



# Animal Welfare Institute

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November 2, 2009

**BY ELECTRONIC AND REGULAR MAIL:**

Ms. Adrienne A. Coleman  
Superintendent  
Rock Creek Park  
3545 Williamsburg Lane, NW  
Washington, D.C. 20008

Dear Superintendent Coleman:

The Animal Welfare Institute (AWI) hereby submits the following comments in response to the Rock Creek Park Draft White-Tailed Deer Management Plan and Environmental Impact Statement (hereafter "Draft EIS").

AWI strongly opposes the proposed alternative (Alternative D) and, specifically, the proposal to initiate a massive multi-year lethal deer sharpshooting/culling program in Rock Creek Park (RCP). Not only does the evidence presented in the Draft EIS fail to substantiate the need for such an action, but the proposed action is not legal. AWI strongly supports Alternative B with the caveat that, while the NPS has not conclusively demonstrated the need to reduce the RCP deer population, assuming that need can be justified then using non-lethal means is far preferable than the proposed slaughter. It is also consistent with NPS legal authorities.

Of all the federal agencies that have a public trust responsibility in regard to the management of wildlife on public lands, the National Park Service (NPS) is unique in that its mandate is based on the conservation and protection of native wildlife. The NPS does not, with limited exceptions, permit public hunting of wildlife within national parks nor is it responsible for ensuring multiple uses of the national parks. If any federal agency is capable, both philosophically and physically, of implementing unique and creative strategies to address a perceived or alleged overabundance of wildlife, it is the NPS. Indeed, far from establishing any type of precedent, the NPS has already demonstrated leadership in the non-lethal management of wildlife with, for example, deer management on Fire Island National Seashore, Tule elk management at Point Reyes National Seashore, and wild horse management at Assateague Island National Seashore.

Sadly, the progressive attitudes demonstrated at those park facilities is not reflective of an agency-wide commitment to using non-lethal methods, despite their availability and effectiveness, to address all alleged wildlife overabundance issues. In recent years, the NPS, from coast to coast, has developed management plans that illegally promote lethal control through sharpshooting and capture/trapping and euthanasia of native park wildlife. At present such cruel methods have been, are being, or will be employed at Gettysburg National Military Park, Eisenhower National Historical Park, Point Reyes National Seashore (for fallow and axis deer), Rocky Mountain National Park, Catocin National Park, and Valley Forge National Historical Park. It is anticipated that Indiana Dunes National Lakeshore will soon join this list of NPS units that has elected to illegally use bullets instead of non-lethal strategies to address perceived wildlife overabundance issues.

RCP must not continue this trend by electing to employ lethal control to substantially reduce the size of its white-tailed deer population. Not only does the available evidence not support such a drastic response but the NPS has offered no legitimate legal grounds to justify this plan. More importantly, though the Draft EIS considers a non-lethal management alternative (Alternative B), the NPS has failed to articulate a compelling rationale for why, at a minimum, non-lethal management should not be attempted first before resorting to lethal control. Instead, the NPS claims that immunocontraception won't fix the "problem" rapidly enough and that immunocontraceptive technologies are not sufficiently advanced to meet the standards set by the NPS – standards that are self-imposed and are intentionally designed to prevent the serious consideration of such non-lethal technologies. Neither argument is legitimate.

As will be discussed in this comment letter, immunocontraception is a viable management option that the NPS and RCP should employ in RCP to address the alleged overabundance of deer. If the NPS expressed the intent to emphasize such an approach and indicated its interest in cooperating with animal protection and advocacy organizations to implement such a program, there is no question that it would receive both commendation and both physical and financial support. Indeed, as detailed below, there is no reason to believe that an immunocontraception program, if designed and implemented to obtain maximum impact, would not produce many of the same beneficial impacts that the NPS attributes to lethal deer slaughter over the duration of the management plan.

While RCP may not have the grandeur of Yellowstone National Park and its scenic beauty may not rival that of the Grand Canyon or Yosemite National Parks, given its location in Washington, DC, RCP is America's park. Beyond providing an aesthetically pleasing travel corridor for persons living and working in our nation's capital or a respite from the urban chaos inherent in the DC metropolis, RCP represents the national park

concept – a concept born in America – to those who visit Washington, DC from all over the world. As such, the NPS and RCP should not become a nighttime white-tailed deer slaughterhouse but, instead, should be a demonstration to America and the world how a single agency with a unique mission that is responsible for many of America's most cherished wild places can devise and implement a progressive plan that is based on protection and compassion to address a perceived management dilemma. To do otherwise and to use bullets to resolve its “problem” will only reaffirm that the NPS has, as it has in the past, lost its way, ignored its statutory and regulatory mandates, circumvented its own policies, let down the American public, and sacrificed protected native wildlife in favor of convenience and expediency.

The alleged need to use bullets – or preferably immunocontraceptives – to reduce the park's deer population presumes that the population is overabundant, that this situation is unnatural or unacceptable, and that efforts must be taken to mitigate or reduce the alleged adverse impacts of the deer to or on RCP. The Draft EIS fails to provide sufficient compelling evidence to make this case. Yet, as a precautionary effort intended to protect those park resources allegedly or ostensibly impacted by deer, AWI would not oppose the gradual reduction of the RCP deer population size and density solely with the use of immunocontraceptive technologies.

What the RCP appears unwilling to accept or admit is that the park, as a consequence of past NPS decision and increased urbanization (outside of NPS control) fails to provide any semblance of a natural system and, in fact, has been manipulated to be an ideal and productive habitat for deer. Surely the NPS can't claim that playing fields, a tennis stadium, a golf course, an outdoor amphitheatre, and community gardens were part of the natural or historical landscape of RCP. Indeed, some of these alterations to the natural landscape, actually increase the attractiveness and productivity of the landscape for deer. Thus, while the prospect of restoring “natural conditions” may be, in part, a long-term objective within RCP, using this as a justification for the proposed deer slaughter is like trying to bail water out of a boat that has a hole in it. In other words, attempting to restore to a more “natural condition” a park that has been highly manipulated both by the NPS and external factors is unattainable. Similarly, killing native deer to ostensibly control numbers that may be larger than what would exist or what is desired because the deer adapted to intentional human manipulations of the area to facilitate human recreation is wholly inappropriate.

Beyond simply proving that the RCP deer population requires control, the NPS must also have a legal basis for implementing any action intended to implement said control. This is particularly important if the NPS, as is the case here, is proposing the use of lethal force via a regiment of sharpshooters who intend to invade the park under the cover of darkness to initiate the slaughter while perched in tree stands over piles of bait designed

to attract the protected and unsuspecting deer to their death. As indicated above, not only has the NPS failed to provide a legitimate legal basis for the proposal, but the legal justification provided is wrong and reflects an improper – likely intentional – misinterpretation of the NPS Organic Act.

This legal deficiency is in addition to the specific inadequacies inherent in the Draft EIS including a failure to comply with NPS planning processes, the lack of a legitimate purpose and need for the proposed action, failure to disclose all relevant data and information, a lack of reasonable alternatives, and deficiencies in assessing the environmental consequences of the proposed action all of which violate the National Environmental Policy Act (NEPA). The Draft EIS and management plan also squarely conflict with NPS management policies as will be discussed in detail throughout this comment letter.

The substantive deficiencies, both biological and legal, inherent to the Draft EIS and management plan cannot be fixed simply by amending or tweaking the documents prior to final publication. Instead, the NPS and RCP, if they intend to pursue the wide-scale lethal slaughter of RCP deer, must amend the RCP General Management Plan (GMP), revise the RCP natural resources management plan, and engage in a new analysis that provides an honest and objective review of all relevant science, laws, and policies before even contemplating such an action. Preferably, however, the NPS will embrace a far less invasive and cruel non-lethal and innovative approach to understanding and mitigating alleged deer conflicts within and outside of RCP. AWI is prepared to assist the NPS if it does embrace responsible management and protection over persecution for the long-term management of deer in America's park.

The remainder of this comment letter will address the specific legal and scientific deficiencies in the Draft EIS and management plan and the procedures used to develop the plan. As a preface to substantive comments, AWI would like to express its thanks to the NPS for agreeing to extend the deadline for public comments on the document until November 2, 2009.

**1. The proposed deer slaughter is premature and the NPS has failed to justify its need through its own planning policies:**

NPS planning processes are intended to “bring logic, analysis, public involvement, and accountability into the decision-making process.” Management Policies at 2.1.1. Individual parks must be able to demonstrate how the decisions made during the park planning process “relate to one another in terms of a comprehensive, logical, and trackable rationale.” Id. To be orderly, park planning efforts “will generally flow from broad general management plans to progressively more specific implementation plans,”

Management Policies at 2.3, and analysis will be interdisciplinary and tiered.<sup>1</sup>  
Management Policies at 2.1.2.

One of the first and most broad planning documents is the General Management Plan (GMP). The GMP is “a broad umbrella document that sets the long-term goals for the park ...”<sup>2</sup> A GMP is intended to clearly define “the desired natural and cultural resource conditions to be achieved and maintained over time,” “clearly defines the necessary conditions for visitors to understand, enjoy, and appreciate the park’s significant resources,” “identifies the kinds and levels of management activities, visitor use, and development that are appropriate for maintaining the desired conditions” and “identifies indicators and standards for maintaining the desired conditions.”<sup>3</sup> Management Policies at 2.2. (emphasis added). Statutorily, a GMP must include, among other requirements, “the types of management actions required for the preservation of park resources.” NPS Policies at 2.3.1.1 citing 16 USC 1a-7b.

The NPS reported that a GMP was needed for RCP to: 1) clarify the minimum levels of resource protection and public use that must be achieved for the park and parkway based on the park’s purpose, laws, and policies; 2) determine the best mix of resource protection and visitor experiences beyond what is prescribed by law and policy based on the park’s mission, public expectations/concerns, park resources, and economic costs; and 3) establish the degree to which the park should be managed to preserve and enhance its natural and cultural resources, provide recreation, and control nonrecreational traffic. GMP and EIS at 4.

Broad public involvement is considered to be a key element in the GMP process and is to be relied on to identify the scope of issues addressed in a GMP, developing the range of alternatives evaluated in a GMP, providing the NPS with the venue to disclose its rationale for decisions about the park’s future, sharing information about issues and proposed management directions, learning about the values relevant to the park, and building support for GMP implementation. NPS Policies at 2.3.1.5.

The RCP GMP, completed in 2007, fails to provide a foundation for the deer cull proposed in the Draft EIS. A careful review of the RCP GMP reveals that the alleged

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<sup>1</sup> Tiering is a staged approach to environmental analysis that addresses broad programs and issues in initial or systems-level analyses. Site-specific proposals and impacts are analyzed in subsequent studies. Management Policies at 2.1.2.

<sup>2</sup> See also NPS Management Policies Glossary in which a GMP is defined as “a plan which clearly defines direction for resource preservation and visitor use in a park, and serves as the basic foundation for decision making. GMPs are developed with broad public involvement.”

<sup>3</sup> See also, NPS Management Policies at 2.3.1 (“the purpose of each general management plan ... will be to ensure that the park has a clearly defined direction for resource preservation and visitor use”).

overpopulation of white-tailed deer in RCP and all of the direct and indirect consequences of the excessive numbers of deer were hardly a concern during the GMP process. Indeed, within the nearly 400-page document, any references to deer within RCP were few and far between and were limited to:

“Monitor native species that are capable of creating resource problems, such as overgrazing associated with over-population of white-tailed deer. If unacceptable levels of habitat degradation are indicated, implement humane measures to control animal population.” GMP and EIS at 21.

“The National Park Service will be preparing an environmental assessment or environmental impact statement on the impacts of managing the park’s deer population.” GMP and EIS at 146.

The NPS decision to prepare an EIS on deer management, as stated in the GMP, does not excuse it from providing the foundation for deer management, including clearly defining the desired natural and cultural resource conditions to be achieved and maintained over time and providing indicators and standards for maintaining the desired conditions, in its GMP. In this case, the GMP is entirely devoid of any substantive reference or analysis of the alleged deer overabundance in RCP and the subsequent impacts of deer on RCP resources. Consequently, the GMP provides no guidance, general or specific, for the management of deer in RCP.

Though the RCP GMP establishes its purpose to be “to specify resource conditions and visitor experiences to be achieved in the park and parkway, and to provide the foundation for decision-making and preparation of more specific resource plans regarding the management of the park and parkway,” the GMP focuses mainly on RCP roads and traffic control. RCP GMP and EIS at iii and 1 (emphasis added). Furthermore, the intent of the GMP included establishing the direction and values that should be considered in planning to achieve the purposes defined in the park’s establishing legislation and to “define management prescriptions that establish the goals of the National Park Service and the public with regard to ... natural resources ... including the types and locations of resource management activities.” GMP and EIS at 1<sup>4</sup> (emphasis added). These standards or criteria are not contained in the RCP GMP. Instead, the NPS indicates that more detailed plans would be developed which would be based on the “goals, future

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<sup>4</sup> The GMP EIS provides additional guidance as to the intent of the GMP and its importance as part of the RCP planning process. For example, the need for the GMP is to “determine the best mix of resource protection and visitor experiences beyond what is prescribe by law and policy based on the ... resources occurring within the park” and to “establish the degree to which the park should be managed to preserve and enhance its natural and cultural resources...” GMP and EIS at 4.

conditions, and appropriate types of activities established in the general management plan.” GMP and EIS at 2.

Though the alleged growth in the deer population and an increase in associated impacts to park resources was occurring as the GMP was being completed, the use of park roads was described in the GMP as the “pivotal management issue” to be resolved by the plan and the three key management issues, or decision points, related to traffic and traffic management, visitor interpretation and education, and administration of RCP. *Id.* at iii and iv, 10, 30, 31, 32, 69. No decision point or key management issue involved the management of deer in RCP. In fact, the NPS concedes in the GMP that “the most controversial management issue to be resolved by this general management plan involves the use of park roads for nonrecreational travel on weekdays” including the “management of traffic in Rock Creek Park and the degree to which park values would be affected by nonrecreational automobile use.” GMP and EIS at 9. No where in the GMP is the issue of deer overabundance mentioned as a critical management concern and/or are there any goals or objectives established to address this issue.

Admittedly, in 1996 when the GMP process was initiated the deer “problem” may not have been of concern to RCP and NPS. In 2001, however, when the GMP process was reinitiated after a multi-year lull in progress due to a congressionally directed reorganization and downsizing of NPS planning, design, and construction programs and personnel, GMP and EIS at 294, and in 2007 when the process was completed, it is inconceivable that the deer “problem” was not of increasing concern to RCP/NPS officials.

Each of the RCP GMP EIS alternatives, for example, provided different strategies primarily for the management of park roads and recreational and non-recreational vehicle use of those roads ranging from not changing anything (the no action alternative – Alternative B) to permanently closing several segments of park roads to facilitate and improve non-motorized recreational access into RCP. The action alternatives, including the preferred alternative (Alternative A) also addressed interpretation and education issues, improvement in the use of park resources including cultural resources, rehabilitating trails and historical features, moving administrative/law enforcement offices, and upgrading RCP facilities. Not one of the alternatives contains any specific direction in regard to improvements or changes to the management of natural resources in RCP with the exception of the anticipated minimal reduction in wildlife road kill as a result of changes in road use and traffic management.

This is not to suggest that natural resource issues are not addressed in the GMP. They are, but in such general terms that attempting to glean from the GMP the goals and objectives of RCP for natural resources management is impossible. For example, the

GMP indicates that “Rock Creek Park exists to preserve and perpetuate for this and future generations the ecological resources of the Rock Creek valley within the park in as natural a condition as possible, the archeological and historic resources in the park, and the scenic beauty of the park.” GMP and EIS at 12 (emphasis added). A RCP mission goal is identified as to protect, preserve, and maintain in good condition the natural and cultural resources and associated values of RCP. Id. at 14. In addition, the GMP includes a number of “management prescriptions.” A management prescription is defined as “an approach for administering or treating the resources or uses of a specified area that is based on desired outcomes.” GMP and EIS at 51. Management prescriptions may be the same throughout a park or can be different within various park zones.

In RCP GMP the zones and management prescriptions of relevance to deer management are limited to the Forest Zone. The GMP describes this zone as “largely undisturbed forests” providing “opportunities for solitude, birding, and other nature study, and wilderness-like scenery.” GMP and EIS at 52. The desired resource conditions or desired outcomes within the Forest Zone are “natural processes ... with relatively little interference except for restorative actions to protect or promote native biota, mitigate pollution, and control erosion.” GMP and EIS at 56. There is no reference within the description of the Forest Zone or in any analysis of the condition of the Forest Zone in RCP that the forests or associated vegetation are being excessively or over-browsed by deer or that forest regeneration, or lack thereof, is a concern. Indeed, the NPS indicates that under Alternative A (the preferred alternative), Alternative B (the no action alternative), Alternative C, and Alternative D there “would be no major change in the management of forested areas of the park from current management practices.” GMP and EIS at 74, 89, 96, 109. This is in stark contrast the proposed action in the Draft EIS which is to significantly reduce the park’s deer population for the purpose of substantially altering the composition, health, and structure of the forested areas in RCP. This discrepancy is more than a mere oversight since the GMP and Draft EIS are related documents and because there were published only two years apart. Without a rational explanation by the NPS, it would appear that the NPS is claiming that RCP forests are now in desperate need of improvement now when two years ago no changes in forest management were deemed to be necessary.

