and 2007, Chester County ranked second in the state for reported cases of Lyme disease (PA Department of Health 2008). The NPS agrees that deer represent only one of many potential host species and that even in the absence of any deer within the park, Lyme disease would likely still occur (see page 3-37).

The United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC) has stated that abundant deer and rodent hosts are necessary to maintain the spirochete *Borrelia burgdorferi*. Though the deer cannot transmit the disease to humans or ticks, a high deer population provides more hosts and may support a higher than normal tick population compared to lower deer densities (see page 1-34). The citation provided by the commenter is discussed on the CDC webpage references a study in mainland New Jersey that reported reducing the number of deer did not correspond to decreased numbers of ticks or reduced cases of Lyme disease. However, as stated on the CDC webpage, this study may have been too short or the reduction of deer insufficient to demonstrate an impact. However, it also cites other data which support the statement that lowered deer populations may lead to lowered tick populations (Stafford 2007). The plan/EIS has been updated with this citation. For additional information on this topic please visit <http://www.cdc.gov/ncidod/dvbid/lyme/Prevention/ld_Prevention_Control_Deer.htm>.

The intensity thresholds related to Public Safety (see page 4-84) have been updated to clearly articulate that the analysis of impacts was based on the likelihood of encountering a deer tick and not on the likelihood of acquiring Lyme disease. Citations related to deer and tick populations and Lyme disease have been added as appropriate. Information presented in the plan/EIS regarding the relationship between deer population size and tick populations is considered sufficient to assess the likely effects

of deer on tick populations.

Additional information on the incidence of Lyme disease in Pennsylvania and related information can be found on the Pennsylvania Department of Health webpage at: <http://www.dsf.health.state.pa.us/health/cwp/view.asp?a=171&Q=230464>.

Additional information is available from:
Stafford, K. C. 2007. The Tick Management Handbook: An integrated guide for homeowners, pest control operators, and public health officials for the prevention of tick-associated disease. Bulletin No. 1010. The Connecticut Agricultural Experiment Station, New Haven CT.

CONCERN ID: 19759

CONCERN STATEMENT: Commenters stated that preventing deer-vehicle collisions should be included as an objective in taking action and state that the plan/DEIS does not provide sufficient information regarding the frequency, location, severity, injury or mortality rate, or estimated costs of damages related to deer/vehicle accidents.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93801 **Organization Type:** Conservation/Preservation

Representative Quote: Similarly, in regard to deer vehicle collisions, the NPS provides virtually no data relevant to the frequency, location, severity, human injury/mortality rate, or the estimated costs to repair damage to vehicles that strike deer. It does concede that deer-vehicle collisions represent the primary cause of deer mortality for park deer. Draft EIS at 2-10. It also fails to disclose what the current speed limits are for vehicles using the various roads within and surrounding VFNHP, traffic volume data and trends over time, whether any speed zones have been established in an attempt to reduce deer vehicle collisions, what educational efforts are made by the NPS or PGC to caution drivers to be alert for deer crossings during the most dangerous times of the year, or if other alternatives/techniques are used to reduce deer-vehicle collisions.

Corr. ID: 1109 **Organization:** Pennsylvania Game Commission

Comment ID: 92986 **Organization Type:** State Government

Representative Quote: Deer have a significant impact on surrounding lands and people traveling through and around the park. These impacts should be given considerable weight given the landscape in which Valley Forge (VF) is located yet nothing is mentioned in the objectives about these human impacts. For example, deer-vehicle collisions are the primary cause of mortality for deer at VF.

RESPONSE: The purpose of the plan/EIS is to develop a deer management strategy that supports the protection, preservation, and restoration of native vegetation and other natural and cultural resources. Forest regeneration has been selected as the primary measure of plan success rather than the number of deer-vehicle collisions. Although NPS recognizes deer-vehicle collisions as a public safety issue, consideration of alternatives specifically to address this issue is outside the scope of this plan/EIS and does not meet the plan/EIS purpose, need, and objectives. Chapter 4: Environmental Consequences, provides a full evaluation of the impacts of implementation of deer management alternatives on public safety, including the likelihood of being involved in a deer-vehicle collision. Refer to Section 4.7 Public Safety (beginning on page 4-84).

As described on page 4-86 of the plan/EIS, actions being implemented (now or in the future) in the park to address traffic and associated public safety issues include road closures, traffic calming measures (reduced speed limits, signage, road surfaces that encourage slower speeds, increased signage and signals to control traffic movements),

and vegetation management along roadsides. Implementation of these actions has already begun and they are expected significantly improve public safety and visitor experience as well as contribute to reducing the likelihood of being involved in a deer-vehicle collision. These actions are expected to have a long-term beneficial impact on public safety (page 4-86). A full description of traffic calming measures and other issues and actions associated with public safety can be found in the park GMP/EIS (2007i).

PS4000 - Public Safety: Impact of Proposal and Alternatives

CONCERN ID: 20119

CONCERN STATEMENT: Commenters raised concern about the plan/DEIS regarding adjacent land uses including liability for accidental injury and death.

REPRESENTATIVE QUOTE(S):

Corr. ID: 56 **Organization:** *Not Specified*

Comment ID: 93630 **Organization Type:** Unaffiliated Individual

Representative Quote: Who will be liable for possible accidental property damage, injury, or death? Will the park take full responsibility for a lawsuit? If so, that means my tax dollars going towards a lawsuit for an action which I do not sanction.

RESPONSE: The United States is liable for tort, which includes personal property and personal injury under the Federal Tort Claims Act (28 USC 1346(b) 2671 2680). Please refer also to response to Concern ID 19683 (page 45).

SRAL2000 - Socioeconomic Resources and Adjacent Lands: Methodology and Assumptions

CONCERN ID: 19764

CONCERN STATEMENT: One commenter states that while the plan/DEIS claims that adverse impacts to socioeconomics and adjacent lands are a result of the overpopulation of deer, the plan fails to disclose sufficient information for the public to assess the severity of the impacts. Another commenter questioned studies used in determining adverse impacts to socioeconomics and damage to landscape vegetation, mainly concerning the fact that the studies used were not conducted within the local area.

REPRESENTATIVE QUOTE(S):

Corr. ID: 936 **Organization:** *Not Specified*

Comment ID: 93223 **Organization Type:** Unaffiliated Individual

Representative Quote: 3.5.2 Vehicular Damage
Collisions with deer affect vehicular maintenance costs. Based on insurance claims across the nation, Pennsylvania has had the highest number of deer-vehicle collisions in four of the last five years, averaging 99,000 incidents a year. Pennsylvania also has the highest number of deer-vehicle collisions per mile of road, with a collision occurring every 1.22 miles of public road (Frye 2007).

" What is the number of deer-vehicle collisions per mile of road within Valley Forge NHP?

" Is this numeric value higher or lower than Pennsylvania's average?

" Based on the data the plan provides, less than .008 percent of Pennsylvania's deer-vehicle collision occur within Valley Forge NHP. What is the percentage

goal of VFNHP? How does this compare with other similar parks in the US that have active state roads running through them?

Collisions may result in injuries or death to the passengers and the deer, as well as damages to the vehicle. Vehicle repair bills following a deer collision ranged from $1,200 to $2,200, with an average value of $1,577 in 1993 dollars (Conover et al. 1995). Between 1986 and 2000, insurance claims related to deer-vehicle collisions in the northeastern United States1 totaled $390,520,000. Costs in Pennsylvania were estimated at $150,000,000, or nearly 40% of the total cost in the region (Drake et al. 2005). These
figures do not include the cost for medical expenses or deer carcass disposal. These incidents affect public safety and are addressed below, under 3.6 Public Safety.

" The above data is not providing any relevant information in correlation to the incidents that occur within Valley Forge NHP. VFNHP does not have to assume any financial responsibility to deer-vehicle collisions.

" With an average repair value of $1,577 combined with an average of 87 deer-vehicle collisions annually, equates to an average annual damage total of only $137,199. This is less than .1% of the total costs estimated for Pennsylvania.

" What is VFNHP's target cost percentage?

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93802 **Organization Type:** Conservation/Preservation
Representative Quote: Instead, the NPS cites to statewide statistics for deer-vehicle collisions (Draft EIS at 1-32, 3-34) potentially deceiving the public into believing that the significance and severity of deer-vehicle collisions in and around VFNHP is more serious than it really is.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93800 **Organization Type:** Conservation/Preservation
Representative Quote: Instead of providing such local evidence, the NPS cites to a 1997 survey of 60 million households that estimated deer-related damage to plants and landscape results in $251 million a year. Draft EIS at 3-33. Either the study was bogus or the NPS description of it is wrong since it suggests that of the 60 million households participating in the study (a preposterous number of people) each experienced over 4 million dollars worth of damage to plants and landscaping. Frankly, such results are inconceivable and cannot be accurate.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93798 **Organization Type:** Conservation/Preservation
Representative Quote: The NPS claims that the park's deer impact the socioeconomics of the area as a result of "deer browsing damage to crops and landscaping on private lands adjacent to the park" and because "collisions with deer ... affect vehicular maintenance costs." Draft EIS at 1-32. Again, while the NPS is quick to blame the deer for these alleged impacts, it fails to disclose sufficient information to allow the public to assess or gauge the severity of these impacts.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93799 **Organization Type:** Conservation/Preservation

Representative Quote: For example, with the exception of a reference to VFNHP being contacted by local landowners about deer issues including concerns about deer consuming landscaping plants, Draft EIS at 3-33, the Draft EIS contains no specific information about location of hotspots of deer damage to industrial/residential properties outside of the park, the type of damage document, the extent or severity of such damage, or the economic impact of such damage.

