

## Appendix I.



Thomas Tetzner/USFWS

*Northern Cardinal*

## **Summary of Responses to Substantive Public Comments on the Draft Comprehensive Conservation Plan and Environmental Assessment**



## Introduction

In October 2012, the U.S. Fish and Wildlife Service (Service, we, our) completed the draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA) for Patuxent Research Refuge (RR, the refuge). The draft CCP/EA outlines three alternatives for managing the refuge. Alternative B is identified as the “Service-preferred alternative.”

We released the draft CCP/EA for 45 days of public review and comment from October 11 to November 26, 2012. We held three public open house meetings to present the alternatives evaluated in the draft CCP/EA. We received 75 letters, calls, or emails representing individuals, organizations, and State agencies, and had approximately 30 people attend two public meetings held on October 22 and 23, 2012. We evaluated all the letters and emails sent to us during that comment period, along with comments recorded at our public meeting. This document summarizes all of the substantive comments we received and provides our responses to them.

Based on our analysis in the draft CCP/EA and our evaluation of comments received on that document, we determined that no significant modifications to the Service-preferred alternative (alternative B) as originally presented in the draft CCP/EA were necessary, and it was recommended to our Regional Director for implementation as the final CCP. We have determined that publishing a revised or amended draft CCP/EA is not warranted.

Changes we made in the final CCP include:

- We determined that individuals participating in horseback riding will not be required to clean up horse manure along the trails. We encourage individuals to do so if they are able, but we recognize that requiring riders to dismount could increase the possibility of injury. We will work with local riding groups to develop options for clean-up of specific areas as necessary.
- We determined that individuals participating in horseback riding will be allowed to travel at speeds other than a walk.
- Minor formatting and typographical errors that were brought to our attention.

We submitted the final CCP to our Regional Director for approval in May 2013. The Regional Director determined that a Finding of No Significant Impact (FONSI) was warranted (see appendix H), and that our analysis was sufficient to simultaneously issue a decision adopting this CCP for the refuge. We announced the final decision by publishing a Notice of Availability in the *Federal Register* of the final CCP.

## Summary of Comments Received

After the comment period ended on November 26, 2012, we compiled all of the comments we received, including all letters, emails, and comments recorded at public meetings.

In the discussions below, we address and respond to every substantive comment we received. Substantive comments are those that suggest our analysis is flawed in a specific way. Generally

substantive comments:

- Challenge the accuracy of information presented.
- Challenge the adequacy, methodology, or assumptions of the environmental or social analysis and supporting rationale.
- Present new information relevant to the analysis.
- Present reasonable alternatives, including mitigation, other than those presented in the document.

Our discussion does not include responses to any comments we determined to be non-substantive. For example, there were people who wrote us to request copies of the draft CCP/EA.

In order to facilitate our responses, we group similar comments together and organize them by subject heading. Table I-1 at the end of this appendix lists the names of the individual, agency, or organization that submitted comments. Responses to multiple, but similar or related comments, are consolidated to reduce duplication.

In several instances, we refer to the draft CCP/EA and indicate how the final CCP was changed in response to comments. The full versions of both the draft CCP/EA and the final CCP are available online at: <http://www.fws.gov/northeast/planning/patuxent/ccphome.html>. For a CD-ROM or a print copy of either plan, please contact:

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## **Service Responses to Comments by Subject**

### **Planning Process**

**Comment:** The Patuxent Riverkeeper commented that despite their urgings, the Service did not brief the State Patuxent River Commission about the CCP. As such, the State body decided not to comment on the CCP.

**Response:** Unfortunately, we are unable to brief individual entities during the planning process. That is why multiple public meetings are offered. We cannot control who attends these meetings, nor control whether an organization decides to provide comments or not.

**Comment:** The Service should involve more experts and experienced researchers in the CCP process. Questioned the lack of Patuxent Wildlife Research Center (PWRC) researchers and land management experts in the core planning team, and urged the refuge to involve more experts to ensure the objectivity of the CCP.

**Response:** The members of the core planning team are listed in the CCP and include representation from PWRC, along with the refuge staff members that have very specific expertise to Patuxent RR. In addition to the core planning team, we held multiple meetings with PWRC research managers and invited a number of researchers to attend our structured decision making workshops. We also included grassland bird experts in a 1-day workshop to discuss grassland management. Finally, this public comment period has included comments from a variety of interested people, including researchers.

**Comment:** What was the role of historic preservation and the State Historic Preservation Office (SHPO) in the CCP process? How did this impact/influence decisions regarding Snowden Pond and other impoundments?

**Response:** The refuge has been involved with SHPO in multiple consultations throughout the facilities modernization plan regarding eligible structures and coordination remains ongoing. We have provided multiple opportunities for SHPO to provide comments throughout the CCP process. We received a letter in response to the comment period for the CCP. The SHPO did not provide a substantive review of the CCP and looks forward to working with us on review of any projects that require SHPO review.

**Comment:** Patuxent RR needs to check the CCP text regarding consistency in word descriptions – particularly between alternative descriptions and the table highlight alternatives. Examples include wording on horse manure clean-up and 50-yard buffer description in hunting.

**Response:** We concur and have addressed this.

### **Law, Mandates, and Policies**

**Comment:** It is a violation of the National Environmental Policy Act (NEPA) to do an EA when an environmental impact statement (EIS) is required. There was no broad, national public outreach per NEPA requirements in any of the meetings.

**Response:** Under the provisions of the NEPA, the purpose of the EA is to determine if an EIS is necessary or if a FONSI is appropriate. Based upon the analysis that was presented in the draft CCP/EA, the Regional Director has determined that the actions presented in the CCP will not lead to any significant impacts and, therefore, an EIS is not necessary. NEPA does not require broad, national public outreach. We posted information about the availability of the draft CCP/EA in the *Federal Register*, on our Web site, and in local papers.

### **Refuge Purposes**

**Comment:** The draft CCP/EA deviated from the objectives on which Patuxent RR was established – to demonstrate best management practices as a wildlife experiment station that could be an example for the Nation to follow.

