December 23, 2014~~July 29, 2014~~~~July 15, 2014~~

Mr. Kevin Bowman
Environmental Protection Specialist
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear Mr. Bowman:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Upland Forest Management Plan (Plan) for the proposed Constitution Pipeline Project (Constitution or project), Federal Energy Regulatory Commission (FERC) Docket No. CP13-499-000, and the Wright Compressor Station Interconnect Project, Docket No. CP13-502-000 dated June 2014. The applicant, Constitution Pipeline Company, LLC, proposes to construct a new 30-inch natural gas pipeline, approximately 124.4 miles in length, from drilling areas in Susquehanna County, Pennsylvania, to the Wright Compressor Station located along the existing Iroquois Gas Pipeline in Schoharie County, New York. The Plan proposes measures to minimize and mitigate impacts to forest habitat which would be impacted by the project.

This is the report submitted by the Service pursuant to, and in accordance with, the Migratory Bird Treaty Act (MBTA) (40 Stat. 755; 16 U.S.C. 703-712). We may provide additional comments on this project under the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) or other legislation, as applicable. The Service provided initial comments on the preliminary version of this Plan in an electronic message dated April 16, 2014, from Jennifer Siani of the Service's Pennsylvania Field Office to Bill Hartwig, Dawson Associates. ~~Those comments were incorporated into the current version of the Plan under review and are appended at the end of this letter.~~

In March 2014, ~~Constitution~~ the FERC released a Draft Environmental Impact Statement (DEIS) report which described the proposed action and potential effects to natural resources, including wildlife habitat. In a letter dated April 7, 2014, the Department of Interior (Department) provided comments to FERC on the proposed project and information contained in the DEIS. Primary among the concerns of the Department were the potential effects of project construction on large areas of habitat. This included the loss of more than 1,000 acres of forest, 36 miles of forest fragmentation, and the indirect impact to 436 acres of forest interior habitat. The total t~~T~~emporary and permanent habitat disturbance will be more than 1,600 acres. It was noted in the DEIS that the information on potential impacts to natural resources was incomplete as 24% of the project area had not been surveyed due to -property owners denying access to their lands. Therefore, actual habitat impacts could be greater.

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To ~~mitigate~~ offset some of the impacts to wildlife habitat, particularly for migratory birds protected under the MBTA, Constitution has developed the Plan, which provides proposed conservation measures and mitigation ~~.~~commitments. The Service has reviewed the Plan and provides comments below in the order in which they appear in the document. ~~In addition, we are providing additional MBTA comments at the end of this letter.~~ We request that the FERC not approve the project until the Service and Constitution have finalized this Plan.

Preface

We suggest that USFWS be spelled out in this paragraph as it is the first time it is used in the document. In this section and throughout the document, reference should be made to the jurisdiction of the New York State Department of Environmental Conservation (NYSDEC) and the Pennsylvania Game Commission in regards to natural resources, particularly avian species, in their respective portions of the project area.

1.0 Introduction

The second paragraph indicates that Constitution will maintain, through periodic vegetation management, the pipeline right-of-way (ROW) within upland areas. A 50-foot-wide ROW will be maintained in either an herbaceous or shrub state. Constitution should investigate whether maintenance on a narrower ROW is feasible. We note that details are lacking on the proposed vegetation management. It is not indicated how often the vegetation will be maintained. Also, it is not indicated if vegetation will be mechanically removed or treated with herbicides. We recommend mowing be used and as infrequently as possible to limit habitat disturbance. Mowing and cutting of shrubs should take place on a 5 to 8 year rotation, if feasible. To protect migratory birds, any management activity should take place outside of the breeding season, generally April through August. We suggest more details and firm commitments on ROW management be added to this section. In addition, the FERC directed Constitution to include measures to limit habitat disturbance "such as, but not limited to, further reducing the construction right-of-way…" on Page 4-71 of the DEIS. However, we have not received information which indicates this has been incorporated into the project. We suggest the FERC have Constitution thoroughly address this issue.

Comment [DAS1]: This text should be moved up to follow the second sentence. The new sentence that was inserted "Constitution should investigate…) can then be removed.