RESPONSE: Park-specific information on deer-vehicle collisions is presented on page 3-36. The NPS has removed information related to the potential socioeconomic losses associated with deer-vehicle collisions in Pennsylvania found on pages 1-33 and 3-35. It was also removed from the description of impact thresholds for Impacts on Socioeconomic Resources and Adjacent Lands (page 4-78). It is regrettable that removal of this information from the description of impacts and failure to remove it from the intensity thresholds and corresponding sections of the document caused confusion. Economic losses associated with deer-vehicle collisions were removed because level of loss was believed to be closely linked to factors unrelated to the number of deer (such as type of vehicle) which confounded the establishment of intensity thresholds and analysis of impacts. The likelihood of being involved in a deer-vehicle collision remains an element of public safety and impacts has been fully analyzed and evaluated in Section 4.7: Public Safety (beginning on page 4-84).

The purpose of the plan/EIS is to develop a deer management strategy that promotes the protection, preservation, and restoration of native vegetation and other natural and cultural resources. Information provided on the impacts of white-tailed deer on socioeconomic resources and adjacent lands is provided as background information only and not to justify deer management. Tree regeneration has been selected as the primary measure of plan success rather than damage to the landscape/ornamental plantings of adjacent property owners.

The impact of proposed alternatives on socioeconomic resources and adjacent lands, including impacts on ornamental plants on adjacent lands are fully described in Section 4.6 (beginning on page 4-77). The text on page 3-34 has been revised to more clearly state the results of the study by Conover in 1997. Information provided on the impacts of white-tailed deer on socioeconomic resources and adjacent lands is based on referenced scientific literature that the NPS believes is sufficient to assess the likely effects of deer on these resources.

VSSP1000 - Vegetation and Special Status Plant Species: Guiding Policies, Regs, and Laws

CONCERN ID: 19901

CONCERN STATEMENT: One commenter stated that while the DEIS reports that there are eight state listed (or proposed for listing) plants known to occur within the park, only four of them have legal state-listed status, as documented in Table 8 of the DEIS.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93770 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS has also failed to disclose critical information about these species and their status throughout the state. For example, while the NPS provides information about several of these species in regard to their

presence/absence in VFNHP, it is unclear whether or where the species exist outside of the park and/or what efforts are underway by the state to protect and recover these species.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93768 **Organization Type:** Conservation/Preservation

Representative Quote: Special status plant species. The NPS reports that there are eight state listed (or proposed for listing) plants that are known or expected to occur within the park. Draft EIS at 3-7. In reality, as documented in Table 8 in the Draft EIS (Draft EIS at 3-7), only four special status plant species confirmed within VFNHP are actually state-listed. The legal status of the four remaining species is "tentatively undetermined" or the species have "no current legal status." Id. Three of these four have been proposed for listing while the last is "under review" for a future listing. Id.

RESPONSE: The commenter is correct and the plan/EIS has been updated to define non-listed, species of special concern as those determined by the Pennsylvania Natural Heritage Program as critically imperiled, imperiled, or vulnerable. Please refer to Section 3.2.1 Vegetation and Special Status Plant Species (pages 3-7 and 3-8).

VSSP2000 - Vegetation and Special Status Plant Species: Methodology and Assumptions

CONCERN ID: 19769

CONCERN STATEMENT: One commenter stated that reducing the number of deer in the park will not reduce the number of invasive species in the park, further stating that deer are not contributing to the propagation of invasive species.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 557 **Organization:** *Not Specified*

Comment ID: 91922 **Organization Type:** Unaffiliated Individual

Representative Quote: VFNP's plan erroneously states that deer are helping invasive species to propagate. In fact, weeding by hand is the best way to reduce invasive species; reducing deer numbers does not reduce invasive species (source: http://eco.confex.com/eco/2008/techprogram/P11353.HTM <http://eco.confex.com/eco/2008/techprogram/P11353.HTM>). The biggest displacement of native species is happening because of invasive species. (Deer will not produce offspring unless they are getting enough food. So, any concerns about starving deer are unfounded.)

RESPONSE: The NPS states on page 3-8, that one of the largest threats to the park's flora is the growing population of exotic (nonnative) invasive plant species. The NPS has not made claims that deer in the park "propagate" invasive, non-native plants. However, as stated on page 1-24, the NPS believes that it is the removal of native species through selective deer browsing that has provided nonnative species a competitive advantage resulting in significant spread of certain species over the past two decades. The reduced cover of these nonnative species within fenced plots with established native vegetation provides support for this statement (see photo on page 3-10). Tree regeneration has been selected as the measure of plan success rather than plant diversity or the dominance of non-native plant species and information on nonnative invasive plants is presented as background information only.

The reference provided by the commenter documents vegetation response after

exclusion of deer and application of treatments to remove non-native plants over 1 ½ years. The report concludes that "deer management, such as fenced exclusion or population reduction, in the absence of invasive plant removal, may be insufficient to promote restoration of the native plant community" (Bourg 2008). The NPS agrees with the conclusion of the author and states on page 3-8, that "these conditions can be avoided through continued action under the park's integrated pest management (IPM) activities". Current park IPM activities, as described on page 4-7 of the plan/EIS, include implementation of both mechanical (e.g., hand pulling) and chemical methods to control high priority, invasive, non-native plants. The plan recognizes that although there are other factors that affect tree regeneration and forest health (e.g., nonnative plants, fire, global warming), deer must be addressed first because they are the dominant factor influencing native plant communities at the park. The plan/EIS describes an adaptive management approach that includes the potential for adjustments in vegetation management if these factors are determined to be limiting forest regeneration (See page 2-48). These adjustments could include silviculture, nonnative species management, or responses to the effects of climate change (See response to PN3000 – Purpose and Need: Scope of the Analysis, Concern ID 19747, page 23).

See: Bourg, N. A. 2008. Interactive effects of white-tailed deer and invasive plants on temperate deciduous forest native plant communities. 93rd Ecological Society of America Annual Meeting. August 3-8, 2008, Milwaukee WI.

VUE4000 - Visitor Use and Experience: Impact of Proposal and Alternatives

CONCERN ID: 19773

CONCERN STATEMENT: Commenters stated that they did not feel that the plan/DEIS adequately analyzed the impacts to visitor experience from a reduction in deer. Many commenters stated that seeing deer was a part of their experience and if they could not see deer, this experience would be impacted. One commenter also questioned the impact that seeing burial pits would have on park visitors.

REPRESENTATIVE QUOTE(S):

Corr. ID: 65 **Organization:** *Not Specified*

Comment ID: 93579 **Organization Type:** Unaffiliated Individual

Representative Quote: Many visitors to Valley Forge come to see the deer, why take away this attraction?

Corr. ID: 493 **Organization:** *Not Specified*

Comment ID: 91745 **Organization Type:** Unaffiliated Individual

Representative Quote: Both the natural landscape and the quality of the visitor experience will be diminished.

Corr. ID: 583 **Organization:** *Not Specified*

Comment ID: 91986 **Organization Type:** Unaffiliated Individual

Representative Quote: If the "harvesting" of these "excess deer" is undertaken, my family will have to stop visiting the park and enjoying its historic buildings. I can't think of anything more depressing than going there, not seeing the deer we are used to enjoying, and having to explain that to my son.

Corr. ID: 720 **Organization:** Mill Grove Audubon Bird Sanctuary

Comment ID: 92351 **Organization Type:** Conservation/Preservation

Representative Quote: Park managers say "letting well enough alone" will

harm the visitor experience. Yet the reverse is true. Killing 80% of the deer WILL harm the visitor experience as I often see visitors pulling over to marvel at and take pictures of the deer.

Corr. ID: 936 **Organization:** *Not Specified*

Comment ID: 93197 **Organization Type:** Unaffiliated Individual

Representative Quote: The draft states that, " Overall, many regional visitors appreciate it as a place of recreation and renewal, with approximately 80% of its visitors enjoying the park while walking, biking, boating, fishing, horseback riding, and picnicking (NPS 2007j)."