**Response:** As stated in chapter 1, the establishing purposes of the refuge are “to effectuate further the purposes of the Migratory Bird Conservation Act” and “as a wildlife experiment and research refuge.” The nature of the wildlife research that has occurred on the refuge has

changed over the past 75 years. Many of the early studies focused on farm game research and pesticide use. As habitat management changes, the nature of the experiments have also changed. There is a variety of research that occurs on the refuge and at the PWRC. Nothing in the CCP changes the purposes of the refuge or deviates from our desire to maintain its status as a top-notch wildlife experiment station.

**Comment:** It appears that refuge management is being dominated by a few public constituencies – in particular, local hunters, anglers, and horseback riders from outside the Baltimore-Washington area. Refuges belong to all people and Patuxent RR has a unique mission of being a research refuge. It is not, nor should it become, a park or recreation area.

**Response:** We disagree. The CCP provides direction for habitat management and public use for the next 15 years. The management direction presented in the CCP strives to balance habitat management with public use to support the National Wildlife Refuge System mission of wildlife conservation. We allow public uses that are found to be appropriate and compatible and do not materially interfere with or detract from the purposes of the refuge.

### **Refuge Administration**

**Comment:** Institute a no smoking policy on the refuge.

**Response:** Smoking is not permitted in any building or government vehicle. Smoking “outposts” have been placed in certain areas to reduce littering.

**Comment:** Is there any mention, or should there be, of encouraging “outsiders” (e.g., offsite scientists, graduate students, etc.) to find PWRC and Patuxent RR and conduct research?

**Response:** The refuge has been doing this and hopes to continue this encouragement. We are open to suggestions.

**Comment:** Patuxent RR needs to coordinate with U.S. Geological Survey (USGS) on the need to keep Bluegill and Mallard Pond. The mesocosms are going to be revitalized and Bluegill and Mallard are needed to provide the appropriate viewshed. This may also apply to Knowles 1 and 2. The whooping crane area needs to maintain the grassland view versus having a forested view. This may affect the breeding success of the cranes in the wild by altering their nest placement.

**Response:** Per conversations with John French, the CCP approach to management of the impoundments you mention is appropriate. Mallard Pond will be managed in the same way that it has in the past. Bluegill and the Knowles impoundments are planned to revert to green tree reservoirs, which will still serve wetland functions. The viewshed will not appreciably change for decades. The refuge is not managing or altering those areas within the administrative and occupancy area of USGS, which includes approximately 300 acres surrounding the Endangered Species Complex.

### **Habitat Management**

**Comment:** The draft CCP/EA takes a one-size-fits-all approach to habitat management, and does not consider each parcel individually and how each functions. A simple return to primitive

conditions is not called for. The current man-made alterations at Patuxent RR are 60 years old and functioning as excellent habitat.

**Response:** We have looked at refuge habitats on a landscape scale, mapped major habitat types including rare plant communities, and considered how these habitats connect with needed corridor access, or derive from unique soil types. Although some man-made alterations may currently serve as excellent habitat, they do not serve to promote the biological integrity of the area. We are still preserving some well-functioning artificial impoundments and grasslands, such as Uhler 1 and 2 and some of the larger grassland parcels.

**Comment:** Patuxent RR should consider adding in a timeline to the CCP text about habitat alterations (e.g., mowing, invasive species control, etc.). Need to better address the explanation in the text about why one time is better than another for various management activities.

**Response:** We concur that more explanation of mowing plans is important and needed. This information will be addressed in the annual habitat workplans.

### **Forest Transition**

**Comment:** The Service can acquire funding to maintain the grasslands and impoundments through other means such as notifying the Maryland congressional delegation that funds are needed to maintain impoundments and meadows for research and management, get non-governmental organizations to provide management at the refuge through a special use permit, relinquish control of the impoundments to research scientists, or partner with non-profit conservation organizations to provide appropriate management under the Service's supervision.

**Response:** Through the CCP process, we evaluated the species of greatest conservation need that occur on the refuge. In addition, we reviewed the Service's Biological Integrity, Diversity, and Environmental Health Policy. Based on these evaluations, we recommend the return of a natural floodplain forest wetland condition. We anticipate that there may be a cost savings in reduced maintenance; however, this potential cost savings is not the reason for the proposal. In addition, Federal agencies are forbidden by law from lobbying Congress for funds, from accepting funds from nonappropriated sources without specific statutory authority, and from delegating essential government function, such as management decisions for federal lands.

**Comment:** There is greater need for high-quality grassland and open water habitats in the region than forest. These habitats have important value for the Patuxent River and Chesapeake Bay, and the plants and animals associated with these habitats are the most strongly in decline. There are many rare species associated with open habitats, and transition to forest would result in loss of biodiversity and negative impacts to migratory and indigenous bird species.

Surrounding parks and private lands will move more toward establishing greater forest cover, so the Service should take the lead in creating and maintaining grassland and open water habitats.

**Response:** The emphasis of forest habitats in the CCP is based on biological integrity and where the refuge lies in the landscape. Whether to maintain a grassland area depends on the larger context of where these grasslands lie (for example, in a rural agricultural setting, or in a predominately forested or built out environment). We have included large, intact, high-quality grasslands adjacent to compatible habitat (i.e., agricultural fields), or on the edge of the refuge where it does not contribute to forest fragmentation. We continue to monitor rare species that are dependent open habitat areas.

We disagree that surrounding parks and private lands would establish greater forest cover. At this point in time large blocks of intact, native and mature forest are in severe decline.

**Comment:** There is questionable benefit of converting a small amount of grassland, open water, and marsh habitat to forest when the refuge is already 90 percent forest.

**Response:** The benefit is a combination of fragmentation reduced and management cost saved and not simply a measure of the number of acres.

### **Grassland Transition to Forest**

**Comment:** Let small grasslands revert to either scrub/shrub or forest, while maintaining the larger ones in the northeast and southwest corners of the North Tract and the one on the Central Tract between Hance, the kestrel pens, and Route 197.

**Response:** Future management reflects the proposition suggested above.

**Comment:** Agree with reverting some smaller openings in the forest interior and the old firing ranges in sectors J and K. Also agree with converting meadow habitat under powerlines to scrub since they're too narrow to function as effective grasslands. However, instead of eliminating grasslands, the refuge should enlarge the grassland area between Knowles and Hance Ponds by eliminating a few hedgerows and trees and maintaining the larger ones in the northeast and southwest corners of the North Tract.

**Response:** With the exception of enlarging the grassland area between Knowles and Hance Ponds, future management reflects the propositions suggested. The grassland area needs to be maintained as a vegetative buffer for the whooping crane pens.