While the action alternatives evaluated in the GMP all are identified as improving the protection of the park’s natural and cultural resources, GMP and EIS at 70, what is telling is the description of the impacts of Alternative B or the no-action alternative. Concerns associated with the selection of Alternative B include the inadequate condition of the paved recreational trail system, inadequate capability to provide environmental education and interpretation services, impairment of future administration and operation efficiency due to inadequate support facilities, and continued degradation of historic structures used for expanding administrative purposes. GMP and EIS at 70. The NPS does not include



any discussion of damage to or loss of park forests and/or other vegetation as a consequence of Alternative B suggesting, again, that, at least as of 2007, deer were not of sufficient concern to the NPS to justify the inclusion of deer management guidance, direction, and goals in the GMP.

Moreover, even within the description and discussion of the action alternatives there is no specific reference to the need for lethal deer control or any form of deer management due to alleged resource impacts/damage attributable to deer. The protection of natural resources afforded under Alternative D (the environmentally preferred alternative) which is similar to Alternative A (which was selected as the preferred alternative) would be limited to improving and upgrading foot and horse trails to remedy adverse effects on soils and working to reduce wildlife roadkill. GMP and EIS at 72. For Alternative A, the GMP states that it “would improve the protection of the park’s natural resources” by rerouting poorly designed sections of foot and horse trails while restoring abandoned trail sections to their natural conditions and by implementing measures to reduce mortality to wildlife from collisions with vehicles. EIS and GMP at 73, 77, 79.

Despite this complete lack of substantive analysis of the RCP deer population and deer management in the GMP, the NPS claims that “all alternatives considered for the development of a White-tailed Deer Management Plan were developed within the framework of the park’s GMP/EIS.” Draft EIS at 39. The NPS goes on to identify a number of desired conditions for RCP that it claims were outlined in the GMP including the restoration of native species populations that have been severely reduced or extirpated where feasible and sustainable, the reduction or elimination of invasive species from natural areas of the park, protection of Federal and District-listed threatened or endangered species and their habitats, and management native plant and animal species to allow them to function in as natural a condition as possible except where special management consideration are allowable under policy. Draft EIS at 38, GMP and EIS at 20. Some of these very general desired conditions can be applied to deer management in RCP but, as required by NPS Management Policies, more detail relevant to RCP deer, their impacts, and guidance for their management should have been included in the GMP. This is particularly true considering that the NPS is now, only two years after the GMP was completed, proposing to engage in the massive reduction of the RCP deer population.

The lack of specific direction in the GMP in regard to deer management in RCP cannot be corrected in the Draft EIS. Rather, the NPS must either replace and update the GMP or seek to amend or revise the GMP as permitted under NPS Management Policies. Management Policies at 2.3.1.12.

After a GMP is completed, the next step in the park planning process is program management planning. This process is intended to provide “a bridge between the broad direction provided in the general management plan and specific actions taken to achieve these goals.” Management Policies at 2.3.2. A program management plan, which would include a natural resources management plan, “follow the general management plan and provide program-specific information on strategies to achieve and maintain the desired resource conditions and visitor experiences ...” Management Policies at 2.2 and 2.3.2.

As the NPS concedes in the GMP and EIS, upon completion of the GMP, “several more specific plans will be prepared to implement the general management plan” including, but not limited to, “an update to the existing natural resources management plan.” GMP and EIS at 45/46. RCP has an existing natural resource management plan that was published in 1996. The revised natural resources management plan contemplated in the GMP and EIS “could include an invasive species control plan, erosion reduction plan, and plans to address particularly difficult issues, such as deer management.” GMP and EIS at 46. The plan also “would include a bird management plan that would establish habitat protection and improvement objectives and practices for important bird areas.” Id.

The development of a natural resources management plan after completion of the GMP is entirely consistent with the logical, incremental, and stepwise planning process required pursuant to NPS Management Policies. While the existing GMP is inadequate as it contains virtually no evidence that deer issues are of concern in RCP and provides no direction for the management of deer, if the NPS had complied with its own policies, the natural resources management plan would have disclosed additional information relevant to deer management, articulated desired future conditions, and delineated objectives and strategies to achieve those conditions.

To date, however, the NPS has not published a revised natural resources management plan for RCP and it is unknown if such a plan is under development or what the timeline is for its publication. Instead, in this case, the NPS has proceeded directly from its completion of the GMP – which contains no substantive information or evidence regarding the RCP deer population or management issues – to the Draft EIS which calls for the near complete removal of deer from RCP. Skipping the development or revision of a natural resource management plan is not permitted under NPS Management Policies.

According to the Draft EIS, the NPS intends to update the RCP natural resources management plan as a “Resource Stewardship Strategy” when NPS issues guidelines for the updated plan. Draft EIS at 36. It is unclear what this means (i.e., what updated plan the NPS is issuing guidelines for) and the intent of a Resource Stewardship Strategy is unknown. Nevertheless, the NPS claims that the 1996 RCP natural resources

management plan includes an objective to “preserve and perpetuate the park’s plant and wildlife resources in as natural a condition as possible, and reduce the adverse effects of human activities and exotic species on the natural environment.” Draft EIS at 36. Not only does this objective fail to provide direction for deer management in RCP but it also cannot be interpreted or used to justify the NPS proposal to initiate a wide-scale lethal deer control program. Indeed, the NPS concedes that the RCP natural resources management plan “does not directly address deer management at the park.” Draft EIS at 37.

In general, after a program management plan, like a natural resource management plan, is completed, implementation plans will be developed. As described in the NPS Management Policies:

“Implementation planning will focus on how to implement activities and projects needed to achieve the desired conditions identified in the general management plan, strategic plan, and program management planning documents. Implementation plans may deal with complex, technical, and sometimes controversial issues that often require a level of detail and thorough analysis beyond that appropriate for other planning documents.” Management Policies at 2.3.4.

The Draft EIS is an example of an implementation plan. In the case of RCP, however, the NPS has proceeded from the GMP to the implementation plan without completing, among other plans, a natural resources management plan as NPS policies require it to do. While this may, to some, be considered a trivial argument, it is actually rather important both because the NPS is required to follow a particular process and structure during planning, because the incremental nature of the planning process allows for a stepwise approach to natural resource management planning, and since a natural resource management plan for RCP would provide the public (and NPS decision-makers) with a better understanding of how the different desired conditions for the varied natural resources in RCP coalesce and how management strategies are structured to achieve these conditions.

In some cases, as specified in NPS Management Policies, the “development of an implementation plan may overlap other planning efforts if this is appropriate for the purposes of planning efficiency or public involvement.” Management Policies at 2.3.4. Nevertheless, “decisions made for the general management plan will precede and direct more detailed decisions regarding projects and activities,” and any “major new development ... and major actions or commitments aimed at changing resource conditions or visitor use in a park must be consistent with an approved general management plan.” *Id.* The proposed action in the Draft EIS clearly qualifies as a major

action intended to significantly change resource conditions in RCP and, therefore, must be more substantively addressed in the RCP GMP.

**2. The NPS has no legal authority to initiate a lethal deer control operation as proposed in the Draft EIS:**

There are a handful of laws, regulations, and policies that provide the primary directives for the management of national parks. These standards include statutes (i.e., the NPS Organic Act), a park's enabling legislation, NPS regulations, and NPS policies.

**The NPS Organic Act:**

The NPS cites to 16 USC 1 (its Organic Act) as its legal authority to implement the proposed action that will result in the slaughter of hundreds of deer over the course of several years. Specifically, the language relied on by the NPS to justify its plan is the Organic Act language that provides the fundamental purpose of the NPS which is that the agency:

“...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 a manner and by such means as will leave them unimpaired for the enjoyment of future generations.” Draft EIS at 12, 31.

The NPS has consistently relied on this language and, specifically, the so-called impairment standard, to justify the slaughter of elk in Rocky Mountain National Park and deer in Catoctin National Park, Valley Forge National Historical Park, and the proposed killing of deer in Indiana Dunes National Lakeshore and in RCP. AWI has consistently argued, and will do so again in this case, that the impairment standard cannot be used to justify the lethal control of deer or any other native species in a national park. An analysis of the quoted statutory language (as well as historical records, and NPS Policies) makes it crystal clear that the impairment standard only applies to activities or uses permitted or authorized in the parks, including public and NPS activities and uses, and was never intended and cannot be used to justify the massive slaughter of hundreds of native deer because they are eating park vegetation.

The Organic Act makes clear that the fundamental purpose of the NPS is to conserve park scenery, natural and historic objects, and wild life. A secondary purpose does not conflict with the fundamental purpose of the NPS, is to permit the enjoyment of the national parks by the public. Such enjoyment is not open-ended or without limitations.

Indeed, the Organic Act makes clear that such enjoyment is only permitted when it can be done in “such a manner and by such means as will leave (the parks) unimpaired for the enjoyment of future generations.” The “such a manner and by such means” language is applicable to the enjoyment of the parks, not to the conservation of park scenery or wildlife. The “and” between “therein” and “to provide” sets apart the final clause of the statutory language that deals with park enjoyment from the conservation mandate. Had Congress intended for the impairment standard to apply to the conservation mandate, it would have structured the statutory language as follows:

“...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 while ensuring that the parks remain unimpaired for the enjoyment of future generations.”

Though many have consistently claimed that the NPS has dual mandates that are conflicting (conservation versus promoting public use), such interpretations are in direct conflict with the plain language of the statute. Moreover, as exhaustively research by Winks (1997)<sup>5</sup>, the legislative and historical records demonstrate that not only does the Organic Act not represent a conflicting mandate to the NPS but that the impairment standard was applicable only to the enjoyment of the parks and not to other issues.

The plain and indisputable meaning or applicability of the impairment standard as reflected in the Organic Act was not altered by the General Authorities Act of 1979 or by the 1978 amendment to that Act (the “Redwood amendment”). Indeed, if anything that Act, as amended, further affirms that the impairment standard is applicable to activities conducted in the parks and not to the impacts of native species on park vegetation or other resources. The relevant language of the General Authorities Act, as amended, is:

“Congress further reaffirms, declares, and directs that the promotion and regulation of the various areas of the National Park System ... shall be consistent with and founded in the purposed established by section 1 of this title ..., to the common benefit of all the people of the United States. The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which thee various areas have been established, except as may

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<sup>5</sup> Winks, Robin W. The National Park Service Act of 1916: A Contradictory Mandate? 74 Denv U.L. Rev. 575 (1997).

have been or shall be directly and specifically provided by Congress ...”  
(emphasis added).

Despite such documentation, there is ample evidence that the NPS is itself confused over how the impairment standard is to be applied to park management. In the RCP GMP, for example, the NPS states that:

“... Congress charged it with management lands under its stewardship ‘in such manner and by such means as will leave them unimpaired for the enjoyment of future generations (NPS Organic Act, 16 United States Code 1). As a result, the National Park Service routinely evaluates and implements mitigation whenever conditions occur that could adversely affect the sustainability of park resources.”  
GMP and EIS at 68.

While the language quoted is accurate, the interpretation is not since the NPS is claiming that the impairment standard applies broadly “whenever conditions occur that could adversely affect the sustainability of park resources.” In other words, the NPS interprets the impairment standard to apply to any condition that affects park resources and not, as is the indisputable intent of the plain language of the statute, to uses and activities permitted, authorized or conducted in the park.

Similarly, the NPS claims that it “will maintain the forests consistent with its charge in the 1916 Organic Act to preserve unimpaired the natural resources and values of the park for this and future generations.” GMP and EIS at 142. Again, this statement, as written, delinks the impairment standard from activities and uses of the parks which is not consistent with the plain language of the Organic Act.

Finally, the GMP and EIS claimed that the Organic Act established the mission of the NPS to:

“preserve unimpaired the natural and cultural resources, and values of the national park system for the enjoyment, education, and inspiration of this and future generations.” GMP and EIS at 5.

In addition to failing to identify the source of this quote, this interpretation of the Organic Act is simply wrong since it fails to link the impairment standard to public uses or NPS activities in the parks.

The NPS attempts to substantiate the use of the impairment standard to justify its lethal deer control plan by citing to New Mexico State Game Commission v. Udall (410 F.2d 1197, 1201 (10<sup>th</sup> Cir. 1969) and to United States v. Moore (640 F. Supp. 164, 166 (S.D.

W.VA. 1986). A review of both cited cases demonstrates that neither provide the support that the NPS alleges for its use of the impairment standard to justify the wide-scale slaughter of deer.

In New Mexico State Game Commission the NPS was sued for its failure to obtain permits from the state to remove up to 50 deer as part of a scientific research project. As an initial matter, there is a significant and substantive difference between lethally removing a limited number of park wildlife as part of a research project and the proposed action which, if implemented, will decimate that RCP deer population by reducing it from an estimated 385 to 69 deer. Draft EIS at 62, 262. Moreover, the New Mexico State Game Commission case is 40 years old and, since then, the NPS has promulgated several versions of its management policies that provide additional guidance for wildlife management in national parks. Thus, while the NPS may continue to permit the lethal removal of wildlife for the purpose of research conducted in the parks, the intent of its current policies are to dissuade the use of lethal strategies to study park wildlife.

Independent of the plain differences between the scenario in New Mexico State Game Commission and the present proposal for RCP, the critical finding in the case was as follows:

Clearly the Secretary has broad statutory authority to promote and regulate the national parks to conserve the scenery and wildlife therein 'in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.' 16 U.S.C. § 1. Anything detrimental to this purpose is detrimental to the park. In addition to this broad authority, the Secretary is specifically authorized 'in his discretion' to destroy such animals 'as may be detrimental' to the use of any park. 16 U.S.C. § 3. The obvious purpose of this language is to require the Secretary to determine when it is necessary to destroy animals which, for any reason, may be detrimental to the use of the park. He need not wait until the damage through overbrowsing has taken its toll on the park plant life and deer herd before taking preventive action no less than he would be required to delay the destruction of a vicious animal until after an attack upon a person. In the management of the deer population within a national park the Secretary can make reasonable investigations and studies to ascertain the number which the area will support without detriment to the general use of the park. He may use reasonable methods to obtain the desired information to the end that damage to the park lands and the wildlife thereon may be averted.

This language supports the interpretation of the Organic Act language that links the impairment standard to the “enjoyment” of the parks. Activities that are detrimental to such “enjoyment” are detrimental to the parks and are impermissible. Moreover, the

court identified an entirely different legal standard, 16 USC 3, when determining the authority for the NPS to remove wildlife from the parks when it can be demonstrated that wildlife use is “detrimental to the use of the park.” The NPS in RCP is not relying on this standard to justify its wide-scale deer control program and, in fact, as discussed in greater detail below, it would be hard pressed to do so since there is no evidence that the deer in RCP are “detrimental to the use” of the park.

Moore involves the spraying of a pesticide in the New River Gorge National River. The Governor of West Virginia and the state’s Director of its Department of Natural Resources desired to spray a pesticide in the national park to “reduce and remove the ... gnat or black fly from the southern counties of West Virginia.” The NPS refused to permit such spraying arguing that black flies, no matter how pesky or annoying, are “wildlife” and are therefore protected by NPS statutes and regulations and that, even if such spraying were allowed, the state would be required to obtain a permit before applying the pesticide. In Moore, the court cites to NPS regulations that prohibit the “possessing, destroying, injuring, defacing, removing, digging, or disturbing from its natural state ... living or dead wildlife ...” 36 CFR 2.1(a). In addition, the court cites to New Mexico State Game Commission and the authority of 16 USC 3 to demonstrate that the NPS has the authority to publish rules and regulations for the proper use and management of the parks and to permit the “destruction of such animals and of such plant life as may be detrimental to the use of any of said parks ...” Thus, again, Moore provides no legal support for the NPS use of the impairment standard to justify its wide-scale slaughter of deer.

If any additional proof is necessary that the impairment standard is applicable only the enjoyment and uses of the parks, the NPS Management Policies provide even more evidence supporting this indisputable intent.

The most recent iteration of the NPS Management Policies was published in 2006. Prior to that version, an earlier version was published in 2001. The RCP GMP was prepared pursuant to the 2001 version while the Draft EIS was prepared ostensibly in line with the 2006 version of the Management Policies. The 2001 and 2006 policies are similar but there are some significant differences, some of which will be mentioned below. Adherence to the policy is, however, mandatory unless specifically waived or modified by the Secretary, Assistant Secretary for Fish, Wildlife and Parks, or the Director. Management Policies at Introduction and at 3. The discussion below is based on the 2006 version of the Management Policies unless explicit reference is made to the 2001 policies.

The NPS cannot claim that it was unaware of these policies since, in the Draft EIS, the NPS makes clear that the impairment standard is applicable to actions and activities that



cause impacts conceding that it “cannot allow an adverse impact that constitutes a resource impairment.” Draft EIS at 32. It is, as previously indicated, inconceivable that the foraging behavior or ecology of a native species could possibly be considered an action or activity within a park. Actions or activities are clearly intended to apply primarily to public uses of the parks such as hiking, bicycling, snowmobiling, and rock climbing. They also encompass actions or activities undertaken by the NPS such as facility development, scientific research, and wildlife management practices including the lethal control of wildlife within the parks. To be clear, the role of deer, whether beneficial or adverse to a park, is not an action or activity subject to the impairment standard but any decision by the NPS to manage those deer, through lethal or non-lethal means, would trigger the impairment standard.

