



File Code: 2720; 1900
Date: December 11, 2015

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First St., N.E., Room 1A
Washington, DC 20426

Dear Ms. Bose:

Subject: Comments on Route Variations Affecting National Forest System Lands
OEP/DG2E/Gas 4
Atlantic Coast Pipeline, LLC
Docket No. PF15-554-000

The Forest Service submits comments on route variations filed by Atlantic Coast Pipeline, LLC (ACP) with the Federal Energy Regulatory Commission and submitted to the Forest Service on October 30, 2015, for the proposed Atlantic Coast Pipeline Project (ACP Project). The Cheat Mountain and Cow Knob route variations would affect the proposed route on National Forest System lands in the Monongahela National Forest and the George Washington National Forest, respectively.

The attached comments are based on currently available information, and additional comments or related information may be provided at a later date, as part of the Forest Service's comments on final resource reports. The Forest Service acknowledges that ACP continues to develop and file supplemental information for the proposed ACP Project. The Forest Service will review and comment on any subsequent filings.

For questions, please contact Jennifer Adams, Special Project Coordinator, at (540) 265-5114 or by email at jenniferpadams@fs.fed.us.

Sincerely,

CLYDE THOMPSON
Forest Supervisor



Response to the Cheat Mountain Route Variation

Topic	Where Addressed	Summary of ACP Adopted Measures	FS Response
Cheat Mountain Salamander Habitat	Oct 30th FERC Filing; CMS Survey Report Dated 10/30/15 sent to USFWS	<p>TOPIC - The Cheat Mountain Salamander (CMS) is a federally listed threatened species under the Endangered Species Act. Fragmentation of habitat and loss of forest cover is a primary concern. Roads and utility corridors are examples of fragmentation of forest salamander populations. Conservation actions must focus on preserving core areas of intact habitat, restoring areas of impaired habitat, and re-establishing populations in appropriate locations. The Monongahela National Forest (MNF) Land and Resource Management Plan (LRMP) requires avoidance of occupied habitat, as well as the surrounding 300 feet, unless an analysis can show that proposed activities would not adversely affect populations or habitat.</p> <p>SOLUTION - In the October 30th FERC filing, we proposed a route adjustment that avoids occupied CMS habitat. The ACP route maintains the required 300 feet of buffer from occupied habitat with one exception where the buffer is limited to approximately 200 feet. The area where the 300 foot buffer is not maintained lies along a disturbed and fragmented area between State Route 250 and an existing electric transmission line making it</p>	<p>Pending receipt of a revised CMS Survey Report from Drs. Waldron and Pauley, it appears that the route adjustment does directly affect occupied habitat. As noted in the review of the CMS Survey Report, dated 29 October 2015, a polygon mapped as Potential CMS Habitat (Area #37) and the polygon mapped as Occupied CMS Habitat (#33) are one contiguous habitat area; thus, the overall area (Areas #33 & 37) would be considered “Occupied Habitat.” The route adjustment goes through this area of occupied habitat. Furthermore, it is clear that the entirety of the route adjustment, particularly in the vicinity of Area #37 was not made to avoid CMS habitat since, rather than remaining east of the existing transmission corridor, the adjusted line shifts west to cut across the transmission corridor and through CMS habitat.</p> <p>We are not aware of any written justification drafted by Dr. Pauley stating that the overall route adjustment has “<i>no adverse effect on the Cheat Mountain salamander or its habitat along ACP’s proposed route</i>”. Based on conversations with ACP’s consultants, our understanding is that the final report, including the justification section, was prepared by ESI staff. We have seen no documentation that Dr. Pauley wrote this justification. In addition, the determination as to what represents an adverse effect to populations or habitat on the MNF will be made by the Forest Service, using all available information, expert opinion and best available science.</p>