Although there is a discussion of proposed access roads, there is no mention in this section of construction staging and storage areas. These areas should be identified and described in the text and a commitment be made to restore them to original condition or enhanced for wildlife. Further, numerous communications towers are proposed along the project corridor to operate automated project facilities. Constitution has provided information to the Service regarding these towers, and that information should be included in this document as well. ~~Additional comments regarding the towers is provided at the end of this letter.~~

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2.0 Regulatory Framework

In the description of the MBTA, it is stated in the second paragraph that construction activities could cause take of migratory birds "depending on how these actions are completed". See comments above regarding ROW management.

The Bald and Golden Eagle Protection Act (BGEPA) is described on Page 2-1 and lists activities which are prohibited and may require a permit from the Service. It should be noted that Constitution has not yet provided the Service with information on where blasting will occur near bald eagle (*Haliaeetus leucocephalus*) nests. This information must be provided to our agency so that we can determine if a permit may be necessary under this law. To date, the project environmental documents have stated that the need for blasting will be determined during construction. Further, we have not been provided with a Blasting Mitigation Plan as indicated in the DEIS. We again recommend that Constitution supply detailed blasting information to the Service if this activity will occur near bald eagle nests.

~~The Plan states that active nests will be buffered from construction activities. What is the likelihood that bird nests will be discovered in the project area and the likelihood that Constitution will be able to work around them? Recently, a pipeline had a Canada goose lay eggs in a nest on the pipeline ROW. The Service does not have permits for active nest removal, thus, activity had to stop within that area.~~

Executive Order 13186 directs federal agencies to work with the Service in conserving migratory birds for projects that they fund or approve. The FERC has developed a Memorandum of Understanding (MOU) with the Service to provide a framework for cooperation when reviewing FERC-regulated projects. A portion of the MOU indicates that FERC is obligated to address measures which will avoid or minimize, to the extent possible, impacts on migratory birds and their habitats. While this Plan offers measures which may minimize some of the adverse impacts to migratory bird habitat, the Service has offered, in our letter on the DEIS, recommendations to avoid negative construction and operation impacts for FERC's consideration. Primarily, it was recommended that the project be constructed along existing infrastructure right of ways to the greatest extent possible in order to reduce habitat loss, conversion, and fragmentation.

3.0 Habitat Assessment

Although this section provides an overview of the types of habitat observed in the field and from sources such as aerial imagery, it does not provide any data on how these habitats actually support wildlife in the project area. Importantly, there ~~are~~ is a lack of ~~no data on~~ bird~~s~~ observation~~ed~~ data for the project area~~in these particular habitat types~~. The Plan does reference Breeding Bird Atlas data for species expected to be found in the region, and this is compared to the Service's list of Birds of Conservation Concern (BCC). This data was collected locally, but it is not provided in the Plan, nor are bird observations previously reported in the DEIS. Without this information, the reader cannot comprehend the importance of the forests in the project area or the breadth of avian species found there. We recommend more supporting data be provided in the text and as an appendix to the Plan. It is important to note that the Service is concerned with the potential effects of the project on all forest wildlife, not just those species listed on the BCC list.

We disagree with the statement that the project has been designed to avoid and minimize impacts on interior forest species to the greatest extent practicable. For further discussion on that issue see our comments on the DEIS dated April 7, 2014. Our primary concern is that the project is sited in mostly greenfield areas and not collocated with other infrastructure such as utility lines

or roads. Only 11 percent of the preferred alignment is collocated with existing infrastructure, which means that a large portion of the project will impact wildlife habitat. In contrast, Alternative K would be collocated with almost 90 miles of existing infrastructure.

We note that the habitat descriptions generally do not include types such as riparian forests and forested wetlands, important habitat for a suite of bird species. We understand that the focus of this Plan is on upland habitat, however other forest types are found in the project area may be impacted ~~-~~and their importance to wildlife should also be discussed~~.~~

The Plan~~Please~~should define the abbreviation ER. Also, ~~define~~ the term "special use" should be defined as it relates to land use~~ should be defined~~. It should also be e~~E~~xplained why this and the other five land use types do not provide significant breeding habitat for migratory birds. ~~Define~~ In addition, the term significant should be defined.