In regard to the issue and applicability of the impairment standard, NPS Management Policies make clear that said standards are directly tied to activities or uses authorized by the NPS. As an underlying matter, the policies specify that a mandate to conserve park resources and values is the fundamental purpose of the national park system, Management Policies at 1.4.3, and that when there is a “conflict between conserving resources and values and providing for the enjoyment of them, conservation is to be predominant.” Id. Since the fundamental mission of the NPS is conservation, it is entirely logical and sensible that the impairment standard would apply to those uses and activities authorized by the NPS to facilitate and promote public enjoyment of the parks. Not only is this interpretation consistent with the Organic Act but it is referenced throughout the NPS Management Policies. For example:

“In the administration of mandated uses, park managers must allow the use; however, they do have the authority to and must manage and regulate the use to ensure, to the extent possible, that impacts on park resources from that use are acceptable. In the administration of authorized uses, park managers have the discretionary authority to allow and manage the use, provided that the use will not cause impairment or unacceptable impacts.” Management Policies at 1.4.3.1. (emphasis added).

“The impairment of park resources and values may not be allowed by the Service unless directly and specifically provided for by legislation or by the proclamation establishing the park. The relevant legislation or proclamation must provide explicitly (not by implication or inference) for the activity, in terms that keep the Service from having the authority to manage the activity so as to avoid the impairment.” Management Policies at 1.4.4. (emphasis added).

“An impact that may, but would not necessarily, lead to impairment may result from visitor activities, NPS administrative activities<sup>6</sup>; or activities undertaken by concessioners, contractors, and others operating in the park.” Management Policies at 1.4.5. (emphasis added).

“Before approving a proposed action that could lead to an impairment of park resources and values, an NPS decision-maker must consider the impacts of the proposed action and determine, in writing, that the activity will not lead to an impairment of park resources and values.” Management Policies at 1.4.7. (emphasis added).

“When an NPS decision-maker becomes aware that an ongoing activity might have led or might be leading to an impairment of park resources or values, he or she must investigate and determine if there is or will be an impairment.” Management Policies at 1.4.7. (emphasis added).

“The Service will do this (avoid impairment) by avoiding impacts that it determines to be unacceptable. These are impacts that fall short of impairment, but are still not acceptable within a particular park’s environment. Park managers must not allow uses that would cause unacceptable impacts; they must evaluate existing or proposed uses and determine whether the associated impacts on park resources and values are acceptable.” Management Policies at 1.4.7.1. (emphasis added).

“The Service cannot conduct or allow activities in parks that would impact park resources and values to a level that would constitute impairment. To comply with this mandate, park managers must determine in writing whether proposed activities in parks would impair natural resources. Park managers must also take action to ensure that ongoing NPS activities do not cause the impairment of park natural resources.” Management Policies at 4.1. (emphasis added).

“Although studies involving physical impacts to park resources or the removal of objects or specimens may be permitted, studies and collecting activities that will lead to the impairment of park resources and values are prohibited.” Management Policies at 4.2. (emphasis added).

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<sup>6</sup> In other words, decisions made by the NPS to, for example, tear down an existing structure, construct a building, replace an old road or trail, or to engage in the lethal management of a native, protected species within a park would be subject to the impairment standard. The impact of a native species on park vegetation or other resources, however, would not as that does not constitute a visitor use, an NPS administered activity, or activities undertaken by concessioners, contractors or others.

“The 1970 National Park System General Authorities Act, as amended in 1978, prohibits the Service from allowing any activities that would cause derogation of the values and purposes for which the parks have been established (except as directly and specifically provided by Congress). Taken together, these two laws establish for NPS managers (1) a strict mandate to protect park resources and values; (2) a responsibility to actively manage all park uses; and (3) when necessary, an obligation to regulate their amount, kind, time, and place in such a way that future generations can enjoy, learn, and be inspired by park resources and values and appreciate their national significance in as good or better condition than the generation that preceded them.” Management Policies at 8.1. (emphasis added).

“In exercising its discretionary authority, the Service will allow only uses that are (1) appropriate to the purpose for which the park was established, and (2) can be sustained without causing unacceptable impacts. Recreational activities and other uses that would impair a park’s resources, values, or purposes cannot be allowed.” Management Policies at 8.1.1. (emphasis added).

“Superintendents must continually monitor and examine all park uses to ensure that unanticipated and unacceptable impacts do not occur.” Management Policies at 8.1.2. (emphasis added).

“Superintendents will develop and implement visitor use management plans and take action, as appropriate, to ensure that recreational uses and activities in the park are consistent with its authorizing legislation or proclamation and do not cause unacceptable impacts on park resources or values.” Management Policies at 8.2.2.1. (emphasis added).

When the statutory language is combined with these policies, it is indisputable that the impairment standard cannot be used to legally justify the proposed action.

The only other legal authority that the NPS can consider to justify the proposed action is that contained in 16 USC 3. That statute permits the removal of park wildlife only when said wildlife is detrimental to the use of the park. Years ago, the NPS at Grand Canyon National Park relied on this authority to authorize the lethal removal of deer who had become too aggressive toward hikers as a result of being conditioned to receive food handouts. The criteria that must be met to exercise this statutory provision, is that the NPS must demonstrate that the wildlife is detrimental to the use of the park. The term “use” clearly refers to a public use authorized by the NPS. In the case of the RCP, the NPS can’t meet this standard since it can point to know evidence, beyond speculation, that RCP deer are adversely impacting the use of the park. Even if the RCP believes that

it can satisfy this criteria, it can't simply change course in the middle of its planning process to propose a new, legal justification, for its proposed action. Instead, if the NPS were to choose to pursue this argument, it must prepare a supplemental NEPA document and disclose all of the evidence it may have to meet this legal standard.

**3. The NPS has failed to substantiate the purpose and need for the proposed action:**

The purpose of the Draft EIS is “to develop a white-tailed deer management strategy that supports long-term protection, preservation, and restoration of native vegetation and other natural and cultural resources in Rock Creek Park.” Draft EIS at 1. To be legitimate, the NPS must then demonstrate that RCP deer are preventing or hindering the preservation and restoration of native vegetation and other natural and cultural resources in the park. While deer, inhabiting any ecosystem, will impact park vegetation, including forest regeneration, understory growth and production, and herbaceous cover, there are other factors that may also influence the ecosystem that can both beneficially and adversely impact a park's floral/vegetative characteristics including, in particular, temperature, precipitation, disease, urban development, visitor use activities, climatic conditions (i.e., drought), vandalism, illegal camping, off-trail use, horseback riding). In this case, the NPS must not only demonstrate that deer are impacting park natural and cultural resources, but it also must disclose and analyze the impact of other influences, it must demonstrate that the proposed action – the killing of hundreds of deer – will actually address the alleged impacts that the NPS has attributed nearly entirely to deer, and that there are no non or less-lethal alternatives available to the proposed action. The NPS has failed to fully disclose or evaluate such factors in the Draft EIS.

The NPS claims that the proposed massive deer cull is needed at this time to address: 1) the potential of deer become the dominant force in the park's ecosystem, and adversely impacting native vegetation and other wildlife; 2) a decline in tree seedlings caused by excessive deer browsing and the ability of the forest to regenerate in Rock Creek Park; 3) excessive deer browsing impact on the existing shrubs and herbaceous species; 4) deer impacts on the character of the park's cultural landscapes; and 5) opportunities to coordinate with other jurisdictional entities currently implementing deer management actions beneficial to the protection of park resource and values.

Independent of the legitimacy of these needs, it is unclear who developed these five need statements, the process used to create such statements, and what role the public played in reviewing these needs. As previously indicated, the RCP GMP provides no data or foundation supporting these need statements. It does not identify deer as a problem in RCP, does not claim that forest regeneration is an issue of concern, fails to provide any evidence of excessive deer browsing, reveals impacts to cultural resources that don't

include deer, and does not detail any cooperative relationships with other jurisdictions relevant to deer management. The RCP natural resources management plan published in 1996 may or may not address or provide explicit objectives related to any of these resources<sup>7</sup> but, as conceded by the NPS, it does not “does not directly address deer management at the park.” Draft EIS at 37.

Considering that the NPS is relying on these need statements to ostensibly justify a significant reduction in RCP deer from 385 to 69 animals primarily through sharpshooting – an action that violates federal law – providing the public with the opportunity or a role in crafting such need statements should have been exercised in this case. Indeed, considering that the NPS is not legally obligated to initiate the lethal deer slaughter (which is illegal) and since public comments on the GMP indicate that RCP “visitors like, and would not want to change, most aspects of Rock Creek Park.” GMP and EIS at 214, had the NPS solicited public comment on these or other need statements, it could have concluded that there was no urgent need to address these alleged “problems” attributable to deer and/or that the public would have preferred a non-lethal means of addressing this “problem.” AWI concedes that the NPS engaged in the scoping process for the GMP in 1996, when the deer numbers in RCP were much lower, but the GMP process was not completed until 2007 when the deer population, if the NPS estimates are valid, had significantly increased in size.

An evaluation of each needs statement provides additional evidence of the failure of the NPS to adequately discuss and analyze these issues in the Draft EIS. For example, the NPS asserts that it does not want deer to become the dominant force in the park’s ecosystem. In reality, deer are a dominant species in most ecosystems that they inhabit and their behaviors, including their foraging activities, are intended to alter and modify ecosystems. While this dominance can be limited through hunting or lethal management, within national parks, the dominance of deer is entirely natural and must be protected as a part of the natural processes that shape and mold national parks. While the NPS may not prefer this approach, it has provided no legal basis, as discussed in greater detail below, to justify the reduction of the park’s deer herd.

Similarly, the NPS desires to reverse the alleged decline in tree seedlings and forest regeneration in RCP. Far from being unnatural or a “problem” as perceived by the NPS, the lack of tree seedlings and lack of forest regeneration is part and parcel of natural succession. Again, within national parks, such natural processes are to be allowed to

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<sup>7</sup> Efforts by AWI to obtain a copy of the 1996 Natural Resource Management Plan have gone unanswered. AWI sent two e-mail, one directly to Superintendent Coleman, and left a voice mail message for the Superintendent seeking a copy of the 1996 plan and two other documents cited in the bibliography of the Draft EIS but, to date, received neither an acknowledgement of the request or the requested documents.

influence ecosystem characteristics and dynamics in a park. Deer impacts to RCP shrubs and herbaceous species are also part of natural succession.

In regard to the park's cultural landscapes, it should be noted that the NPS Organic Act does not mandate the protection and conservation of such landscapes which can include landscape plantings that act as attractants to deer. This is not to suggest that cultural landscapes should not be protected but the need to protect cultural landscapes in RCP must not be considered during the decision-making process both because of the lack of protection afforded such landscapes in the Organic Act and because the NPS has failed to demonstrate that deer impacts to any of the RCP cultural landscapes are anything more than negligible.

Finally, the NPS claims there is a need to cooperate with other jurisdictions in regard to the management of deer. While the NPS attempts to adhere to a "good neighbor" policy in the management of its parks by working cooperatively with other agencies to control and regulate activities outside of parks that may impact park units, the NPS is not required to impose management actions similar to those being used outside the parks within the parks particularly if such actions are inconsistent with NPS legal and policy mandates.<sup>8</sup> The fundamental purpose of such collaborations are to reduce the threat of decisions and issues external to the parks from adversely affecting the natural and cultural resources, wildlife, and historic objects within a park. Thus, the mere fact that the District of Columbia may have an interest in management deer and that Montgomery County, Maryland claims to have a deer overabundance "problem," has developed and updated various management plans to address the "problem," and has implemented sport hunting in many of its parks to ostensibly address the "problem," Draft EIS at 18, 19, 20, does not obligate the NPS to follow suit and permit the wide-scale slaughter of deer within RCP<sup>9</sup>.

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<sup>8</sup> Though 43 CFR 24.2(i)(1) advises Department of the Interior agencies to prepare fish and wildlife management plans in cooperation with state fish and wildlife agencies and other federal (non-interior) agencies where appropriate, Draft EIS at 35, this does not mandate the NPS to initiate lethal deer control to placate Montgomery County, MD, the MDNR, or the Washington, DC government or to assist them in meeting their deer control objectives. Indeed, 43 CFR 24 et seq. is applicable to all federal agencies under the jurisdiction of the DOI which includes the U.S. Fish and Wildlife Service, Bureau of Land Management, and Bureau of Reclamation. Given the unique statutory protections afforded NPS lands and wildlife, in most parks, emulating state or local management practices would be illegal. Thus, while engaging MD or DC authorities in RCP management, including deer management, is expected, the needs or desires of those authorities should not and must not dictate the decisions made by the NPS.

<sup>9</sup> Indeed, as indicated by the NPS, deer management programs, including lethal control programs, administered by the MDNR and Montgomery County, MD "may actually cause deer to move into the park where there is less pressure, thereby contributing to park deer population growth and associated effects of browsing on the degradation of deer habitat."

The fact that Montgomery County and Maryland Department of Natural Resources (MDNR) permits the lethal removal of deer from its parks and other lands can be used by the NPS to mitigate the alleged damage that is attributable to deer within RCP. The NPS, for example, is required to consider reasonable alternatives in any NEPA analysis that are “not within the jurisdiction of the lead agency.” 40 CFR 1502.14(c). Though the NPS, in this case, failed to do so, it could have and should have explored such an alternative with these agencies (and with the District of Columbia) in order to potentially devise a strategy – one that would not have been supported by AWI – to reduce the regional deer population without engaging in lethal deer control in RCP.

In addition to the need statements, the NPS also developed a series of objectives that it uses to justify and measure the success of its actions. These objectives were ostensibly based on the park’s enabling legislation, mandates, direction in other planning documents, management policies and the Organic Act. Draft EIS at 2. The objectives include, but are not limited to: 1) developing scientifically-based vegetation impact levels and corresponding deer population density to trigger management actions; 2) protect the natural abundance, distribution, and diversity of native plant species by reducing excessive deer browsing, trampling, and nonnative seed dispersal; 3) maintain, restore and promote a mix of native plant species and reduce nonnative plant species; 4) protect the natural abundance, distribution, and diversity of native animal species within the park by reducing excessive deer browsing, trampling, and nonnative seed dispersal; 5) protect lower canopy, shrub, and ground nesting bird habitat from adverse effects of deer browsing; 6) protect habitat of rare plant and animal species from adverse effects of deer, such as excessive deer browsing, trampling, and nonnative seed dispersal; and 7) sharing information with the public about the deer population, forest regeneration process and diversity, and the role of deer within the ecosystem but not the primary driving force within it. Draft EIS at 2.

A problem with many of these objectives is that they advocate for a significant change in RCP management, including deer management, which is inconsistent with NPS legal standards, including its Management Policies, and for which the NPS has failed, in most cases, to provide sufficient evidence to substantiate each objective. Many of the objectives represent actions that would disrupt natural processes and dynamics in RCP, including natural forest succession processes. Moreover, though the NPS suggests that these objectives must be achieved to protect the long-term health of RCP and its resources, the NPS fails to provide evidence to substantiate the need for these objectives. For instance, the NPS proposes to significantly reduce the RCP deer population to: restore the natural abundance, distribution, and diversity of native plant species; promote a mix of native plant species; reduce nonnative plant species; protect the natural abundance, distribution, and diversity of native animal species within the park; protect lower canopy, shrub, and ground nesting bird habitat from adverse effects of deer

browsing; and protect habitat of rare plant and animal species from adverse effects of deer. Yet, it fails to disclose what constitutes a restoration of native plant species, what mix of native plant species existed historically in RCP, what the abundance and diversity was of native animal species in RCP in the past, what specific numbers and species of ground nesting birds would have to be found in the park to satisfy the NPS desire to protect these species, and what rare plant or animals species existing historically in RCP that don't exist now due solely to the impacts of deer.

**4. The NPS has failed to include a reasonable range of alternatives in the Draft EIS:**

The regulations implementing NEPA requires federal agencies to “identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment,” 40 CFR 1500.2(e), and to “rigorously explore and objectively evaluate all reasonable alternatives.” Id. at 1502.14(a).

In this case, the NPS, has failed to meet this standard. The Draft EIS considers only four alternatives including the no-action alternative (Alternative A)<sup>10</sup>. The three action alternatives include Alternative B (non-lethal only)<sup>11</sup>, Alternative C (only lethal control)<sup>12</sup>, and Alternative D (combination of lethal followed by non-lethal)<sup>13</sup>. While there are distinct differences between Alternative B and Alternatives C and D, the latter two alternatives are practically the same since both propose to employ sharpshooting primarily to initially reduce the deer population from 385 to 69 or from a density of 82 deer per square mile to 15-20 deer per square mile. Draft EIS at 224, 256. The difference between Alternatives C and D is that the latter will potentially employ non-lethal reproductive controls to maintain the size of the deer population once it has been reduced to its target size.

Whether the non-lethal component of Alternative D, however, is ever employed depends on a number of factors including, according to the NPS, development of a non-

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<sup>10</sup> Alternative A, the no-action alternative, would include ongoing monitoring of deer density and relative numbers, monitoring vegetation, data management, research opportunities, use of protective caging and repellents to protect rare plants in natural area and small areas in landscaped and cultural areas, and continuation of educational and interpretive measures.

