

Appendix G



Photo credit: Kathy Reutlinger

Response to Comments

Introduction

In May 2014, the U.S. Fish and Wildlife Service (Service, we, our) completed the draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA) for Great Swamp National Wildlife Refuge (NWR, the refuge). The draft CCP/EA outlines four alternatives for managing the refuge. Alternative B is identified as the “Service-preferred alternative.”

We released the draft CCP/EA for 48 days of public review and comment from May 14 to June 30, 2014. We held two public open house meetings to present the alternatives evaluated in the draft CCP/EA. We received 88 letters, calls, or emails representing individuals, organizations, and State agencies, and had approximately 40 people attend two public meetings held on June 11 and 12, 2014. 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:

- Removal of the proposed wildlife viewing point and parking lot along White Bridge Road
- Minor formatting and typographical errors that were brought to our attention.

We submitted the final CCP to our Regional Director for approval in September 2014. The Regional Director determined that a Finding of No Significant Impact (FONSI) was warranted (see appendix E), 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 June 30, 2014, 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 the substantive comments 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 G-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/refuge/Great_Swamp/what_we_do/conservation.html. For a CD-ROM of either plan, please contact:

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Service Responses to Comments by Subject

Planning Process

Comment: One individual questioned the applicability of an environmental assessment as opposed to an environmental impact statement for National Environmental Policy Act compliance.

Response: Under the provisions of 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.

Comment: The staff at the Great Swamp, the Fish and Wildlife Service and the volunteers and other resources are all to be commended for a thorough well presented document.

Response: The CCP represents a great deal of effort from refuge staff, Friends group members, partners, and regional staff. We appreciate the sentiment.

Public Involvement

Comment: A few individuals raised concerns about the availability of refuge management and the planning process for all users of the refuge. In particular, one commenter asked about selection of participants in our experts' workshops from 2012.

Response: Over the course of the planning process, we sent four newsletters out to our mailing list which consists of nearly 500 individuals and organizations and posted them on our website at key points in the process. In an effort to make the CCP process more open refuge staff posted information on the CCP process at the refuge headquarters, visitor center, local libraries, refuge website, and kiosks throughout the refuge. With regard to the experts workshop, we invited a cross section of individuals that provided a diverse range of perspectives and possess a high amount of knowledge specific to the Great Swamp. Throughout the process, we tried to make it clear that input would be accepted throughout the process and provided contact information for the planner and refuge management. Very few individuals contacted us during the process.

Comment: Three individuals stated that they were not aware of the plan until a few days before the public meeting and were concerned that other members of the interested public were not aware of the plan and comment period.

Response: We attempted to reach as many people as possible when the draft was released to the public on May 14. We sent an emails and hard copy newsletters to our mailing list. In an effort to make the CCP process more open refuge staff posted information on the CCP process at the refuge headquarters, visitor center, local libraries, refuge website, and kiosks throughout the refuge. We sent a press release about the availability of the CCP including the meeting dates and it was covered by local papers. We are glad that the individuals in question found out about the meeting in time to attend.

Refuge Purposes and Establishment

Comment: On page 1-24, the CCP states: “Great Swamp NWR was established by an act of Congress on November 3, 1960 and formally dedicated in 1964 ...”

To my knowledge, the formal establishment of the Refuge is still undocumented. Most of the historical research that I’ve seen states that the Refuge was established “administratively”. Until there is documentation and an accompanying citation, I do not agree with including this statement in the CCP.

The Plan will be used in the future as an authoritative source and this statement misrepresents the facts as we know (or don’t) know them. I would revise the sentence to read: “Great Swamp NWR was established in 1960 and formally dedicated in 1964 ...”

Response: Thank you. We have been researching the refuge’s establishment and have corrected the language in the CCP.

Alternatives – General

Comment: A variety of individuals provided support for or opposition to each of the alternatives that were presented in the draft CCP/EA. Many of the comments received included this support or opposition without providing any additional information.

Response: These comments were noted.

Comment: An individual expressed disappointment in the choices of alternatives “since all place emphasis on managing the property using unnatural methods with limited regard for the protection of all wildlife or the interests of passive recreationalists like myself.”

Response: We disagree. The emphasis on two of the alternatives was on reducing the amount of intense management. While there is some level of active management in each of the alternatives, the amount of management proposed in alternatives B and C in particular include a reduction in the number of acres that would be actively managed. In addition, most of the public use opportunities are “passive” in the form of wildlife observation, photography, environmental education, or environmental interpretation.

Alternative B

Comment: Some individuals provided suggested modifications to alternative B, including opposition to hunting, support for fishing, fewer or additional parking, trail, and facility enhancements, among others.

Response: We will be responding to suggested revisions in the appropriate comment topic. For example, if an individual supported alternative B, except for hunting provisions, we address that comment under “Hunting.”

Friends Groups and Volunteers

Comment: The Refuge currently engages volunteers and visitors in very meaningful research related to eastern bluebirds and wood ducks. Visitors easily connect with these birds, and the webcam in the VC is a big support. It creates intimacy for visitors.

These programs are maintained almost entirely by dedicated volunteers. It would be a shame to stop these exciting ventures which consistently draw visitors when there are programs about this work. And also support research at Cornell.

Another commenter stated that “The bluebird trail is a tremendous success story and public relations opportunity for the Refuge. The volunteers who support this effort, as well as maintain the wood duck nest boxes, are trained, inspired, and motivated, and the data associated with these efforts has proved to be very useful for staff. Reassigning existing volunteers, as noted, is not necessarily a viable alternative. We suggest you remove the sentence “The maintenance of 160 bluebird boxes, however, is time consuming and the volunteer hours dedicated to their management may be more effectively utilized for management of priority species.” (p3-66) The sentence is not necessary and just doesn’t ‘sit right’.”

Response: The bluebird and wood duck nest box programs have been important conservation and monitoring efforts on the refuge. These programs were started at a time when these species were in greater peril and populations of both species have increased over time. In fact, the eastern bluebird is no longer listed as a species of concern in any regional plan. Volunteers have played an integral role in the successful recovery of these species. The refuge will continue to evaluate the utility of these programs, as we do all of our programs. As conditions change and other species and habitats require assistance, existing programs may be scaled back or eliminated and other programs may be started or expanded. New

volunteer opportunities will present themselves and volunteers will continue to play an important role in supporting refuge conservation and monitoring efforts. The refuge's management priorities, however, are driven primarily by science and regional and national FWS priorities, not by their ability to provide volunteer opportunities. We recognize the popularity of both bluebird and wood duck boxes for wildlife observation and intend to leave some boxes in place in high-visibility areas for the public's enjoyment.

Facilities

Comment: Some individuals objected to adding more trails, observation towers, parking lots, and facilities. These commenters stated that the existing facilities are adequate and new facilities or infrastructure would only serve to degrade habitat quality in the vicinity of these new facilities.

Response: The CCP provides direction for public use and habitat management for the next 15 years. With a growing population and ever changing refuge user group, the management direction presented in the CCP strives to balance public use with wildlife conservation to support the National Wildlife Refuge System mission. We may 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.

With 80% of US citizens living in urban areas, Great Swamp National Wildlife Refuge is uniquely positioned to increase opportunities for the American public to enjoy their public lands and gain a better understanding of conservation and USFWS. The proposed management direction provides a balance between allowing those uses and protecting and enhancing the important habitat that the refuge provides for priority species of concern.

Comment: The proposed parking area on White Bridge Road has led to concern about safety and security at the Raptor Trust and other adjacent residences. In addition, questions were raised about nesting activity in that area for Barred owl, Red-shouldered hawks, and ravens.

Response: We have decided not to move forward with opening this parking area to the public. Safety and the security of visitors and the surrounding community are priorities for the refuge. We have a full-time Law Enforcement Officer who patrols the refuge and responds to incidents. Also, Great Swamp NWR has a great partnership with the Long Hill Township Police Department who patrol local roads including White Bridge Road after hours to ensure the safety and security of the public. Despite these safety and security measures, the parking lot in question would have provided limited wildlife observation opportunities. Increasing use at this location would likely have larger maintenance costs than originally considered. Taking all considerations into account, we have decided that the potential negative impacts of opening this parking area to the public outweigh the positives and have removed this strategy from the final plan.

Comment: A number of individuals and the Great Swamp Watershed Association expressed support for expansion of trails at the Visitor Center and Wildlife Observation Center. In addition, one individual expressed that the proposed observation tower would facilitate wildlife

observation at the site of the Friends' Blind because of the large distance between the blind and the location of waterfowl activity.

Response: We have presented what we consider a balanced approach that provides for additional opportunities. In our proposed management direction, we are concentrating efforts to expand visitor opportunities at specific existing contact stations, including the Visitor Center and Wildlife Observation Center. We have also proposed a viewing tower to overlook the impoundments. This will give a better opportunity for wildlife viewing and photography over open water. The exact location of this tower will be determined in the Visitor Services step-down plan that will be developed following completion of the CCP.

Comment: The Great Swamp Watershed Association expressed support for kayak and canoe access on Great Brook.

Response: Kayaking and canoeing in the Passaic River north of White Bridge Road and along Great Brook south of the bridge on Pleasant Plains Road is permitted, since that portion is considered navigable and there are access points off refuge property. The Refuge does not have an area that has been found safe and adequate from which to launch kayaks or canoes. Visitors are encouraged to access the Passaic River from the Fisherman's Parking lot on the grounds of the Environmental Education Center at Lord Stirling Park adjacent to the refuge. Boating access to refuge impoundments is not allowed because of concerns about excessive wildlife disturbance. Peak flows preferred by boaters often correspond with times of high waterfowl concentrations. The remaining four waterways that flow through the refuge are small, shallow, and overgrown in places and do not provide opportunities for reasonable canoe and kayak access and use.

Habitat Management

Comment: All vegetation clearing should be done outside of the breeding season for birds and active season for bats (trees only): April 1 – August 31.