On Page 3-4, the Plan makes an important point that the project will be affecting upland forest, which represents the greatest concern with respect to migratory birds. It also states that the quality of the habitat will vary based on physical and biological forest factors. However, nowhere in the document is this further explained or are the factors analyzed. There is a good discussion of the habitat found at the Canonsville-Mill Stream Important Bird Area (IBA) and the avian species it supports, but not for any other areas. For example, there are large tracts of forest found east of the IBA which will be bisected by the project. An analysis for these other areas is lacking but should be included.

~~Please italicize all Latin names. Eliminate double use of the word "the".~~ Currently, the Plan indicates ~~Instead of saying~~ that the habitat areas ~~that will be~~ bisected by the project will continue to be large. We recommend the Plan~~,~~ ~~please~~ use actual acreage numbers ~~that can~~ to demonstrate these fragments are indeed of a large size and thus, can support the bird species mentioned. Where habitat areas are referenced as large, actual acreage numbers should be used so that the reader has a true frame of reference.

The Plan indicates that although the project bisects the IBA, it will have no significant adverse effect on the IBA. ~~In fact,~~ I~~i~~t states that the new shrub habitat along the pipeline ROW will benefit species such as least flycatcher (*Empidonax minimus*~~-~~) and Northern flicker (*Colaptes auratus*) (which do not use shrub areas).~~.~~ b~~B~~ut~~, the Plan~~ does not state that there may be a negative affect from habitat loss and fragmentation on species such as scarlet tanager (*Piranga olivacea*) and wood thrush (*Hylocichla mustelina*). In addition, the habitat modification could increase bird and nest predation on most species found there. While the DEIS indicates, on Table 4.6.1-1, that only 16 acres of IBA forest would be affected by construction, the indirect impact to forest interior areas is over 100 acres. This is based on the length of crossing (7,651 feet) multiplied by a corridor width of 600 feet (the distance into the forest in which indirect impacts can occur). The Plan should reflect both the direct and indirect impact to forests.

It is not clear why there are only four~~4~~ bird species listed in Section 3.3. While these species may have been identified during Breeding Bird Atlas (BBA) surveys in the project area, ~~it should not be~~ the BBA surveys are not considered all inclusive. There are 15 species on the BCC list. ~~and many of them may occur in the project area but were not previously detected.t~~This list should be provided in the Plan. There are no data to support the statement that the creation of smaller

Comment [DAS2]: Not sure if this is the case or not so keep or remove as appropriate.

Comment [DAS3]: What land use type is this referring to?

contiguous forest blocks may result in only a slight decrease in nesting habitat for forest interior species.

A citation should be included that supports the statement that blue-winged warbler (*Vermivora cyanoptera*), golden-winged warbler (*Vermivora chrysoptera*), and black-billed cuckoos (*Coccyzus erythropthalmus*) use edge habitat or use scrub-shrub habitat for breeding. Edge habitat and scrub-shrub habitat are different and should not be lumped together. Scrub-shrub habitats are areas where the vegetation is dominated by small, woody plants (e.g., shrubs, young trees) and often occur within the forest environment. There is evidence that scrub–shrub birds are less abundant near edges (Schlossberg and King 2008) and predation on scrub–shrub nests is higher near edges (Weldon and Haddad 2005). This contradicts ~~your~~ the DEIS statements that the permanent ROW will provide a net benefit.

Table 1 lists BCC potentially within the project area and the reasons they may be using the habitat (i.e. breeding, migrating). It is unclear to us how the determinations were made for each species. Also, most species are listed as breeding in the project area, but the cerulean warbler (*Coccyzus erythropthalmus*) is the only species listed as migrating. It should be explained why other species, such as blue-winged warbler, wood thrush, etc., would not be using the project area during migration. We recommend the table be revised to list all of the BCC species as migrating in the project area and indicate which species are breeding, as appropriate. In addition, data from the U.S. Geological Survey's Breeding Bird Survey routes should be referenced for relevant data collected in the project area.