**Comment:** Eliminating wet meadows north of the Uhler Ponds would be a mistake because of their habitat value.

**Response:** Bottomland hardwood forests are also valuable habitat and this action will reduce forest fragmentation. In addition, this action will reduce carbon emissions from mowing.

**Comment:** Grassland is valuable habitat. Converting grassland into forest is bad for biodiversity and is inconsistent with goal 4 of the CCP – to maintain biodiversity in upland habitat sites. Grassland transition to forest would deny scarce habitat to early successional bird species and other wildlife.

**Response:** We are providing over 250 acres of grassland habitat in areas where they will provide the greatest contribution to grassland species.

**Impoundment Transition to Forest**

**Comment:** The refuge needs to do more research on the value of specific impoundments or marsh areas, and what the benefits or costs of conversion to forest would be for the refuge and the Patuxent River ecosystem.

The impoundments have provided opportunities for research on the refuge for decades and are an important source of biological, scientific, and ecosystem information. Keep as many of the ponds as possible to allow the option for future research.

**Response:** We have already conducted this type of analysis in a structured decision-making process to weigh the ecological-biological values for each impoundment and the costs of conversions. Much research has been done for decades on the contributions of wetlands and impoundments, and there will continue to be some impoundments available should a research need arise. The refuge lies outside the priority areas for the Atlantic Flyway for waterbirds, so we are not considered a priority area by the State or Service regional priorities.

A great deal of time was spent by an interdisciplinary team discussing the biological and ecological merits of each impoundment, individually and collectively (as part of a complex). The vast majority of the impoundments proposed for conversion will become bottomland hardwood forest habitat, and will provide the wetland functions along the Patuxent River they had provided prior to their conversion to cropland, and to their present-day open water/marsh habitat. We view this as an effort to return the natural hydrology along this portion of the Patuxent River. The resulting bottomland hardwood forest will also provide additional forested acres of importance to several species of forest-interior dwelling bird species, as detailed in the CCP.

There is no question that many of Patuxent's impoundments served as important areas for wildlife and habitat research for much of their history. However, these impoundments have been largely devoid of research in recent years. Discussions with upper level management of the PWRC confirmed there were essentially no plans to conduct research in these impoundments in the future. Conversions planned for these impoundments will no doubt take many years to complete; therefore, many will remain intact for the fore-seeable future, should a research need arise. In the meantime, there will be opportunities to research how such areas respond to restoration to bottomland hardwood/floodplain forest. Such restoration has not occurred very often in the Mid-Atlantic region.

Wildlife research continually evolves, and Patuxent RR's research has evolved with it. Patuxent RR started out with many studies on how agricultural practices could be modified to be more wildlife-friendly. This is an example of research that is no longer done at Patuxent RR. Two impoundments – the Uhler Marshes, where extensive research was done over the years, are being kept expressly for the purpose of having some impoundments available should a research need arise.

**Comment:** The loss of impoundments would negatively impact the red-bellied turtle which is declining and has a restricted range. Conversion of impoundments would result in permanent loss of red-bellied turtle habitat and reduction in its population size at the refuge. There is no other red-bellied turtle habitat nearby.

**Response:** There will still be many wetland areas and even those impoundments that eventually get converted will still be wetland, with variable pools, braided streams, and green tree reservoirs. Red-bellied turtles are associated with coastal plain rivers and their floodplains, with which the refuge is hoping to increase connectivity. The turtles are common at Jug Bay and Lothian Park on the Patuxent.

**Comment:** Loss of impoundments would result in diminution of the riverine ecosystem and watershed impacts. The impoundments provide a variety of ecosystem services including biodiversity, stormwater management, and flood control, along with habitat for waterfowl.

**Response:** Reverting impounded areas to green tree reservoirs or to forested wetland areas will not diminish the riverine ecosystem. The areas that reforest will still serve as a type of wetland, with seasonal flowage. By allowing the impounded areas to revert to a more forested state, water quality may improve as nutrient and sediment overloads are filtered more efficiently. Forested wetland areas will continue to provide a variety of ecosystem services including stormwater management and flood control, carbon sequestration, and promoting biodiversity. Conversion of these impoundments will result in reestablishing natural hydrology of the Patuxent River.

**Comment:** Impoundments have aesthetic value for Service and USGS employees.

**Response:** While aesthetics are a consideration, habitat management decisions must be made based on the natural resources and species needs. Forested landscapes also provide aesthetic value.

**Comment:** There is concern about the impact of impoundment transition on wildlife. Impoundments contribute to habitat diversity and their conversion would result in the loss of important and locally rare habitat for migratory waterfowl, shorebirds, and other birds, including wood ducks, ring-necked ducks, and herons. This would negatively impact Statewide rare and threatened vegetation species. Conversion would exacerbate the problem of disappearing wetlands on the western shore of the Chesapeake Bay and that the loss of wetlands would devastate wetland birds at the refuge. Decreasing wetlands would be inconsistent with CCP goals 1 and 3. The impoundments have been one of reasons why the refuge maintains good wood duck populations – a researcher estimated that 800 wood ducks had come to roost in Knowles Marsh within a 1-hour period at dusk. Black ducks have also historically used impoundments in high numbers. Snowden Pond, Hance Pond, and one or more of the Knowles complex to provide wintering and migration habitat for ring-necked ducks, hooded mergansers, and other species which move amongst the impoundments.

**Response:** We will continue to maintain a variety of wetland habitats that are important for these rare and threatened species, including roosting wood ducks. We are changing the nature of some of the impoundments but we are not eliminating wetlands. For example, some of the impoundments will be converted to green tree reservoirs, which will provide food, cover, and nesting substrate for wood ducks and other species that depend on flooded forests. This changing of the nature of the impoundments will accommodate seasonal changes and better buffer watershed functions. These changes will continue to contribute to habitat and species diversity. In addition, throughout the refuge, many “traditional” impoundments will still remain.

**Comment:** If any impoundments were going to be reverted to forest they should be Snowden Pond and the gravel pits at the refuge’s southeast corner. These impoundments are excessively deep and less prime as habitat, especially the gravel pits. Why is the Service preserving those over Knowles, Hance, and Uhler Ponds?