" One may ask, How many of the park visitors were polled in regard to the deer presence and population?
" Were the deer viewed by these visitors as an attraction or a nuisance?
" Your response is very vague in the plan and does not provide any statistics or metrics. The draft states, "Another visitor survey was completed in 2007 to assess the role of the park's deer population on the visitor experience (Leong and Decker 2007). Although survey respondents recognized the damage that the deer cause through over browsing and vehicle collisions, deer still are considered an attractive resource at the park. Many respondents noted that deer-watching was one of the enjoyable activities they experienced at Valley Forge NHP. Many respondents did believe that the sight of malnourished, sick, or injured deer detracted from their experience."

" How many visitors were surveyed?

" How were the questions structured within the survey? Were they "leading" questions?

" What are the percentages of the responses associated with the 2007 visitor survey? It appears that the statements listed in this draft are attempting to avoid having to provide any metrics associated with the survey. Please post the survey and all survey results online for the public to view and to be better informed for when the next revision of this draft is available.

Corr. ID: 936 **Organization:** *Not Specified*

Comment ID: 93198 **Organization Type:** Unaffiliated Individual

Representative Quote: " How valid and accurate is the Cornell University survey performed by (Leong and Decker 2007; Siemer et al. 2007) in order for, "the findings of this survey have been used to inform the decision-making process and communication strategy for this plan."?
" Please provide a copy of the questionnaire that was conducted in person and also mailed. The draft states that the survey was directed to, "Members of the community, including adjacent homeowners, community residents, known stakeholders, and community leaders" but why not with the individuals who visited the park as well so as not to provide a biased view of individuals only local to the park. A larger and more diverse survey pool could potentially result in an opposite view of how important the deer herd is as an attraction to Valley Forge NHP.

Corr. ID: 978 **Organization:** The Humane Society of the United States

Comment ID: 93138 **Organization Type:** Conservation/Preservation

Representative Quote: Additionally, the EIS makes no mention of how deer

burial pits may negatively impact visitor experiences to the park. Considering that 2007 survey indicated that many visitors that come to VFNHP do so to watch deer, it seems highly unlikely that the possibility of seeing or smelling a burial pit or carcasses of deer spread around the park would be appreciated or serve to enhance their experience (EIS pg. 3-32).

Corr. ID: 1001 **Organization:** *Not Specified*
Comment ID: 93823 **Organization Type:** Unaffiliated Individual
Representative Quote: this plan will drastically change the landscape and ruin the appeal of the park.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93734 **Organization Type:** Conservation/Preservation
Representative Quote: Despite all of this evidence documenting the value of deer to park visitors, the NPS, in its assessment of the impact of Alternative A on visitor use, draws the remarkable conclusion that "an increase in deer numbers could also adversely affect the health of the herd, and if the deer population drastically declined due to disease or malnutrition, or if visitors saw ill or emaciated deer, visitor experience could be adversely affected." Draft EIS at 4-69. What's telling about this statement is that the NPS is predicting an adverse impact to the visitor experience if the deer population drastically declines due to disease or malnutrition but not as a consequence of the proposed lethal slaughter of deer.

RESPONSE: As indicated by the commenter, the NPS has described the attraction that viewing deer holds for the visiting public. The NPS has not proposed the elimination of deer from Valley Forge National Historical Park. As stated on page 1-3, one of the plan/EIS objectives is to maintain a white-tailed deer population within the park that allows for protection and restoration of native plant communities. Therefore, visitors will continue to be able to observe deer at the park.
The impacts on visitor use and experience are documented on pages 4-69 through 4-77. This analysis includes the impact a reduced deer population would have on visitors, as well as the sights and sounds related to implementing the alternatives. This analysis is considered to be of great enough detail to inform the decision making process.

The Cornell University survey titled, “Identifying Capacity for Local Community Participation in Wildlife Management Planning; Case 2: White-tailed Deer Issues at Valley Forge National Historical Park” (Leong and Decker 2007) is cited in the bibliography and available in its entirety on the Internet at <http://www.dnr.cornell.edu/hdru/PUBS/HDRUReport07-3.pdf>.

The Valley Forge NHP GMP/EIS (NPS 2007j) stated that an unusually high percentage of park visitors were from the local community. Therefore, a public survey of the community including adjacent homeowners, community residents, known stakeholders, and community leaders is considered an accurate representation of the park’s visitation.

WTD2000 - White-tailed Deer Population: Methodology and Assumptions

CONCERN ID: 19778

CONCERN STATEMENT: One commenter stated that the plan/DEIS fails to consider that white-tailed deer are a keystone species within any habitat they occupy, and that their impacts are not only natural, but expected given the environment inside and outside the park.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93743 **Organization Type:** Conservation/Preservation

Representative Quote: Despite its failure to consider deer as a keystone species, it admits that deer are, in fact, "keystone" herbivores. Draft EIS at 4-38. A keystone herbivore is, as reported by the NPS, an animal that "(1) affects the distribution or abundance of many other species, (2) can affect community structure by strongly modifying patterns of relative abundance among competing species, or (3) affects community structure by affecting the abundance of species at multiple trophic levels." Id. This is precisely the role of deer within VFNHP. With this concession, the failure of the NPS to consider the dominant ecological role of deer within the VFNHP in its analysis suggest either an attempt to downplay or disregard its own information or is another example of intentional bias against the deer and in favor of lethal control to rapidly achieve other VFNHP management objectives.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93742 **Organization Type:** Conservation/Preservation

Representative Quote: Fundamentally, the NPS fails to consider in its analysis that white-tailed deer are keystone species within any occupied habitat. Consequently, depending on habitat quality and the corresponding number and density of deer, deer will impact ecosystem structure, function, and dynamics. This is not unnatural or inappropriate but, rather, represents an entirely expected outcome when deer are present in an area, particularly when they are the dominant herbivore as is the case in VFNHP. The fact that the VFNHP area has been subject to significant residential and industrial development with a burgeoning human population, complicates deer management by (in most cases) reducing the quality and quantity of habitat for deer outside of VFNHP. The deer can hardly be blamed for adapting to these human-induced changes by seeking refuge and survival within VFNHP.

RESPONSE:

Deer are identified as a "keystone" herbivore on page 4-38 of the plan/EIS. This term is used synonymously with keystone species. The plan recognizes that although there are other factors that affect tree regeneration and forest health (e.g., nonnative plants, fire, global warming), deer must be addressed first because they are the dominant factor influencing native plant communities at the park. Definition as a keystone herbivore does not mean that the impacts of deer concentrated at very high densities are in any way "natural" or "appropriate" as described by the commenter. NPS *Management Policies 2006,* Section 4.4.2, states that the NPS will rely on natural processes whenever possible, but may intervene to manage wildlife or plant populations under certain conditions. One such condition is when "a population occurs in an unnaturally high or low concentration as a result of human influences (such as loss of seasonal habitat, the extirpation of predators, the creation of highly productive habitat through agriculture or urban landscapes) and it is not possible to mitigate the effects of the human influences."

The NPS believes that the dominant role of white-tailed deer within ecological systems is recognized throughout the document including the analysis of impacts which is based on the fact that deer are the primary factor influencing native vegetation (and thus other wildlife and wildlife habitat).

WTD4000 - White-tailed Deer Population: Impact of Proposal and Alternatives

CONCERN ID: 19779

CONCERN STATEMENT: Commenters questioned the impact analysis in the plan/DEIS in regards to white-tailed deer, stating it had not proven there would not be unacceptable impacts to the deer population and should have also addressed impacts on individuals, not just the population.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93804 **Organization Type:** Conservation/Preservation

Representative Quote: In its analysis of the impacts of its proposed action and the other alternatives on the park's white-tailed deer population, the NPS bases it analysis on population impacts. It completely fails to provide any analysis of the impacts of the action/alternatives on individual deer despite a clear requirement to do so as articulated in NPS management policies. This is a significant omission given the potential for cruelty and suffering associated with the proposal to implement a large-scale deer slaughter in the park.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93737 **Organization Type:** Conservation/Preservation

Representative Quote: The NPS has not proven that its proposed alternative would not result in unacceptable impacts to the deer population and/or that it won't adversely impact of components and processes of the ecosystem that support them.

RESPONSE: Chapter 4: Environmental Consequences, provides a full evaluation of the impacts of implementation of deer management alternatives on the white-tailed deer population, including demographics, condition, population dynamics, behavior, and disease.

NPS *Management Policies 2006*, Section 4.4.1.1, states, "The Service will adopt park resource preservation, development, and use management strategies that are intended to maintain the natural population fluctuations and processes that influence the dynamics of individual plant and animal populations, groups of plant and animal populations, and migratory animal populations in parks." Therefore, except for management of threatened and endangered species where evaluation of impacts on individuals may be appropriate, management actions and evaluation of resource impacts in the NPS generally focus on impacts at the population-level. Impacts described at the population level reflect impacts to individuals that collectively have the potential to result in impacts at the population-level. The NPS believes that the analysis of impacts described in Chapter 4, Impacts on White-tailed Deer Population provides analysis in sufficient detail and at the appropriate scale for the plan/EIS.