Response: : All large-scale habitat management such as the mowing of grasslands and the cutting of brushlands is done between October – March. Small-scale vegetation management such as the mowing of lawns around facilities, along service roads, and for invasive plant control is done from spring through fall. Lawns, road shoulders, and invasive plant infestations provide minimal habitat value and such work has negligible impacts on wildlife.

Trees are only felled when necessary to achieve habitat management objectives or when they pose a hazard to facilities or public safety. Since the refuge provides habitat for Indiana bats, trees greater than 5 inches dbh are not felled for habitat management purposes between April 1 – September 30 per New Jersey Field Office Best Management Practices. Hazard trees may be removed during the seasonal restriction period if deemed a significant threat. In such rare instances, an emergence count will be conducted the night prior to felling and trees will only be removed if no bats are seen emerging from them.

Prescribed Burning

Comment: One individual expressed concern that the “danger of unplanned circumstances resulting in wildfires in this densely populated area greatly exceeds the benefits of its use as a habitat management tool”.

Response: All use of prescribed fire on National Wildlife Refuges must conform to Service and DOI policy (621 FW 1, Interagency Standards for Fire and Fire Aviation Operations, and Interagency Prescribed Fire and Implementation Guide), which requires the preparation of a Fire Management Plan (FMP). The refuge currently operates under an FMP approved in 2003 that is being updated. Every prescribed fire also requires the development and approval of a Prescribed Fire Plan (PFP). Such plans are highly detailed and focus on the environmental conditions under which a prescribed burn can be successfully completed while minimizing the risk for unintended consequences, including uncontrolled fire. Any conditions outside of the PFP would result in postponement of the prescribed burn. PFPs specifically address the potential for a fire escape and identify contingency plans in the unlikely event of an escape. The refuge will work closely with the NJ Forest Fire Service and local fire departments as we develop our FMP and PFP to ensure that adequate resources are available to safely conduct prescribed burns and respond in the unlikely event of an escape.

The majority of fields proposed for prescribed burning are located in the interior of the refuge surrounded by refuge lands. Most fields are bordered by roads and/or wetlands that make excellent barriers for containment. They are also easily accessed for the cutting of pre-burn containment lines and for post-burn mop up. The prescribed fire season typically runs from February 15 through April 30, with the preferred burn window being March 1 through April 15. Other windows may be available mostly from mid-August through November depending on the purpose/objectives of the burn.

Adjacent to the refuge, the Environmental Education Center at Lord Stirling Park has successfully burned five fields totaling approximately 20 acres on a bi-annual rotation for the past decade. Two of the fields are directly across the road from a housing development and a third field is in close proximity to their main building. We believe we can do the same with the expertise of the Service’s fire staff, proper planning, and close coordination with state and local fire resources. The Service has successfully conducted prescribed burning in such “urban interface” areas throughout the country for many years and will bring its considerable expertise to bear in developing a safe burn program for Great Swamp NWR.

Comment: A few individuals and the Long Hill Township wrote in opposition to the prescribed burning proposal. They raised concerns about unplanned outbreaks, air quality during the burns, and levels of greenhouse gasses. Long Hill Township submitted information about emissions of methane and nitrous oxide from burning.

Response: The goals for smoke management on the refuge will follow those developed by the National Wildfire Coordinating Group (1985): reduce fire emissions, enhance the dispersal of smoke plumes, steer smoke plumes away from smoke-sensitive areas, and

coordinate the ignitions of prescribed burns. Smoke management practices will include maximizing combustion efficiency to reduce particulate emissions (unburned ash).

Our prescribed burns are designed such that smoke impacts to neighborhoods are minimized. We only burn on days when smoke dispersion is good (smoke goes high and moves out of the area quickly) and when the grasses and brush are in satisfactory condition (not so dry to be a hazard and not so moist that they burn cool and produce excess smoke). We have very specific guidelines for these conditions, including wind direction, speed, humidity, etc. which are called prescriptions (hence the term "prescribed burn") and documented in a PFP. If any conditions are not in prescription, we simply do not conduct the burn. Further, we only burn with the approval of the state air quality agency, the New Jersey Department of Environmental Protection. We are proposing to burn small, manageable fields, where our methods can be easily modified should weather conditions change during a burn. A portable air quality monitor may be set up in the vicinity of a burn to record information about emissions. We would also be available to meet with concerned neighbors to discuss any safety or emissions concerns.

The effects of fire on air quality vary depending on time of year, fuel loading, and location of the unit being burned. Adverse air quality associated with prescribed burning usually is minimal since burn units are small and only ignited under environmental conditions that yield adequate smoke dispersal and total consumption of fuels less than 2.5 cm (1.0 in.) diameter. Larger fuels, such as stumps, snags, and logs are usually either unavailable (higher moisture content) or easily extinguished during mop-up operations.

It is true that greenhouse gases are released as a result of prescribed burning. Such emissions, however, are typically on the order of what is sequestered back into the soil through post-burn plant regrowth (McGuire et al. 2011; The Prairie Ecologist, 2011; Ball 2010; Boerner et al. 2008; Johnson 1992). Due to the small size of fields to be burned (<1 to 41 acres) and our modest annual burn goal (<200 acres), emissions of greenhouse gases will be very low (for example, roughly 0.46 lbs of nitrous oxide per ton of fuels burned; EPA 1996). USDA has determined that the type of low intensity prescribed burning we propose would release inconsequential amounts of gases (USDA 1989).

Comment: The Great Swamp Watershed Association commented in favor of prescribed burning.

Response: We agree and have included the use of prescribed fire as a habitat management tool in our final CCP. Such use would be carefully planned and controlled through the development of Fire Management and Prescribed Fire Plans as described in the response above.

Refuge Habitats

Comment: One individual expressed concern about the “desirability of grasslands, scrub lands and wooded areas, without a clear, discernible direction. Of particular concern to me is the recommendation for larger swaths of grasslands that would require elimination of many mature hedgerows and, if the map is accurate, the removal of a large section of the Atlantic white cedar restoration, which has been successful and soon self-sustaining. That restoration was highly

touted by FWS and vigorously supported by volunteer effort. To remove hedgerows, with all the known wildlife benefits, and maturing restoration plantings for questionable outcomes must be examined very carefully.”

Response: The CCP provides general goals and strategies that direct management activities for the next 15 years. Once completed, more specific and detailed “step-down” plans will be prepared that are site specific and take into account particular vegetation types and patterns and any unique circumstances within each Management Unit. In light of this, there are no plans to remove any Atlantic white cedar trees on the refuge. This was a significant restoration effort and maintenance of these trees continues through the refuge’s volunteer program. Also, we agree that hedgerows do offer benefits to wildlife. For example, hedgerows that are wide enough provide important travel and feeding habitat for some species of carnivores, such as the red fox, coyote, and black bear, and perch trees for raptors, including Great horned owls, barred owls, screech owls, Cooper’s hawks, and red-shouldered hawks. All of these species are found on the refuge. In fact, the refuge serves as an important release site for raptors rehabilitated at the nearby Raptor Trust and many raptor species are considered refuge Resources of Concern. Conversely, presence of hedgerows is known to reduce the availability of suitable nesting areas for grassland birds and increase songbird mortality by providing avian predator perches. Under the Preferred Alternative, where feasible, hedgerows less than 25 feet wide would be removed to create larger grassland patch sizes. Currently, the Refuge has partnered with Frostburg State University via Dr. Frank Ammer to conduct a 2-year comprehensive evaluation of bird communities using refuge brushland and grassland Management Units. The study will link presence/absence data from bird surveys with habitat features and management activities. Findings from the effort will, among other things, identify which tracts of land provide the most benefit to grassland birds, including Focal Species. This information will be included in step-down plans and help guide the decisions in discussions considering the costs and benefits of maintaining or removing specific hedgerow tracts.

Impoundments

Comment: We received support for “research and the collection and analysis of scientific data in order to evaluate the productivity of the impoundments and the feasibility and economics of maintaining them in the future. We understand that, ultimately, the extent and nature of the impoundments may change as the habitat needs of focal species are taken into consideration. During the three year (p. 3-55) or five year (p. 3-58) study, we would like to see the Refuge actively maintain the impoundments, at a minimum Pools 1 and 2, in order that they not become too overgrown to restore or to reconfigure as habitat for focal species.”

Other individuals expressed that the impoundments should be maintained while data collection and decisions are being made with regard to them.

We also heard from GSWA that the impoundments should be maintained for migratory bird and open water habitat. They do not believe the impoundments should be allowed to succeed to woody vegetation because early successional open water habitats are both important and rare in the watershed. Maintenance of migratory bird population is CCP biological goal #1.

Response:

Great Swamp NWR was established primarily to provide migrating, nesting, brood rearing, and feeding habitat for waterfowl and other migrating birds. From 1969 to the early 1980s, five impoundments with low level dikes and water control structures were constructed in the Management Area to provide habitat for waterfowl. Management of the impoundments is an ongoing process and in recent years has been influenced by a number of factors; including discussions at the regional level on the future direction of impoundment management on all refuges, turnover of multiple staff members at Great Swamp NWR, and reductions in staff at the refuge due to federal budget cuts. Management activities related to the refuge's impoundments will continue, and the 5-year review process does not preclude conducting additional management actions on the impoundments as information becomes available, need dictates, and time and resources allow.

Beginning in 1991, attempts were made to implement moist soil management for the refuge's impoundments. By 2004, this effort was recognized as extremely challenging within the Great Swamp. The Biologist who implemented the moist soil management practices noted that it should not be attempted unless the impoundments could be treated every few years to set back natural plant succession and that heavy equipment cannot function in well in the wet soils of the Great Swamp. Recommendations at that time were to maintain the impoundments with minimal manipulation, except to conduct drawdowns every seven years to mimic a natural drought cycle.

Over the past decade, through natural succession, woody vegetation has continued to encroach into the impoundments, and while open water still exists in each impoundment, the percentage of open water available to migrating and breeding waterbirds currently is unknown.