**Response:** Refuge impoundments underwent extensive analysis to determine which impoundments should revert to a more forested state or remain as an impounded area. With each alternative different end results were achieved for various impoundments. In regards to gravel pits, these areas do not contain a water control structure to allow for water manipulation. As a result gravel pits would have to be filled, which would require an extensive permit process, in addition to being extremely cost prohibitive.

Impoundments such as Knowles and Hance Ponds are linked through water control structures that would allow for water manipulation and eventually simulate a green tree reservoir or forested wetland regime. Managing impoundments to revert to a forested state may be costly in some aspects, but overall will provide increased habitat benefit as an end result. Snowden Pond is an example of this scenario.

**Comment:** The refuge should continue autumn draw-downs to benefit amphibians.

**Response:** Autumn draw-downs will continue to be one of our management tools.

### **Grassland Management**

**Comment:** Concern about mowing grasslands in the fall, because birds use grasslands during the fall migration and for winter cover. Grassland mowing should be moved to the early spring, or if kept in the fall, mow just half of the fields, leave the other half for the birds, then reverse the mowing the following year.

**Response:** We agree and the above suggestion is also a consideration in our planning. This is a concern as it affects overwintering beneficial insects or may remove seed sources for the future populations of desirable plants. To the extent possible, we seek to spot mow, or “sectional mow” to leave standing vegetation in the winter. However, invasive species have taken over many fields and edges, and to be effective, a more aggressive approach is required, such as multiple treatments or late and early growing season mowing. We do not intend to make this aggressive approach a frequent practice.

**Comment:** Prescribed burns should continue on the R-1 firing range field and the Service should require the control of *Lespedeza* there.

**Response:** Where feasible and applicable the refuge will continue to use prescribed fire as a management tool for invasive species control, such as *Lespedeza*. In addition, prescribed fire is also used to promote suitable habitat for insect species such as the darkling beetle, for ground nesting birds, and as a tool to aid in the reduction of refuge-wide mowing applications.

**Comment:** The protocols in the Maryland Partners in Flight “Management Guidelines for the Benefit of Land Birds in Maryland” should be the starting point for recommendations for the management of grasslands on the refuge.

**Response:** This was one of several resources used to develop the management strategy for grasslands, particularly with respect to patch size, and area-sensitive obligate species. Some of these documents include Askins 2000, Helzer and Jelinski 1999, Schroeder and Askerooth 1999, and Vickery et al. 1999. Full citations and additional documents consulted for grassland management can be found in the bibliography of the final CCP.

### **Water Resource Management**

**Comment:** Clean up contaminated water bodies on the North Tract (e.g., lead shot, mercury in Little Patuxent). Management would need to differ based on the source and kind of contamination.

**Response:** There are no documented contaminated bodies of water on the North Tract. There are multiple monitoring wells on the North Tract, which are tracking the potential for groundwater contamination from former military operations when the property belonged to the Department of Defense. We also post the information provided by the State, regarding a fish consumption advisory based on mercury levels, which are a potential threat throughout the state of Maryland, and not unique to the refuge.

We continue to work with Fort Meade, the National Security Agency, and the U.S. Secret Service to minimize the amount of lead being deposited on the North Tract from activity at the shooting ranges. Capturing and recycling of expended rounds are the primary solutions being explored.

### **Rare Plants and Wildlife**

**Comment:** The refuge should provide for the security of research animal colonies, especially the endangered cranes.

**Response:** The refuge currently provides this service to the animal colonies. Public access is highly restricted; we have law enforcement staff patrol these areas; we coordinate the access needs of various contractors with the animal colony managers, especially regarding the whooping crane pens; and we are managing adjacent fields to provide more “screening” from both external and internal observation.

### **Fish**

**Comment:** Is American brook lamprey found on the refuge?

**Response:** The American brook lamprey (*Lethenteron appendix*) has not been documented on the refuge. Currently the refuge has documented the least brook lamprey (*Lampetra aepyptera*) and the sea brook lamprey (*Petromyzon marinus*).

### **Reptiles and Amphibians**

**Comment:** The refuge should conduct detailed searches for box turtles before a prescribed burn or mowing. Box turtles are found across the refuge – in some areas they are declining and in other areas are transient and passing through the refuge. The draft CCP/EA says that mowing would be postponed until August 15th; however, this is when box turtles are moving about. Spotted turtles and snapping turtles have also been found along mowed areas.

**Response:** We are aware of the potential impact of mowing and prescribed burn to box turtles and other wildlife. We try to mitigate the impacts of mowing and burning by scouting ahead of time when practical.

### **Diseases**

**Comment:** There is a lack of attention to ranavirus in the draft CCP/EA. Ranavirus is a disease that is of increasing concern, and protocols for preventing and minimizing the carryover of ranavirus from one location to another, or from one species to another are being developed. Once these protocols are created, they should be available as part of education packages for refuge visitors, particularly hunters and fishers.

**Response:** Although it is not referenced in the CCP/EA, we do have a ranavirus protocol in place for researchers, biological staff, and visitor services programs. This protocol was drafted with the assistance of E. Grant, and R. Siegel, both experts in the disease and its treatment. We will continue to educate other users of this concern. A study on the distribution of the disease throughout the refuge is underway.

**Comment:** What is Patuxent RR's thought on domestic animals, especially in alternative B? The refuge is better off without allowing domestic animals (dogs, horses, etc.), as this would reduce one possible vector of disease transmission.

**Response:** When we have more information and evidence regarding disease transmission then we will be able to address this issue at that time. We have not seen any evidence of disease transmission to date.

**Comment:** Is there a need, or should Patuxent RR, address the issue of feral cat control on the refuge. Highlight the potential for feral cat "colonies" developing offsite and impacting onsite resources.

**Response:** Currently we try to capture these animals when found onsite and then work with local authorities to minimize their impacts. The refuge has no authority to manage feral cat

colonies located off refuge lands. The public is encouraged to report such colonies to local authorities to deal with them.

**Comment:** The increase of bottomland forest may increase the probability of eastern equine encephalitis as Patuxent RR is a hotspot. Should this become the case, would we then encourage mosquito control?

**Response:** Restoration of impoundments will increase the fluctuation of water levels and should allow for more natural movement of water, and reduce stagnant pools of water more conducive to mosquito populations. Also, the refuge is striving for a more balanced system where natural predators of mosquitoes would exist, such as fish and various bat species.