<sup>11</sup> Alternative B would include all actions under Alternative A but would also include the construction of large-scale deer exclosures to protect forest seedlings and to promote forest regeneration as well as the used of non-lethal reproductive control of does.

<sup>12</sup> Alternative C would include all actions under Alternative A but would also include sharpshooting and capture and euthanasia to rapidly and lethally reduce deer numbers.

<sup>13</sup> Alternative D would include all of the actions under Alternative A as well as components of Alternatives B and C.



reproductive control agent that meets self-imposed NPS standards, whether such non-lethal controls are successful in maintaining the size of the deer herd, and the status of Chronic Wasting Disease in or near RCP. If there is no agent that meets NPS standards, if non-lethal control proves not to be effective, and if CWD is found in or near RCP, then the NPS would jettison any non-lethal strategy and return to lethal control presumably indefinitely or until a new management plan is developed. The issue of CWD is addressed later in this letter as is the value and effectiveness of immunocontraception as a non-lethal reproductive control agent in deer.

What is worth mention here, however, is that even though the NPS already used immunocontraception to non-lethally control deer populations on Fire Island National Seashore, elk populations at Point Reyes National Seashore<sup>14</sup>, wild horses at Assateague Island National Seashore, at RCP (as well as at Valley Forge, Catoctin, and Indiana Dunes) the NPS has developed specific criteria, that is not necessarily consistent between parks, intended to trigger use of this technology. These criteria are, in fact, so restrictive<sup>15</sup> that it would appear as if the NPS has purposefully developed the criteria to prevent or delay the use of this technology so that it can accomplish its primary goal of rapidly reducing park deer populations using lethal means. In other words, while Alternative D is identified as the NPS preferred alternative, the majority of its impacts are identical to Alternative C. Moreover, without a firm commitment by the NPS to employ immunocontraception, regardless of the status of the technology, at a specific time during the course of the plan, there is no guarantee that the NPS will ever switch to non-lethal management of the RCP deer population. Indeed, it would not be surprising if the NPS created Alternative D as a compromise alternative hoping that its non-lethal component would generate sufficient public support to permit the massive slaughter of deer short term without actually committing the NPS to ever implement a non-lethal option.

The problem with the slate of alternatives considered in the Draft EIS is that: 1) the NPS has not considered enough alternatives; 2) the NPS has not considered an aggressive non-lethal only alternatives; and 3) the NPS has failed to consider alternatives that involve changes in deer management outside of RCP. The following information is provided solely to demonstrate the inadequacies with the existing alternatives contained in the Draft EIS and, unless noted, AWI may or may not support one or more of these new alternatives. In addition, as reported in this comment letter, the NPS has failed to sufficiently justify, either biologically or legally, any sound basis for any lethal control of RCP deer. Thus, any suggested new alternative that includes a lethal control option

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<sup>14</sup> At Point Reyes National Seashore the NPS is also experimenting with the use of immunocontraceptive agents in non-native deer while primarily relying on lethal means to eradicate these deer populations.

<sup>15</sup> Though, as discussed in detail in this comment letter there is now compelling scientific evidence indicating that despite NPS efforts to delay the use of immunocontraception, the technology has advanced to the point where many of the NPS criteria can now be met.

necessarily includes a requirements that the NPS disclose the evidence indicating that such controls are both biologically necessary and consistent with the law.

Additional alternatives that could and should have been considered by the NPS include:

1. An alternative that incrementally reduced the deer population over time through lethal or non-lethal means to meet certain density goals with sufficient time (5-7 years or more) in between each incremental step to determine the affect of the action. If this alternative were enacted then, instead of reducing the RCP deer population from 82 deer per square mile to 15-20 per square mile over the course of a handful of years, the NPS would initially reduce the deer population to, for example, a density of 50 deer per square mile and maintain the population at that size (preferably all by non-lethal means) and determine the affects on the ecosystem through appropriate monitoring and surveys.

During this interim period, the NPS could also employ social surveys to better understand visitor preferences regarding deer and alleged deer impacts to see what percentage (if any) of visitors genuinely believe that their park experience has been harmed due to deer.

The results of such a survey could be combined with the results of ecosystem monitoring to adjust future incremental management decisions. If the data suggested that the 50 deer per square mile increment seemed to provide an appropriate balance between protecting park resources and satisfying visitor needs, the deer population would indefinitely be managed at that size. If not, then the NPS would proceed to the next increment, perhaps 40 deer per square mile (again preferably with the use of non-lethal technologies), and repeat the monitoring process.

While this alternative would not reduce the size of the RCP deer population as rapidly as Alternative D in the Draft EIS, it would respect the interests of those who oppose the massive slaughter of protected park deer, it would balance the need to protect park resources with NPS mandates to responsibly and humanely manage park wildlife, it would recognize that just as it took years for the deer population to reach its current density it may take time to address the perceived problems, and it would provide a reasonable response to NPS concerns about the alleged impacts of deer on RCP forest regeneration, herbaceous cover, and cultural landscapes.

2. A more aggressive, non-lethal alternative should also have been considered. This would be similar to Alternative B but would employ a larger number of trained NPS personnel or qualified volunteers to establish a larger number of bait stations to maximize the efficacy of delivering immunocontraceptive agents to a maximum number of deer in the shortest period of time within RCP. This alternative would presume – as is the case – that an effective reproductive control agent that largely meets the standards imposed by

the NPS would be available (see discussion below). Though the NPS intimates that treating the required 90 percent of RCP does would be difficult, it is only difficult if funds, personnel and equipment are limited. If this alternative were selected, the NPS would surely be able to enter into cooperative agreements with animal protection organizations to obtain funding, equipment, and perhaps trained personnel to aid with the implementation of this alternative.

3. As previously mentioned, NEPA requires federal agencies to consider reasonable alternatives not within the jurisdiction of the lead agency. The NPS should entertain such an alternative that could theoretically maximize the lethal removal of deer outside of RCP while maintaining protection of deer – as is legally required – in RCP. AWI would not support this alternative but, nevertheless, it should have been considered in the Draft EIS.

Had these and other reasonable alternatives been considered in the Draft EIS, then perhaps the NPS would have been in compliance with NEPA. As present, given the inadequacy of the alternatives in the Draft EIS, the NPS has not satisfied the NEPA requirement to consider a reasonable range of alternatives.

**5. The NPS has failed to disclose information relevant to the description of the affected environment and its analysis of the environmental consequences of the proposed action and its alternatives is entirely inadequate:**

Despite the alleged overpopulation and excessive browsing by deer in RCP, the NPS indicates that RCP is home to approximately 700 species of vascular plants, including 31 rare or uncommon plants listed by the states of Maryland and Virginia. In addition, RCP provides habitat for 36 species of mammals, 181 species of birds, and 19 species of reptiles and amphibians. Draft EIS at 8. Again, this would appear to be a remarkable biotic assemblage considering that the NPS claims that white tailed deer numbers are increasing, deer are resulting in a substantial effect on the park ecosystem due to heavy browsing, that deer are adversely effecting shrub cover, tree seedling regeneration, and herbaceous cover, and that this, in turn, affects habitat quality for other wildlife. Id.

Indeed, based on the claims contained in the Draft EIS, it appears that the NPS has intentionally attempted to cast white-tailed deer in the worst light possible in order to gain public support for the proposed massive deer cull and, perhaps, to assuage its own concerns about the excessiveness and cruelty inherent to its proposal. The NPS has accomplished this, in part, by claiming that deer “can” or “may” have an adverse impact on a variety of park amenities and resources including vegetation, native wildlife, protected and rare species, soils, water quality, wetlands and floodplains, visitor experiences, visitor health and safety, and socioeconomics. In most cases, however, there is no actual data or evidence to substantiate such claims many of which are based on

mere rhetoric that clearly demonstrates a blatant bias against deer – a native wildlife species that the NPS is required to protect.

The NPS will claim that NEPA requires it to evaluate the impact of the proposed action and its alternatives on a whole host of factors. That is only partially true in that NEPA allows agencies to dismiss from further consideration issues of little relevance and/or for which any impacts are inconsequential. In the Draft EIS, the NPS exercised this authority to dismiss from evaluation several issues. It should have, however, as explained in more detail below, gone further and dismissed other factors, identified below, from any substantive analysis.

In addition to its efforts to castigate deer for impacts that cannot be proven and/or are of miniscule consequence compared to other natural or anthropogenic threats, the NPS also fails to disclose sufficient evidence to substantiate some of the alleged impacts. This deficiency is of particular importance since NEPA requires agencies to ensure the information relevant to the environmental impacts of any action is available to the public and decision-makers before the action is implemented, that the information be of high quality, and that it be subject to accurate scientific analysis. Though the NPS is required to disclose all relevant information, NEPA does provide for situations where some data/evidence may not be available which generally require the NPS to admit when certain information is incomplete or unavailable, describe the relevance of the information to evaluating the impacts of the action on the human environment, and summarize existing credible scientific information about the impacts. Draft EIS at 149 citing 40 CFR 1502.22. The NPS fails to admit to the lack of evidence or inadequacy of its data in the Draft EIS despite the fact that such deficiencies are obvious in many cases.

When an agency, as is the case here, fails to meet this standard and elects, intentionally or not to limit the disclosure of relevant information it impedes the ability of the public to understand the impacts of the action on the park, its amenities, and resources and it hinders the public from submitting informed and substantive comment. Indeed, in comparing the information disclosed in the RCP GMP with the information in the Draft EIS, the amount of information missing in the latter document is shocking. What's more, most of the claims in the Draft EIS are described by terms such as "if," "may," and "could" suggesting that there is no existing evidence of such impacts. It is entirely inappropriate for the NPS to base the bulk of its analysis on mere conjecture and hyperbole when it is considering such a significant action that will kill hundreds of native deer in direct violation of NPS legal standards. In addition, when the public is short changed as a consequence of too little information, the agency decision-makers are also affected preventing them from having a complete understanding of the impacts when attempting to render a decision.

Prior to addressing the various resource issues evaluated in the Draft EIS, it is necessary to briefly summarize the relevant NPS Management Policies applicable to resource, and wildlife management, in national parks.

The management of wildlife in national parks is subject to a number of provisions contained in NPS statutes, regulations, park enabling legislation, and NPS policies. The Organic Act makes clear that park wildlife are to be conserved and protected. It provides only limited authority to physically remove native wildlife from a park (either by live capture or through lethal removal). As previously explained in great detail, the impairment standard cannot be used to justify such removals. Instead, the NPS is limited to the restricted authority provided under 16 USC 3 which permits the removal of native wildlife only under those circumstances when it can be demonstrated that that wildlife is detrimental to the use of the park.

NPS Management Policies specify that “the National Park Service will strive to understand, maintain, restore, and protect the inherent integrity of the natural resources, processes, systems, and values of the parks while providing meaningful and appropriate opportunities to enjoy them.” Management Policies at 4 (Introduction). Furthermore, the NPS recognizes that natural process, including biological resources such as native plants, animals, and communities and biological processes such as photosynthesis, succession, and evolution, and species are evolving, and it will allow this evolution to continue – minimally influenced by human actions. The term “natural conditions” as used in the Management Policies describes “the condition of resources that would occur in the absence of human dominance over the landscape.” *Id.*

According to Management Policies:

“Natural resources will be managed to preserve fundamental physical and biological processes, as well as individual species, features, and plant and animal communities. The Service will not attempt to solely preserve individual species (except threatened or endangered species) or individual natural processes; rather, it will try to maintain all the components and processes of naturally evolving park ecosystems, including the natural abundance, diversity, and genetic and ecological integrity of the plant and animal species native to those ecosystems. Just as all components of a natural system will be recognized as important, natural changes will also be recognized as an integral part of the functioning of natural systems.” Management Policies at 4.1.

The NPS will not intervene in natural biological or physical processes, except “to restore natural ecosystem functioning that has been disrupted by past or ongoing human activities.” Management Policies at 4.1. It is required, per Management Policies, to

“maintain as parts of the natural ecosystems of parks all plants and animals native to park ecosystems.”<sup>16</sup> Management Policies at 4.4.1. This will be one 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” and by “restoring native plant and animal populations in parks when they have been extirpated by past human-caused actions.” Id.

In regard to the management of native plants and animals, “whenever possible, natural processes will be relied upon to maintain native plant and animal species and influence natural fluctuations in populations of these species.” Management Policies at 4.4.2. The NPS may intervene to manage these species only when such management will not cause unacceptable impacts to the species populations or to other park components and/or ecosystem processes and when such intervention is needed to, among other reasons: 1) because a population occurs in an unnaturally high or low concentration as a result of human influences (such as ... 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; or 2) to protect rare and threatened or endangered species. Management Policies at 4.4.2. Finally, when “native plants or animals are removed for any reason – such as to reduce unnatural population conditions resulting from human activities – the NPS “will maintain the appropriate levels of natural genetic diversity.”

While it is, as demonstrated by the NPS, possible to selectively remove specific NPS Management Policies to claim that the NPS has the authority to implement the proposed action, when the Management Policies are considered in total and in the proper context, the use of lethal control to remove native wildlife from a national park is limited to extraordinarily rare circumstances. It is, indeed, clear from the Management Policies that the NPS places considerable emphasis on preserving natural processes, including succession. These are precisely the processes that are playing out within RCP in regard to its deer population and other park resources. It is also clear from the Management Policies that protection and restoring natural conditions is important.

The question of what is natural or what constitutes natural conditions with and urban park like RCP is far more difficult to answer. As an initial matter, this question assumes that what currently exists in RCP is not natural. If this is the case, then what is natural? What should the plant and animal species assemblage consist of if RCP was in a natural condition? It is likely that there would be additional species of predators in RCP though

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<sup>16</sup> This particular requirement is likely not consistent with the intent of the NPS Organic Act which mandates the NPS permit natural factors to regulate park ecosystems recognizing that by doing so, certain species may become locally extirpated. This is not applicable to federally protected species, however, that are subject to the provisions of the Endangered Species Act.

it is unknown what species would be present or how many would occupy all or a part of RCP either permanently, seasonally, or as transition habitat. The NPS does not attempt to provide information about RCP before the arrival of European colonists. Assuming there were more predators in the area, what likely occurred is that as the human population increased, development activities increased thereby expanding the urban landscape (which continues to expand to this day). As a consequence, significant amounts of wildlife habitat has been lost and with it went significant numbers of wildlife. Neither the NPS nor deer had anything to do with such declines as they were caused entirely by external forces well beyond the control of the NPS. This, then, begs the question of what is natural? Is it what existed prior to the arrival of the colonists and the settlement of Washington, DC or is it what exists now. The former condition, no matter how natural it may have been, is unattainable now suggesting that what is natural is what we have created. This is not to suggest that the RCP tennis courts, golf course, or playing fields are natural as obviously they are not but the current existence of RCP largely if not entirely surrounded by urban development is a consequence of human settlement and growth and, therefore, could and should be considered as natural as is possible at the present time.

Assuming, without conceding, that the Management Policies are all consistent with the intent of the Organic Act, the only circumstances that permit the NPS to intervene and manipulate or interfere with natural processes, including succession, is to restore natural ecosystem functioning that has been disrupted by past or ongoing human activities, to address a species population that is unnaturally high as a result of human influences if said influences cannot be mitigated, and to protect rare, threatened, or endangered species. In regard to the first standard, we must return to the issue of what is natural and can natural conditions be legitimately restored to RCP given its location and multitude of threats to its wildlife and other resources caused by external factors. The second standard is not relevant in this case both because it hasn't been proven that the RCP deer population is "unnaturally high" but mainly because there are means of mitigating human influences including the use of non-lethal immunocontraceptive technologies and to explore alternative management strategies for deer management outside of RCP with other federal, state, and county agencies. The third standard is also not relevant since the NPS has offered no evidence in the Draft EIS, beyond mere speculation, that deer in RCP are adversely impacting protected species. Finally, in regard to the mandate to protect the natural levels of genetic diversity of the RCP deer populations, the Management Policies require an assessment of that diversity which has not been done or, if done, has not been disclosed in the Draft EIS.

In addition to the Management Policies, the RCP enabling legislation also provides guidance on what is permissible within the park. As indicated in the Draft EIS, RCP was established in 1990 for the purpose of creating a "public park and pleasure ground for the

benefit and enjoyment of the people of the United States.” Draft EIS at 7, 11. Considering that an average of over 2 million people have visited/used RCP annually over the past several years, it is clear that the NPS has satisfied this purpose of RCP regardless of any concerns attributable to deer.

Recognizing the importance of conservation and threats posed by expected urbanization, Congress emphasized the preservation of the park’s natural resource and scenery in the park’s enabling legislation. The specific language provided for the promulgation of “regulations ... for the preservation from injury or spoliation of all timber, animals or curiosities within said park, and their retention in their natural condition, as nearly as possible.” Draft EIS at 7, 11. As an initial matter, this language only explicitly calls for the protection of timber, animals or curiosities within RCP. This language would suggest that the NPS has the discretion to protect all or any of these three park amenities. In addition, the language does not call for the protection of other vegetation – shrubs, herbaceous cover – in RCP. Yet, the NPS has interpreted the language in an ecosystem context which may or may not be correct.