WTD6000 - White-tailed Deer Population: Impairment Analysis

CONCERN ID: 19780

CONCERN STATEMENT: One commenter stated that the NPS did not correctly apply the impairment standard when considering the impacts to white-tailed deer, stating that as a native species the direct and indirect impacts that deer have on their environment cannot be considered impairment.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93728 **Organization Type:** Conservation/Preservation

Representative Quote: Deer are a native species throughout the United States and certainly within VFNHP. As a native species and a species that is a dominant herbivore within occupied range, deer are expected to browse trees and herbaceous vegetation, they may or may not stay within the boundaries of a park for their entire lives, they may be involved in deer-vehicle collisions, and they would have direct and indirect impact on their habitat and other wildlife species. To suggest that such impacts, at a particular subjective level of severity, constitute an impairment is non-sensical and it entirely contradicts the wildlife preservation mandate of the NPS.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93729 **Organization Type:** Conservation/Preservation

Representative Quote: Because the NPS mistakenly applies the impairment standard to deer impacts within VFNHP, its alternative-specific determinations of impairment are also incorrect. See e.g., Draft EIS, Chapter 4. In this case, the NPS relies on its policy language regarding the impairment standard. Even that language, however, makes clear that the impairment standard is applicable to public use/human actions and not the natural behaviors of native wildlife. Thus, attempting to apply its own impairment policies to assess the alternatives contained in the Draft EIS in regard to the impacts of a native ungulate on forest health, other vegetation, and potential for disease transmission is inconsistent with both the Act and NPS policies.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93719 **Organization Type:** Conservation/Preservation

Representative Quote: Indeed, though the NPS use of the impairment standard to justify its lethal deer control program is wrong, it could just as easily make an argument that the lack of active management of the park's forests are also impairing forest regeneration.

RESPONSE:

Sections 1.4.4 to 1.4.7 of NPS *Management Policies 2006* provide guidance for the evaluation of potential impacts to park resources. Those sections recognize that the source of the impacts that may lead to impairment can arise from a variety of causes. The guidance does not indicate that impacts leading to impairment could not be caused by a native species. Given the changed conditions both within the park and adjacent to the area, as recognized and described in the document, environmental circumstances have resulted in an over abundance of deer within the park area leading to environmental degradation. *Management Policies 2006* also allow for discretion on the part of the park manager in determining whether or if impairment exists. As noted in *Management Policies 2006*: "Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts." A full analysis of impacts is provided in Chapter 4: Environmental Consequences.

Regarding the role of deer in the ecosystem, please refer to the response for Concern ID 19778 (page 80).

CWD1000 - Chronic Wasting Disease Response Plan

CONCERN ID: 19719

CONCERN STATEMENT: One commenter stated that the CWD surveillance techniques, as described in the plan/DEIS, are contradictory, and should be reevaluated.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93805 **Organization Type:** Conservation/Preservation

Representative Quote: Statements pertaining to the use of CWD surveillance activities included on page C-14 of the Draft EIS are contradictory. First, the NPS states that live-testing and culling of CWD-positive animals is included as a surveillance technique within Implementation Zone 1 under Alternative B ..." Draft EIS at C-14. In the very next paragraph, the NPS states that "active lethal CWD surveillance is only included in alternatives in the plan/EIS that include lethal reduction methods (Alternatives C and D). Alternative A (no-action) and Alternative B (combined nonlethal actions) described in the plan/EIS do not allow for lethal surveillance methods." Id. This discrepancy must be corrected.

RESPONSE: Live test and cull is not considered a lethal CWD surveillance method, as defined in Appendix C CWD Response Plan, because deer are removed from the population only after they have tested positive for CWD. Surveillance is a term used to describe efforts to detect the disease and, as suggested by the term "live test", this technique is non-lethal. Therefore, the NPS does not consider use of live test and culling of CWD positive deer as a non-lethal CWD surveillance technique under alternative B (Combined Non-lethal Actions) to be contradictory.

CONCERN ID: 19723

CONCERN STATEMENT: Commenters questioned the impact analysis between alternatives regarding detection of CWD, and stated that the analysis is misleading. Further, commenters stated that lethal removal of deer does not decrease the potential for CWD to establish itself within a deer population; and that various CWD Response Plans should be prepared for each alternative. One commenter requested information regarding the necessity of integrating a CWD Response Plan within this Plan/DEIS.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 960 **Organization:** *Not Specified*

Comment ID: 93074 **Organization Type:** Unaffiliated Individual

Representative Quote: CWD response under the various alternatives would differ only if and when a confirmed CWD case occurs within 5 miles of the park boundary or if the park is determined to fall within a state-established CWD containment zone. Further, these differences are misleadingly portrayed as inevitable results of the "necessary" integration of the CWD Response Plan into the plan/EIS. For example, should CWD occur under the no-action alternative (Alternative A), additional actions must be limited to dedicating staff and volunteer time to monitor the park deer for clinical signs of CWD. Not surprisingly, the impacts of this alternative on the risk of disease amplification and likelihood of spread are predicted to be "long-term, major, and adverse." Under the combined nonlethal actions alternative (Alternative B), should the above conditions apply, surveillance would be enhanced using tonsillar biopsy to test live deer. In this case, impacts are predicted to be "long-term, moderate and adverse."

Corr. ID: 960 **Organization:** *Not Specified*

Comment ID: 93075 **Organization Type:** Unaffiliated Individual

Representative Quote: Clearly, the NPS intends these dire predictions to cast suspicion on any support for both of the non-lethal alternatives presented. Elsewhere in the plan/EIS we learn that Alternative B is being provided only to "maintain consistency with public input" □ rather than to be seriously considered, presumably. However, there appears to be no reason why preparing a single CWD Response Plan □ to be enacted should CWD occur regardless of which alternative is in place prior to its occurrence □ would be less efficient or more costly than what amounts to preparing three separate response plans. Indeed, this would seem to be the more sensible approach. The requirements of any plan for interacting with healthy deer would be expected to differ greatly from those for interacting with diseased or potentially-diseased deer. Considering these separate cases separately □ without artificially trying to force a plan designed for one purpose to apply to a very different one □ would likely result in both plans being more effective.

Corr. ID: 960 **Organization:** *Not Specified*

Comment ID: 93076 **Organization Type:** Unaffiliated Individual

Representative Quote: While arguing the merits of any such CWD response plan may be premature, it is worth noting that there is no scientific evidence to support the effectiveness of mass slaughter of deer to control CWD. In the 1990s, two attempts to eradicate CWD from cervid research facilities failed most likely due to residual environmental contamination. In fact, slaughtering thousands of healthy deer may only help spread CWD, since many deer are likely to escape slaughter and enter new territories with no previous occurrence of the disease. In contrast, rather than resulting in "long-term, moderate and adverse" impacts on the risk of spread of CWD, the approach described under Alternative B, tonsillar biopsies of live deer □ which is very similar to that favored by population ecologist Dr. Charles Southwick of the University of Colorado □ has the advantage that evidence of infection may be detected even before symptoms develop. Also, the "limitations" presented for the non-lethal approach □ deer initially captured and marked as "treated" with a reproductive control agent would be excluded from CWD testing after the first year; male deer would be excluded from the surveillance effort □ seem at the very least to assume the use of particular methods for reproductive control and in any case could be obviated with additional effort.

Corr. ID: 960 **Organization:** *Not Specified*

Comment ID: 93072 **Organization Type:** Unaffiliated Individual

Representative Quote: The plan/EIS presents four alternatives for the National Park Service's (NPS) actions toward the park deer and for its response to chronic wasting disease (CWD). The NPS claims that integration of the CWD Response Plan into the plan/EIS is necessary because planning efficiencies and cost savings are associated with integration. However, no support is offered for this claim. Instead, integration seems completely unnecessary and, as proposed, serves only to support those alternatives that include slaughtering the vast majority of the park deer before any increased "level of readiness" for CWD is even perceived to be needed. Clearly, the NPS favors killing deer as quickly as possible and is misusing the alleged threat of CWD to further that end.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93764 **Organization Type:** Conservation/Preservation

Representative Quote: While our knowledge of CWD is not complete, there is an abundance of information available in the scientific literature about the

disease and its potential impact on deer and other cervids. Indeed, the NPS cannot even declare with certainty that a reduction in the park's deer population will reduce the potential for the spread of CWD if it were detected in or near the park. Not only is there the problem with the persistence of the prion in the environment, but the NPS can only "hypothesize(d) that increased animal density and increased animal-to-animal contact enhances the transmission and spread of CWD." Draft EIS at C-12. Consequently, decreasing animal densities "may" decrease the transmission and incidence of the disease." Id.