Recently, as part of the CCP process, refuge staff identified a need to evaluate each impoundment to determine the best management strategies that would benefit the refuge's priority species. According to the Service's chosen management direction, the refuge will, "within five years, evaluate each impoundment's ecological contribution to waterfowl and other priority species (i.e. benefits, maintenance, seasonal use, and food availability)...". The current biologist identified four primary goals of such an analysis. Goal 1: Evaluate the seasonal condition of the Refuge's five impoundments for waterbird populations; Goal 2: Develop recommendations for water-level management activities for each impoundment to maintain or enhance habitat for waterbirds based on research findings, including criteria to evaluate effects of such activities and for long-term monitoring; Goal 3: Document factors impacting survival of breeding waterfowl by monitoring a sample of radio-marked female wood ducks during the breeding season, and conducting meso-carnivore population surveys and food habit studies; and Goal 4: Implement water level manipulations and/or moist soil management activities and evaluate their effects.

Steps already have been taken to begin the analysis process by partnering with Frostburg State University (FSU), Dr. Tom Serfass and Dr. Frank Ammer, and the Friends of Great Swamp NWR to conduct a study to address Goal 3 through two graduate research projects: 1) Evaluating factors impacting nesting success and survival and habitat use of wood ducks at Great Swamp NWR and 2) Documenting occurrence and distribution of mammalian

predators, and their impacts on breeding waterfowl at Great Swamp NWR. In addition to addressing Goal 3, FSU also has collected information to assist with addressing Goal 1. For example, in 2013, point count bird surveys were conducted along the impoundments to document all species, but with special emphasis on Refuge Species of Concern and Focal Species. Fifty-five species were identified; of those 25 were Species of Concern and 9 were Focal Species. Habitat information collected at each of the survey points as well as data collected for wetland obligate species will be analyzed to determine if specific habitat features were associated with species presence.

Another component of the ecological analysis pertaining to Goal 1 involves examining the ratio of open water to emergent vegetation available to waterbirds. Wetlands with a water-to-vegetation ratio of 50:50 may support the greatest diversity of bird species (Weller and Spatcher 1965). As part of the evaluation process, we will take steps to document the seasonal changes in the amount of open water and vegetative cover within the impoundments at Great Swamp NWR. Products of such an analysis could include detailed maps for use in planning management activities (e.g, vegetative clearing, invasive plant control efforts, water level manipulations) to maintain or create more favorable patterns of vegetation and water, if needed. Ultimately, plans are to revisit the need and feasibility of conducting moist soil management activities on refuge impoundments based on current conditions and lessons learned from past management actions.

The following are specific management actions that the Refuge has taken in recent years to assess the current condition of the impoundments and maintain and improve habitat for waterfowl.

- 1) We continue to mow the impoundment dikes multiple times per year to control woody vegetation, which can compromise their integrity. The dikes are continually evaluated for breaches. Plans are underway to repair a small breach that was identified in Pool 3b.
- 2) In 2010, we replaced 2 of the 4 water control structures flowing from Pool 1 to Pool 2, in collaboration with Ducks Unlimited. Last year, we began the process of evaluating the condition of all of our water control structures. A number of the smaller water control structures that were installed in the 1970s and 1980s, including those in front of the Sportsman's and Garden Club Blinds, are failing due to age and degradation. We are in the process of obtaining the appropriate wetland permits that are required before any of the structures can be repaired. The process has been delayed by the retirement of our Contaminant Biologist this past spring. This position is currently in the process of being refilled.
- 3) Currently, we are building new boards for the concrete water control structures at Pool 2 and Pools 3a and 3b. Additionally, we have started to clear the dense, invasive woody vegetation that is growing up and reducing access around many of the water control structures.
- 4) Over the past two years, we have begun to clear the feeder ditch that connects Pool 2 to Pool 3a as the flow of water is being hindered from vegetation and sediment build-up.

Brushy vegetation was cut from the sides of the ditch (using a skid steer with a cutter head on front), and this coming year, plans are to remove the larger trees that are compromising the integrity of the ditch. We are considering a number of different means of clearing the vegetation and sediment along the bottom of the ditch (i.e., using a Marsh Master to mow remaining vegetation, and/or a Bottom Feeder, to clear the sediment) including any necessary permits.

- 5) Last spring, we put a 6 inch riser on existing PVC drain pipe in the 5 acre demonstration pond, just north of Headquarters driveway, to increase the water levels over time naturally through precipitation events. The purpose was to provide more open water to migrating waterbirds and to kill some of the upland vegetation that had encroached into the wetland. Over the past year, water levels increased (2 to 3 feet in deepest areas) and upland vegetation was replaced by wetland species. Formal surveys were not conducted, but based on incidental observations by staff this past spring, wildlife responded to the greater abundance of water. There was a noticeable increase in the number of great egrets and waterfowl using the wetland. We also observed a tundra swan, multiple green herons, and a number of Canada Geese. Recently, we drained the demonstration pond to expose mudflats for shore birds and to experiment with moist soil management on this pond for both shorebirds and waterfowl. We characterized the vegetation and water levels prior to draining the wetland. Refuge staff and interns also cleared sections of Burreed (*Sparganium americanum*) to increase the size of the mudflats and facilitate growth of Pennsylvania smartweed, which is an important native food resource for waterfowl. Plans are to raise water levels (mechanically fill from Middle Brook) prior to the fall migration this year. We plan on mowing a portion of this field on an annual basis to increase wildlife viewing opportunities.

Comment: An individual questioned how the USFWS can and would manage the water control structures. This individual is concerned with ability of brush/shrub habitat to foster many obligate plant species and there is only one native tree (Atlantic White Cedar) in NJ that is an obligate species. They are concerned that many plant species in the Great Swamp would have flood tolerance issues. In addition, they stated that, based on the statement: “Since the primary purpose of the refuge is to provide foraging, resting and staging habitat for migratory waterfowl, maintaining a mixture of open water and open marsh will continue to benefit several waterfowl species listed as priorities;” maintenance dredging may be a better suited management effort than continuing to adjust open water levels to meet the Great Swamp NWR goals. Therefore, careful study of what may be impacted by raising water levels must be considered.

Response: We will consider all reasonable alternatives as we develop and implement an impoundment management plan; we have not committed to a final management direction. The five wetland impoundments are connected through a series of low-level dikes and water control structures. Currently, we manage the impoundments with minimal manipulation, except drawdowns that have been recommended for every seven years to mimic a natural drought cycle. As part of the 5-year review process, one of the goals is to develop recommendations for water-level management activities for each impoundment to maintain or enhance habitat for waterbirds based on research findings, including criteria to evaluate the effects of such activities and for long-term monitoring. Plans are to revisit the need and

feasibility of conducting moist soil management activities on refuge impoundments based on current conditions and lessons learned from past management actions.

Comment: A few commenters expressed questions about the study of impoundment management that is proposed and asked that the results be shared with the public.

Response: The final results of impoundment studies will be made available to the public upon request. We will incorporate the results of this research into our Habitat Management Plan as we refine our impoundment management program.

Water Resource Management

Comment: One individual commented that none of the alternatives will work if the damage the Army Corp of Engineers did isn't corrected. When they changed the flow of water the swamp started quickly to become a marsh. No flushing mechanism and the swamp became not much more than a few types of plants and tons more mosquitos.

In addition the individual stated that "If you look in some of the pools of water after a rain you see the colors red green and blue, no doubt courtesy of the government dropping tons of chemicals on us via The Weather Modification act of 2005. There used to be insects, amphibians and many types birds. Not anymore!"

Response: We agree that early efforts to drain the swamp changed the natural hydrology of the area and altered the vegetation communities. Since the establishment of the refuge in 1960, refuge management has worked to restore the hydrology of the area to as close to natural as possible, especially east of Long Hill Road. As a result, hydrology of the swamp has improved greatly and has been brought back closer to a natural state over the course of the past 50 years.

Great Swamp NWR is recognized as a biodiversity hotspot in the region. As evidenced in appendix A, the list species that occur on the refuge is very extensive. The BioBlitzes that were conducted on the refuge in 2009 and 2011 documented the great diversity of species that use the refuge.

Water Quality

Comment: One individual asked: "What can be done to improve water quality of the streams influencing GSNWR now that problems have been identified?"

Response: The streams outside of the Great Swamp National Wildlife Refuge influence the water quality both within and downstream of the swamp. The Great Swamp staff have been active in the surrounding communities for decades, including in efforts by the Ten Towns Watershed Management Committee to improve water quality throughout the watershed. Great strides have been made since the establishment of the refuge by agencies upstream from the refuge. We will continue to provide information about water quality issues and work with surrounding landowners, communities, and partners to build upon the improvements that have been made.

Reptiles and Amphibians

Comment: One individual raised concerns about impacts to reptiles and amphibians and stated that “your prescribed burn plan will burn up the bog turtle. How many snakes will you burn up? How many snakes will your mowers cut up?”

Response: We are aware of the potential impacts of prescribed burning and mowing on reptiles, amphibians, and other wildlife. We carefully address fire-related concerns in our Fire Management and Prescribed Fire Plans. We have adjusted the schedule for mowing to fall and winter to minimize conflicts with wildflowers, butterflies, birds, turtles, and other species that could be impacted by mowing during more active times of the year. We also try to mitigate the impacts of burning and mowing by scouting treatment areas ahead of time when practical.

Public Use

Comment: On several pages I noticed statements saying that wildlife viewing trails would remain open during the expanded hunting. This bolstered the claim that it was a compatible use. There are other pages stating that wildlife viewing areas would be closed during the hunting periods for safety considerations. There is no way that the expanded hunting programs can fulfill both the compatibility use and safety objectives at the same time.

Response: The Service’s policy is to provide expanded opportunities for recreational, public hunting when it is compatible with the Refuge System mission and specific refuge purposes, and consistent with sound wildlife management and public safety. You correctly pointed out an inconsistency in the document that will be corrected. The deer bow hunt will be conducted during the fall season over a 5-day period in October. Weapons will include long bow, recurve bow, compound bow, and crossbow. The turkey hunt will occur during the spring season, in April and May. The hunt will consist of a 1-day youth hunt at the end of April, followed by a regular hunt during a 1-week period in late May. Weapons will include shotgun using non-toxic shot or bow. During both seasons, the refuge will remain open to the public.