Based on the NPS interpretation of the RCP enabling legislation, the NPS has concluded that the RCP exists to, among other reasons, “preserve and perpetuate for this and future generations the ecological resources of the Rock Creek valley within the park in as natural a condition as possible, the archeological and historic resources in the park, and the scenic beauty of the park.” Draft EIS at 11. This mandate, to be consistent with the Organic Act and Management Policies, must apply to natural processes that occur in RCP. Consequently, since deer and impacts attributable to deer in RCP are entirely natural and part of a successional process underway in the park, the RCP enabling legislation also provides no basis for implementing the proposed action.

### **Vegetation:**

The principal concern of the NPS in regard to deer in RCP is the alleged impact of deer on park vegetation, timber and non-timber. The enabling or establishing legislation for RCP specifies that the park is to “provide for the preservation from injury or spoliation of all timber, animals, or curiosities within said ark, and their retention in their natural condition, as nearly as possible.” GMP and EIS at 5, Draft EIS at 11.

Though the clear intent of the enabling legislation only specifies the protection and preservation of timber, animals and curiosities (i.e., not other vegetation), the NPS interprets the requirement to protect “timber” “in an ecological context to mean not individual trees, but the interrelated plant and animals populations that form the forest community.” GMP and EIS at 40, 142. Beyond this self-serving interpretation, the NPS offers no additional evidence to suggest that it is required to protect and preserve non-



timber species within RCP. AWI is not suggesting that non-woody/non-timber species are not worthy of protection but there is a compelling argument that can be made, based on the RCP enabling legislation, that the NPS should not use the condition or status of understory and/or herbaceous vegetation as a determining factor in deciding how to manage deer since there is no explicit requirement for the protection of these species in the park's establishing legislation.

The GMP references an inventory of park vegetation conducted between 1986 and 1994 that documented 656 species of vascular plants in RCP between the National Zoo and the Maryland boundary. GMP and EIS at 143. Reportedly, some 150 species identified in the park in an earlier survey in 1919, were not found during the more recent inventory though the NPS concedes that the reasons for such species loss are unknown. *Id.* The NPS offers no evidence and does not even intimate that deer were responsible for this loss of species.

The NPS cites to a number of studies (e.g., Alverson 1988, Anderson, 1994, Augustine and Felich 1998, deCalesta 1994, McShea 2000, McShea and Rappole 2000 (Draft EIS at 13), Hough 1965, Behrend et al. 1970, Marquis 1981, Tilghman 1989, Redding 1995, Augustine and deCalesta 2003, Bowersox et al. 2002, Horsely et al. 2003, Sage et al. 2003 (Draft EIS at 93)) in its attempt to prove the deer browsing can result in substantive adverse impacts to park resources, including forest regeneration, herbaceous cover, and other native wildlife species, including ground-nesting birds. The NPS claims that "an overabundance of deer could possibly alter and affect forest regeneration patterns in the park, as well as the diversity of species within the park, by reducing the understory and affecting the natural diversity of dominant tress species." Draft EIS at 25. Such impacts may be the result of three primary effects: 1) failure to reproduce, especially in slowly maturing woody species where seedlings are killed; 2) alteration of species composition, which occurs where deer removed preferred browse species and indirectly create opportunities for less preferred or unpalatable species to proliferate; and 3) extirpation of highly palatable plants, especially those that were naturally uncommon or of local occurrence. Draft EIS at 93.

Not surprisingly, many if not all of these studies were conducted outside of the RCP on other federal or state lands in the United States. Moreover, many of the studies either provide a broad examination of deer impacts on forest ecosystems or they provide results from studies of other deciduous forest in a number of states. The NPS claims that the forests studied were similar to the forests of RCP yet it fails to either explain what this means or to provide data to document such similarities. For example, how does the species assemblage in RCP compare to those areas studied? Is the topography of the areas comparable? Is the timing and amount of precipitation in RCP and the other areas similar? Are the past and present management schemes for RCP and the studied forest

similar? How do the soil profiles compare between RCP and the studied forests? Are the threats to the RCP forests similar to those faced by the studied forests? These issues and a host of others have to be examined and addressed before studies conducted outside of RCP can be applied to the examination of forest management and deer impacts in RCP.

The NPS does not entirely rely on studies, including inapplicable studies, of other forest ecosystems to claim that deer are adversely affecting RCP vegetation. Since 1990, RCP has maintained 27 long-term vegetation management plots (unfenced) in the north, central, and southern portions of the park. These plots are read every four years (most recently in 2007) and, according to the NPS, reveal an increase in stems browsed from  $3.1 \pm 0.9\%$  in 1991 to  $31.1 \pm 2.9\%$  in 2003 while shrub cover decreased from  $54.63 \pm 5.9\%$  in 1991 to  $14.92 \pm 2.2\%$  in 2003. Draft EIS at 17 citing Hatfield (2005) and Draft EIS at 43, 93, 164. None of the plots measured in 2003 had at least 153 seedlings per plot which is considered the minimum for successful forest regeneration under high deer densities. Draft EIS at 44, 93, 164, 284. Moreover, the NPS contends that tree seedling stocking rates declined significant from 1991 to 2007 with a stocking rate of  $2.26 \pm 0.32\%$  in 2007 which is far below the 67% stocking rate being used by the NPS for forest regeneration.<sup>17</sup> Id.

The forest regeneration standards being proposed for use in RCP were developed based on research by Dr. Susan Stout in a eastern hardwood forest environment in Cuyahoga National Recreation Area in Ohio. Draft EIS at 43. The NPS claims that the environment is similar to that found in RCP but, again, it fails to provide a description of each environment to prove said similarities. Moreover, the NPS cites to a number of studies documenting forest regeneration rates at different deer densities. What it fails to disclose, however, is how those forests are managed or what they are managed for. This is a significant issue since forest regeneration standards for a forest managed for commercial timber production will be different than forest regeneration standards relevant to a forest in a national park.

On its face, this data from RCP would appear, as is the intent of the NPS, to demonstrate that deer are responsible for excessive damage to RCP vegetation. This is not necessarily the case since the NPS has failed to disclose or explain specific information which may provide evidence indicating that deer are not entirely responsible for this alleged damage. AWI is not contesting that deer have an impact on vegetation. Deer, as herbivores, have to eat to survive and, therefore, they will inevitably impact vegetation. The relevant questions, therefore, are what is the severity of the impact, are there other factors that may be affecting vegetation productivity and health, and are the impacts consistent with

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<sup>17</sup> Appendix A of the Draft EIS provides a summary the methodologies used for deer population and vegetation/regeneration monitoring. The data analysis section of that document was not included in Appendix A despite the fact that it was supposed to be completed in June 2009. Draft EIS at 283.

natural processes. In regard to the latter two questions, there are an abundance of other threats to the RCP forests (see below) and, as indicated previously and contrary to the position of the NPS, deer impacts to native vegetation in RCP are entirely natural (as also discussed below).

In addition, the NPS has failed to disclose certain data and information. For example, the unfenced monitoring plots were last measured in 2007 yet the 2007 data on shrub cover and browsing of stems is not disclosed in the Draft EIS. In addition, though the vegetation plots were situated in the northern, central, and southern portions of RCP, the NPS failed to disclose the specific location of the plots, the characteristics of each area, and how the plot locations compare to known population concentrations of white-tailed deer. Such information is crucial.

For example, placing vegetation plots in mature, closed canopy forests will inevitably produce data that reveals little to any forest regeneration if sunlight cannot penetrate to the forest floor to stimulate production. Plots located on lands that sloped may not receive as much precipitation (due to runoff) as plots on flatter lands which could influence vegetation production. Finally, since the RCP deer population is not evenly distributed across the RCP<sup>18</sup>, placing vegetation monitoring plots in areas where there is or is likely to be a high concentration of deer will inevitably result in reduced vegetation production data. Admittedly, the NPS established the plots in 1990, before the deer population allegedly significantly increased in size. Nevertheless, to address the relationship between plot location and deer density, the NPS should have presented both vegetation data and deer density data in the vicinity of the vegetation plots so that the relationship between vegetation production and deer numbers can be assessed.

In 2000, the NPS expanded its vegetation monitoring efforts by establishing 20 paired plots in RCP and in Glover-Archibold Park. Draft EIS at 17. According to the NPS, from 2001 to 2004, data from the paired plots “showed that plant cover outside the fenced plots was substantially less when compared to plant cover inside the fenced plots over the study period.” Id. and Draft EIS at 25. The percentages of plant cover for nonnative, native, herbaceous, and woody plants were 2 to 3 times less in unfenced plots compared to their paired fenced plots. Id. and Draft EIS at 94 citing Rossell et al. 2007. The NPS then claims that “these impacts can be directly attributed to deer browsing and indicated deer are affecting the integrity of the understory structure and species composition, diminishing the value of habitat for other wildlife.” Draft EIS at 17. Though the NPS also claims that excessive browsing associated with an overabundance of deer in RCP

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<sup>18</sup> For example, the NPS reports that deer exist at high density near the RCP golf course as would be expected, Draft EIS at 158, but that deer density is either low or deer are non-existent in the vicinity of unfenced community gardens. Draft EIS at 138. This evidence along with common sense demonstrates that deer are not evenly distributed across RCP.

could adversely impact regeneration of vegetation in riparian areas, it then admits that “no data exist on deer impacts to riparian areas within the park.” Draft EIS at 25. The alleged impact of deer on vegetation in riparian areas should, therefore, be removed as a factor on which to base a decision since said impact is entirely conjectural.

Again, the NPS fails to explain where these plots were located and how those locations were selected, have the plots been surveyed since 2004 and, if so, what were the results, and why has the NPS not disclosed the specific data for each category of vegetation (i.e., nonnative, native, herbaceous, and woody). The facts that the percentages of plant cover for nonnative, native, herbaceous, and woody vegetation were 2-3 times less in unfenced plots compared to fenced plots, doesn't provide the specifics necessary to interpret this data. For example, if the percentage of vegetation in the fenced plot has increased but that increase is entirely due to nonnative species, this would be a significant piece of information.

As a result of its smorgasbord of allegations regarding the impact of deer on forest regeneration, herbaceous cover, and the overall health of the vegetation in RCP, not surprisingly the NPS concludes that Alternative A (the no-action alternative) would facilitate the continued destruction of the forest/vegetation of RCP and that this would constitute an illegal impairment. As previously explained, the impairment standard is not applicable to the impacts of a native species foraging within a national park. Therefore, while the NPS is free to suggest that Alternative A may allow deer to continue to browse trees and consume understory/herbaceous cover – which is entirely natural and expected – it cannot claim that such an impact constitutes an impairment.

In contrast to the conclusion reached in the Draft EIS, in the GMP and EIS, the NPS reports that neither the preferred alternative (Alternative A) nor the no-action alternative (Alternative B) would constitute an impairment to the deciduous forests within RCP. Specifically, the NPS reported that:

“Alternative B (no-action) would have little effect of the deciduous forests of Rock Creek Park. Protection of the deciduous forest has been a long-term goal at Rock Creek Park. The continuation of current management practices such as avoiding clearing of trees, suppressing wildfires, and controlling the presence and distribution of or (sic) invasive species, would maintain the deciduous forest in a condition much like that currently seen in the park.” GMP and EIS at 238 and Table 7 at 124.

For Alternative A in the GMP (the preferred alternative) the NPS indicates that it would cause beneficial impacts on the park's deciduous forests including the restoration of unvegetated areas to deciduous woodlands, improvement of poor or impaired soil

conditions to accommodate restoration of deciduous tree species, realigning trails away from steeply sloping areas and revegetating the former alignments, and discontinuing the artificial suppression of tree regeneration through periodic cutting or mowing. GMP and EIS at 201. Adverse effects would be limited to the loss of existing forest or conversion of a native species plant assemblage to predominately exotic or invasive plant species. Id.

The NPS goes on to assert that “current management practices would continue to protect deciduous forest” under any of the alternatives, including the no-action alternative, considered in the GMP and EIS. GMP and EIS at 124. Moreover, none of the GMP alternatives were determined to cause an impairment to the park’s deciduous forests. GMP and EIS, Table 7 at 124. Though the GMP is a different plan, the RCP deer management plan and Draft EIS is tiered off of the GMP. As a consequence, it is of particular interest that while the GMP claimed that even the no-action alternative (i.e., no substantive changes in park management of deciduous forests) would not adversely impact the forest or result in an impairment, the Draft EIS, published only two years after the GMP, concludes exactly the opposite; that the no action alternative would adversely impact the park’s deciduous forests as a result of an alleged overabundance of deer in RCP. Draft EIS at 166. The NPS has to provide some rational explanation for this obvious discrepancy between the conclusions reached in these related documents relevant to the park’s deciduous forests.

Contrary to the efforts made by the NPS to largely blame deer for impacts to park vegetation, there are a number of other factors that threaten park habitat including increasing urban development which is resulting in encroachment into park lands and removing vegetation, vandalism, dumping of garbage, illegal camping, and off-trail use as a result of trampling, burying vegetation, or spreading noxious seeds which contributes to the growing problem with non-native species. Draft EIS at 165, 189. Moreover, gypsy moths and chestnut blight have had a large, relatively widespread adverse impact in the past though RCP control efforts have reversed some of the adverse effects. Draft EIS at 165.

Based on the vegetation monitoring data disclosed in the Draft EIS, it is clear that the NPS is attributing nearly all impacts on forest regeneration and reduction in understory and herbaceous vegetation on deer. Not only is this incorrect but it, again, reflect a bias inherent in the Draft EIS. What’s even more alarming about the NPS efforts to castigate deer as the evil-doers responsible for the vast destruction of RCP vegetation and the park’s scenic beauty is the fact that the Draft EIS contains an abundance of other evidence demonstrating that there are multiple threats to the vegetation of the park.

Exotic invasive plant species, for example, “seriously threaten the integrity of native habitats, including eastern deciduous forest, by aggressively displacing and killing native plants, alternative native habitat, and stifling forest regeneration.” Draft EIS at 99. The exotics problem is “particularly acute in urban parklands where extensive edges and frequent human disturbance enhance opportunities for aggressive exotic plants to become established.” Id.

The Draft EIS identifies a number of exotic species (e.g., Asiatic bittersweet, porcelain berry, English ivy) that kill trees along the edges of forest openings; species (e.g., multiflora rose) that form dense thickets and out-compete native shrubs and ground covers; and herbaceous species (e.g., lesser celandine, Japanese stiltgrass) that invade and blanket floodplains crowding out native species and changing soil chemistry to make it harder for native species to recover. Draft EIS at 99. Some invasive species (e.g., Asiatic bittersweet, English ivy, burning bush, privet, viburnums, Japanese barberry, garlic mustard, lesser celandine, and Japanese stiltgrass) can penetrate undisturbed forest interiors thereby reducing light levels to the forest floor, limited forest regeneration, and displacing native shrubs and saplings. Id. and Draft EIS at 22/23. Despite the serious threats represented by nonnative species, the NPS still blames deer for promoting nonnative species through habitat alteration (through trampling and browsing) and through seed dispersal from seeds carried on their coats or found in fecal matter. Id. and Draft EIS at 25.

While the NPS has initiated various studies and strategies to better understand the ecology of nonnative species in RCP and to attempt to control their spread, there are 286 nonnative vascular plants known to exist in RCP with 56 species of particular concern due to their ability to negatively impact the park’s natural resources. Draft EIS at 100. The NPS does concede, however, that exotic plants have spread into RCP as a result of their use by adjacent property owners for landscaping and that even some of the RCP’s own administration unites are landscaped with exotic species which also pose a threat to native vegetation in RCP<sup>19</sup>. Draft EIS at 160.

In addition, as revealed in the GMP and EIS, despite NPS efforts to control nonnative species, such efforts “are not able to keep pace with the rate of invasive plant introduction and spread.” GMP and EIS at 143. This indicates that the impact of nonnative, invasive species in RCP may be far more serious than revealed by the NPS in the Draft EIS and that this could, in part, provide an explanation for the alleged reduction in herbaceous cover, saplings, and overall forest regeneration. This is not, again, to suggest that deer

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<sup>19</sup> The NPS also reports that horseback riding has the potential to increase or introduce nonnative species through animal feed or animal wastes. Draft EIS at 157. Despite the possible role of the recreational use of horses as a contributing factor in the spread of exotic species in RCP, the NPS still permits the use.

don't have any impact, but it provides evidence of other threats/impact to park vegetation that has little connection or association with deer.

**Deer:**

Deer are remarkably adaptable species able to co-exist with humans in even heavily urbanized landscapes. This is not to suggest, however, that deer populations, if not limited by hunting, lethal control, or as a result of automobile/deer collisions, will continue to grow indefinitely. As a deer population grows, density dependent factors will kick in to regulate the size of the deer population either through increased mortality, reduced production or both. Unfortunately, largely as a consequence of human ignorance about deer, absurd fears about lyme disease (which actually does not require the presence of deer to be found in an area), unwillingness to try to live with deer, and desire for convenience, the size of a deer population when it reaches its so-called biological carrying capacity is generally larger than what would be acceptable as a cultural carrying capacity. Both of these "carrying capacity" concepts are highly variable with the former constantly changing as a result of myriad natural and artificial or anthropogenic factors while the latter can change as societal and individual attitudes change and people become more educated about deer.

The condition of deer habitat is a key ingredient in determining the size of the deer population. On good range with abundant food, deer can produce more than one young annually. Where food is limited, however, deer give birth to a single fawn or the deer do not ovulate at all. Draft EIS at 107. Nutritional condition, as indicated by the NPS, also affects the onset of puberty with deer consuming nutritious forage possibly becoming sexually mature at 6-7 months of age while those on submarginal range remaining sexually immature for a longer period of time. Id.