Comment [DAS4]: If you have data that indicates that all these species are migrants in the area let's just say that and provide the citation

Comment [DAS5]: See DAS4

~~Clarify whether~~In addition, ~~-~~the column called County/State should be clarified to indicate ~~whether~~ ~~includes~~ where the species is confirmed to breed or is likely to breed. We recommend e~~E~~liminating~~e~~ the word "undisturbed" from the description of bald eagle habitat. With the rise in population numbers, birds have been found nesting in areas with heavy human disturbance such as military ship yards, retirement communities, and at prison sites. We also recommend a~~A~~dding a column that states the breeding dates for each bird species. This information for Pennsylvania can be found in Appendix F in Wilson et al. 2013. ~~When you do this, it will be very clear why you will need to make some adjustments to your~~ These data will help identify avoidance and minimization measures, such as the timing of vegetation clearing.

4.0 Impacts to Migratory Birds and Upland Forests

The project's direct effects on migratory birds can be caused by construction as well as maintenance activities once the pipeline has been built. Habitat loss from construction is described in the DEIS and in this section of the Plan. Potential impacts to migratory birds from operations and maintenance of the pipeline ROW include mowing, cutting, and herbicidal removal of vegetation. For specific information regarding these activities, the Plan refers to the Environmental Construction Plan prepared for the project. Few details are included in the Upland Forest Management Plan. We believe these details should be provided which would help the reader understand the scope of the activities (i.e. mowing frequency, timing, etc.).

The migratory bird breeding season encompasses a larger time frame than indicated in the text (early April through late July). ~~Please change~~T~~t~~he text should be revised to indicate that the majority of breeding bird activity is between April 1 and August 31. It should also be noted that

raptors often start breeding much earlier than April. For instance, bald eagles will begin establishing territories and pair bonding in December with nest building and egg incubation in January.

We suggest rewording the second sentence in the third paragraph in this section, to "Fragmented forests have the potential to result in (remove the word develop) forest.…"

The third paragraph discusses the effects of linear projects on forests and interior-dependent species, such as some migratory birds. It states that the importance of overall effects of forest interior removal is directly related to the size of the remaining blocks and the transition of vegetation from the pipeline ROW to forest interior. We agree with the first part of that statement, but it is not clear how the second part, the transition of vegetation, mitigates the impact of forest fragmentation. Once a large block of forest is bisected into one or more smaller pieces, the regrowth of vegetation along the ROW will not mitigate this fragmentation, especially because maintenance activities (cutting and mowing) will occur for the life of the project. This section needs more clarification.

~~Of course,~~ A~~a~~ll migratory bird habitat is important for the survival of the individuals that use them and to maintain local populations. Setting the benchmark of interior forest at 35 acres as to whether or not the areas are important for migratory birds is ~~arbitrary and~~ not supported by the information provided in the Plan. This figure should be further explained as to how it was derived. The text ~~still~~ does not explain where the choice of 10% of 350 acres comes from. It is stated that the choice of a 350-acre minimum forest block is based on the average size of interior forest breeding species according to Robbins et al. 1989. ~~But then~~ T~~t~~here is a reference to the State of Maryland's forest block sizes that does not seem to be related to the Robbins article or Constitution's conclusion. ~~Why was~~ It should be explained why 10% of the average forest size was chosen to be the appropriate minimum for this project~~?~~.

It should be noted that two studies from the Cornell Laboratory of Ornithology provide more recent information on minimum forest block size. In collecting data on scarlet tanagers the researchers found that unfragmented forests over 140 acres in size provided suitable habitat. Likewise, minimum forest size for forest thrushes was 200 acres for wood thrush and 435 acres for hermit thrush (*Catharus guttatus*).

Comment [DAS6]: Provide the citations

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We disagree with the statement on Page 4-2 which says the project has been sited in disturbed areas and along existing infrastructure to the greatest extent practicable. Further explanation should be given (see our previous comments on this issue).

It should be noted in the second paragraph on Page 4-2 that the construction of the project can also greatly increase the chances for invasive plant species to become established along the corridor and within adjacent forests. This can lead to a change in vegetation community structure, including the loss of preferred habitat for migratory birds and food sources in the remaining forest areas. Although an Invasive Species Management Plan will be developed for the project, some invasive plants are very difficult to eradicate. Also, the pipeline corridor could provide optimum growing conditions for invasive plants (disturbed conditions, more sunlight, etc.), and/or a pathway for hosts to carry seeds resulting in the establishment of new infestation areas. More discussion on this topic should be provided in this section.