### **Public Hours**

**Comment:** The public should have regulated access to the refuge during hunting season. For instance, allowing the non-hunters on hard or dirt roads and in restricted areas set aside for non-hunt activities, and requiring them to wear orange or optic green. Reinstigate longer hours for the public to use the refuge, including keeping North Tract open until sunset, rather than closing it at 4 p.m., especially on the weekends. Extended hours would facilitate wildlife observation because in earlier years, when the refuge was open later, more wildlife could be seen near sunset.

**Response:** Under the refuge's chosen management direction public access to the refuge would increase. Extended hours for the grounds would be administered for the South Tract, with grounds and trails being open from dawn to dusk to facilitate increased public access. During the hunting season, the public will be allowed to use a variety of trails on the North Tract. Limited historical and interpretive tours of the Central and North Tracts would also begin to be offered as resources and staff members become available. Fishing opportunities would be expanded at the South Tract by increasing calendar days available to fishing. If possible, increased fishing hours on the North Tract would also become available. Blue Heron Pond will be opened to facilitate increased fishing opportunities.

### **Hunting**

**Comment:** Patuxent RR may not have say over military use of green ammo on ranges, but Patuxent RR does have a say in promoting green ammo for hunting purposes.

**Response:** Currently lead ammunition is prohibited on the refuge for waterfowl hunting, per Service policy. Current use of ammunition for other types of hunting complies with Service policy. Policy and regulations to further curtail lead may be considered in the future.

**Comment:** The Service is scamming the public by using phrases like "wildlife-dependent recreation" when really what it is doing is "wildlife killing."

**Response:** Congress defined wildlife-dependent public uses in the National Wildlife Refuge Improvement Act of 1997. The six wildlife-dependent public uses that are identified in the act are wildlife observation and photography, environmental education and interpretation, hunting, and fishing.

**Comment:** The Service should not use the reason that hunting and fishing are “traditional” activities as justification to continue them – this reasoning could be problematic if other “traditional” uses are eliminated on the refuge.

**Response:** Hunting and fishing are allowed on the refuge because they are wildlife-dependent public uses that have been determined not to materially interfere with or detract from the purposes of the refuge. In the Refuge Improvement Act of 1997, Congress stated that these uses would be considered priority public uses. While hunting and fishing have taken place on refuge lands for many years, the reasoning that they are “traditional” uses is not a determining factor in allowing those uses.

**Comment:** Commenters expressed support for continued hunting access on the refuge, particularly for waterfowl. The North Tract is the only area on the western shore for public hunting of waterfowl and provides a large and diverse environment for hunting. Given the scarcity of waterfowl hunting opportunities on public lands, waterfowl hunting is cost prohibitive outside of the refuge.

**Response:** There are no plans to make major changes to the waterfowl hunting program at Patuxent RR. Our season is within the framework of the seasons established by the State of Maryland, in consultation with the Service.

**Comment:** There were objections to the closing of the January hunting season, as described under alternative C, and any further restrictions on hunting. Such restrictions and closures are unnecessary because hunters do little to disturb forest-interior dwelling species; waterfowl hunters typically hunt near the water and deer hunter numbers decrease in January due to cold weather, among other reasons. There are already some restrictions on hunters on the refuge, such as only being allowed to hunt 5 months of the year and on Sundays.

**Response:** As a part of the CCP process, we consider a variety of different management options. One of the comments that we heard early in the process was that non-hunters were concerned about the number of days that the North Tract is closed to them. We considered the option of closing the January hunt season as a way to address this issue. We also considered allowing non-hunters access to parts of the North Tract during hunting season and closing certain hunting areas. In our final plan, we have allowed access to non-hunters on additional trails during the hunting season.

**Comment:** Support for the idea of having a retriever training facility to promote year-round use and hunting season conservation.

**Response:** Under the Service’s preferred alternative, the refuge would continue to require retrieving dogs for the waterfowl hunting season. Related to this requirement, retriever training would be accommodated on the North Tract at New Marsh and Cattail Pond annually from August 1 to August 31 and during the refuge’s open waterfowl season. The use would be restricted to those individuals holding a valid Mead Natural Heritage Association hunting permit (refuge hunt permit) and a valid Federal waterfowl hunting stamp.

**Comment:** Suggestion to add a senior lottery hunt, including seniors in junior hunts, and/or adding one general lottery hunt in early January.

**Response:** The refuge would be supportive of establishing a senior lottery hunt. Establishing an additional lottery hunt would depend on deer populations and harvest goals. Our hunt plan retains the flexibility to amend lottery hunts as deemed necessary.

**Comment:** An individual expressed appreciation for the refuge's non-lead ammunition policy.

**Response:** Comment noted. Thank you for your support.

### **Horseback Riding**

**Comment:** A number of commenters expressed appreciation for the refuge, particularly the North Tract, as being a great place to ride. They noted that the refuge is a convenient location for riding, and that the footing and trails are good. The North Tract is one of the best places to train young horses to handle trails because of the consistent, firm footing and width of trails. The refuge is one of the only places in the region where riders can go during wet weather without damaging trails since refuge trails are hard-packed. Having the North Tract trails available for riding helps to preserve other, less durable trails.

**Response:** The refuge is aware of the unique trail conditions offered to equestrians, particularly during wet weather. North Tract trails currently open to horseback riding will remain open to horseback riding.

**Comment:** Riders have an interest in maintaining the condition of the trails and made suggestions for how the refuge could better maintain them:

- Limit riding to walk only when ground conditions are questionable.
- Limit riding during heavy rains.
- Ask for a trail fee during very wet weather.

**Response:** The refuge is appreciative of, and open to, suggestions for how to better maintain trails.

**Comment:** Suggestion to ask Trail Riders of Today (TROT) to supply riding ground rules for trails. They have decades of experience in resolving user conflicts and have long history of working with Maryland and Virginia counties and their planning institutions.

**Response:** To date, the refuge is not aware of user conflicts. Stipulations for riding are outlined in the refuge's compatibility determination for horseback riding (CD) including when and where activities related to horseback riding may occur. The CD can be found in appendix C of the final CCP.

**Comment:** The costs of riding outlined in the CCP seemed to be too high. The commenter said that in the CCP, equestrians are just 2 percent of users but the costs are more than half of cost assigned to hikers and bikers, who are 66 percent of users (\$44,650 annually for riding versus

\$84,800 annually for hiking and biking). However, equestrians do not enjoy more additional resources and services than is provided to hikers and bikers.