The refuge takes extra safety precautions during the current, annual 5-day deer firearm season. Much of the land adjacent to the refuge is residential and some area residents have expressed concern over the use of firearms to hunt deer. To address these concerns, the refuge is closed to all other public uses on the scheduled days of the regular hunt, and the western half of the refuge is closed during the youth hunt. Additionally, “Safety Zones” are delineated, within which hunting is not permitted. Safety Zones (1,329 acres) include refuge lands within about 450 feet of all residences, buildings, parking areas, and equipment storage facilities.

The additional proposed hunting opportunities do not pose the same risk to public safety as the current firearm deer hunt for a number of reasons. First, bows are a limited range weapon, requiring hunters to be relatively close to their targets. The nature of turkey hunting, which entails calling the birds in, also requires that hunters be in close proximity to their target. In both cases, the highly selective nature of these hunts significantly reduces the chances of bodily injury. For example, for turkey hunting, based on New Jersey Division of

Fish and Wildlife (NJDFW) records, from 2000 to 2014, there were only 3 turkey hunting related accidents in the state; no fatalities occurred and no non-participants were injured. Additionally, compared to the annual firearm season for deer, for which the entire refuge is open for hunting, during the fall bow and spring turkey seasons, hunting would only be allowed on approximately 5,000 acres of the refuge (about 65 percent of the total area), which includes the Wilderness Area east of Long Hill and New Vernon Roads and the Management Area south of White Bridge Road. The Management Area south of White Bridge Road is closed to public use throughout the year, except during the 5 days of the current deer firearm season or with special permission. Further, there will be significantly fewer hunters on the Refuge during these hunts based on the number of allotted permits, and for the turkey hunt, hunters are required to stop hunting at noon. Finally, the refuge is managing the expanded hunts similar to deer and turkey hunts administered by NJDFW. During all NJDFW hunting seasons the general public is never prohibited from using state game lands or state forests open to hunting. The Refuge will post signs at the Wilderness trailheads during the days of the hunts informing the public that the hunts are underway. Additionally, similar to the firearm deer hunt, hunting will not be permitted in “Safety Zones”, and following state regulations, carrying a loaded firearm within 450 feet of a building and carrying a bow with an arrow in place within 150 feet of a building (whether or not occupied) will be prohibited.

Hunting (General)

Comment: The preparation, deer hunt, and period after have proven in the past to be very disruptive to wildlife viewing. For weeks on end following the hunt there has not been a creature in sight. Hurting the spring viewing season that so many people look forward to is reprehensible.

Response: By definition, there will be some wildlife disturbance associated with the existing and planned hunting opportunities. We have not documented or observed the same level of disturbance that is described in this comment. With regard to the spring hunt, the timing coincides with the end of peak bird migration to minimize disturbance to species migrating through the area. To further reduce the level of disturbance to wildlife, we have proposed limiting the number of hunters on the refuge to a density of no more than two hunters per square mile. The sedentary nature of turkey hunting, as described above, will also keep disturbance to a minimal level. Turkey hunters will also be required to stop hunting at noon and promptly leave the field.

Comment: A number of commenters expressed concern about allowing any hunting at Great Swamp NWR or increasing the amount of hunting.

Response: The National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act) lists hunting as one of six priority, wildlife-dependent public uses to receive enhanced and preferential consideration in refuge planning and management. In addition to hunting, other priority uses include fishing, wildlife observation and photography, environmental education and interpretation. Our mandate is to provide high-quality opportunities for these priority uses where they are compatible with respective refuge purposes, goals, and other management priorities.

Regardless of individual opinions about the appropriateness of hunting on refuges, the Refuge Improvement Act requires that we give preferential consideration to the six priority, wildlife-dependent uses.

Comment: Due to the reduced populations – hunters have been more aggressive in attempting to find prey. This has resulted in a more dangerous environment during allowed hunting times for those who visit the Great Swamp and stroll through the limited areas that are not swamp.

Response: The data that we collect annually during the 5-day firearm deer hunt (1-day youth and 4-day regular deer hunt), and the actions that the Refuge takes to ensure a safe outdoor experience suggest otherwise. Most importantly, during the shotgun season for deer that you reference, the refuge is closed to all other users, so no other users are legally “visiting” any areas of the refuge.

In September 2011, deer on Great Swamp NWR and across west-central New Jersey experienced a severe outbreak of epizootic hemorrhagic disease (EHD). In response to the low deer numbers, in 2012, the bag limit was reduced to one deer of either sex for all hunters. In response to a number of factors, during the 2012 and 2013 seasons the total deer taken and percentage of hunters who were successful at harvesting a deer were significantly lower than the years prior to the 2011 EHD outbreak. Low harvest and reduced hunter success were due, in part, to the fact that fewer hunters purchased permits these two years. For example, about half as many Great Swamp NWR deer hunting permits were purchased by hunters in 2012 (98 permits) compared to 2011 (194 permits), probably a response by hunters to the 2011 EHD outbreak and/or the regulation changes of 2012. Thus, maximum hunter density in the Management Area was 1 hunter per 42 acres and maximum hunter density in the Wilderness Area was 1 hunter per 105 acres. Further, in 2012, the first two days of the 4-day regular season were cancelled due to safety concerns over storm damage from Hurricane Sandy and so no hunters were even on the refuge these days. For the remaining two days of the hunt, based on the low number of vehicles observed in the refuge’s 31 hunter parking lots, many hunters did not even make it to the refuge to hunt in 2012, as residents were still dealing with the aftermath (i.e., power outages, downed trees, long lines for gasoline, etc.) of the hurricane.

In 2013, a total of 107 hunters purchased Great Swamp NWR deer hunting permits. Maximum hunter density in the Management Area was 1 hunter per 39 acres, and maximum hunter density in the Wilderness Area was 1 hunter per 92 acres. Thus, compared to hunter density in 2011 (Maximum hunter density was 1 hunter per 21 acres and 1 hunter per 31 acres for the Management and Wilderness Areas, respectively), the density of hunters on the refuge was actually lower during the two years following the EHD outbreak, reducing the chances of accidents or bodily injury.

The regulation changes of 2012, which were maintained in 2013, appear to be effective at reducing overall hunting pressure and creating conditions for population recovery, by limiting harvest of adult does. In addition to information obtained from the annual pre-hunt spotlight survey, based on conversations with hunters at the Deer Check Station, many hunters in 2013 actually reported seeing deer and were passing up does to get a buck; the

previous two years many hunters reported seeing no deer. The fact that hunters were actively passing up opportunities to harvest an animal does not support the notion that “hunters have been more aggressive in attempting to find prey”. Additionally, Great Swamp NWR takes multiple actions to ensure a safe outdoor experience for hunters during the 5-day period of the annual deer hunt. Among these, the entire refuge is closed to all other public use activities on the designated days of the deer hunt with the exception of the one-day youth hunt that takes place in the Management Area; at this time the Wilderness Area remains open to the general public. No bodily injuries or accidents occurred during the hunts following the 2011 EHD outbreak.

Comment: The plan states that efforts will be made to educate the public about hunting. From reading the CCP in detail, it appears that proposed expansions to include archery and turkey hunting are purely for recreational purposes. It would be wrong to give the impression to the public that there are sound conservation principles for it. I hope any attempts at education will be a balanced approach, not just providing a pro-hunting stance.

Response: Under law and policy governing refuges, hunting is an acceptable and traditional form of recreation, particularly in areas where it historically has been practiced. One of the refuge strategic goals as well as a Visitor Services goal is to provide quality wildlife dependent recreational opportunities, which include hunting. Hunter harvest data is also collected and analyzed by our Wildlife Biologist. Information gathered each year is used to adjust regulations to ensure that the biological objectives of the hunt are realized. Close monitoring will be conducted to document factors impacting refuge turkeys and deer to ensure a viable population and sustainable harvest. The hunters participating in the hunt will receive information regarding the rules and regulations regarding hunting on the refuge as well as a hunt map showing areas of the refuge that may be hunted.

Comment: One individual objected “to the proposal to increase hunting in the Great Swamp of Gillette NJ and attached are 2 excerpts from many, one of which is the U.S Fish & Wildlife fact sheet, sighting that hunting can be detrimental to many forms of wildlife. As stated below by the Wildlife Center of Virginia: In 1991, the public became very concerned that nearly four million waterfowl were dying each year from lead poisoning in North America. Ducks and geese were ingesting bits of lead they found while filter feeding on the bottoms of wetlands, marshes, shallow estuaries, or other bodies of water. The lead fragments the birds ingested were mainly shotgun pellets that had missed their primary target and rained down over the water.”

Response: Lead in the environment is certainly a serious issue and one that we are concerned with as well. As mentioned in your comment, lead pellets can be a threat to waterfowl and raptors. The refuge has never allowed waterfowl hunting and is not proposing to do so. The increased hunting opportunities that we are proposing will not increase the amount of lead on the refuge. Archery hunting is not a source of lead in the environment, since arrows are made of steel. For our spring turkey hunt, we will require the use non-toxic ammunition.

Comment: Currently, during the deer hunt, the refuge is closed for safety reasons, I presume. For the proposed turkey hunts (obviously firearm) as I understand it the refuge will not be closed as the area involved would be "...approximately 5000 acres...which includes the Wilderness area

east of Long Hill Road and Management area south of White Bridge Road, with the exception of land designated as "Safety Zone" or "No Entry". If I understand that correctly, that means that the area where the WOC is located (west of Long Hill Road and the Wilderness area) is just on the other side of a narrow road from the area where firearms may be discharged. I have a safety concern regarding that. I see that as a little close to the road where you may have people driving, walking or biking. I share a little of that concern for the proposed archery season as well.