Considering the apparent importance of CWD to the NPS and the fact that CWD in or near VFNHP would trigger, depending on the alternative selected at the conclusion of this planning process, the rapid reduction of the deer population to a density as low as 10 deer per square mile, the NPS was required to provide a far more detailed review of the CWD literature. Such a review would have ensured that the public would be better able to assess the likelihood of a CWD outbreak in park deer, the mechanisms that would permit such an outbreak to occur, and the long-term implications of such an incident.

RESPONSE: As stated on page 2-14 and C-2 of the plan/EIS, “the direct relationship between the plan/EIS objectives, alternatives, and impact analysis and CWD Response Plan goals, response strategies, and environmental impacts” made integration of the deer management and CWD response plans both feasible and cost-effective. As stated on page 1-2 of the plan/EIS, action in regard to CWD is needed at this time because changes in the proximity of chronic wasting disease to the park boundary and other risk factors have resulted in an elevated risk of chronic wasting disease occurrence within the park.
As stated on page 2-20, in developing deer management alternatives that integrated CWD response, the decision was made to include lethal actions to address CWD only under alternatives that included lethal removal methods (Alternatives C and D). Only non-lethal actions to address CWD were included under alternatives that did not include lethal removal actions (Alternatives A and B). The NPS describes the consequences of excluding active lethal surveillance under Alternative B on pages 2-24 and C-14. Provided that all action alternatives at least partially achieved the plan objectives (see Table 6, page 2-66), this decision was made to maintain consistency with public input received during public scoping which indicated there was strong support for a completely non-lethal deer management alternative. Development of a full range of reasonable alternatives represents different strategies for CWD response. Public comments have been summarized and presented in two comment analysis reports which are available on the park website at <http://www.nps.gov/vafo/parkmgmt/white-tailed-deer.htm>.

As stated by one commenter, under alternative A “additional actions must be limited to dedicating staff and volunteer time to monitor the park deer for clinical signs of CWD.” NEPA regulations (40 CFR 1502.14) require consideration of a "no action alternative" that includes the continuation of existing management to provide a baseline for assessing the effects of all "action" alternatives. The no-action alternative (Alternative A) in this plan/EIS is the continuation of the park's current deer management activities, including continuation of limited CWD surveillance. CWD surveillance actions proposed under this alternative were approved through a separate NEPA process in 2007, and thus are appropriately included under the no action alternative. Inclusion of new actions would not be appropriate under the no action alternative.

Changes in the proximity of chronic wasting disease to the park boundary and other risk factors have resulted in an elevated risk of chronic wasting disease

occurrence within the park. Appendix C, CWD Response Plan for Valley Forge NHP has been updated to reflect recently published literature related to the long-term impacts of CWD on population dynamics of mule deer populations (Miller et al. 2008) (page C-2). Please refer to Appendix C: CWD Response Plan for Valley Forge NHP for a full description of the CWD risk assessment completed for the park (see page C-4) which includes the factors that would increase the risk of CWD occurring the park. In regard to the long-term impacts of CWD on deer populations, NPS states on page C-2 that the impacts of CWD on population dynamics of deer and elk are presently unknown" that there is uncertainty associated with the disease, as well as social, economic, and biological threats to the community and the affected species. As described in both the plan/EIS and Appendix C, computer modeling suggests that CWD could substantially reduce infected cervid populations by lowering adult survival rates and destabilizing long-term population dynamics.

As presented on pages C-11 and C-12 of the CWD Response Plan, NPS guidance suggests reducing population numbers as an appropriate management tool when population density is above that identified in park management plans and/or the need to know CWD prevalence with a high degree of accuracy is necessary (NPS 2007c). Use of population reduction as a method for controlling disease in wildlife is based on the premise that infectious disease is a density dependent process (Wobeser 1994). This action is consistent with the Level 1 response described in Pennsylvania's CWD response plan (PCWDTF 2007). Therefore, the NPS deems this action to be appropriate should CWD be confirmed within 5 miles of the park boundary of the park falls within a state-established CWD containment zone.

GA1000 - Impact Analysis: Impact Analyses

CONCERN ID: 19727

CONCERN STATEMENT: One commenter stated that the NPS has offered no site specific data to suggest that the diversity or abundance of wildlife species in the park has declined due to the impacts of deer. Rather, the NPS uses studies conducted in other areas in Pennsylvania. As a result, the analysis is inadequate.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93778 **Organization Type:** Conservation/Preservation

Representative Quote: Though the NPS often cites to studies to substantiate these claims, few of the studies involve VFNWP. For example, the NPS cites a study (deCalesta 1994) from northwestern Pennsylvania that documented a reduction in bird species richness and abundance of 27% and 37%, respectively, for intermediate-canopy-nesting bird species at higher deer densities (presumably referring to 38 and 64 deer per square mile). Draft EIS at 3-27, 4-40. While that study may be perfectly legitimate, it has little to do with VFNHP and whether deer populations in the park are causing similar impacts. Moreover, though some studies have documented a decline in eastern chipmunks, gray squirrel, and white-footed mice as a result of competition with deer for mast crops, Draft EIS at 3-27, 4-41, there's no evidence offered that such impacts are occurring in VFNHP. Nor does the NPS provide any VFNHP-specific data to demonstrate that nonnative species are adversely affecting the native biota. Instead, again, the NPS relies on other studies conducted elsewhere to speculate about such impacts. Frankly, even the NPS claim that deer browsing is adversely impacted the least prevalent bird species is entirely speculative since it has offered no historic data to suggest that said species were more abundant in the park anytime in the past.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93776 **Organization Type:** Conservation/Preservation
Representative Quote: Though 29 species of reptiles and amphibians were found in the park as a result of surveys, the NPS offers no evidence that any of these species are currently being adversely impacted or are likely to be adversely impacted by deer. Draft EIS at 3-26.
Similarly, of the five-state listed animal species, only one, the red-bellied turtle, is considered a park resident and no evidence is offered to suggest that deer are adversely impacting this species. Draft EIS at 3-26.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93777 **Organization Type:** Conservation/Preservation
Representative Quote: With the exception of identifying three ground-nesting bird species that have been determined to be least prevalent in VFNHP, the NPS has offered no other compelling data to suggest that the diversity or abundance of wildlife species in the park has declined due to the impacts of deer. Instead, the NPS relies on statements of concern to try to prove its point. For example, it claims that the removal of forest understory vegetation leads to a decline in food, cover, and nesting sites for forest bird communities and some insect communities. Draft EIS at 3-27. In addition, the NPS states that densities of the black-billed cuckoo, hooded warbler, and white-eyed vireo will remain low within the park unless the herbaceous and shrub layers are restored. Id., 4-40. It goes on to claim that the loss of native nectar plants in both forests and grasslands may especially impact butterflies and other pollinators, id., and that the loss of the forest understory may affect woodland birds (migratory and resident) and other species that require ground cover to maintain viable populations (box turtles, American toads, gray tree frogs, hognose snakes) most seriously. Draft EIS at 4-40. Yet, the NPS offers not a single shred of evidence to actually demonstrate that such impacts are occurring in VFNHP.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93774 **Organization Type:** Conservation/Preservation
Representative Quote: For small mammals, the NPS offers not evidence to suggest that any mammal species has declined as a result of deer presence and browsing within VFNHP. Instead, relying on a series of other studies conducted in other places, it suggests that such impacts are possible.

RESPONSE: Information on the impacts of deer on other native wildlife is provided as background information and as a basis for evaluation of impacts as described in Section 4.3.3 (page 4-37). The evaluation of wildlife (other than deer) and wildlife habitat was based on a qualitative assessment of how expected changes to park vegetation, as described in section 4.1.1, would affect the abundance and diversity wildlife populations. Change in the quality and quantity of forage, availability of suitable nesting sites, amount of cover, and level of competition for existing resources may lead to significant changes in the size, reproductive success, rate of predation, and mortality rate for wildlife populations.

As stated in NPS *Management Policies 2006*, Section 4.1, "decisions about the extent and degree of management actions taken to protect or restore park ecosystems or their components will be based on...management objectives and the best scientific information available." This information may be obtained through "consultation with technical experts, literature review, inventory,

monitoring, or research to evaluate the identified need for management..." (NPS *Management Policies 2006*, Section 4.4.2.1). Information provided on the impacts of white-tailed deer on other wildlife species is based on referenced scientific literature that the NPS believes is sufficient to assess the likely effects of deer on these species. Please also refer to response to Concern ID 19748 on page 25.

As indicated in the plan/EIS objectives on page 1-3, the purpose of the plan/EIS is to develop a deer management strategy to promote the protection, preservation, and restoration of native vegetation and other natural and cultural resources. Tree regeneration has been selected as the metric used to evaluate plan success rather than wildlife diversity or abundance. It is through the protection and restoration of native plant communities and thus wildlife habitat that the NPS proposes to protect and preserve other native wildlife species. This is considered to be the most practical approach given the wide range of variables outside park boundaries that may influence these species (e.g., migratory species) and is consistent with NPS Management Policies (Section 4.4.1.1).