**Response:** The cost figures in the draft CDs for many of the public uses on Patuxent RR were based on estimates developed many years ago. It does appear that the horseback riding community is assigned a higher than reasonable cost estimate, based on numbers of riders. Updated cost estimates are provided in the final CD (appendix C of the final CCP).

### **Environmental Impacts from Riding**

**Comment:** A commenter noted that wildlife are not disturbed by horses on trails – most trail rides are done at a walk or brief trot segment so wildlife is able to move without any stress. If wildlife stress is a concern, the commenter recommended prohibiting galloping.

**Response:** As noted in the horseback riding CD (appendix C), the refuge anticipates that impacts of horseback riding on wildlife may include temporary disturbances to species using habitat on the trail or directly adjacent to the trail. These disturbances are likely to be short term and infrequent as much of the use is concentrated during weekends in the spring and summer. In addition, trails open to horseback riding are located in upland forested habitat which spreads the disturbance over the largest habitat type on the refuge, minimizing the overall impact on refuge wildlife associated with this habitat.

**Comment:** It is difficult to support horseback riding over the long term based on wildlife and habitat management goals, even if trails are already degraded. Continuing riding would not help to reverse or mitigate damage from previous activities.

**Response:** Invasive plant species that alter native vegetation may be transported onto the refuge through the presence of exotic plant seeds in feed hay, horse trailers, and horse manure. While this is a concern, this is only one of several contributing sources for the invasive species along roadsides and trails. Transport of weed seeds from vehicle tires or footwear are other contributors. This makes it difficult to measure the relative contributions from each source. The elimination of horses from trails would not alone resolve the issue. To date, the refuge has not been able to attribute the spread of invasive species or significant trail degradation to horseback riding more so than any other public use. Under the anticipated impacts section of the CD for horseback riding (appendix C), the negative impacts to wildlife and habitat are found to be minimal.

**Comment:** Manure collection is unnecessary because horse manure is not harmful to the environment. Manure is plant-based, biodegradable, and breaks down in just a few days. Birds and other wildlife eat the grasses and seeds in the manure and commenters say that studies have shown that horse manure is not a substantial factor in the spread of invasives. In addition, based on the current and projected level of trail riding discussed in the CCP, it is unlikely that there would be a lot of manure left by horses on the trails.

**Response:** Invasive plant species that alter native vegetation may be transported onto the refuge through the presence of exotic plant seeds in feed hay, horse trailers, and horse manure. While this is a concern, this is only one of several contributing sources for the

invasive species along roadsides and trails. Transport of weed seeds from vehicle tires or footwear are other contributors. This makes it difficult to measure the relative contributions from each source and the elimination of horses from trails would not alone resolve the issue. To date, the refuge has not been able to contribute the spread of invasive species or significant trail degradation to horseback riding more so than any other public use. Under the anticipated impacts section of the CD for horseback riding (appendix C), the negative impacts to wildlife and habitat are found to be minimal. Riders are not required to collect horse manure while on the trail, however riders are required to clean up and pack out horse manure from staging areas. Cleaning out trailers or shoveling horse manure from trailers is prohibited while on site.

**Comment:** Horseback riders can be natural allies and stewards for the refuge. The equestrian community has been a vocal and effective leader in environmental protection and land and watershed preservation and could be strong advocates for the refuge. Riders can and often do help the refuge – riders can report unusual things, pickup trash, and participate in trail maintenance. It is in the interest of the refuge to keep the equestrian community involved and engaged with the refuge throughout the planning process and in the future.

**Response:** The refuge welcomes the opportunity to discuss partnership opportunities with the horseback riding community. This could include a strategy to address clean-up of horse manure along trails or invasive species work days.

### **Riding Restrictions**

**Comment:** The proposed restrictions on horseback riding (speed, horse diapers, manure collection) are onerous and unreasonable and would severely curtail riding on the refuge. Riding should continue to be allowed on the refuge without these limitations. Several of the commenters, including the Equestrian Partners in Conservation, noted that the CD for horseback riding indicates that the impacts from riding are few, so there seems to be little scientific basis for the new rules. It is often difficult or impossible for some people to dismount and remount without a mounting block or help. Elderly or less-able-bodied riders would be unable to do this. Having this requirement might mean that the refuge would have to provide mounting blocks, or riders would have to go off trail to find something high enough to stand on. Manure clean up from trails and roads is potentially dangerous because it would be hard for riders to collect manure while holding onto horses. Horses are more controllable when a rider is in the saddle and dismounting increases the chance that the horse could get away from the rider and become loose. In addition, riders often do not know that horses are defecating – often it happens as the horse is moving. One person thought that manure clean up is unenforceable unless you plan on having an officer posted at the trailheads seven days a week and/or do DNA testing on all horse manure found on the trails.

Some commenters thought that it was reasonable to require manure clean up from parking lots and grounds adjacent to check-in station. Volunteers who sign in riders could remind them of this requirement and/or that other horseback riders could help ensure that riders are cleaning up manure in the parking lot by providing signs and educating other riders.

**Response:** The refuge is aware of the implications certain restrictions may have on the equestrian community and on the ability to use the refuge for horseback riding. The refuge will allow the use as outlined in the refuge's final CD for horseback riding (found in appendix C of the final CCP). Stipulations of concern have been addressed in hopes to meet both parties' needs. Riders are requested to clean-up and pack-out manure when in staging areas and parking lots, but riders will not be required to clean up horse manure along the trails. Only certified weed-free hay is allowed on-site and it must be contained within the trailer at all times. Feeding must take place only inside the trailer. In addition, cleaning-out of trailers on-site is prohibited.

**Comment:** There was concern about the proposal to eliminate horseback riding under alternative C and commenters asked that it be stricken from the alternative.

**Response:** NEPA and Service planning policy require that we investigate a reasonable range of alternatives. Horseback riding is an activity that does not occur on all national wildlife refuges. We determined that including elimination of horseback riding warranted analysis. We have not proposed elimination of horseback riding in our final CCP.