Response: Visitor safety is a major consideration that directly influences the management of hunting on the refuge. "Safety Zones" are delineated, within which hunting will not be permitted. Hunters are also prohibited from discharging a firearm or bow on or across highways or roads. Hunters are responsible for properly identifying their target and what is beyond it. Occupied dwellings also maintain a safety zone of 450 feet for firearm hunters and 150 feet for archery hunters. Hunting within a safety zone of 450 feet around school playgrounds is also prohibited. Regulations will be enforced by a Federal Wildlife Officer. In addition, as mentioned earlier, the additional proposed hunting opportunities do not pose the same risk to public safety as the current firearm deer hunt for a number of reasons. First, bows are a limited range weapon, requiring hunters to be relatively close to their targets. The nature of turkey hunting, which entails calling the birds in, also requires that hunters be in close proximity to their target. In both cases, the highly selective nature of these hunts significantly reduces the chances of bodily injury. For example, for turkey hunting, based on New Jersey Division of Fish and Wildlife (NJDFW) records, from 2000 to 2014, there were only 3 turkey hunting related accidents in the state; no fatalities occurred and no non-participants were injured. Additionally, compared to the annual firearm season for deer, for which the entire refuge is open for hunting, during the fall bow and spring turkey seasons, hunting would only be allowed on approximately 5,000 acres of the refuge (about 65 percent of the total area), which includes the Wilderness Area east of Long Hill and New Vernon Roads and in the Management Area south of White Bridge Road. The Management Area south of White Bridge Road is closed to the public throughout the year, except during the 5 days of the current deer firearm season or with special permission. Further, there will be significantly fewer hunters on the Refuge during these hunts based on the number of allotted permits, and for the turkey hunt, hunters are required to stop hunting at noon. Finally, the refuge is managing the expanded hunts similar to deer and turkey hunts administered by NJDFW. During all NJDFW hunting seasons the general public is never prohibited from using state game lands or state forests open to hunting. The Refuge will post signs at Wilderness trailheads during the days of the hunts informing the public that the hunts are underway.

Comment: We support your goal to expand the hunt program by permitting archery for deer and opening the refuge to turkey hunting. These activities have nominal environmental impact and greatly benefit the constituents who directly support the refuge system through their license fees.

Response: Hunting is a priority wildlife-related public use on National Wildlife Refuges per the National Wildlife Refuge System Improvement Act of 1997. Refuges have a proactive responsibility to provide priority uses when such uses are appropriate and compatible with the refuge's purpose. We have determined that deer archery hunting and spring turkey hunting are compatible with the purposes of Great Swamp NWR and have documented such

in Compatibility Determinations included in Appendix C. Both uses are included in our final CCP.

Comment: I urge you to limit hunting to animals whose populations have grown to the point where they are harmful to the Great Swamp ecosystem. Deer are an obvious example. Raccoons seem to be another. The CCP lists raccoons as a “nuisance animal,” and if they have indeed overpopulated the Great Swamp, their predation of bird nests and amphibians could be undermining some of the very species we are trying to encourage. If the refuge wishes to expand hunting opportunities, please explore the possibility of a raccoon hunt, designed specifically to control the population for ecological reasons. Hunting should be allowed in the Refuge only where the target creates a problem, not for the pleasure of killing an animal.

Response: The raccoon is a species that periodically is problematic at the refuge at specific sites, and current management includes provisions to control this species when necessary. For example, in past years, raccoons that interfered with duck banding were trapped and relocated to other parts of the refuge. This year, a small number of raccoons have been removed from a site where the refuge is attempting to restore a rare turtle population following several predation-related turtle mortalities.

Comment: The Refuge staff has yet to consider humane methods of animal population management methods, if this must be considered at all, or to perhaps ever acknowledge that hunting and fishing may in fact not be what most visitors would like to see permitted within a refuge environment. So long as we continue the trend of attempting to alter the balance in nature, by hunting, developing, and changing the landscape, there will always be the perception that nature cannot simply be left to its own devices

Response: Hunting is one of six wildlife-dependent public uses as defined by the National Wildlife Refuge System Improvement Act. Our mandate is to provide high-quality opportunities for these priority uses where they are compatible with respective refuge purposes, goals, and other management priorities. Hunting at Great Swamp National Wildlife Refuge is both a management tool and recreational opportunity. Deer populations, for example, can cause problems for habitat management, including a reduction of understory plants and the spread of invasive species when deer numbers exceed the carrying capacity of their environment. Such was the case when deer hunting was started at the refuge in the 1970’s. Through years of careful management, however, the size of the population was reduced to the refuge’s management objective of 18-20 deer/mi², which scientific literature indicates is appropriate for habitats like those found on the refuge. Hunting is also a traditional recreational activity enjoyed by millions of users across the country, including at Great Swamp NWR. We understand that there is a wide variety of visitor opinions about what should be allowed on the refuge. The CCP is an attempt to balance the needs of the visiting public, the needs of refuge management, and our legal and policy mandates.

Deer Hunting

Comment: A number of individuals and the GSWA commented in favor of bowhunting for deer. They mentioned that it was safe and consistent with prudent wildlife management. In addition individuals commented on the positive aspect of expanding hunting opportunities

Response: These comments were noted. We agree.

Comment: I oppose permitting archery for deer. We are not a hunting ground. We are a wildlife REFUGE. The deer are more subject to suffering from bow & arrow.

Response: As stated above, in the National Wildlife Refuge System Improvement Act of 1997, Congress declared that hunting is an appropriate use of a national wildlife refuge and that hunting should be facilitated when it is found to be compatible with the purpose of a refuge. The compatibility determination for hunting is included in appendix C. Improvements in bow technology and the use of broadhead arrows has reduced the number of deer that are injured and not immediately killed.

Turkey Hunting

Comment: To add another game species, turkey, to that roster of abuse is outrageous in my opinion. And how long will it be before the Refuge decides it must kill animals that prey on deer and turkeys, so that those animal predators don't rob human predators of their hunting enjoyment? I can't believe that there are not sufficient natural predators in the Refuge to control a turkey population not inflated to create hunting opportunities. If lack of animal predators is more than a temporary problem, OvoControl G works on turkeys as well as on geese. In addition, the Board of the Friends of Great Swamp NWR commented in opposition to the spring turkey hunt. Although we understand that hunting is an FWS supported initiative, we feel that this additional proposed hunt would have more negative than positive benefits. Turkeys do not have negative impacts on habitat or other wildlife. This is a wildlife refuge, with a wildlife first mission. Allowing the hunting of a charismatic species for purely recreational purposes will appear to many as inconsistent with other Refuge programs to preserve and protect wildlife. We do not support closing the Refuge for any additional hunts. However, we do feel there are safety issues, real or perceived, with allowing hunters and other visitors in the same areas. We are also concerned about the effect of hunting on ground-nesting species, especially in the spring. We feel the benefit of offering additional recreational experiences for a few individuals is outweighed by the potential safety issues and the negative public response to hunting a much-admired and photographed species.

Response: Under current policy, hunting is recognized as an appropriate use of the refuge that should be facilitated as a wildlife dependent recreational opportunity when it is found to be compatible with the purposes of the refuge (see Compatibility Determination in Appendix C). The intent of the proposed turkey hunt is not for turkey population control. The visitor services program goals include providing quality wildlife-dependent recreational opportunities and hunting is an integral part of the visitor services program. Based on hunter density, hunter success ratios, the length of the hunt, and anticipated harvest, allowing a spring turkey hunt will not negatively impact the local or regional turkey population. With regard to other users and hunters in the same proximity, we understand the concern about safety. The area south of White Bridge Road and west of New Vernon Road is closed throughout the year to public use except during the deer hunt or by special permission. Therefore, the Wilderness Area would be the only area that could potentially have non-

hunters present while the area is being hunted. Turkey hunting is very different from other types of hunting. By law, turkeys may only be hunted by calling with non-electronic devices. In addition, turkey hunting will occur from sunrise until noon, which will leave the remainder of the day for those users that are not comfortable using the area while hunting is occurring. Therefore, risk to non-hunters is low. Similarly, most archery hunters hunt from removable treestands that offer clear views of the target deer at close ranges. We will take additional safety measures such as posting signs at wilderness trailheads to advise the public when the hunt is underway. We will also publish notice in local newspapers and post alerts in refuge kiosks and on our website.

Comment: Opening a significant area of the Refuge to Turkey hunters in the Spring has the potential of disturbing other nesting birds. I see no justification for a Turkey hunt. Turkeys do not do any significant damage to the refuge. There are other animals, such as Raccoons that can cause damage and could be hunted if the GSNWR feels that they must have a hunt for “sport”.

Response: The number of turkey hunters that will be permitted to hunt will be low. A total of 16 hunters would be allowed on the refuge during the one week hunt which equates to a density of 2 hunters per square mile (see the Compatibility Determination in Appendix C). We anticipate that impacts to nesting birds will be minimal. The combination of the low numbers of hunters and the sedentary nature of turkey hunting will help ensure that there will be minimal amounts of disturbance. We considered other hunting seasons, including raccoon. We agree that raccoon can impact turtle and waterfowl in particular, but we decided against proposing raccoon hunting for a number of reasons, including the timing of hunting (night). The refuge also has an adequate management program for dealing with nuisance animals.

Comment: Hunters and anglers provided funding for the restoration of wild turkey populations in New Jersey and throughout the United States. Wild turkeys were re-introduced to the refuge in the 1980's and the flocks on the refuge have been available for viewing and photography for many years. Alternative B allows for establishment of limited wild turkey hunting on the Great Swamp National Wildlife Refuge. Limited access hunting under the regulations established for turkey hunting by the New Jersey Division of Fish and Wildlife will in no way threaten the future of wild turkeys on the refuge. As turkey hunting is primarily a sedentary experience for hunters requiring camouflage clothing and the use of calling devices, few other visitors will be aware that it is taking place. The potential for disturbance of migrating birds is minimal because of limited hunter numbers. Turkey hunting is a safe sport with relatively low success rates and few shots fired. I strongly support this action within Alternative B.

Response: We agree and the points you make were factors in our decision to include turkey hunting in the final CCP.

Waterfowl Hunting

Comment: One individual wrote in support of limited waterfowl hunting.