Data used to support the need for action (deer population size and forest vegetation) is long-term, park-specific, and collected using sound scientific methods as described on pages 1-14 through 1-17, 3-9, 3-10, and 3-13 to 3-20. In addition to presenting information based on park-specific data, other information presented in the plan/EIS related to deer and vegetation is supported by data collected throughout Pennsylvania and published in referenced scientific literature. As stated on page 3-10, in Pennsylvania forests, abundant deer populations have impeded the establishment and growth of sufficient tree seedlings to regenerate forests and researchers describe the regeneration problem as "ubiquitous rather than specific to a particular region, owner, or forest type." The tree regeneration threshold for Valley Forge NPS is based on the standard adopted state-wide by the Pennsylvania Regeneration Study for adequate regeneration (see page 2-2). NPS believes data used in the plan/EIS is sufficient to justify plan/EIS purpose, need for action, objectives, and supporting analysis.

CONCERN ID: 19855

CONCERN STATEMENT: One commenter stated that while the plan/DEIS reviews deer management actions in different locations within Pennsylvania, the results of these actions as it relates to achieving the objectives should also be provided, if available.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1131 **Organization:** Cummings School of Veterinary Medicine, Tufts University

Comment ID: 93262 **Organization Type:** University/Professional Society

Representative Quote: The DEIS reviews deer management actions taken in other jurisdictions in Pennsylvania (1-18 to 1-23). It describes actions taken and gives some information on harvests, but it provides no information on whether any of the actions have achieved deer population management, vegetation regeneration, or other management goals. If such data are available, they should be provided. If not, caveat emptor.

RESPONSE: The plan/EIS has been updated to include any known information on objectives for management and success in achieving those objectives. Please refer to pages 1-19 and 1-21.

GA3000 - Impact Analysis: General Methodology For Establishing Impacts/Effects

CONCERN ID: 19729

CONCERN STATEMENT: One commenter asked how frequently the methodology for implementing safety controls would be evaluated.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1096 **Organization:** *Not Specified*

Comment ID: 93531 **Organization Type:** Unaffiliated Individual

Representative Quote: Question based on evaluation of results of methods-does the methodology get evaluated periodically?

How often?

RESPONSE: The adaptive management process, described on page 2-46 of the plan, would not only be used to evaluate the impacts of the proposed, but also the manner in which the actions are implemented. This includes how staff and visitor safety is protected. The NPS would continually monitor employee and visitor safety during implementation, immediately address safety issues that arise, and improve safety conditions on an on-going basis through adaptive management. Additionally, the NPS would continue to gather data from similar actions at other locations to promote anticipation of future safety issues which could be addressed prior to implementation of selected actions (e.g., reproductive control).

CONCERN ID: 19732

CONCERN STATEMENT: One commenter was concerned about the use of adaptive management in the plan, specifically that based on vegetation monitoring data, it could only occur every five years at a minimum.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93793 **Organization Type:** Conservation/Preservation

Representative Quote: In this case, VFNHP claims that it will rely on adaptive management to modify its management plan as new information, monitoring data results, and other evidence is collected. Inexplicably, instead of establishing an adaptive management approach that would routinely consider the new evidence/information and adapt the plan accordingly, the NPS is proposing to only engage in such adaptive adjustments on a periodic basis. Vegetation recovery monitoring would only occur every five years, Draft EIS at 2-41, and, thus, adaptation of the plan as a result of vegetation monitoring data could only occur every five years at a minimum.

RESPONSE: All levels of the Department of the Interior are committed to maintaining the adaptive management process in all aspects of resource management (Williams et al 2007).

As described in Appendix A, monitoring data are collected for a subset of plots on an annual basis and this data is summarized over all plots every 5 years. Data collected annually would provide interim information on progress toward achieving the desired level of tree regeneration. However, there could be significant fluctuations in these data as a result of stochastic events such as drought. Therefore, the NPS believes that management actions are appropriately evaluated based on data summarized over a 5 year period. This information

would be used to adaptively manage actions taken by the NPS. Adaptive management is fully described in the plan/EIS in Section 2.9: Adaptive Management Approaches Included in the Action Alternatives.

CONCERN ID: 19858

CONCERN STATEMENT: One commenter was concerned about using compartment counts, the sighting index of 0.58, and spotlight counts to estimate the deer population. The commenter stated that the sighting index of 0.58 is outdated and a new sighting index should be established, and that spotlight counts are inaccurate. Another commenter also stated that the initial target density goal is too high, and that the park should measure deer density in terms of deer per square wooded mile, thus lowering the deer density target to 10 deer per square wooded mile. One commenter went further and stated concerns regarding the park's purported lack of deer birthrate information, as well as the estimated population trend which predicts the deer population to continue to increase, while current data indicates that it has decreased in recent years.

REPRESENTATIVE QUOTE(S):

Corr. ID: 506 **Organization:** Friends of Animals, Inc.

Comment ID: 93321 **Organization Type:** Conservation/Preservation

Representative Quote: The natural reduction and stabilization of this deer population since 2005 challenges the key premise of the Plan/EIS -- that the numbers of deer living in this community need to be reduced.

Corr. ID: 961 **Organization:** *Not Specified*

Comment ID: 93081 **Organization Type:** Unaffiliated Individual

Representative Quote: I give a few examples of misleading or mistaken information□or lack of information. You admit that you do not even know the birthrate□an essential factor for intelligently controlling deer populations-- for deer in the park. (3-19) Then you admit that you "assume" the birthrate is "similar to those populations in areas surrounding the park" (3-19) You neglect to state whether these other areas are hunted. This information is essential for research has shown that deer in hunted areas reproduce more than herds that are not hunted. If hunting or culling reduces the density of the herd, reproduction increases. These differences were reported as early as 1950 (Cowan, 1950; Chaetum and Severinghouse 1950; Scheffer 1951 as quoted in Putman, Rory, 1988, The Natural History of Deer, 113). Thus, your lack of knowledge concerning the birthrate reveals an important deficiency.

The draft plan then states that "based on ongoing population surveys the deer population has increased, and in the absence of any population management measures, this trend is expected to continue over time, with some fluctuation due to weather and other factors."(My emphasis, 3-19). In fact, however, using your own figures, the deer herd has decreased from a high of 1,398 in 2003 to 1,023 in 2007 thus your figures show the deer herd is decreasing, not increasing. A 375 decrease in population is hardly a mere fluctuation. Why no count for 2008? Was there a further decrease?

Corr. ID: 1018 **Organization:** Valley Forge Citizens for Deer Control

Comment ID: 92449 **Organization Type:** Conservation/Preservation

Representative Quote: However, we think that the initial goal for deer reduction is much too high. The goal should at least match the 10 deer per sq. mi. goal, or 50 deer, where in the EIS chronic wasting disease is within five (5)

miles of the Park. In support of the lower target, as recently as 2005 the Pennsylvania Game Commission published a state-wide target goal of five (5) deer per wooded sq. mi. From a scientific standpoint, a USDA study from 1980 to 1990 of deer damage occurring in the Allegheny National Forest concluded that the number of tree species begins to decline as deer density exceeds 10 deer per wooded sq. mi., a finding which has been agreed with by a number of wildlife biologists.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93744 **Organization Type:** Conservation/Preservation
Representative Quote: The NPS claims that the VFNHP deer population density exceeds 193 deer per square mile. Draft EIS at vi, 1-13. Though this density is so large to appear impossible, this is actually lower than the estimated density of deer in the park only a few years ago. These densities and the associated population estimates are a product of two different deer survey tools used at VFNHP (i.e., spotlight counts in the fall, and spring compartment counts) (Draft EIS at A-1, A-2). These survey tools are the primary methods used by the NPS to determine trends in deer abundance and assess changes in deer population size over time. Draft EIS at vi. Based on the survey results, the NPS claims that, on average, the deer population has increased about 10% each year with significant fluctuations occurring after 1996 (Draft EIS at 1-14, 3-12) with the actual population size increasing from an estimated 772 to 1,023 individuals between 1997 and 2007. A maximum count of deer was recorded in 2003 (1,398 deer). Draft EIS at 1-14, 3-12. Spotlight counts are notoriously inaccurate and, therefore, such data is, at best, only possibly indicative of population trend.

Corr. ID: 1108 **Organization:** Animal Welfare Institute
Comment ID: 93745 **Organization Type:** Conservation/Preservation
Representative Quote: Spring compartment counts involve the simultaneous counting of deer in five compartments designated within and outside of VFNHP. The total number of deer observed is then multiplied by a sighting index of 0.58 which ostensibly represents the proportion of the population not observed during counts to generate an estimate of the deer population size within the park. Draft EIS at 1-14, A-2.