The second paragraph on Page 4-2 ~~attempts to downplay~~ suggests ~~the project's effects on migratory birds by stating~~ that the majority of species will adapt and shift their home ranges, implying that the forest fragmentation due to the project -will not result in a loss of habitat. ~~Stating that the "bird species identified in the project area are adaptive to changing habitat conditions and possess the capability to expand or shift their home ranges to find alternative sources of food, water, and shelter until the disturbed habitat becomes re-established" is very misleading. We know of no research which supports this assertion.~~ The project will result in a loss of forest interior habitat and create edge areas which will limit the availability of preferred habitat and may push some interior species into new areas, possibly causing interspecific and interspecies competition for resources. This may lead to reduced population levels of some species. ~~We suggest the Plan not attempt to justify forest fragmentation as beneficial for interior and area-dependent species.~~

Bird species are on the BCC list because ~~of declining populations~~their populations are declining. Assuming that they can adapt quickly enough to changing conditions such that there will not be an impact is unsupported. The reference used, DeGraaf et al. 1992, is a document specific to New England, which does not have the same habitat as the Mid-Atlantic region, and it is intended to be used to develop silviculture management strategies to increase biodiversity. It does not provide experimental evidence suggesting that these bird species can adapt successfully to disturbance from construction and operation of a pipeline until their habitat has become re-established. It also does not consider that their habitat will not actually be re-established in this pipeline scenario. Thus we do not concur that forest fragmentation is beneficial for interior and area-dependent species.

Text in the third paragraph states that direct impacts to breeding birds will not occur because vegetation clearing will take place outside of the breeding season. Construction activity during the breeding season has the potential to cause take of migratory birds through nest abandonment, destruction of nests, and lethal impacts to chicks and adults. We appreciate the intention to clear vegetation outside of the breeding season. ~~Removing vegetation outside of the breeding season will limit incidental take of migratory birds under the MBTA.~~ However, a~~A~~ commitment to specific construction dates should be added to the text in this paragraph. ~~It should be noted, however, that construction activity during the breeding season has the potential to cause take of migratory birds through nest abandonment, destruction of nests, and lethal impacts to chicks and adults.~~

The text indicates that sufficient interior forests will remain undisturbed in areas outside the construction ROW. The document should provide evidence that the birds displaced by this project will be able to relocate successfully into adjacent areas with "sufficient" interior forest. It is possible that existing bird territories will be established in the adjacent areas and thus, prevent the displaced birds from reproducing that season. As mentioned previously, displaced breeding birds may have to compete for resources with their own species or with individuals of other species due to less available habitat.

Table 2 presents the habitat loss expected in each area from both construction and operation of the project. In an attempt to assign habitat value and determine mitigation, the Plan identifies three broad categories of forests with high habitat value – the Canonsville - Mill Stream IBA,

forests where the cerulean warbler was observed, and interior forest reduced to less than 35 acres in size. As mentioned above, the use of 35 acres as the minimum adequate patch size for breeding interior birds is not appropriatesubstantiated. The Plan even indicates that previous research by Robbins and others found that most interior birds require at least 350 acres of forest habitat. Constitution should revisit the criteria used for this evaluation and provide a rationale for assigning the high, moderate and low values to forest habitat.

Table 2 presents the habitat loss expected in each area from both construction and operation of the project. Other forest values, moderate and low, were determined by the amount of forest interior and edge habitat. Moderate value habitat accounts for roughly two thirds of the entire forest habitat directly impacted by the project. What was the rationale for needing to assign high, moderate, and low values to habitat qualitatively? Were quantitative measures considered? The analyses for these criteria are unclear and should be explained in the text.

It is important to note that the use of the Breeding Bird Blocks to determine cerulean presence underestimates the distribution of this species based on the biases of the survey methods (USGS CITE). We believe this species to be more widespread in the project area but lack the field data to determine its extent. Also, the Service is concerned about the conservation of other migratory bird species in addition to the cerulean warbler, but those species may not be represented by the current evaluation. There is a suite of Neotropical migrants which use the forests in the project area. Therefore, the analysis provided in the Plan is difficult to accept. It may represent an The Plan underestimates ion of the forest habitat value to these migratory birds. The many bird species found in eastern forests are important because they which, in turn, provides high-value services in performing ecological functions to society, such as insect pest control. Without sufficient field study of the project area, it is difficult to quantify the value of migratory bird habitat.