Response: Great Swamp NWR was established in 1960 primarily for the protection of migratory birds, including migratory waterfowl. Periodically over the years the refuge has

received requests to open to waterfowl hunting. Hunting is a priority wildlife-dependent public use on refuge lands. The refuge has denied such requests, however, primarily over concerns that the disturbance associated with hunting the relatively small areas where waterfowl congregate would cause birds to abandon the refuge. Great Swamp NWR is one of the few places in the area that provides suitable, protected habitat for large numbers of waterfowl. Birds driven off the refuge would be forced to travel considerable distances to find other suitable locations. In addition, the refuge could not support large numbers of waterfowl hunters given the small area available to hunt. Providing waterfowl hunting opportunities for a relatively small number of users would negatively impact a much larger user group whose enjoyment of the priority public uses of wildlife observation and photography would likely be reduced significantly through hunt-related disturbance.

Fishing

Comment: Eight commenters wrote in opposition to including fishing access in future management at the refuge. They cite concerns about discarded fishing line and impacts of lead on waterfowl.

Response: We share these concerns and took them into consideration in our decision not to authorize fishing on the refuge in the final CCP.

Comment: Two individuals and the Great Swamp Watershed association commented in support of allowing fishing on the refuge. They indicated that fishing would be a gateway activity for engaging youth and that there would be minimal disturbance to other wildlife.

Response: Fishing is identified in the National Wildlife Refuge System Improvement Act as a priority public use on refuges and we agree that, under the right circumstances, fishing could serve to engage youth and others. Fishing at Great Swamp NWR, however, faces numerous resource, access, and safety constraints that greatly limit opportunities. Demand for fishing at the refuge is low. A 2010-2011 USGS survey indicated that 75% of visitors did not consider fishing “somewhat important” or “very important”. The largest proportion of visitors surveyed (45%) considered fishing “very unimportant” (Sexton et al. 2012). In the recent past, the refuge hosted an annual fishing derby at a local municipal park. The derby was cancelled in 2009 as interest and participation declined.

The Passaic River flows along the refuge’s western boundary and supports a warmwater fishery. It is also stocked with trout by the State when water temperatures are cooler. Fishing is allowed in the Passaic both from the water and from the west bank across the river from the refuge. In addition to the Passaic River, fishing opportunities are readily available at a number of other local sites. Partners such as the Environmental Education Center at Lord Stirling Park provide quality local alternatives to fishing on the refuge.

Opportunities for fishing on the refuge are limited primarily by site conditions. Some areas that might have fishing potential, as evidenced by unauthorized fishing activity, lack parking facilities and are potentially hazardous due to their proximity to busy roads. Fishing access in the Wilderness Area was also dismissed due to safety and access issues. A few small ponds may have fish but access to the ponds is limited. Opening these areas to fishing would

require new trails and parking areas at considerable expense and environmental impact. Alternative D proposes potentially opening the borrow pond behind Refuge Headquarters to fishing. This option is problematic, however, since the site is closed after hours and on weekends when the building is vacant for security reasons. The pond is also quite small and shallow and would require significant enhancement in order to provide a very modest fishing opportunity. The potential also exists for discarded fishing line, lead weights, hooks, and released bait fish to negatively impact wildlife. These issues aside, fish surveys (see chapter 3, section 3.6.6) demonstrate that overall, refuge waters do not support large numbers of popular game fish. Enhancements necessary to improve the fishery are limited by resources and permitting requirements that are likely to be complex.

Wildlife Observation, Photography, and Public Access

Comment: Improve the habitat and viewing opportunities for the numbered stops on the Wildlife Tour Route and/or evaluate relocating some of the stops for better visitor experiences. Reexamine the numbered stops in light of the change to Pleasant Plains Road at Marsden's Corner. Consider including a stop on the Refuge Access Road, north of the Visitor Center, at one of the two ponds. Providing additional pull-offs or parking opportunities along the Wildlife Tour Route would also be beneficial.

Response: We are currently looking at updating the Wildlife Tour Route and extending it north to the Helen C. Fenske Visitor Center. We are also looking into the use of new technology to improve the quality of the tour and engage new audiences.

Comment: We support the elimination of dead-end trails in the Wilderness Area. These are hard to maintain and not very enjoyable. We support the connectivity of existing Wilderness Area trails, but did not see this indicated on the Alternative B map (p. 3-62) only Alternative D map.

Response: Under our final management direction, we would continue to maintain dead-end trails. We agree that they can be difficult to maintain and visitors sometimes get lost at the end of the trails. They do, however, provide access to other features of the Wilderness Area and are preferred by some users. Connecting the two systems of Wilderness trails would be extremely challenging. The topography and wet areas between them would require extensive boardwalks which are generally prohibited in Wilderness Areas. We do not propose connecting them as a part of our final management direction.

Comment: Page 3-109: Move the following paragraph, in its entirety, from Alternative D to Alternative B, with the related Strategies.

“In addition, this objective includes the evaluation of a Visitor Center pond that would provide a unique opportunity for teaching aquatic ecology through instructor or volunteer guided observation in an accessible and controlled setting.” Strategy: “Construct a pond near the Visitor Center for additional wildlife observation and educational opportunities.”

This is a project that the Friends have supported for several years. We feel it would provide a meaningful educational experience for visitors. It would also provide a resource for school groups who come to the refuge. There are opportunities for interpretation of invertebrates, native wetland plant species, and close up observation opportunities for visitors. If associated with the Nature Detective Trail, a pond would significantly expand and enhance learning opportunities

for children, school groups, and adult visitors. The pond would be located in an area already designated for visitor information and orientation.

Response: With the current environment conditions surrounding the Visitor Center, there are wetland habitats within close proximity that offer opportunities for visitors to observe aquatic invertebrates and wetland plant species. Also with the development of other trails near the Visitor Center there are possibilities to use or enhance existing open waters for interpretation along the trails. We have concerns over potential permitting issues associated with constructing a pond in a wetland area as well as the long-term maintenance needs of such a pond. Taking all of these factors into consideration, we do not agree that construction of a new pond is necessary at this time.

Comment: A viewing tower along Pleasant Plains Road is a good idea, especially if the Wildlife Tour Route is revitalized. I do not support opening new trails in the Management Area, except near the Visitor Center. More trails in the management area continue to whittle away at closed parcels of land. These valuable tracts should remain closed for our wildlife. I support the previously discussed trail, which would connect the Somerset County Education Center and its trail system with the Helen C. Fenske Visitor Center. This would be a good opportunity to partner and look at the landscape level, rather than create new trails.

Response: The refuge is trying to expand other recreational opportunities for the public by creating quality wildlife viewing and photography opportunities. We try to strive for a balance of ecological integrity and recreation opportunities. We have explored the possibility of connecting refuge trails to the trail network of the Environmental Education Center at Lord Stirling Park but efforts so far have been unsuccessful. We support the idea in principle but realize that there could be many barriers to connecting our trail systems such as cost and permitting issues associated with bridging of the Passaic River. The refuge will continue to evaluate the potential for connecting our trail systems in the future and will address the matter further in our Visitor Services step-down plan.

Comment: A pressing need I see and hear from many visitors is for the elimination or reduction of the invasion of aquatic plants in the open water pools in the refuge. This is needed to present a more favorable visiting site for migrating water fowl as well as for viewing wildlife in these pools by the general public. Also a need is seen by many, with whom I interact, for more rigorous trimming of tall grasses at the edges of various pools along the roads within the refuge to enable motorists, cyclists and walkers to better view wildlife in these ponds.

Response: The refuge is currently studying the aquatic environments to develop and evaluate management practices. The refuge will develop a plan that balances the environmental needs of wildlife while also providing opportunities for quality wildlife observation.

Vegetation along roads within the refuge, including Pleasant Plains Road, is cut back two to three times each year. This is an ongoing maintenance need and is limited by staff and workload. We will attempt to cut vegetation in high visibility areas, such as the Overlook or in front of ponds along Pleasant Plains Road, more frequently as resources allow to maintain openings for improved wildlife viewing opportunities.

Environmental Interpretation

Comment: There is no indication under this objective that these strategies are “In addition to Alternative A” (stated directly for many other of the objectives). Alternative A (p. 3-48) states: “Continue to maintain and expand as resources allow, kiosks, interpretive displays and signs at the Visitor Center, WOC, wilderness trailheads, parking lots, and headquarters.” We would like to see a specific strategy in Alternative B to “maintain, upgrade, and expand as resources allow, interpretive displays and signs at the Visitor Center and other public areas.” This CCP includes many objectives and strategies which will increase visitation and generate more use of the Visitor Center. New technologies and initiatives will make the existing displays look and feel outdated. In order to support the visitor services initiatives, it will be important to update the displays and incorporate new technologies in order to engage visitors, especially young people.

Response: We agree. We have added to following language to page 3-88 under strategies: continue to maintain and expand, as resources allow, kiosks, interpretive displays and signs at the Visitor Center, WOC, wilderness trail-heads, parking lots, and refuge headquarters. An annual review will be conducted by visitor services staff to consider new technologies for updating displays and signs. New methods to engage visitors, especially young people will be explored and considered for implementation.

Horseback Riding

Comment: The equestrian community appreciates the opportunity to submit this petition to Great Swamp National Wildlife Refuge in support of allowing horse access to the New Vernon/Green Village, NJ trail system by opening up a handful of swamp trails for equestrian use; one specifically is located at the dead end of White Bridge Road in Gillette, New Jersey.

Response: Great Swamp NWR was established in 1960 primarily for the protection of migratory birds. Subsequent legal authorities used to acquire land expanded the refuge’s purposes to include the conservation of wetlands, the conservation of threatened and endangered species, natural resource protection, and wildlife-oriented recreation.

The National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, established that wildlife conservation is the primary purpose of the Refuge System. The Act also established a process for determining the appropriateness and compatibility of uses on refuges and defined six priority wildlife-dependent public recreational uses of the Refuge System: hunting, fishing, wildlife observation and photography, and environmental education and interpretation. Horseback riding is not a priority public use though it may facilitate priority uses such as wildlife observation. Horseback riding did occur on some refuge lands prior to their acquisition. Once such lands were acquired, however, they became part of the National Wildlife Refuge System and must be managed in accordance with Service legal and policy mandates.