**Comment:** Several commenters noted that horse manure is potentially less harmful than waste from humans and dog feces. According to one commenter, dog feces are more likely to spread diseases than herbivore feces, and it is harder to control trash and waste from people and dogs. The commenters said that each year there are 90 to 150 horses on the refuge compared to 446 hunting dogs off leash. However, there are no requirements for hunters to pick up dog feces or require diapers because it would be impractical and burdensome even though carnivore feces present greater likelihood to spread diseases than herbivore feces.

**Response:** The refuge is aware of the implications that certain restrictions may have on the equestrian community and on the ability to use the refuge for horseback riding. The refuge will allow the use as outlined in the refuge's final CD for horseback riding (found in appendix C of the final CCP). Riders are requested to clean-up and pack-out manure when in staging areas and parking lots, but riders are not required to clean up horse manure along the trails. Only certified weed-free hay is allowed on-site and it must be contained within the trailer at all times. Feeding must take place only inside the trailer. In addition, cleaning-out of trailers on-site is prohibited. Refuge visitors walking dogs are required to clean-up after their pet and pack out all waste.

**Comment:** Numerous commenters think that requiring horse diapers is an unreasonable and unworkable restriction that would impede horse usage at the refuge. Commenters note that horse diapers are not designed for trail horses and are used almost exclusively in cities for horses that are pulling carts or carriages. They say that saddles don't have the necessary D-rings for the diapers and diapers cannot be bought at most tack shops or online tack suppliers. In addition, commenters explain that horses must be trained to accept the diapers; otherwise, the use of diapers could spook the horse or distract it from paying attention to the rider.

**Response:** The refuge is aware of the implications that certain restrictions may have on the equestrian community and on the ability to use the refuge for horseback riding. The refuge

will continue to allow the use as outlined in the refuge's final CD for horseback riding (found in appendix C of the final CCP). Stipulations of concern have been addressed in hopes to meet both parties' needs. Riders are requested to clean-up and pack-out manure when in staging areas and parking lots, but riders are not required to clean up horse manure along the trails. Only certified weed-free hay is allowed on-site and it must be contained within the trailer at all times. Feeding must take place only inside the trailer. In addition, cleaning out of trailers onsite is prohibited.

**Comment:** A few commenters thought that the speed limitations are unnecessary and questioned why the refuge is proposing to limit riding to walking gait – they state that there are no reasons for given for this in the CCP and there have been no issues in the past.

Limiting speed to a walk would be a major disincentive for some riders to ride at the refuge. Several commenters said that they would be unwilling to trailer their horse and drive to the refuge for a walk-only ride. Walking 8 to 10 miles on the refuge would be long and tedious.

There are no speed restrictions for biking or cross-country skiing and that this walking limitation feels like the refuge is singling out horseback riders.

The walking limitation is unnecessary when there are no other users on the trail. Trails have good visibility and it is possible to see other users farther down the trail. This gives horseback riders enough time to slow down to a walk when passing others users. It is common courtesy to slow down when you see others on the trails, and that experienced riders know to pass foot traffic at a walk. One of the commenters suggested posting trail etiquette signage at trailheads to ensure that trotting or cantering riders are considerate to other users.

Trotting past people on the opposite side of the road is no danger to anyone and can be necessary if a rider needs to pass a jogger or bike rider who is moving slower than a trotting horse but faster than a walking one.

Limiting riding to walking is unnecessary because riding at a faster pace would not cause any damage or erosion to the trails. They noted that the roads were designed to hold much larger traffic than the average-sized horse, and that trotting, cantering, or galloping on the packed dirt roads would not have an impact on the trails.

There were a few people thought that bikers, runners, and other pedestrians should know to exercise caution when passing horses so as not to frighten them. This would also apply for people passing dogs.

**Response:** The refuge is aware of the implications certain restrictions may have on the equestrian community and on the ability to use the refuge for horseback riding. The refuge will allow the use as outlined in the refuge's CD for horseback riding found in appendix C of the final CCP. As outlined in the CD, there are no direct restrictions on horseback riding speed; however, riders are required to slow to walk or stop when other users are passing.

**Comment:** A few commenters noted that horseback riding facilitates the priority public use of wildlife observation. These commenters said that they get to see more wildlife and more of the refuge while horseback riding than when hiking. They speculated that this is because wildlife is less disturbed by humans on horseback than humans on foot, and because a rider has a higher vantage point than a hiker.

**Response:** We agree that it is possible to observe wildlife from horseback; however, it is not a priority public use under the Refuge Improvement Act of 1997.

### **Shooting Ranges and Lead Shot**

**Comment:** A commenter suggested closing down the shooting ranges due to the hazards of lead shot on wildlife and people. Another asked how the firing ranges fit into all of this, especially after the consideration of eliminating/altering horseback riding and softball fields?

**Response:** Given the large and diverse population of range users, most of which are involved in national security and law enforcement professions, it is unrealistic to shut down the ranges at this time. The refuge continues to work with the shooting range users to minimize environmental impacts from lead deposition. Lead use has dropped significantly in recent years, as green ammo alternatives become more available. However, there are multiple reasons that lead remains in use on the shooting ranges, including agency-specific requirements for qualification-compliant ammunition, availability for law enforcement calibers and weapon type, and cost.

The refuge has developed a conceptual plan for capturing and recycling of expended rounds; unfortunately, to do so will require tens of millions of dollars for further design and implementation.

With regard to how the shooting ranges “fit into all of this”, please refer to chapter 4, page 4-12, where we address compatibility of the ranges with refuge management.

### **Alternatives**

#### **Alternative A**

**Comment:** Sixty-six commenters fully support alternative A. Commenters noted various reasons for supporting alternative A:

- Current management balances the needs of visitors and wildlife.
- Alternative A maintains Uhler marshes, Hance Pond and its surrounding wetlands, and Knowles Pond. All are important waterfowl habitat and important for research.
- Alternative A maintains grasslands and impoundments.
- Why spend money changing a good thing? Use money for upkeep, maintenance, and minor improvements.
- Alternative A includes no changes to horse policies.

**Response:** Comments noted.

**Comment:** Several commenters support alternative A with amendments. Suggested amendments include:

- Adding visitor services to foster more public use.
- Allowing some small grasslands to revert to forest.

**Response:** Comments noted.

### **Alternative B**

**Comment:** Five commenters fully support alternative B.

**Response:** Comments noted.

**Comment:** Several commenters support alternative B with amendments. Suggested amendments include:

- Maintaining impoundment and grassland habitats.
- Making no changes to the horseback riding policy.