This sighting index was calculated based a mark-recapture methodology used when spring compartment counts were first initiated in the park. At that time, a number of deer were captured and marked and, in subsequent counts, the number of marked animals was noted. Based on this count, Lovallo and Tzilkowski (2003), determined that a sighting index of 0.58 was needed to correct for deer not seen during the counts. In other words, 58 percent of marked deer were not observed in subsequent counts. There are several problems with the calculation and use of this sighting index.

Of particular concern is the reliability of the sighting index. Though the original sighting index was based on a mark-recapture methodology, the Draft EIS suggests that observers participating in spring compartment counts should indicate if a marked deer is observed during the survey. Draft EIS at A-3. Considering that the original mark-recapture research was done years ago, it is unclear if whatever markers were used then are still in place. If not, then the 0.58 sighting index is based on old data and may no longer be relevant. Indeed, considering the significant decline in the number of deer observed during fall spotlight surveys from 2002 to 2007, continuing to use an old sighting index to estimate the park's deer population size is likely producing significant

overestimates. If this methodology is to be used in the future, a new sighting index must be established annually or, at a minimum, biannually to improve the accuracy of the population estimates.

RESPONSE: Spotlight count data is presented solely as background data reflecting general trends in deer abundance (growth) for the park and would not be used to estimate population size. Changes in park meadows as a result of changes in the mowing regime (described below) and the recent occurrence and spread of sand blackberry (proposed for state-listing as endangered) has been noted by park staff conducting spotlight counts as interfering with the ability to see deer. The downward trend in the number of deer observed during these counts over the last several years is likely attributed to these factors. This information is still considered of interest because it represents the data with the longest period of record (from 1986).

Spring compartment counts using protocols established by Lovallo and Tzilkowski (2003) have been used to estimate deer population size since 1997. Deer population size is estimated based on the total number of deer observed across all count areas divided by a sighting index (0.58) which represents the proportion of the population not observed during counts. While this is a standard method for estimating population size (Conroy and Nichols 1996), it may become less accurate over time as park vegetation changes and deer potentially become more or less visible. It should be noted that when the sighting index could be said to be 'most' accurate in 1999, the population density was 5 times higher than the target deer density goal to promote adequate tree regeneration.

This index is still considered to be relatively accurate for the purposes of estimating deer population size at the park. Since development of the sighting index in 1997-1999, the amount and distribution of existing land cover types in the park has not changed (e.g., forest, field, developed land). With the exception of winter 2004-2006, all fields have been mowed annually ensuring standard visibility across years. Between 2004-2006, 0-25% of fields were mowed annually and this temporary change in management potentially reduced the ability of park staff to observe deer, resulting in lower population counts during spring 2005, 2006, and 2007. A return to field mowing in 2008 and 2009 reveal a continued increase in deer population size. Forested habitat has potentially become more open, potentially leading to an increased ability to observe deer during spring counts. Therefore, it could be concluded that reported population size should be considered a minimum number. The sighting index would be re-evaluated if deer management actions involving marking of individual deer (e.g., reproductive control) are implemented.

Deer per square mile or per square kilometer is a standard unit for reporting deer densities and allows comparison with data reported in published literature and promotes easy understanding by the general public.

The level of tree regeneration is the metric selected to measure plan success. Within the scientific literature recommended deer density ranges from 10 to 40 deer per square mile to ensure adequate tree regeneration. The initial target deer density of 31-35 deer per square mile was selected because it represents a density within the recommended range for which the park has specific data documenting that, at this deer density, forest health was "excellent" (Cypher et al. 1985). This number also reflects the availability of alternative forage sources for deer such as significant areas of grassland in the park. The availability of alternate forage may allow tree regeneration to occur at slightly higher deer densities (30-40 deer per square mile) compared to heavily forested sites.

Through the adaptive management process the park would monitor both regeneration and deer density to determine whether the number of deer removed is sufficient to achieve plan objectives. Should achievement of the initial target deer density be insufficient to promote the desired level of tree regeneration then the target deer density would be re-evaluated.

Regarding information on deer reproductive rate specific to deer within the park, the NPS states on page 3-20 that the current reproductive rate of white-tailed deer in the park is unknown. In fall 1984, the fawn to: doe ratio in the park was reported as minimally 1.13 fawns per doe, similar to that reported in surrounding Montgomery and Chester Counties (Cypher et al. 1985). The NPS does not consider it unreasonable to assume reproductive rates of the deer population in 2009, are similar to those in Wildlife Management Unit 5C (as defined by the Pennsylvania Game Commission) which includes the park and represents deer potentially harvested on lands immediately adjacent to the park. The NPS considers this data sufficient both for the development of alternatives and evaluation of impacts.

As stated on page 2-42, basic biological information and information needed to refine the accuracy of the population model would be collected for as many deer as possible during processing of carcasses under alternatives C and D. Monitoring of reproductive rate is also proposed under Alternative B (see page 2-34). When possible, information related to reproductive rate (number of fetuses per doe) would be collected as described on page 2-34 and Appendix A: Deer and Vegetation Monitoring Protocol.

CONCERN ID: 19915

CONCERN STATEMENT: One commenter questioned the assumption that 80% of the deer would be removed, with one commenter asking if this would be enough.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 956 **Organization:** *Not Specified*

Comment ID: 93686 **Organization Type:** Unaffiliated Individual

Representative Quote: And why must *80%* of the deer be eradicated?

RESPONSE: See response to GA1000-Impact Analysis: Impact Analyses, Concern ID 19855 (page 88).

CONCERN ID: 19916

CONCERN STATEMENT: One commenter questioned the impact analysis and the omission of the intensity of an impact (i.e., negligible, minor, moderate, major) for some of the findings.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93806 **Organization Type:** Conservation/Preservation

Representative Quote: Throughout Chapter 4 of the Draft EIS the NPS frequently neglects to assign a particular threshold category to the impacts of a particular action. For example, in regard to Alternative C and its impact on deer reproductive rates, the NPS claims that those impacts are long-term and beneficial. Draft EIS at 4-35. Yet it failed to assign an impact category (i.e., negligible, minor, moderate, major) to this finding. This same omission was made in regard to the overall impacts of Alternative C, Draft EIS at 4-36, the cumulative impacts of Alternative C, id., the overall impacts of Alternative D, id., and throughout the remainder of the document. Interestingly (and perhaps

suspiciously), the omission of impact thresholds are consistently found in regard to Alternative C and D but not Alternative A and B.

RESPONSE: As stated under Impact Thresholds on page 4-3 of the plan/EIS, in all cases impact thresholds are defined for adverse impacts; however, impact thresholds are not assigned to beneficial impacts. Therefore, if the overall impacts were assessed as beneficial, then they would not be described in terms of negligible, minor, moderate, or major.

ON1000 - Other NEPA Issues: General Comments

CONCERN ID: 19740

CONCERN STATEMENT: One commenter stated that the NEPA process was flawed, feeling that it did not disclose all relevant information, including climate data and trends. Because of this, they stated that the plan/DEIS be withdrawn and a new process initiated.

REPRESENTATIVE QUOTE(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93762 **Organization Type:** Conservation/Preservation

Representative Quote: NEPA requires that agencies disclose all information relevant to its analysis of the environmental impacts of its actions. In this case, in regard to climatic data and trends for the VFNHP area, the NPS failed to meet this burden.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93814 **Organization Type:** Conservation/Preservation

Representative Quote: For all of the reasons articulated above, the NPS must, preferably, withdraw the Draft EIS and, if necessary, initiate a new, objective planning process that is fully consistent with federal law. If the NPS elects not to follow this advice, then it must select either Alternative A or B. The selection of either Alternative C or D will not only result in an unnecessary and unjustified large scale slaughter of park deer, but it will violate federal law.

RESPONSE: The NPS has met its obligations under NEPA, used the best available data on climate, evaluated climate change to the extent possible and fully disclosed the results of the evaluation, as previously outlined in the response to Concern ID 19747 (page 23).

The NPS, Vital Signs Monitoring program has selected climate change for long-term monitoring within parks of the Mid-Atlantic Network, including Valley Forge National Historical Park. Through this program, concise climate summaries would provided on a regular basis with patterns and trends evaluated in an appropriate historical, regional and global context. This information would be used to inform the deer management plan through the adaptive management process described in Section 2.9.

Currently, the NPS Vital Signs Monitoring Program is in the process of completing the first report on climate in parks of the Mid-Atlantic Network. A report detailing the results for Valley Forge NHP would be posted at http://science.nature.nps.gov/im/units/midn/ when it is available.

CONCERN ID: 19742

CONCERN STATEMENT: Commenters requested that the NEPA process include an extension of the comment period on the plan/DEIS, stating that it had done this for previous

planning documents within the park.