Deer health and condition can, at times, be used as an indicator of habitat condition. Signs of nutritional stress, such as low body and internal organ mass, low fecal nitrogen levels, and heavy parasite infections, can be found in deer at high densities. Id. and Draft EIS at 192. Deer in poor physical condition due to a lack of forage are at an increased risk for disease<sup>20</sup> and mortality due to malnutrition and parasitism, particularly during harsh winters. The NPS claims that starvation and reduced production in a deer herd caused by excessive numbers is not evidence of self-regulation but, rather, provides only chronic control over a population. Draft EIS at 188/189. This is incorrect. Starvation and reduced productivity in a deer population (or any wildlife population) is precisely indicative of self-regulation dictated by habitat or other conditions. Moreover, such

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<sup>20</sup> Potential deer diseases include CWD, bluetongue virus, epizootic hemorrhagic disease, and others. Draft EIS at 188, 192.

impacts are entirely normal and natural in any wildlife population particularly in, but not limited to, wildlife populations that are protected from exploitation.

While such self-regulating factors may not be triggered until the species is at elevated population numbers, the fact that the numbers are elevated suggest that the habitat is capable, at least temporarily, of supporting such growth. Admittedly, variables influencing habitat productivity can change remarkably quickly possibly leading to a abrupt or consistent decline in the species numbers. Whether the impact of the species on other species, ecosystem resources, and processes depends on how the species in question is perceived and the management objectives for the area. For deer, if considered a dominant species that dictates ecosystem conditions, as they should be, then such impacts should be considered entirely natural and appropriate. Similarly, if the habitat is being managed pursuant to a natural regulation mandate – as is the mandate of the NPS – then such impacts, whether beneficial or adverse, should be accepted and protected and not contested or modified as would occur if the proposed lethal deer control program were implemented.

In RCP there is no evidence of malnutrition in deer, no known cases of deer disease, and the general appearance of the herd is considered good. Draft EIS at 108. If true, this indicates that the deer herd has either not reached the ecological carrying capacity for the park or that the deer are relying on non-park lands to find forage to sustain themselves. Considering the variety of habitats within the park that deer can use, including a golf course, picnic areas, road shoulders, and sports fields that have been created by humans to facilitate recreational activities, along with the availability of landscaped properties outside of RCP, it is not surprising that RCP deer, even if existing at high densities, remain in good physical condition.

Though the NPS clearly considers the current density to be too high given alleged impacts on park vegetation and other resources, it's actually an entirely natural response to current habitat conditions which, again, have been highly manipulated to facilitate human recreation without any consideration apparently given to how it would affect native wildlife.

The NPS uses various techniques to study deer within RCP. The use of radio telemetry is very limited with only five deer collared in 2002. Based on data obtained from the collared deer, the NPS reports that RCP deer range are 31 to 260 acres in size, that time spent by deer outside of RCP ranges from 5 to 42% (average of 25%), and that deer typically move approximately .25 miles outside the park boundary. Draft EIS at 15, 108. Forward Looking Infrared Surveys were used briefly in RCP but were abandoned in 1999 due to an unacceptable error rate. Draft EIS at 16.



Spotlight deer surveys have been conducted from 1996 to the present to obtain population trend data only since the “surveys are not based on any specific scientific protocols.” Draft EIS at 15. The NPS concedes that such surveys only provide “abundance levels in the area immediately adjacent to the vehicle route.” Though the vehicle-route is reported 22 miles in length, any deer population estimates produced from such surveys are of dubious accuracy in actually determining deer numbers and, depending on the estimation methodologies use, may overestimate deer numbers. Indeed, it is likely that the RCP deer trend data, based on spotlight counts, are indeed overestimates since the spotlight survey includes some roads in surrounding neighborhoods. Draft EIS at 108. Thus, the survey results are more accurately considered population trend data for a regional deer population and not the actual RCP population. Based on spotlight count data, the NPS claims that deer numbers in RCP have increased from an estimated 70 in 1996 to 280 in 2007. Draft EIS at 15, Figure 3.

Finally, the NPS, since 2000, has used a distance sampling methodology to estimate animal population density. This methodology reported resulted in estimates of up to 98 deer per square mile in 2003 (the highest estimated deer density in RCP), Draft EIS at 45, followed by what appears to be a nearly 50 percent decline to 52 deer per square mile in 2005 only to allegedly increase again to 82 deer per square mile in 2007. Draft EIS at Table 2 and at 108. Assuming this methodology is accurate, the rapid decline in the RCP deer population between 2003 and 2005 may be indicative of a density dependent effect reducing the deer population as a result of increased mortality, reduced production, or both. Regardless of why the population apparently declined by nearly half, these data demonstrate that RCP deer numbers are variable, that deer populations if left unexploited can be somewhat self-regulating (though not to the density that the NPS would apparently prefer), and that the population will not grow without limits if not subject to a massive, multi-year deer cull.

### **Impacts to other wildlife:**

As expected, the Draft EIS is replete with claims that the alleged overabundance of deer in RCP and their excessive browsing will alter park habitat thereby adversely impacting a host of other native wildlife including birds, reptiles, amphibians, and other mammals. These impacts are ostensibly caused by reductions to habitat diversity as a result of browsing, trampling and seed dispersal. Draft EIS at 106.

While such rhetoric is commonly used by agencies attempting to justify the lethal removal of deer, what is frequently missing from their arguments is any evidence to substantiate their claims and a complete lack of effort to consider other threats that may be adversely affecting park wildlife. The same is true in the Draft EIS as the NPS fails to cite to a single study to suggest that any native wildlife in RCP have been or are being

adversely impacted by deer and alleged deer impacts. The sole exception to this lack of evidence is Flowerdew and Ellwood (2001) who suggested that deer have indirectly decreased bank vole populations by removing the bramble blackberry that provides most of their hiding cover.” Draft EIS at 194.

The NPS concedes that there has been more research done on the impact of deer on vegetation than their impact on other wildlife (though it should be noted that there has been no actual studies undertaken to assess the impact of deer on other wildlife within RCP).

Deer impacts to birds, based on deer exclosure studies, included a reduction in bird species that preferred an open understory declines, species that preferred a dense herbaceous ground cover increased (as the herbaceous layer increased) but then declined when the herbaceous species were replaced by woody species, and species preferring a dense, woody understory gradually increased. Draft EIS at 115. For other species, those who compete with deer for food, like squirrels, mice, and rabbits can be directly affected by increased deer numbers. Draft EIS at 194. Those who prosper in areas with substantial cover can be impacted as a result of deer browsing and, in turn, predators that prey on the impacted species would also be affected. Draft EIS at 115, 194. Other species, like some frogs, snakes, salamanders and turtles that live close to the water would be less affected by deer as are fish whose habitat is not likely to be directly impacted by heavy deer browsing. Id. and Draft EIS at 116, 194. Some reptiles, like the box turtle, that depend on forest understory plants for survival can be affected by high deer numbers, yet box turtles, coyotes, vultures (e.g., species that prey on deer or consume deer carrion) and predators whose prey are more susceptible in open understory conditions can benefit from an abundance of deer. Draft EIS at 116, 194.

While all of these claims may be true in a general sense, there’s little to no evidence that deer in RCP are having this impact on other wildlife within the park. For example, the NPS indicates that areas within RCP have traditionally been used for bird counts yet the NPS fails to disclose any of the bird count data to demonstrate any loss of bird species or reductions in their numbers. Similarly, no inventory data or population trend data is provided for any of the other species potentially impacted by deer making it impossible to actually determine if these species have been harmed or if such statements are (as is expected) merely conjecture on the part of the NPS.

In regard to birds, the NPS reports 181 species of breeding or migrating birds documented in RCP, most of which are migrants or seasonal visitors. Draft EIS at 111. A number of bird species that are known to exist in RCP nest on or near the ground. Ground nesters included the ovenbird, worm-eating warbler, Louisiana waterthrush, and American woodcock. Id. Species that nest in the shrub layer include the northern

cardinal, gray catbird, Acadian flycatcher, mockingbird, wood thrush, Carolina wren, white-eyed vireo, American robin, chipping sparrow, American goldfinch, and the mourning dove. *Id.* Finally, the song sparrow, brown thrasher, rufous-sided towhee, veery, and common yellowthroat nest on both the ground and in the shrub layer. *Id.* Because of where these species nest, the NPS claims they have been impacted adversely by the overabundant deer in RCP and their overbrowsing.

Despite these claims, the NPS concedes that “there are no park-specific data to show that impacts to ground-nesting species have occurred from deer browsing.” Draft EIS at 26. To its credit, the NPS acknowledges that West Nile virus is “an established factor in avian mortality,” Draft EIS at 159, but then fails to consider this or the host of other factors (i.e., other diseases, destruction of habitat in other portions of the migratory range, climate changes) that have all been documented to adversely impact bird populations when evaluating the threats to RCP birds.

The only actual evidence provided in the Draft EIS regarding deer impacts on RCP wildlife is that “the upper canopy of the forest has not changed noticeably to date as a result of high deer numbers,” Draft EIS at 116, indicating that species that depend on the upper canopy of the forest have not experienced any noticeable change in their habitat. In addition, the NPS indicates that certain cavity-nesting species and birds whose prey consist primarily of insects may benefit as the RCP forests mature, die off, or become stressed from disease or infestation. *Id.* In the long term, the NPS cautions, such species will also decline if there is no forest regeneration, *id.*, which is precisely what would and should be expected through forest succession which is an entirely natural process; a process that the NPS is mandated to protect not to manipulate as it is proposing to do.

In regard to reptiles and amphibians, the NPS claims that the variety and numbers of amphibians and reptiles found in the park in recent years are markedly reduce compared to inventories from early and middle parts of the 20<sup>th</sup> century. At present there are 13 amphibians known to exist or likely to exist in the park with four historic reports. Draft EIS at 111. For reptiles, the NPS reports 6 species that are present or probably present in RCP along with 13 historic occurrences that can no longer be confirmed. *Id.* Though not clear, presumably the reference to historic reports or historical occurrences reflect amphibian and reptiles species that no longer exist in RCP. Yet, the NPS provides no population estimates for any reptile or amphibian species of concern or any population trend data. In addition, it failed to consider other threats to these populations that are unrelated to deer.

In regard to fish, the NPS alleges that changes in water quality from the removal of ground vegetation as a result of the overabundance of deer and their activities (i.e., trampling, browsing, creating paths) may adversely affect fish habitat in RCP. Draft EIS

at 26. Yet, it previously concluded in its analysis of impacts to wetlands and floodplains that there was no evidence that deer activities were adversely impacting groundwater. If this is the case, then any potential impacts to fish are, at best, inconsequential and, at worst, reflect an intentional bias of the NPS against deer.

In contrast to its analysis of reptiles/amphibians and birds where the NPS failed to consider the host of non-deer factors that may be contributing to the alleged decline of these species, the NPS identified such threats to fish. Specifically, the NPS conceded that:

Urban pollution and storm water runoff problems have adversely affected fish numbers and diversity in the park. Generally, the 16 tributaries of Rock Creek are more severely affected than the main channel. In a 1993 study by NPS staff, no fish were found in nearly half of the tributaries and only one had more than a single species present (NPS 2005A). Flooding and scouring during storms, pollution from runoff, and periodic low flows are likely contributing factors.”  
Draft EIS at 115.

Despite whatever efforts are undertaken in RCP to protect wildlife and wildlife habitat, other threats, both internal and external, will continue to affect park wildlife. Such threats include vehicle collisions, poaching, disturbances from traffic, visitor use (including off-trail use), illegal camping, presence of unrestrained pets, and existence of cell towers. Draft EIS at 195. Threats to wildlife habitat include urban development, vandalism, dumping resulting in trampling and burying of vegetation, spread of noxious weed seeds, as well as horseback riding, dog walking, and hiking that can lead to an increase in social trails and the spread of exotic weed seeds. Id. Moreover, the NPS reports in the GMP that “terrestrial and semi-aquatic wildlife habitat on privately owned land throughout the region would continue to be lost and fragmented because of continued high-density urban development and in-filling.” GMP and EIS at 208.

Finally, the NPS claims that Alternative A in the Draft EIS would result in adverse, long-term, and negligible to major impacts depending on the other wildlife species with species that depend on ground cover, young tree seedlings, and the habitat they provide for food or cover possibly suffering severe reductions or elimination from the park. Draft EIS at 1957. Yet, in the GMP, the NPS concludes that even the no-action alternative (Alternative B) would result in no impairment to other native wildlife. GMP and EIS at 125. Again, considering that these documents were published only two years apart, it is seemingly inexplicable how the GMP finds no impairment to other native wildlife despite the known presence of a growing deer population in RCP while the Draft EIS claims that the no-action alternative could possibly cause the elimination of certain protected species. The NPS must provide a rational explanation for this discrepancy.

### **Rare, Unique, Threatened, or Endangered Species**

Though the NPS “is not under any legal obligation to protect rare plants or animals identified by the adjoining states of Maryland and Virginia,” NPS Management Policies specify that consideration will be given to the impact of agency actions on state or locally listed species, Draft EIS at 201, and that the NPS will “manage state and locally listed species in a manner similar to its treatment of federally listed species to the greatest extent possible.” *Id.* and Management Policies at 4.4.2.3.

According to the NPS, there are several rare plant and animal species listed by Maryland that are found (although rare) in RCP.<sup>21</sup> Table 14 in the Draft EIS at 117 lists the Maryland rare plants that are known to existing in RCP. Of the 34 identified species, 13 are not palatable to deer, 7 species are of unknown palatability, 4 species are possibly palatable, and the remainder are considered palatable.<sup>22</sup>

The NPS, however, fails to disclose any information about historical abundances of these protected species and how their current numbers compare to what existed in the past. Nor does it indicate, for protected plants, which species already have population protected by fencing installed by NPS personnel and whether those protected populations are recovering. While the NPS identifies those protected plant species that are or may be palatable to deer, it does not disclose other species-specific threats such as climate change, climatic events (i.e., drought), seasonal variations, pests, and disease. Draft EIS at 205. Instead, the threats identified by the NPS are largely speculative based on allegations regarding potential impacts attributable to deer and no specific data or evidence is presented to substantiate the claims.

For state-listed wildlife species, the NPS claims that “the continued growth of the deer population and heavy deer browsing can degrade habitat and result in lack of food or cover for species that require ground vegetation to maintain viable populations within the park.” Draft EIS at 206. The NPS identifies a number of species that could be affected

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<sup>21</sup> The GMP and EIS includes several tables listing rare species in RCP and state-listed species in Arlington County, VA, Montgomery County, MD, and in the state of Maryland. See GMP and EIS at Appendix E. With the exception of the rare plants in Rock Creek Park listed in Table E-2, the remaining lists do not indicate whether the species are or are not found in RCP.

<sup>22</sup> Conversely, in the RCP GMP the NPS identifies only 17 rare plant species, not 34, occurring in RCP. Five of these species are designated as highly state rare – critically imperiled while 12 species are classified as watch list – rare or uncommon. GMP and EIS at 145. Fourteen of these species are non-woody, herbaceous species that typically occur in a single population within the park, *id.*, which would suggest that they could be easily protected with fencing. The remaining three species are timber species. The reason for the significant discrepancy in the number of rare plants reported in RCP between the GMP and Draft EIS is unknown.

including the mourning warbler, Nashville warbler, bobolink, Acadian flycatcher, American woodcock, brown thrasher, eastern towhee, southern bog lemming, Alleghany woodrat, eastern chipmunk, eastern cottontail, corn snake, eastern garter snake, eastern hognose snake, eastern worm snake, northern copperhead, northern ringneck snake, eastern fence lizard, and eastern box turtle. *Id.* Yet, again, the NPS offers no historical or present day population data thereby preventing the public from understanding if these populations are in decline, the severity of the decline, and whether a massive lethal deer removal program can possibly reverse any declines (assuming they can be documented).

There is a single federally listed species that inhabits RCP; the Hay's spring amphipod. This amphipod is a groundwater species that spends the majority of its life below the water surface. Draft EIS at 204. The primary threats to this species are, as indicated in the Draft EIS, "related to degradation of the subsurface groundwater (e.g., change in flows, pollution from fertilizers, pesticides, and petroleum leaks, and loss of detritus), disturbance of surface springs is also a concern."<sup>23</sup> *Id.* While the NPS suggests that the continued growth of the deer populations "could degrade surface springs by increasing erosion and sedimentation, compacting soils, and altering vegetation composition," Draft EIS at 204, it concedes that the long-term protection of groundwater quality afforded by the park any future growth in the deer population and the associated impacts "are not expected to critically affect this species." *Id.* and Draft EIS at 209 Moreover, considering that the NPS apparently has no studies providing a causal link between surface erosion (assuming that even this can be appropriately attributable to deer) leads to impacts on the quality of underground water resources, Draft EIS at 27, 205, the NPS has no scientific foundation upon which to substantiate such claims. Consequently, the alleged, yet entirely baseless, claims that deer may impact this federally protected species must not be a factor considered in the decision-making process.