Comment [DAS7]: If we don't know if they are represented we should ask for clarification.

Comment [DAS8]: Is this in reference to Neotropical migrants?

Comment [DAS9]: Describe? Is there a way to quantify that value? Are you asking them to quantify this and if so how will that information be used?

To obtain an estimate of indirect effects on interior forest, the Plan presents a scenario of measuring the amount of interior forest crossed and using a width of 300 feet from the edge of the ROW to calculate the influence of the project on remaining forest (Table 3). We agree with that approach as several studies cited have found that fragmentation can negatively affect remaining interior habitat for the reasons listed on Page 4-3. However, the total distance of forest interior crossed by the project needs to be clarified.we disagree with the amount of interior forest used to derive the estimates. In the Plan, tThe total distance of forest interior (in miles) crossed by the project is presented as 9.95 miles. However, the DEIS reports that the project crosses 36 miles of interior habitat in Appendix M. Therefore, it appears that the Plan underestimates the amount of indirect effect to forest interior habitat. This issue should be reanalyzed in the Plan.

5.0 Management Measures

Several items are listed as general avoidance and minimization measures. The first indicates that vegetation clearing will not occur during the breeding season but only whenever practicable. This commitment is not sufficient and should be revised. Further clarification Constitution should state that nobe provided on when vegetation clearing will occur during the breeding

season. The Service strongly recommends all clearing occur outside of the breeding season. ~~Also,~~ ~~T~~the time frame for when most birds end breeding/incubating activities should be extended to the end of August (not mid-July). It is stated that if active bird nests are found they will be avoided during clearing activities. If Constitution intends to buffer active nests to reduce impacts to birds, then we request that survey and monitoring protocols be established and provided to our office for review, and appropriate buffer sizes around nests be determined in advance of clearing activities.

The second item indicates that Constitution will coordinate with the Service prior to commencement of vegetation clearing activities. Constitution should also coordinate with the NYSDEC regarding this issue at the same time. This coordination should occur at least 60 days prior to the expected start of work.

The Plan indicates in the third item that the project has been sited to minimize disturbance to the interior forest of the IBA, but we note that more than 170 acres of interior forest will be affected by the project ~~location~~ in addition to the 16 acres of forest directly lost from construction.

The fourth bullet item commits to planting seed mixes acceptable to the agencies and the National Wild Turkey Federation. ~~We note that this species is not a migratory bird but a game species.~~ We recommend specific seed mixes be composed of only native plants and that they be included in the Plan for review. The species in the mix should benefit a range of wildlife.

The Service previously provided information on the proposed communication towers added to the project after the DEIS. Please refer to the Service's Guidance on the Siting, Construction, Operation and Decommissioning of Communication Towers. In addition, we recommend the towers be located outside of forested areas if practicable.

The seventh bullet ~~indicates~~ states that construction will be directed to areas of greater biological importance to migratory birds outside of the breeding season. We agree with that proposal but there is no definition of where that will be (see previous comments). We recommend the Plan indicate where the areas of higher biological value occur and ~~make a firm commitment that~~ no construction ~~will~~ occur in those areas during the breeding season.

The last bullet in this section refers to vegetation management of the 50-foot-wide ROW after construction. We suggest this maintenance not occur between March and August and occur on an 8 to 10 year cycle. By waiting for this many years to elapse rather than mowing annually, it will provide habitat for shrub nesting birds and other wildlife between cycles. Allowing this many years to lapse will also reduce maintenance costs and reduces fossil fuel use and associated air emissions.

Section 5.2 discusses bald eagle best management practices to be used by Constitution. Please see our comments on the DEIS regarding this species. It is stated that noise reduction barriers may be used to minimize disturbance, but ~~they~~ details on these structures are not provided. It is important to note that the Service still does not have sufficient information to determine if a permit under BGEPA is necessary for this project. We recommend the location and timing of blasting activities be provided to our office so that we may make that determination.

Section 5.3 provides post-construction commitments. ~~Please remove the phrase "to the extent practicable" when referring to the use of native species. Provide a justification for why plant species native to Pennsylvania and New York cannot be used to revegetate disturbed areas. Also define~~ For the restoration of disturbed areas during construction, we recommend only native plants be used for revegetation. T~~t~~he abbreviation "ECP" is not defined in the Plan.