REPRESENTATIVE QUOTE(S):

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93704 **Organization Type:** Conservation/Preservation

Representative Quote: In addition, the fact that the NPS has received over 500 public comments already on the Draft EIS is irrelevant. AWI predicts that the majority of those comments are generic, form letter and that the number of substantive comments received by the NPS is small. For these reasons, AWI again asks the NPS to consider reopening the comment period on the Draft EIS for an additional 30 days.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93703 **Organization Type:** Conservation/Preservation

Representative Quote: As a preface to specific comments on the legal and scientific inadequacies inherent to the Draft EIS, AWI must protest the decision by the NPS not to extend the deadline for public comment on this document. AWI and The Humane Society of the United States submitted a letter, dated February 13, 2009, seeking a 30-day extension in the comment deadline. The letter provided a number of justifications for the requested extension. In its reply, also dated, February 13, the NPS denied this request claiming that the 60-day comment period is standard and because the NPS had already received over 500 public comments.

Neither of these arguments withstands even minimal scrutiny. While a 60-day comment period may be a standard that agencies rely on when seeking public participation in a Draft EIS planning process, many agencies, including the NPS, recognizing that public participation is "essential" to the NEPA process provide additional time for the public to review, analyze, and prepare substantive comments in response to draft impact statements. Even the VFNHP has been willing to provide far more time for public comment on its previous draft planning documents. For example, it provided over 150 days for the public to submit comments on its Draft General Management Plan and EIS. GMP/EIS/RoD at 12. Yet, when asked to provide an additional 30 days for the public to comment on the Draft EIS a document that includes a preferred action that would result in a massive slaughter of native deer it says no. This is yet another example of the bias of the NPS against deer.

RESPONSE:

The Valley Forge NHP plan/EIS was open for public review for the required 60 days, per the NPS Director's Order 12 handbook. Valley Forge NHP has always followed the legal and NPS policy requirements for public review on all of its documents. During the public review of the park's General Management Plan/ Environmental Impact Statement, there was some confusion with the publishing of the Notice of Availability which led many to believe that the park had extended the review period. However, this mistake was corrected and the document was made available for the legally required 60 days.

CC1000 - Consultation and Coordination: General Comments

CONCERN ID: 19716

CONCERN STATEMENT: Commenters stated that collaborations with entities outside of the federal government could facilitate non-lethal actions that would increase efficiency of the plan.

REPRESENTATIVE QUOTE(S):

Corr. ID: 506 **Organization:** Friends of Animals, Inc.

Comment ID: 93329 **Organization Type:** Conservation/Preservation

Representative Quote: But the Parks officials need to undertake what their own Plan/EIS logically instructs: diligent collaborations with appropriate parties regarding alternatives to reduce traffic pressure, such as expanding the schedule of the local SEPTA train, and offering more attractive bus services. Traffic directly impacts the atmosphere, the ozone, and the vegetation of the park; and its effects will be exacerbated by road construction plans.

Corr. ID: 699 **Organization:** Friends of Animals

Comment ID: 93648 **Organization Type:** Conservation/Preservation

Representative Quote: Collaborations with outside parties (e.g. the state government, Jenkins Arboretum, local landowners, volunteers to remove introduced vegetation) could also reduce the concentration of deer, ease traffic-related tensions, and collaborate in ensuring native plants and birds thrive in the region.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93697 **Organization Type:** Conservation/Preservation

Representative Quote: Ultimately, given the multiple legal deficiencies inherent in the Draft EIS, the NPS would be well advised to withdraw the Draft EIS, establish an advisory committee to engage in further discussions about deer management, to identify studies that should be undertaken in VFNHP, and to develop a comprehensive and effective non-lethal management plan to address many (and perhaps all) of the concerns of NPS biologists/scientists and of residents who live near VFNHP in regard to deer impacts on vegetation, forest regeneration, cultural resources, archeological resources, public safety, visitor use, special status species, and park operations. AWI would be pleased to provide a representative to serve on this committee if provided the opportunity.

Corr. ID: 1108 **Organization:** Animal Welfare Institute

Comment ID: 93702 **Organization Type:** Conservation/Preservation

Representative Quote: Establishing an advisory committee and directing that committee to rapidly find an effective non-lethal alternative to humanely manage the VFNHP deer population could set a precedent that could be employed in other parks when or where needed. Admittedly, such a management strategy may not involve active management (i.e., not be entirely consistent with the concept of "natural regulation") but, as evidenced by the situation in VFNHP and the rapid development of its surrounding lands, "natural" conditions are no longer entirely relevant in VFNHP and other suburban units within the national park system. This is not justification to initiate a wide-scale deer killing program, rather it demonstrates the need for a more holistic and comprehensive non-lethal management plan.

RESPONSE: The NPS has been involved in discussions and collaborations related to issues involving white-tailed deer for over two decades. Development of the plan/EIS

involved extensive involvement of both the public and others as required by NEPA. As described in Chapter 5: Consultation and Coordination, the NPS divides the scoping process into two parts: internal scoping and external or public scoping. Internal scoping involves discussions among NPS personnel regarding the purpose of and need for management actions, issues, management alternatives, mitigation measures, the analysis boundary, appropriate levels of documentation, available references and guidance, early contact with other federal, state, and local agencies and Indian tribes as appropriate. Public scoping is the early involvement of the interested and affected public in the environmental analysis process. This helps to ensure that people have an opportunity to comment and contribute early in the decision-making process. For this plan/EIS, project information was distributed to individuals, agencies, and organizations at the initiation of the scoping process, and the public was given the opportunity to express concerns or views and to identify important issues or suggest other alternatives. The Draft plan/EIS was available for a 60-day public comment period between December and February 2009. Public meetings were held to present the plan and solicit comments from the public were held in January 2009. Please refer to Chapter 5 for more detailed information on the internal and public scoping conducted as part of plan/EIS development.

Two science teams, consisting of scientists and other specialists from a variety of state and federal government organizations assisted with the planning process by: evaluating scientific literature and research on the topics of deer management and CWD; reviewing and recommending monitoring protocols for park deer populations and other park resources; and identifying appropriate action thresholds at which deer management strategies would be implemented. Please refer to page 1-29 and 5-2. Members of science teams are provided in References: Planning Team, Contributors, and Consultants section of the plan/EIS. Additionally, an independent review of Appendix E Review of White-tailed Deer Reproductive Control was conducted in January 2009. Comments were received from Dr. Jay Kirkpatrick and Dr. Allen Rutberg, both well respected researchers in the field of wildlife reproduction and contraception. Other non-lethal actions that were considered and are described in Section 2.10: Options Considered but Rejected (see page 2-50).

The park actively works with state and local government on issues of traffic congestion and land use outside federal lands. Those jurisdictions, rather than the NPS, have the authority to make decisions, however.

The NPS The NPS believes that it has developed and presented an adequate range of alternatives within the plan/EIS to satisfy the purpose, need, and objectives of the plan and has conducted adequate internal and external scoping as is required by NEPA.

CONCERN ID: 19718

CONCERN STATEMENT: One commenter was concerned with the selection of the science team members, and further stated that composition of the first science team (the deer team) was not provided in the plan/DEIS.

REPRESENTATIVE QUOTES(S): **Corr. ID:** 1108 **Organization:** Animal Welfare Institute

Comment ID: 93792 **Organization Type:** Conservation/Preservation

Representative Quote: The Draft EIS reports that the NPS relied on two science teams while preparing the document. The first team included regional

and national experts on forest regeneration, vegetation management, wildlife management, and individuals with specific experience in deer management. Draft EIS at x. The second team was composed of regional and national wildlife management experts from the NPS and PGC with knowledge about CWD. Draft EIS at xi, 1-27. The Draft EIS claims that the composition of both teams is reported in the Draft EIS. While the composition of the second team (the CWD team) was included in Table C-1 of the Draft EIS. Draft EIS at C-3. The composition of the first team (the deer team) was not disclosed in the Draft EIS. Moreover, in regard to the composition of the CWD team, with the exception of the wildlife veterinarian, it is not clear that any of the participants have any specialized knowledge about CWD.

RESPONSE: Science team members are provided in References: Planning Team, Contributors, and Consultants in the plan/EIS. The CWD science team is considered an interdisciplinary team with membership not solely based on knowledge related to CWD. Membership of the CWD science team represents expertise related to the following areas considered critical to the development of recommendations regarding CWD response: CWD biology, CWD management in Pennsylvania, NPS policy and regulations, park operations, status of CWD management and planning in other NPS units, and white-tailed deer ecology and management. Experts on CWD were Jenny Powers, NPS Wildlife Veterinarian and Dr. Walter Cottrell, PGC Wildlife Veterinarian. Ms. Powers is the primary author of "A National Park Service Manager's Reference Notebook to Understanding Chronic Wasting Disease" (NPS 2009) and has responsibility for providing updated information on CWD to NPS units. Dr. Cottrell is the primary contributor to the Pennsylvania Chronic Wasting Disease Response Plan (2007) for the Pennsylvania Game Commission and is responsible for coordination of CWD monitoring throughout the state.