**Response:** Comments noted. After careful consideration, we are not requiring clean up after horses on the trails, but will work with users to develop a way to ensure that the parking lot and areas within one-half mile of the parking lot are kept free of manure.

**Comment:** Fourteen commenters do not support alternative B. Reasons for opposing the alternative include:

- Riding restrictions.
- Conversion of impoundments and grassland.
- Virtual geocaching.

**Response:** Comments noted. The final management direction is outlined in chapter 4 of the final CCP.

### **Alternative C**

**Comment:** Eleven commenters do not support alternative C. Reasons for opposing the alternative include:

- Conversion of grasslands and impoundments.
- Closing January hunting season.
- Restrictions on public uses.

**Response:** Comments noted. Alternative C has not been chosen for implementation.

### **General**

**Comment:** One commenter found it difficult not to consider each alternative differently for each of the tracts on the refuge.

- South Tract – Alternative B seems optimal for managing the tract in terms of providing educational opportunities.
- Central Tract – Minimize manipulations to habitats that could be used for future research.
- North Tract – Needs to be cleared and cleaned in terms of wildlife use habitat; monitoring and surveys of contaminants and nutrient overloads needs to continue.

**Response:** We agree that each portion of the refuge has its own unique “character” and as such designed the draft CCP and alternatives to reflect management options. We also considered how the entire refuge fits within the context of the surrounding landscape. We have proposed the balance of management that we believe best suits the local conditions.

**Comment:** One person commented that the three alternatives are presented as being mutually exclusive and that it would be preferable to adopt the best features of each alternative.

**Response:** We do not consider each of the pieces of the alternatives to be mutually exclusive. For the final CCP we have chosen alternative B with modifications based on information that we received during the comment period.

### **Historic, Cultural, and Archaeological**

**Comment:** One person provided suggestions for changes to section 2.8, regarding the refuge’s historic and cultural resources:

- Develop and publish a booklet for public use describing the cultural history of the North Tract in particular and the refuge in general.

**Response:** The refuge would support doing this; however, it will take time and money, neither of which is available at the moment.

- Replace cemetery nameplates. In 1977 Eagle Scout candidate Andy Watcher did a census of the graves on Fort Meade. Andy noted, among other things, which cemeteries did and did not have nameplates. These cemetery nameplates and least five commemorative plaques (Lake Allen for example) are missing throughout the North Tract. These should be replaced perhaps with a cheaper plastic material which may help in deterring thief.
- Conduct oral histories. Grubb and Associates recommended establishing an oral history program. There have been at least five people in the last couple of years who have some cultural connections with the North Tract who may provide good oral histories. Examples include: Mr. Blake who now lives on Route 198 – his mother was a child living on land that was confiscated by the Army in 1941; a soldier who was posted on the North Tract and was assigned to the Walter Reed facility there; and Mr. Rieves of the Rieves Pond area.
- Provide a video camera and a list of questions for oral histories.
- Develop and encourage the military history on the North Tract.
- Have a special private “get to know the refuge day” for members of Congress and personnel at Fort Meade. Show them what we have to offer besides a convenient location.
- Make more of effort to involve the military and their spouses. Combine the military history and culture with what Service is and wants to do.

- The camping sites are underused. Offer the camping sites to Fort Meade, scouts etc. for some winter or spring camping. The additional impact should be negligible. Camping is available to any scout groups from mid-March through June. An effort could be made to promote this nearby resource to Fort Meade scouts.

**Response:** These are all good suggestions that the refuge will look into.

Table I-1 List of Commenters

<b>Letter ID</b>	<b>First Name</b>	<b>Last Name</b>	<b>Organization Affiliation</b>
1	Jean	Public	
2	Craig	Shimer	
3	George	Haehl	
4	Charles	Cate	
5	Dennis	Fawson	
6	"Tuffy"		
7	Mary	Johnston	
8	Judy	Thacher	
9	Stan	Hopkins	
10	Anonymous		
11	Theresa	Bly	
12	Dana	Grabiner	
13	Kate	Masterton	
14	Jane	Seigler	Maryland Horse Council
15	April	Smith	
16	Barbara	Thelen	
17	Laura	Bodtke	
18	Katherine	Coviello	
19	Janet	Young	
20	David	Tobin	EPIC (Equestrian Partners for Conservation)
21	Jeanette and Gary	Hoening	
22	Lori	Brown	
23	Barbara	Taylor	
24	Gary	Surguy	

*Appendix I. Summary of Responses to Substantive Public Comments*

25	Mary	Blair	
26	L.	Gulley	
27	Joan	Spinner	
28	Valerie	Ormond	
29	Lawrence	Fox	
30	George	Bateman	
31	J. Claire	Simpson-Jones	
32	MaryAnn	Riess	
33	Naomi	Manders	
34	Barbara	Sollner-Webb	
35	Beverly	Healy	
36	Jeanie	Feldman	
37	Bradley	Gilson	
38	M.	Watton	
39	Maryann	Kelley	
40	Michael	Lacaran	
41	Jessica	Miklasz	
42	Charlie	Lynch	
43	Jim	Crocker	
44	Dennis	Green	
45	Nick	Carassanesi	
46	Matthew	Stover	
47	Mary	Prowell	
48	Donald	Fink	
49	Edward	Kirk	
50	Michael	Conroy	
51	Sam	Droege	
52	Judith	Robinson	
53	Ronald	MacNab	
54	George and Frances	Alderson	
55	Kurt	Schwarz	Maryland Ornithological Society, Inc.
56	Matthew	Perry	

57	Frederick	Fallon	
58	Deanna	Dawson	
59	Dan	Ellis	
60	Gary	Grey	
61	Paula	Henry	
62	Jane	Fallon	
63	Frederick	Tutman	Patuxent RiverKeeper
64	Nancy	Osgood	
65	Holliday	Obrecht III	
66	Susan	Gray	
67	Qiang	Cai	
68	Chris	Van Brocklin	
69	Russell	Nichols	
70	Ross	Swope	
71	Roy	Souders	
72	David	Turner	
73	Mary	Jurkiewicz	Montepelier Mansion/Historic Site
74	Dave	Goshorn, Ph.D.	Maryland Department of Natural Resources
75	Beth	Cole	Maryland Historical Trust