Finally, the NPS claims that Alternative A in the Draft EIS would result in adverse, long-term, and negligible to major impacts depending on the species with species that depend on ground cover, young tree seedlings, and the habitat they provide for food or cover possibly suffering severe reductions or elimination from the park. Draft EIS at 207. Yet, in the GMP, the NPS concludes that even the no-action alternative (Alternative B) would result in no impairment to protected or rare species. GMP and EIS at 124. Again, considering that these documents were published only two years apart, it is seemingly inexplicable how the GMP finds no impairment to protected or rare species despite the known presence of a growing deer population in RCP while the Draft EIS claims that the

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<sup>23</sup> See also, Draft EIS at 116 and GMP and EIS at 145 ("threats to groundwater amphipods include alterations of groundwater flows, groundwater pollution, loss of detritus as a food source, and disturbance of spring sites. Common pollution problems for amphipods are nitrates in fertilizers (which can result in groundwater oxygen depletion), pesticides, and petroleum leaking from underground storage tanks").

no-action alternative could possibly cause the elimination of certain protected species. The NPS must provide a rational explanation for this discrepancy.

### **Soils and Water Quality:**

In regard to RCP soils, the NPS reports that “soil resources are being adversely affected by accelerated erosion, compaction, and deposition caused by human activities inside and outside the park boundaries.” Draft EIS at 101 (emphasis added). Such impacts are particularly evident in areas that receive heavy visitor use including areas along streambanks, at picnic groves and other recreational areas, and along heavily used or infrequently maintained trails. *Id.* The NPS does not implicate deer as a factor adversely impacting RCP soil resources.

The NPS claims that the allegedly overabundant deer in RCP will, as a result of sedimentation caused by a lack of ground which is the result of excessive deer overbrowsing will increase the turbidity of RCP water quality. In the Draft EIS, water turbidity is the only aspect of water quality this is being assessed. Water turbidity is, however, one of the less consequential aspects of water quality in regard to RCP.

The Draft EIS, for example, reports that RCP water quality is impacted by an increase in impervious surfaces leading to increased storm water runoff which, in turn, has contributed to an increase in sedimentation in Rock Creek and has carried more pollutants into creek waters. Draft EIS at 102. An increase in storm water runoff also increases peak flow rates in Rock Creek resulting in stream bank erosion and excessive sedimentation. Combined sewer overflow, which is a mixture of sewage and storm water runoff, is discharged directly into Rock Creek and its tributary waters when the capacity of a combined sewer is exceeded during storms. Draft EIS at 160. Water quality in RCP has been adversely impacted from inputs from the surrounding urban area including runoff from construction sites, roads, parking lots, lawns, stables and leaking sewer lines. Draft EIS at 102.<sup>24</sup>

As disclosed in the RCP GMP, some park creeks have been routed into storm sewers “some of which receive untreated sewage in association with storm events. GMP and EIS at 47<sup>25</sup>. Other threats to surface waters include pollutants from roadways and

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<sup>24</sup> See also, Draft EIS at 159 (“groundwater pollution has occurred in the past through point sources such as illegal dumping and may occur in the future. There have been leaking underground heating oil storage tanks in and adjacent to the park that have had some effect on groundwater. There are many potential sources of groundwater pollution within the urban development that surrounds the park, and it is possible that something could happen at any time to contaminate groundwater”).

<sup>25</sup> See also, GMP and EIS at 28 (“Rock Creek Park has ongoing special use concerns associated with the presence of sanitary and storm sewer lines within the park, including the antiquated, combined sanitary and

parking lots after precipitation events, GMP and EIS at 135, sediment from unvegetated soil at construction sites and agricultural fields, GMP and EIS at 136, and runoff from lawns, stables, and leaking sewer lines. GMP and EIS at 139. Specific sources of water pollution in RCP include the police stables, gold course, maintenance yard, and parking lots. GMP and EIS at 139. The Draft EIS also references adverse impacts associated with sewer overflows and leaks as well as off-trail use, illegal camping, various visitor uses, and park operations/maintenance activities causing increased water turbidity. Draft EIS at 176, 177. According to Banta (1993), 58 percent of the tributaries of Rock Creek were classified as severely impaired for habitat quality and biological water quality while the remaining 42 percent of the tributaries were moderately impaired. GMP and EIS at 139.

While water turbidity is of relatively little consequence in RCP, the NPS goes on to concede that “the loss of vegetative ground cover park-wide from deer browsing is not currently documented as a problem relating to soils and water quality.” Draft EIS at 176. If there is no evidence of a loss of ground cover, then sedimentation leading to an increase in water turbidity is not a relevant factor worthy of analysis in the Draft EIS. Instead, it is one example of the NPS blaming deer for alleged impacts that simply don’t exist to curry favor for its proposed action among the public, other agency officials, and its own decision-makers.

The NPS then contends that, under the no-action alternative, deer numbers will inevitably rise thereby leading to more overbrowsing of ground cover potentially resulting in increased sedimentation and high turbidity if exposed soils are washed away and into surrounding water bodies. Draft EIS at 176. As evidenced by the NPS’ own data, deer population numbers in RCP have fluctuated in recent years. While variability in deer numbers is likely, as the NPS indicates, the RCP deer population, if left protected, would not continue to increase in size given the inevitable influence of density dependence factors. Moreover, if there has been no evidence of high turbidity even when the deer population was at an alleged high of 92 deer per square mile, why would turbidity be a problem in the future even if the deer population increases in size.

Not surprisingly, though the NPS concedes that there is no data at present demonstrating that deer browsing has caused a loss of ground cover resulting in an increase in water turbidity, it claims in its analysis of Alternative C (combined lethal actions) that a “smaller deer herd would allow reforestation to occur throughout the park and for woody and herbaceous vegetative cover to recover” thereby reducing the potential for soil erosion and sedimentation of park streams. Draft EIS at 178. If there is no evidence that

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storm water sewers that discharge raw sewage into Piney Branch and Rock Creek in association with storm events”); GMP and EIS at 135 (“29 combined sanitary/storm sewer overflow structures on Rock Creek ... contribute 49 million gallons of combined storm water and sewage to the creek in an average year”).



any alleged ground cover loss attributable to deer is presently increasing water turbidity, how does a smaller deer herd lessen an impact that doesn't exist? Again, because there's no evidence currently demonstrating a cause and effect relationship between deer browsing and water turbidity, this factor should not be considered in making a decision about the proposed action.

### **Wetlands and Floodplains:**

Wetlands and floodplains in RCP have been adversely affected over the decades by a number of factors including, in particular, increased urban development on lands surrounding RCP resulting in a greater amount of impervious surfaces leading to increases in flooding and periodic washouts and/or siltation of smaller wetland areas. Draft EIS at 106, 183. Major floods occur only periodically but, when they do occur, the impacts can be extensive. The number of vernal pools in RCP has been reduced due to past draining or filling activities, stream-bed scouring from increased runoff, and a lowering of the water table as a result of stream channel manipulation and urban groundwater use. Id. Wetland vegetation that naturally occurred in RCP has mostly been eliminated and replaced with seeded and transplanted species. Id. Finally, other uses including off-trail activities, various visitor uses, and horseback riding in RCP can affect the park's wetlands and floodplains.

Despite the already heavily impacted and manipulated state of RCP wetlands and floodplains, the NPS alleges that deer, if their numbers were left uncontrolled (Alternative A), a continued loss of vegetative ground cover and a change in forest floodplain composition and structure would be "expected", springs and vernal pools "could" be adversely affected "if: deer trample these areas while seeking water sources resulting in increased siltation and erosion, or these pools "could" dry up entirely if more intense browsing reduced vegetative cover. Draft EIS at 182. Though it is clear that the NPS is largely relying on certain assumptions in regard to its analysis of the no-action alternative, for Alternative C and D, both of which promote lethal control, a reduction in the size of the deer herd "would" allow woody and herbaceous vegetative cover to recover, including within wetland areas, and "would" limit the damage of deer trampling in smaller wetland areas. Draft EIS at 185.

### **Cultural Landscapes:**

The primary alleged impact to cultural landscapes is deer consuming specific cultural and landscape plantings. Draft EIS at 221<sup>26</sup>. This could reduce or cause the loss of palatable

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<sup>26</sup> A "cultural landscape" is defined in the GMP as "a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values." GMP and EIS at 158.

landscape plantings that are of apparent historical importance in RCP. What the NPS fails to disclose or discuss is whether landscape plantings for cultural purposes are sufficiently significant and worthy of protection to justify the proposal massive deer slaughter, whether NPS statutory and policy standards require the absolute protection of such cultural plantings, and whether there are alternative cultural and landscape plantings that could be used to retain the cultural landscape while reducing or eliminating alleged damage by deer. In addition, though the NPS identified specific cultural landscapes of concern, Draft EIS at 126, the NPS has failed to identify which areas have been or are being subject to deer overbrowsing, which specific species are being affected, and whether there are non or less-palatable species that could be used to mitigate these impacts.

Other factors that may affect cultural landscapes in RCP include gypsy moths, other timber/vegetation diseases, activities used to combat such pests/diseases, fire its suppression, invasive exotic vegetation, human activities including the use of mountain/motor bikes on Civil War era earthworks and embankments, and land use changes including urban development. Draft EIS at 222.

**Soundscapes:**

The NPS asserts that the impacts to the RCP soundscape as a result of the proposed action would be minimal because sharpshooting would be conducted during late fall and winter when park visitation is at its lowest, because most shooting would be done at night when the park is closed, and since silencers could be used to reduce the noise generated by rifles used to kill park deer. Draft EIS at 232, 233. The perception of the impacts of the proposed action would vary, as indicated by the NPS, and would depend on timing, attenuation levels, and distance from the source. Draft EIS at 234.

The NPS claims that individuals who support the removal efforts would likely find the disturbance caused by the shooting would only experience minor adverse impacts. Conversely, individuals who are closer to the source of the firearm would experience moderate adverse impacts. Draft EIS at 233. The NPS does not, however, evaluate the impact of the shooting operation and the inherent sounds of shooting that may be heard by those who live in communities surrounding RMP to those specific individuals who chose to live near RCP because of its scenic beauty and protected wildlife and who are totally opposed to the proposed action.

Federal courts have determined knowing, without actually observing, the killing of wildlife represents a harm that can be redressed by a court. If the mere contemplation of wildlife being killed is sufficient to cause harm to an individual then surely hearing the sounds produced by sharpshooters firing from tree stands at defenseless and unwitting

deer consuming intentionally placed bait to lure them to their death must also be considered harm and should have been addressed in the Draft EIS.

**Visitor Use and Experience:**

The NPS contends that if the RCP deer were left unmanaged (i.e., Alternative A – no action alternative – were selected), RCP visitors who come to the park to enjoy natural history, to learn about history/nature, those who value native plants and wildlife, or those who visit to enjoy the park’s scenic beauty would be adversely affected as a result of excessive deer browsing. This would diminish the likelihood of appreciating park vegetation, cause a lack of shrubbery and flowering plants in the forest understory, and reduce the diversity and abundance of native vegetation in the park.

The NPS attempts to substantiate these claims through the use of visitor survey statistics. For example, the NPS claims that 14 percent of RCP visitors primarily come to enjoy natural history, 10 percent come to learn about history/nature, a whopping 94 percent rank scenic beauty as extremely or very important, and 68 percent rank the existence of native plants and wildlife as important. Draft EIS at 238, 136, 137.

Overall, as reported in the Draft EIS, RCP supports an average of more than 2 million visitors each year, Draft EIS at 131, with visitation increasing over 250% since 1973. Draft EIS at 132. Another 12 million people use RCP as commuters. *Id.* Unlike a traditional, more remote or rural, national park (i.e., Yellowstone, Yosemite, Grand Canyon), RCP has been highly manipulated over the years to provide a diversity of visitor opportunities not found in many parks including an 18-hole public golf course, tennis courts, community gardens, sports fields, playgrounds, and a 4000-seat amphitheater. Draft EIS at 136. As previously indicated, NPS decisions to permit some of these developments, given that they have increased the quality and quantity of deer habitat thereby contributing to the alleged overabundance of RCP deer, likely constitute illegal impairments that the NPS has a legal obligation to remedy.<sup>27</sup>

The NPS cites to Littlejohn (1999) for these statistics yet it provides no further information about the methodologies used in this survey, when it was conducted, what

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<sup>27</sup> During the RCP GMP process the NPS briefly entertained a proposal to close the community gardens, public horse stables, and the golf course but, in the end, due to nearly universal public opposition to such closures, the NPS rejected this proposal. RCP GMP at 294. Nevertheless, NPS Policies require the continual evaluation of park uses and activities to ensure that they do not cause an impairment or pose unacceptable impacts to the parks and that such uses are appropriate. There is no indication that the NPS even considered whether these uses represent an impairment of the park during the GMP process (as required by the NPS 2001 Management Policies) or whether they are consistent with the standards imposed in the NPS 2006 Management Policies. In addition, if there is nearly universal opposition to the proposed lethal deer slaughter program, the NPS would seemingly also have to reject it to be consistent.

time span it covered, who was surveyed (i.e., park visitors, Washington DC metropolitan residents), how it was conducted (i.e., by telephone or in-person interview) nor did it provide any examples of the type of questions that were asked. More importantly, there is no way that Littlejohn (1999), the NPS, or the public could know how those surveyed perceived the questions asked. For examples, for the 14 percent of visitors interested in natural history, what specifically were there interests and did they necessarily perceive park deer as adversely impacting their park experience.

Or, for the reported 94 percent of visitors who think “scenic beauty” is extremely or very important, how do they perceive or define “scenic beauty.” Is a forest with little understory vegetation beautiful to them or do they even care whether there is abundant herbaceous cover? Is seeing an abundance of deer in their natural habitat – something the visitor may not experience at their home or in their neighborhood – beautiful to them? If RCP vegetation appears healthy, even if locally dominated by exotic species, beautiful to them and/or do they even know that the species are exotic? Do these visitors understand natural succession, do they care if the forest stand is young, diverse, or old-aged, do they worry about or even notice a lack of forest regeneration or are they visiting RCP for a picnic, a hike, a run and, for them, scenic beauty is what they see whether its natural or not?

For the reported 67 percent who apparently value native plants and wildlife, how many actually know which plants are native and which are exotics? Did they express value in native plants because it was perceived as the correct answer to a survey question or did they select the option since the alternative, expressing value for exotic, invasive species, wouldn't be appropriate? Do these individuals visit RCP only to leave disappointed and angry because they were unable to see native species or because there were too many exotics in the park? Do they loathe deer because they associate deer with their inability to see native species (even though the deer themselves are a native species)?

The reality is that these statistics, while they may sound impressive and may be of academic interest, are completely meaningless in regard to deer management in RCP since those conducting the survey did not attempt to ascertain how those surveyed perceived the questions asked nor were they asked in the context of deer management. For example, those who claimed that “scenic beauty” was extremely important to them were likely not asked how they define scenic beauty, whether deer add or subtract from their perception of scenic beauty, and/or whether their perception of “scenic beauty” is influenced by the number or density of deer in the park.

While the NPS has inappropriately and selectively attempted to use survey statistics to claim that the bulk of RCP visitors have their park experience literally ruined by deer and the impacts allegedly attributable to deer, other evidence, including some additional

statistical evidence in the Draft EIS, demonstrate why the NPS is wrong. First, the NPS concedes that it does not know “what percent of visitors place a high importance specifically on seeing deer.” Draft EIS at 238. This was apparently not a question addressed by Littlejohn (1999).

Yet, even for those individuals who the NPS concede may enjoy seeing deer in the park, the NPS claims that their visitor experience could be marred if they saw ill or emaciated deer due to the impacts of the alleged overabundance of deer in the park, Draft EIS at 239, and that they may actually prefer seeing fewer deer if those survivors were healthy and viable. Draft EIS at 241, 243. Both argument exploits the public’s general lack of knowledge of ecological process and deer biology/ecology and both, particularly the latter, are entirely based on speculation. While there are likely few people who enjoy seeing ill or emaciated wildlife, the reality is that wildlife in national parks, on other public lands, and on private lands die as a result of disease and/or starvation. Such factors are entirely natural and reflect the difficulty faced by wild species attempting to survive in the wild. The NPS should exploit such natural regulating factors to inform and educate the public that survival in the wild is hard, death is common, but, in many cases, reflect entirely natural causes, and which is critically important to the ecology of any wild area.

Indeed, while the NPS is quick to point out that it could employ educational efforts to, for example, explain to its visitors why lethal deer control is necessary, it apparently is unwilling or unable to make such an effort to explain why, if the deer are left alone, some deer may, at times, appear ill or emaciated, why that is to be expected, and how that is an indication of a natural regulatory mechanism that acts to control deer and other wildlife populations in RCP and elsewhere. If the NPS is going to claim that it can inform and educate people to accept a wide-scale, multi-year program to slaughter protected deer in a national park then it must also concede that it can educate park visitors as to the concept of natural regulation, how density influences wildlife populations, and why this process, which is entirely natural, is important within the park ecosystem.