Constitution proposes to provide funding for the acquisition of lands, implementation of habitat restoration, conduct public outreach, issue grants, and long-term management for the benefit of migratory birds. Funds ~~could~~ are also proposed ~~be used~~ to support research on migratory birds or other species of concern that may be affected by the project. The Service recommends that the priority for funding be given to habitat restoration, enhancement and protection. Since there will be a loss of forest habitat, funding for research would not mitigate that loss. The funding would be provided to a third party to oversee and disperse. Constitution indicates that it will identify the third party organization. This decision should be made in consultation with the NYSDEC and the Service.

The Plan reports that the total amount of funding for the upland forest conservation activities would be based upon the qualitative value to migratory birds and the habitat lost, as calculated in Section 4. As stated above in our previous comments, we believe the Plan does not adequately determine habitat value and underestimates the forest value to migratory birds by using areas such as the IBA, cerulean warbler survey areas, and forest patches less than 35 acres in size. In addition, we believe the Plan underestimates the amount of interior forest habitat which will be affected by the project. By using these metrics to calculate the lost habitat value, the Plan ~~would~~ does not account for important forest habitat which will be either directly or indirectly altered, to the detriment of migratory birds. We recommend that Constitution reanalyze the direct and indirect impacts to forest habitat which would be impacted by the project.

The first paragraph on Page 5-4 indicates that a Final Plan for property acquisition, restoration, enhancement, improvement, and/or management efforts will be prepared. More detail should be provided as to what this document will contain. There should also be a statement which indicates that the NYSDEC and the Service will be provided an opportunity to review and comment on the Final Plan.

Table 4 provides the amount of habitat affected by the project for which Constitution will provide mitigation funds. We recommend the table be revised based on comments provided in this letter~~above~~. As previously mentioned, it appears that the analysis of the project's impact to forests and the species which depend upon them has been either underestimated or unsupported. For example, the amount of indirect effects on forest areas (as determined by data in the DEIS) could be much higher than ~~as high as 2,600 acres and not~~ the 723.63 acres listed on the table. As stated previously, indirect effects can extend 300 feet into forests on each side of the pipeline corridor and these effects should be considered in Table 4.

Although a few BBC were considered in the Plan, a suite of Neotropical migratory birds use the forests in the project area and should be given consideration. Further, the forest rating system of high, medium and low value is not supported by data in the Plan and the use of minimum forest patch size is not explained sufficiently. Constitution should employ a more scientifically based

approach, such as Habitat Evaluation Procedures or Habitat Equivalency Analysis (among others), to determine the habitat value to forest wildlife and the appropriate level of mitigation.

The Plan indicates that some parcels of forest may be suitable for preservation. While the Service supports the conservation and preservation of land where appropriate, we generally do not endorse preservation as a means to offset habitat loss until all efforts for restoration and enhancement are considered. Undertaking preservation only would result in a net loss of habitat. We prefer habitat restoration, enhancement, and creation (if appropriate) in close proximity to where the impacts will occur. Further, afforestation would seem to be one of the most appropriate means of mitigating the loss of habitat from the project.

Comment [DAS10]: Correct term?

Constitution indicates that they will seek technical assistance from the Service and other agencies regarding further measures to avoid and minimize impacts to migratory birds, including operation and maintenance actions, and for guidance on monitoring of lands acquired for the conservation of migratory birds. We ~~will~~ look forward to providing~~e~~ technical ~~that~~ assistance to FERC and Constitution as ~~the opportunities present themselves during the project review~~requested.

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We recommend this Plan be revised and distributed to the agencies involved with its review. A follow up meeting should also be held to discuss the revised Plan.~~However, we did provide some suggestions in our correspondence related to the DEIS.~~If there are any questions regarding this letter, please contact Tim Sullivan.