In 1968, 3,660 acres of refuge land east of Long Hill and New Vernon Roads was designated a Wilderness Area by Congress. A portion of Meyersville Road and homes and buildings along this stretch were removed in the late-1960’s and 1970’s to restore the area to

wilderness conditions per Congress' mandate. At about this time, horseback riding was prohibited from the area including what became the "Orange" trail at the eastern end of White Bridge Road. Horse use was prohibited primarily to prevent natural resource damage and to protect public safety.

The Wilderness Area currently provides a system of primitive dirt hiking trails approximately 8.5 miles in total length. Natural resource damage concerns associated with horse use include soil disturbance, erosion, and the spread of invasive plant species. Soils throughout this area are predominantly wet and poorly drained. The impacts from horse use would likely lead to major disturbances along the trail system as hooves churn up the muddy soil. Such damage would be slow to heal, lead to erosion, and expose disturbed areas to invasion by invasive plants (Pickering et al. 2010; Torn et al. 2009; Newsome et al. 2008; Davenport 2003). Given the fragile nature of the soils, even a modest amount of horse use is likely to create a disproportionately negative impact (Torn et al. 2009). Horses are non-ruminants and their manure has the potential to spread invasive plant seeds (Torn et al. 2010; Campbell, JE and DJ Gibson 2001). Large amounts of manure and urine could also foul refuge waters. Horse waste would also diminish the experience of non-horse users who must step around such waste to avoid it on the trail.

The refuge's wilderness trail system was not designed, and is not maintained, for horse use which contributes to public safety concerns. In many locations the trail is grown in and less than 10 feet wide. Under these conditions, it would be difficult for hikers and horses to safely pass one another. Combined bridal/hiking trails, especially when so narrow, are unsafe and not a recommended practice. Exposed roots and fallen timber make footing treacherous in numerous locations. Seven wooden bridges and several sections of boardwalk have been installed along the trails as the minimum required to protect public safety at potentially dangerous water crossings. These structures were not designed to accommodate the size or weight of a horse and rider and raise additional safety concerns. Wilderness trailheads were also not designed with horse use in mind. Two of the four trailheads are small (Long Hilland Woodland Roads) and could not accommodate more than 1-2 trucks and trailers before the parking area was full.

Pleasant Plains Road, on the other hand, has long been open to horseback riding. In fact, in the late-2000's the refuge opened an additional 1 mile of this road to horse use following the acquisition of 0.75 miles of road north of Great Brook Bridge and the construction of a new 0.25 mile access road connecting to Lee's Hill Road. The surface of Pleasant Plains Road is smooth and covered with either asphalt or hard-packed gravel. The road is 18-20 feet wide in all places and road shoulders are regularly mowed to push back vegetation. There are no structures along the length of the road that could not support the weight of a horse and rider. Ample parking for a truck and trailer is available at Headquarters and the Visitor Center. Given the conditions that prevail along Pleasant Plains Road, we have determined that horseback riding is an appropriate and compatible public use in this location. A copy of the Finding of Appropriateness and Compatibility Determination are included in Appendix C of the CCP.

Several respondents requested that trails be opened to horseback riding for local residents only. Such a request cannot be accommodated however as, by law, National Wildlife Refuge System lands are owned and managed for all Americans equally. There are numerous horse owners and boarding operations in the Great Swamp area and even more throughout the region. Since access cannot be restricted, the potential exists for use to exceed local levels with correspondingly larger impacts. Several public and private horse riding facilities can be found in close proximity to the refuge including the Somerset County Park Commission's 450 acre Lord Stirling Stable less than 1 mile to the west.

We project that visitation will increase 2% per year over the 15 year life of the CCP. Should horseback riding be permitted on refuge trails, conflicts between horse use and other public uses are quite likely to develop (Newsome et al. 2008). Allowing a non-priority public use like horseback riding on refuge trails would benefit a small segment of the refuge's user base while potentially creating a disproportionate impact on other users pursuing priority public uses. The resources required to manage horse use would reduce our ability to provide for priority high-quality wildlife-dependent public uses. Given valid concerns over resource damage, public safety, staff and budgetary limitations, and the availability of alternative equestrian options in the vicinity, we must unfortunately deny requests to open refuge trails to horse use.

Comment: I am completing this comment form to request horse access on a limited amount of trails through the Great Swamp be considered for the CCP. Especially being able to access the trails from the dead end section of White Bridge road toward Green Village for the purpose of observing wild life from horseback.

Response: We understand the desire to use the refuge's wilderness trail system for horseback riding. However, after a careful analysis of likely impacts to natural resources and public safety, staff and budgetary limitations, and equestrian alternatives in the vicinity of the refuge, we must deny this request. See the above response for additional information.

Comment: I am concerned about the lack of horse access at the end of White Bridge Road. The main trail, previously a paved road, allows access to the horse trails in Green Village. When the paving was removed from the road and the trail closed to horses, it was not due to any problem with the horses or the riders, it was to increase the wildlife and wilderness lands, preventing the establishment of a nearby airport. The victory was the prevention of the airport, but the riders lost in the process. This makes no sense to me. Now, not only can I not observe and enjoy the wildlife area by horseback, but I lost access to the horse trails on the other side. Instead, I now have to trailer my horse to the trails on the other side of the swamp. The disadvantages of and problems with the current situation are:

- 1) Riders must trailer to the other side of the swamp. This increases traffic (trailers pulled by large vehicles - small cars do not pull horse trailers, large SUVs or trucks do) in wildlife areas and increases air pollution in the same areas.
- 2) Riders cannot enjoy wildlife by horseback. Horses are prey animals and are naturally quiet. When I ride on a trail, my horse is actually quieter than I am when I am walking.

Response: Response: We understand the desire to use the refuge's wilderness trail system for horseback riding and realize that the area was open to riding many years ago. However, after a careful analysis of likely impacts to natural resources and public safety, staff and budgetary limitations, and equestrian alternatives in the vicinity of the refuge, we must deny this request. See the above response for additional information.

Regarding the need to trailer horses to the eastern side of the refuge, equestrian facilities are available on the western side in close proximity to the refuge including the large Lord Stirling Stable complex and several smaller private horse boarding operations. We agree that riders can enjoy wildlife by horseback and, while not a priority public use, horseback riding can facilitate priority uses such as wildlife observation. For that reason, the stretch of Pleasant Plains Road controlled by the refuge (recently extended from South Gate to Lee's Hill Road) has long been open to horseback riding and will remain so in the final CCP.

Bicycling

Comment: I would like to see the Great Swamp National Wildlife Refuge become more bicycle friendly. Some roads through the Refuge do not allow for safe travel for motorized vehicles and bicycle riders together. Designated bicycle lanes alongside roadways may improve safety and pleasure. Reducing speed limits and/or speed bumps may also help. Pleasant Plains Auto tour route could include a paved multi use path to accommodate bicyclists, pedestrians etc..

Response: Many of the popular bicycling routes through and around the refuge are on municipal and county roads over which the refuge has no jurisdiction. Such roads include Long Hill, New Vernon, Lee's Hill, Pleasantville, and White Bridge Roads. We agree that these roads would benefit from designated bicycle lanes as they are narrow and heavily travelled by motor vehicles. The refuge has and will continue to support local and county efforts to develop bicycle lanes in ways that ensure public safety and do not degrade refuge resources.

Pleasant Plains Road from the cul-de-sac north of the Visitor Center to South Gate, including the Visitor Center access road, is a refuge road that is open to bicycling. Slightly more than half of this length is gravel while the remainder is asphalt. Speed limits are enforced at 15 mph for the gravel section and 25 mph on the asphalt. Two speed bumps are placed along the gravel section to further reduce speeding. Constructing a paved multi-use path along or adjacent to the road was considered and rejected. Pleasant Plains Road is narrow (18-20 feet wide), flanked by deep ditches in many locations, and heavily travelled by pedestrians, bicyclists, and motor vehicles. A paved path along its edge would further narrow the roadway making it difficult for vehicles to pass and potentially increasing safety risks. A paved path paralleling the road would traverse numerous wetlands and other sensitive habitats and disturb wildlife in areas currently closed to public use. In either instance, permitting would likely be complex and lengthy and funding is not available to either construct or maintain such a path.

Comment: Paving and making access easier through the Great Swamp would encourage more bicycle riders (to include motorcycles) to inevitably use the "shortcut" once it becomes better

known. The biking roads are well known to local bicycle stores, groups and clubs and the increase traffic may create conflicts and accidents. The existing road is already narrow (barely two cars width) and paving a section of the gravel road (either side or both sides?) would not only increase the number of bikes but bike speeds. If the paved areas are not wide enough, some riders may go too fast on the paved areas and then fall when the thin tires slide on the gravel accidentally. Currently, the gravel surface deters many two wheeled vehicles to ride slowly over the gravel when they traverse this route. Should the existing gravel road width be expanded to accommodate a paved area dedicated for biking, this would result in impacts to wetland habitats, requiring a Section 404 permit, and possibly wetland mitigation based on the linear length and width of the proposed paved area.

Response: Great Swamp NWR currently allows bicycling along Pleasant Plains Road but the paving of additional areas along Pleasant Plains Road would have a detrimental impact on wildlife and adjacent habitat and would prevent the accomplishment of refuge purposes.

Comment: We are pleased to note that adding a bike trail to Pleasant Plains Road is in Alternative D. We do not support this non-wildlife recreational use and feel that a bike trail would be disruptive to wildlife and interfere with visitors engaged in wildlife recreation. The focus of the majority of these bikers is on the biking experience, not wildlife observation and would result, we feel, in significantly higher bicycling traffic, especially large organized groups. We would also anticipate a degradation to the habitat from more litter along the road.

Response: We have considered and rejected the construction of a paved bicycling path along Pleasant Plains Road in our final CCP for the reasons articulated above.