Second, as the NPS concedes, the most common reasons for visiting RCP are to exercise (61%), to escape the city (47%), spending time with family/friends (37%), enjoying solitude (30%), and so-called “other” reasons including attending a concert, walking the dog, golfing, gardening, enjoying nature, eating lunch, commuting home, visiting the planetarium, and studying (a combined 29 percent). Draft EIS at 238, 136<sup>28</sup>. With the

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<sup>28</sup> The NPS also cites to Littlejohn (1999) in the RCP GMP and the visitor use statistics cited in that document are different than the statistics ostensibly cited from the same study in the Draft EIS. In the RCP GMP the NPS reports that RCP visitors participated in walking/hiking/jogging (44%), bicycling (18%), walking the dog (17%), communing with or studying nature (13%), picnicking and family reunions (11%),

exception of those who visit the park to enjoy nature which was discussed above, none of the other reported reasons for visiting RCP have any relevance to deer management in the park. However, since most RCP visitors come from the Washington DC metropolitan area, it is not out of the question that the opportunity to see one or more deer during their visit actually makes their experience more, not less, enjoyable.

Third, as stated by the NPS in the RCP GMP:

“Scoping demonstrated that there is much that the public likes about the park. Indeed, one of the most common comments during scoping was that the park is fine just the way it is today. In particular, people want the traditional character of the park to continue, although many also expressed concern about the effects of traffic on the recreational experience.” GMP and EIS at 29 (emphasis added).

While, admittedly, scoping for the GMP was conducted in 1996 when the RCP deer population was reported smaller, the NPS published this statement in its 2007 GMP and EIS without any attempt to update, correct, or explain that what was considered “fine just the way it is today” in 1996 may no longer be applicable in 2007. In fact, based on comments submitted on the Draft GMP, the NPS determined that RCP “visitors like, and would not want to change, most aspects of Rock Creek Park.” GMP and EIS at 214. Among the attributes that visitors reported to like were the park’s “pleasing appearance and the range of activities.” Id. Instead, the NPS apparently elected to make the case that nearly all, with the primary exception of traffic, was well within RCP allowing it to focus, albeit illegally, the GMP on traffic management issues.

Similarly, again during scoping, the NPS reported that “many people commented on the value of seeing wildlife in the parks, especially in contrast to the surrounding urban environment,” GMP and EIS at 41, and that “white-tailed deer, the largest and most conspicuous mammal (in RCP) was most frequently mentioned.” Id. AWI concedes that the RCP deer population was likely smaller in 1996 than in more recent years but, if those members of the public expressed interest and value in seeing deer in RCP in 1996 why would the public in 2008 or 2009 express a different opinion and what evidence does the NPS have to suggest that public sentiment has changed?

The experience of park visitors and, perhaps more importantly, adjacent landowners, including children, are also of relevance though the NPS failed to provide any discussion of the impacts of the proposed action on RCP neighbors. This is of particular concern given the proposed use of archery to kill RCP deer under some circumstances, including

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golfing (10%), in-line skating (6%), tennis (4%), studying history (3%), creating art (3%), horseback riding (1%), and other activities (16%). GMP and EIS at 161.

near residences. Draft EIS at 61. Bow hunting is considered to be a particularly cruel form of hunting due to the significant wounding rate that some claim is as high as 50 percent (i.e., for every animal killed with an arrow another is only wounded and either recovers or dies a very painful, and potentially slow death). The NPS concedes that deer targeted by archers may not succumb immediately and could flee the area. Draft EIS at 242. These deer, if not found and killed by NPS agents, could be seen by the public either after they have died in someone's yard or while struggling to survive after being impaled by an arrow. This would represent a particularly traumatic experiences for anyone, including children, who live near the park and who may have chosen to reside near the park to benefit from the opportunities to observe and enjoy deer. The NPS has to consider and evaluate this potential impact or, preferably, eliminate archery as a method of lethal control.

Furthermore, the NPS identifies exsanguination (i.e., bleeding to death) as a potential method for killing captured deer. Draft EIS at 62. Exsanguination can't possibly be considered as a "humane" killing method by the NPS or any other responsible agency or organization. This method should be eliminated as an approved technique for killing deer if the proposed action is implemented.

#### **Visitor and Employee Safety:**

The principal issues of concern to the NPS in regard to visitor and employee safety is the risk of deer/vehicle collisions. The NPS reports that such collisions "are a threat to humane safety and are one of the predominant sources of deer mortality." Draft EIS at 140. The NPS claims that there has been an upward trend in deer/vehicle collisions from 1989- to 2007 with a high of 52 such collisions reported in 2006. Id. While the NPS reports that deer/vehicle collisions are most common along Military Road, Oregon Avenue, Beach Drive, and Rock Creek and Potomac Parkway, it does not disclose: how many deer were killed by year along each road segment, which roads were monitored for deer vehicle accidents (including any adjacent non-park roads), what the speed limit is for the roads where deer/vehicle collisions were reported, the estimated speed of the vehicle involved in the collisions, whether there were any human injuries or fatalities, the estimated amount of damage to the vehicle, and whether there were extenuating circumstances contributing to the accident (i.e., icy/wet roads, darkness, inclement weather, driver impairment). The NPS claims that while deer/vehicle accidents increased in the park, traffic volumes have remained the same or decreased, Draft EIS at 140, though, again, the NPS fails to disclose the traffic volume statistics or the methodologies used to measure said volume.

#### **Socioeconomics:**

As is frequently the case with the socioeconomic analysis contained in most NEPA documents, the analysis in the Draft EIS is entirely one-sided focused solely on the alleged adverse impact of deer on adjacent homeowners and landscaping. Of course, deer may have both a beneficial and adverse impact on the socioeconomics of RCP and the surrounding urban areas yet these beneficial impacts, as is the case here, are rarely disclosed or evaluated.

Prior to addressing this specific deficiency, it must be noted that the NPS is under no legal obligation to prevent park wildlife from emigrating beyond park borders and/or to eliminate or mitigate wildlife impacts to private or non-parks lands adjacent to RCP. National parks were never intended to be managed as zoos where the animals are contained in specific areas unable to exhibit natural behaviors, including migration or range expansion. Indeed, the original concept for national parks embraced the sanctuary concept where wildlife would be protected within the parks while allowed to be used outside of the parks. This was intended to not only create potential hunting opportunities but to provide opportunities to enjoy and observe wildlife both within and outside of parks. As a consequence, it is indisputable that, for those interested in wildlife, the opportunity to live adjacent to a national park, including an urban park, is of immense value.

The NPS reports that “landscaping can have a significant impact on property values, enhancing the resale value of a property by up to 15% and that 100-200% of landscaping costs can typically be recovered when a home is sold. Draft EIS at 142. Yet, according to the NPS, due to the ravenous appetites of deer, they “cause virtually year-round damage to landscaping, which can be costly to replace.” Draft EIS at 142. While such statements suggest that RCP deer are known to adversely impact landscaping on adjacent properties, the Draft EIS includes some completely conflicting statements raising questions about whether RCP deer are in fact impacting adjacent properties. For example, in addressing deer impacts to adjacent landowners, the NPS assumes that park deer populations are currently foraging on private lands adjacent to the park and that these private lands are currently within the home range of the park deer population. Draft EIS at 256. The NPS can’t have it both ways; it can’t assume that deer are adversely impacting landscaping on adjacent properties while, at the same time, denigrating deer for causing such impacts.

Conveniently, though RCP began compiling a list of people who inquired about deer impacts on landscaping in the early 1990s, it did not track the number of complaints or inquiries received on the subject nor has the list been regularly updated to track or reflect all such complaints/inquiries. Draft EIS at 142.



Considering that the NPS now proposes to engage in a massive slaughter of deer in RCP, the fact that RCP did not, at least in recent years, reinitiate an effort to more accurately record complaints about deer by adjacent landowners is disconcerting. Because of this, the NPS cannot report on the number of such complaints. As a result, there's no way of knowing whether the percentage of complainants is significant or not. It is, in fact, very possible that the proportion of adjacent landowners who actually have complained about deer impacts to their landscaping is quite low. AWI acknowledges and commends the NPS for its efforts to field inquiries/complaints from adjacent landowners and to educate them about deer, deer biology and ecology, how to live with deer, and how to landscape their properties using species and techniques to reduce the potential for deer damage. However, without data on the number of complaints, the location of the complaints, the type of damage reported, the severity of the damage, the estimated cost of repairing the damage, efforts undertaken to "deer-proof" landscaping (i.e., use of repellents, planting non-palatable or less palatable species, installing fencing), and the success of those efforts to address the "problem" it is impossible to consider this alleged impact in relationship to the broader deer management plan.

As a consequence, unless the NPS discloses and analyzes such data, it cannot rely on the alleged impacts of deer on adjacent landowners and their landscaping to justify or support the proposed action.

Moreover, the NPS must also consider the economic value of deer to balance its analysis of the alleged economic impacts of deer impacts to landscaping. For many persons who reside near or use RCP, deer may be of significant value in terms of their beauty, opportunities to observe them in their natural habitat, and, for some, the ability to observe park deer in their own yards. There are economic values associated with these benefits that must be considered during the planning process.

### **Reproductive control:**

Alternatives B and D in the Draft EIS both contemplate the use of non-lethal reproductive control as a means to reduce the growth of the RCP deer herd and eventually reduce the herd's numbers. Several reproductive control techniques are considered in the Draft EIS with additional analysis of the techniques provided in Appendix C of the document. As indicated in the Draft EIS, the NPS will not use reproductive control until an "acceptable reproductive control" agent for use on does is found. A "successful reproductive control agent" is defined by the following criteria: 1) there is a federally approved fertility control agent for application to free-ranging populations; 2) the agent provides multiple year (more than three years) efficacy; 3) the agent can be administered through remote injection; 4) the agent would leave no residual in the meat (meat would be safe for human

consumption); and 5) overall there is substantial proof of success in a free-ranging population, based on science team review. Draft EIS at 55. The NPS then claims that “such an agent is not currently available,” *id.*, but that research is ongoing on various immunocontraceptive agents including porcine zona pellucida, SpayVac, Gonadotropin Releasing Hormone (GnRH), and leuprolide. *Id.*

Recently published studies on immunocontraception efficacy and long-term viability call into question the accuracy of the NPS conclusion that an immunocontraceptive agent is not currently available. Before addressing the inaccuracy of that conclusion, however, the self-serving criteria that the NPS has developed to determine when a reproductive control agent is available must be examined.

First, in regard to federal approval of a fertility control agent for use in free ranging deer populations, the NPS must surely be aware that the lack of approval is not a result of the inadequacy of lack of safety associated with current immunocontraceptive agents but, instead, has been mired in politics generated by state wildlife management agencies and pro-hunting organizations who are active and complicit in efforts to prevent any such federal approval due to a presumed, but not real, threat to sport hunting. Instead of using this lack of federal approval as an excuse not to implement non-lethal reproductive control, the NPS should assist in compelling the relevant federal agencies who have jurisdiction over such decisions to expedite approval of these agents. If the NPS insisted that it required use of said agents in order to responsibly and humanely manage select wildlife species in America’s national parks in a manner consistent with federal law, this could force the authorizing agencies to look beyond the political monkey-wrenching tactics being employed by those agencies and organizations that unduly fear immunocontraceptive technologies.

Even without such federal approval, the NPS is not prevented from using these agents pursuant to a veterinary prescription under the Animal Drug Use and Clarification Act of 1994. The NPS admits to this option in the Draft EIS. Draft EIS at 55.

Second, the requirement for a reproductive control agent with multiple years of efficacy is clearly related to concerns about personnel time, costs, and workload. Considering that RCP is a national park where native wildlife are required by law to be protected and where the convenience of using bullets to control a native species is only to be authorized under the most stringent and rare conditions (unlike the current practices of the NPS in, for example, Valley Forge National Historical Park, Catoctin National Park), convenience should not be a prerequisite for the use of non-lethal reproductive control. It just so happens, however, that immunocontraceptive technologies have improved to the point where vaccines have been proven to be effective in preventing conception/births for multiple years thereby satisfying this specific criteria.

Even the NPS concedes that “current formulations of GonaCon last up to four years,” Draft EIS at 67. Yet, the NPS claims that GonaCon does not meet all of the NPS self-imposed criteria for a reproductive control agent and, therefore, can’t be used to non-lethally address the perceived deer overpopulation “problem.” Though not specified it is presumed this conclusion is based on the GonaCon research conducted at the White Oaks Federal Research Center in White Oak, MD. If this is the case, the NPS may claim that while the agent reduced production in some treated deer for up to four years, it wasn’t consistently successful in reducing production in all treated deer over that time frame. There are, however, even more recently published studies that provide additional evidence of the effectiveness of GnRH based immunocontraceptives over a number of years. See Attachments. The porcine zona pellucida immunocontraceptive agent may also now be effective over several years as research to accomplish this objective has been ongoing for a number of years.

Third, both PZP and GnRH-based immunocontraceptive agents have been delivered to a wide variety of species successfully via remote injection.

Fourth, if the immunocontraceptive agent is used off-label, the prescribing veterinarian is responsible for determining an appropriate meat withdrawal period for food producing animals that may enter the human food chain. If the veterinarian determines that there is no meat withdrawal period for a particular drug, then there is not need for the animal to be marked and vice-versa. Draft EIS at 55. Since the need to mark treated animals to prevent their consumption substantially increases the cost of immunocontraception and the time required to treat each animal, the NPS could and should consider alternatives to avoid this need. For example, since NPS studies indicate that RCP deer ranges only extend a minimal distance outside of RCP, if immunocontraception were employed in RCP the chances of anyone hunting a treated deer would be minimal. Since there presumably still would be a concern about that possibility, the NPS could work with MDNR, DC, and Montgomery County authorities on an public information and education effort to advise persons hunting in areas open to hunting near RCP to not consume any deer until the NPS or one of its partners can determine if the deer has been treated. Presumably there is a simple blood test that could be used for this purpose. If the deer has been treated, the hunter would be asked to provide it to one of the agencies and would, if necessary, be offered another hunting permit or tag free of charge. This type of program has been used in CWD-infected areas in the West providing hunters the opportunity to have their elk or deer tested for CWD before choosing to consume the meat.

Fifth, in regard to the success of the immunocontraceptive agents, the attached studies provide an ample demonstrate of such effectiveness.

### **Chronic Wasting Disease:**

Thought the closest known case of chronic wasting disease is more than 100 miles from RMP, Draft EIS at 46, the Draft EIS includes provisions to address CWD whether it remains absent from RCP deer or known cases are found closer RCP or in RCP deer. The trigger for changing management actions is whether CWD is found within 60 miles of RCP. Id. If it remains beyond the 60 mile barrier then opportunistic surveillance of deer found dead or killed in RCP would be taken to test for CWD. If found within the 60 mile barrier then targeted surveillance would be undertaken in RCP to remove and test deer that exhibit clinical symptoms of the disease. Draft EIS at 290.

NPS includes an Appendix to the Draft EIS that provides additional information about chronic wasting disease. It claims, for example, that the higher density of deer in RCP increases the likelihood of transmission and that the disease could limit populations of deer and could result in impacts on the species recreational values. Draft EIS at 46, 188. It also provides additional information about the epidemiology, pathology, and ecology of CWD. What it doesn't address, which is most critical, is whether CWD is considered a native organism or if it is an exotic. If the organism that causes CWD is a native to the United States and/or to RCP, the NPS must protect the organism and can't automatically endeavor to eradicate it or those species that it may potentially affect in the future. Indeed, disease is known to be a natural factor that acts to control wildlife populations and, particularly in a national park, endemic disease agents must be allowed to affect wildlife populations (with the exception of ESA-protected species) pursuant to the NPS natural regulation mandate.

### **6. Minor corrections:**

Draft EIS at 64. The NPS provides a summary of its planned deer carcass disposal plan if it elects to embark on a lethal control effort. Specifically, the NPS claims the pit used to bury the carcasses will be five feet deep. A layer of carcasses would be added, followed by a foot of dirt, another layer of carcasses, a foot of dirt, a third layer of carcasses and then three feet of dirt. Since the deer carcasses will take up some space, the proposed five foot deep pits are not deep enough to handle three layers of deer carcasses and five feet of dirt. The pit will need to be deeper, perhaps as deep as seven or eight feet, in order to handle all of the carcasses and dirt. The deeper the pit, however, the greater the likelihood of potential adverse impacts to groundwater and the water table.

Draft EIS at 244. Current language refers to the "... cumulative impacts to vegetation under this alternative ..." and should be "... cumulative impacts to visitor use and experience ..."

Draft EIS at 259. The NPS claims that each alternative in this section would include a discussion of the impacts associated with receiving or not receiving additional funding. It is not clear from reviewing the environmental consequences of each alternative that such an analysis was included.

**Conclusion:**

The foregoing analysis provides compelling evidence that the proposed action as described in the Draft EIS is illegal. Moreover, even if the NPS could legally implement the proposed massive lethal deer control program, it has not provided sufficient information or adequate analysis to justify such a program. Alternatively, if the NPS is convinced that it must act to control the RCP deer population, the use of non-lethal reproductive control agents is a viable option that should be chosen by the NPS to gradually reduce its deer population in a manner that is entirely consistent with NPS legal mandates. Therefore, considering the analysis presented in this letter, AWI strongly encourages the NPS to select Alternative B or a modified version of this alternative that will permit an expanded effort to use immunocontraceptive agents to remedy the perceived “problem” with deer in RCP.

Thank you for the opportunity to submit these comments. Any future correspondence on this matter should be directed to D.J. Schubert, Animal Welfare Institute, 3121-D Fire Road, PMB#327, Egg Harbor Township, NJ 08234.

Sincerely,

A handwritten signature in cursive script, appearing to read 'D.J. Schubert', written in black ink.

D.J. Schubert  
Wildlife Biologist