Sincerely,

David Stilwell
Field Supervisor

*Additional information referred to above may be found on our website at:
http://www.fws.gov/northeast/nyfo/es/section7.htm

cc: NYSDEC, Albany, NY (S. Tomasik)
USEPA, New York, NY (L. Knutson)
USFWS, PAFO, State College, PA (J. Siani)
USFWS, RO, Hadley, MA (K. Hastie)

References:

Rosenberg, K.V., R.W. Rohrbaugh, Jr., S.E. Barker, J.D. Lowe, R.S. Hames, and A.A. Dhondt. 1999. A land managers guide to improving habitat for scarlet tanagers and other forest-interior birds. The Cornell Lab of Ornithology.

Rosenburg, K.V., R.S. Hames, R.W. Rohrbaugh, Jr., S. Barker Swarthout, J.D. Lowe, and A.A. Dhondt. 2003. A land manager's guide to improving habitat for forest thrushes. The Cornell Lab or Ornithology.

Schlossberg, S.R., King, D.I., 2008. Are shrubland birds edge-specialists? Ecological Applications 18, 1325–1330.

Weldon, A.J., Haddad, N.M., 2005. The effects of patch shape on Indigo Buntings: evidence for an ecological trap. Ecology 86, 1422–1431.

Previous comments on the draft version of the Upland Forest Management Plan (not part of the letter)

1. When discussing smaller habitat blocks on page 8, I recommend finding published findings to support the conclusions drawn. For instance, how do you know that the habitat blocks will be large enough for scarlet tanagers to maintain viable populations?

2. Several Important Bird Areas will be impacted by the pipeline placement yet only one, the Mill Stream IBA, is discussed. It is unclear why this one is highlighted over the others.

3. The document makes many references to the Breeding Bird Atlas for Pennsylvania and New York but I could not find these in the references list. Please provide them. It specifically calls out the 2005 Breeding Bird Atlas on page 9, but the Second Atlas of Breeding Bird Atlas in PA was published in 2013 and the one from NY was published in 2008 Therefore, there may be more current data available than what is being used.

4. It is unclear why a forest block size of 35 acres was chosen. I recognize that the number itself is 10% of 350 acres of forest but what was the basis for choosing 10%? I understand that the 350 acres block size came from Robbins et al.'s study from 1989.

5. While direct effects are discussed, a discussion of indirect effects is lacking. and should receive attention. In addition, the plan states that impacts will be temporary during construction activities, however, since not all of the vegetation clearing occurs during the breeding season, this statement becomes untrue. Destroying nests during this time will result in death for eggs, chicks, and possibly fledglings who cannot escape yet.

6. There is a statement on page 14 that states "...clearing activities are not anticipated to take place within the typical nesting periods....unless otherwise approved by the applicable federal and state regulatory agencies." The Service cannot approve vegetation clearing during the migratory bird breeding season as this could be construed as approval of take of birds, nests, eggs, or parts of these items. The same applies to routine vegetation maintenance.

7. Temporarily disturbed areas will revegetate via natural succession rather than through plantings by Constitution. Is it possible to do plantings of native seed mixes and to perform invasive species control in nearby areas prior to revegetation to enhance the probability of success?

8. The Plan states that active nests will be buffered from construction activities. What is the likelihood that bird nests will be discovered in the project area and the likelihood that Constitution will be able to work around them? Recently, a pipeline had a Canada goose lay eggs in a nest on the pipeline right of way. The Service does not have permits for active nest removal, thus activity had to stop within that area.

9. remove the word "standard" on the third bullet on page 15. To my knowledge, there is no industry standard that says construction workspace within interior forests is 110 feet. That is simply the distance that Constitution is using as a standard for this particular project.

10. Specific seed mixes are being used to promote early successional species. Please be sure to use seed mixes that are native to Pennsylvania and New York. Also, while consultation with non-governmental organizations is encouraged, please be aware that turkeys are not protected under the Migratory Bird Treaty Act because they are a game bird, and habitat restoration should

not be geared toward creating turkey habitat. I also encourage planting tree islands within the early successional habitat to create diversity. Many bird species will use these islands to advertise themselves to potential mates and defend their territory during the breeding season.

11. Under bald eagles, there is no mention of permits. If blasting or other disruptive activities occur, a disturbance permit may be necessary.

12. What was the basis used for the planting densities (i.e.,1210 individual trees per acre within upland forest)?

13. I would encourage pursuing the idea of off-site habitat restoration in addition to the 218 acres of upland forest areas on site or in lieu of the on-site work.