Other recreational activities

Comment: Additionally, GSWA would like the refuge to consider expanding passive recreation to include geocaching, a popular activity among people of all ages.

Response: Great Swamp NWR currently allows virtual geocaching on the refuge. This offers a geocaching experience without the need to leave any physical caches on the refuge. 50 CFR 27.93 includes a prohibition on leaving personal property in any national wildlife refuge, therefore no physical cache can be left on the refuge.

Volunteers and Partnerships

Comment: We would offer our assistance in the form of funding for habitat management work on the refuge at some future date. Our chapters raise funds for conservation and outreach projects within the state. We are currently working with staff on the Wallkill Refuge to provide hunting opportunities for youngsters and disabled individuals.

Response: The refuge welcomes new partnership opportunities and strives to maintain existing ones. Visitor services strategies include expanding wildlife-dependent recreational opportunities and partner assistance in the areas of habitat improvement, outreach, and hunting opportunities.

Comment: I am a board member of the Friends of Great Swamp NWR and an active volunteer. The Friends are a strategic partner and I would like to see that relationship grow and expand during the next 15 years. In order to accomplish many of the objectives and strategies detail in the CCP, the Refuge will need help from all of its partners. However, the Friends are the only partner dedicated entirely to the Refuge and the National Wildlife Refuge System. We do not have competing demands for time, money, or resources as other non-profits have. All partners are important, but I think the Refuge would benefit from an explicitly stated additional investment in the Friends of Great Swamp NWR.

Consider moving the following paragraph from Alternative D (p. 3-112) to the appropriate section in Alternative B.

“By partnering with the Friends of Great Swamp NWR to expand the organization, we can both provide new volunteer opportunities to existing members and expand the variety of management and public use opportunities proposed under this alternative without incurring prohibitive costs or drains on resources. Additional volunteer effort will specifically allow Great Swamp NWR to increase Visitor Center hours, provide more interpretation at the WOC, and increase the number of interpretive tours hosted at the refuge.”

Response: We agree. The refuge would like to see the relationship with the Friends of Great Swamp continue to grow and expand during the next 15 years within the framework of Service policy and guidance. The following language will be added to the Goal 5 strategies under volunteers and partners: “The refuge will continue to foster its relationship with the Friends of Great Swamp NWR to help expand their organization, further the purposes of the refuge, and provide new opportunities for volunteers and public use”.

Public Outreach

Comment: We need to learn about ways to reach across cultures within our own country and regions as we attempt to attract new audiences. Having attended one of the national Refuge/Friends Conferences in Washington, I know that work has been done to understand the needs of a diverse community.....new messages, materials in different languages, etc.

Response: Great Swamp NWR is committed to public outreach through the Service’s urban outreach initiative. Given the refuge’s close proximity to ethnically and culturally diverse, heavily urbanized areas, we have a unique opportunity to share the Service’s conservation mission. To that end, our final CCP proposes increasing the number of off-site programs targeting these populations in nearby communities such as Morristown and Newark. We also plan to expand and deepen relationships with urban schools and diverse members of partner organizations such as the Boy/Girl Scouts and The Nature Conservancy. We will continue translating our brochures and website into Spanish. We will also use the results from the 2010-2011 USGS National Wildlife Refuge Visitor Survey to tailor programs and messages to better reach diverse audiences. Our ability to do these things is currently limited mainly by insufficient staffing. To address that shortfall, we propose increasing our Visitor Service staff from two to four full-time employees.

Comment: With the new emphasis on attracting an urban population, I believe even more emphasis needs to be placed on outreach, and any additional ways we can reach our audiences should be pursued. Steve Henry mentioned another refuge's truck or interactive display that can

be carted to local fairs, schools, etc. It is really important for our refuge as well. This does not have to be an expensive proposition. The more the Refuge can draw upon talents found in university Arts programs, the better the possibility for creative ideas at low cost.

Response: We propose developing a “Watershed Wagon” or mobile visitor center as a strategy to support public outreach in our final CCP. Such a unit would function similarly to Silvio O. Conte NWR’s highly successful “Watershed on Wheels”. Such a unit would make an excellent tool for reaching out to communities and schools throughout the area with the Service’s conservation message. These units can be quite expensive, however, and emphasize the need for partnerships and collaborative grant writing. In the meantime, less expensive alternatives, including tools already in use such as tabletop displays, will continue to be used and new low-cost alternatives explored.

Comment: GSWA agrees that an emphasis on urban population opportunities would be a valuable priority, but not at the expense of a local community focus as well.

Response: While the refuge will be expanding its outreach to urban audiences, local audiences will not be neglected. On- and off-site programs in neighboring communities will continue to be offered. In fact, most on-site programs are open to the general public. Such opportunities are limited mainly by Visitor Services staffing which we propose to increase from two to four full-time employees. We will continue to partner with local conservation organizations such as the Great Swamp Watershed Association, The Raptor Trust, and county environmental education centers to leverage resources and maximize our collective public offerings.

Climate Change

Comment: GSWA believes the climate change initiative in Alternative D should be included in the management direction. Great Swamp National Wildlife Refuge is a true living laboratory and offers unparalleled research opportunities not available elsewhere.

Response: We agree and have included the climate change strategies found under draft Alternative D in our final CCP.

Comment: Now transitioning into climate change and extreme weather patterns in future years, the Great Swamp NWR staff may want to implement a contingency plan along with the existing adaptive management plan. As one may know, adaptive management is a systematic approach for improving resource management by learning from management outcomes (good and bad). Contingency planning is different and procedures should be in-place to be implemented following an unplanned disaster. The plan should address standing policies to mitigate a disaster's potential impact and/or explore/prepare for any consequence of climate change and changing conditions.

Response: We agree and will include contingency planning for likely climate change-related impacts in our post-CCP step-down planning efforts. Contingency considerations will be guided by the Service’s 2010 “Rising to the Urgent Challenges of a Changing Climate: A

Strategic Plan for Responding to Accelerating Climate Change in the 21st Century” and 2012
“National Fish, Wildlife, and Plants Climate Adaption Strategy.”

Wilderness Area

Comment: Wilderness Watch supports this recommendation for the two identified WSAs and encourages the Great Swamp NWR to complete the wilderness study expeditiously and to formally recommend their designation as Wilderness to the U.S. Congress.

Response: We concur and in the final CCP recommend two WSA’s totaling 160.6 acres to be designated by Congress as wilderness as defined by the Wilderness Act of 1964 and added to the existing Great Swamp NWR Wilderness Area.

Table G-1 List of Commenters

Letter ID	First Name	Last Name	Organization Affiliation
1, 2, 17, 18	Jean	Public	
3, 4	Susan Garretson	Friedman	Friends of Great Swamp NWR
5	Guy	Roshto	Long Hill Township Planning Board
6	Joan	McCloskey	
7	David W.	Grossmueller, Ph.D.	PSE&G
8	Alexandra	Hennessy	
9	John J.	Walsh	Long Hill Environmental Commission
10	Manuel J.	Almeida, Jr.	
11	Michael E.	Harris	
12	Luke	Asbury	
13	Anonymous		
14	Greg	Borsinger	
15	Peter	Soares	
16	Douglas	Pitney	
19	Anne	Bungo	
20	Pam	Mavraganis	
21	Marnie	Vyff	ecoLOGIC-design, LLC
22	Anonymous		
23	Jennifer	Books	
24	Judy	Books	
25	Edward	Zohn	

Appendix G. Summary of Responses to Substantive Public Comments

26	Roberta	Shields	
27	Steve	Burdick	
28	Terry	Burdick	
29	Jane	Kendall	various
30	Kevin	Proescholdt	Wilderness Watch
31, 32, 89	Lin	Salerno	
33	Rich	Dufort	
34	Jane	Books	
35	Joe	Williams	
36	Diane	Nelson	
37	Louis	Gambale	various
38	Nick	Weiss	
39	Thomas	Chew	various
40	Steve	Parre	
41	Matthew	Scott	
42	Kathy	Haines	
43	Kristina	Folkart	
44	Joan	McCloskey	
45	Louis E.	Bacon	
46	Peter	Adams	
47	Paul	Zitelli	
48	Barbara	Franko	
49	Linda	Lutes	
50	Barbara	Hires	
51	Ellen C.	Greenhorn	
52	Dave	Majors	
53	Chris	Soucy	The Raptor Trust
54	Laurel	Gould	On behalf of the Friends of Great Swamp NWR
55	Jane	Fetter	
56	Kathy	Woodward	
57	Vicky	Sroka	Harding Township/Green Village Bridle Path Association

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58	Joanna	Askey	
59	Bob	Eriksen	National Wild Turkey Federation
60	Jerry	McCusker	Spruce Run Local Chapter of the National Wild Turkey Federation
61	Richard	Kinney	Kittatinny Gobblers Local Chapter of the National Wildlife Turkey Federation
62	Judy	Schmidt	
63	James D.	Grabow, Sr.	
64	George E.	Helmke	
65	Tim	Blum	New Jersey Chapter of the National Wild Turkey Federation
66	Mary Beth	Hansbury	Friends of the Great Swamp
67	Petition Received		
68	Laura	Graham	
69	Robert S. W.	Lin, PWS	
70	Louise	Rubbo	
71	Geno	Moscetti	
72	Navot	Singh	
73	Judi	DiMaio	
74	Garry	Annibal	
75	Evie	Kramer	Deer, Ecology, Environment and Resources (D.E.E.R.)
76	John J.	Walsh	Township of Long Hill – Environmental Commission
77	Laurel	Gould	
78	Anita A.	Shotwell	
79	Patrick C.	Carr	NJ Division of Fish and Wildlife
80	Dorothy	Smullen	Friends of Great Swamp NWR
81	Brian	Weingart	
82	Mary	Walter	
83	Melanie	Sabio	
84	Evelyn	McNally	
85	Joseph	Balwierczak	
86	Spencer	Shaw	Safari Club International

87	Anonymous		
88	Sally	Rubin	Great Swamp Watershed Association