		<p>unsuitable habitat for the Cheat Mountain salamander. ACP has obtained the services of Dr. Pauley, a renowned expert on the Cheat Mountain salamander, who has prepared a justification that there is no adverse effect on the Cheat Mountain salamander or its habitat along ACP's proposed route due to the existing fragmented state of the area where the buffer is less than 300 feet. Therefore, the proposed route meets the requirements of the LRMP.</p>	<p>While the shifting of the route immediately east of the CMS observations to a location farther away and downslope from Area #33 does increase the distance from what is identified as Occupied Habitat in the document, it still remains within the 300' buffer and, based on the mapping provided in the document, crosses through Potential CMS Habitat. While this area may be fragmented from the larger, occupied habitat area west of the existing transmission corridor, disruption of the fragmented habitat area is counter to conservation goal of "restoring areas of impaired habitat". As noted above, the adjusted line then shifts west (presumably to avoid private land) and again crosses suitable habitat (this time, what would be considered Occupied CMS habitat).</p> <p>The abovementioned impacts to both Occupied and Potential CMS Habitat do not meet the LRMP Goals and Standards (i.e., Goal TE57: Identify opportunities to reduce fragmentation of populations and habitat; and Standard TE59: Ground and vegetation-disturbing activities shall be avoided within occupied habitat and a 300-foot buffer zone around occupied habitat).</p>
Northern Flying Squirrel Habitat	Oct 30th FERC Filing; WVNFS Survey Report Dated 10/30/15 to USFS	<p>TOPIC – In 2008, the West Virginia Northern Flying Squirrel (WVNFS) was removed from the Endangered Species List on the basis of its recovery and is currently subject to post-delisting monitoring. In addition, the WVNFS is protected by the MNF LRMP, which states that "Vegetation management activities in suitable habitat shall only be conducted after consultation with the US Fish and Wildlife Service (USFWS)," and allows activities in suitable habitat under certain circumstances,</p>	<p>The WV northern flying squirrel was officially de-listed in 2013. In addition to being the subject of post-delisting monitoring, the WVNFS is a Management Indicator Species for the Monongahela NF and is also a Regional Forester's Sensitive Species. Furthermore, the species is listed as a Priority 1 Species of Greatest Conservation Need in the West Virginia State Wildlife Action Plan.</p> <p>The MNF LRMP wording referred to here ("<i>Suitable habitat shall be considered occupied. Vegetation management activities in suitable habitat shall only be</i></p>

	<p>including where a project-level assessment results in a “no effect” or “may affect but not likely to adversely affect determination.” Additionally, the LRMP for the MNF outlines the habitat objectives that include maintaining at least 20,000 acres of mid-late and late successional (>80 years old) spruce forest to provide optimum habitat for WVNFS, with a long-term objective of increasing mid-late and late successional spruce forest to at least 40,000 acres.</p> <p>SOLUTION - We are committed to employing techniques that avoid and minimize impacts to achieve a determination of no effect or may affect but not likely to adversely affect the WVNFS, and we believe that this conclusion will be reached. Such a determination will be achieved by deploying numerous conservation measures along the proposed route in consultation with MNF to limit the potential impacts to suitable habitat for the WVNFS. Moreover, in choosing our proposed route we have taken advantage of previously or existing disturbed areas which include approximately 4.8 miles of an existing strip mine bench. In addition to utilizing this area, we are proposing the implementation of habitat avoidance measures, including centerline adjustments or construction techniques (e.g., narrowing the construction right-of-way by 40 percent and the operational right-of-way by 60 percent within suitable</p>	<p><i>conducted after consultation with USFWS, and ... c) When project-level assessment results in a no effect or may affect, not likely to adversely affect determination, ...”)</i> has not been updated since the de-listing of the WVNFS, but will likely be the subject of an administrative correction in the near future to clarify the status of the species. At this time, the USFS would make the determination regarding what comprises suitable habitat and what activities would be considered to have an adverse effect on such habitat and/or WVNFS populations; the determination would be made based on all available information for the MNF as well as consultation with experts and a review of best available science.</p> <p>Although habitat along the route has not yet been fully quantified, the proposal likely would impact dozens of acres of suitable habitat. Such impacts would be unprecedented since the MNF instituted the current protection measures in the early 2000s. Given the extensive acreage of WVNFS habitat that would be impacted by the proposed ACP route, including the fragmentation of existing intact WVNFS habitat, it is extremely difficult to envision any construction scenario that would not result in adverse effects to local populations.</p> <p>While replanting of red spruce and other tree species in appropriate MNF areas would be a good way to support overall spruce restoration efforts in the region, it would not negate the effects of fragmenting existing habitat, nor does the planting of seedlings offset the loss of mature spruce-northern hardwood habitat. Regardless of the</p>
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		<p>habitat), to avoid the crossing or clearing of identified habitat. In addition, we propose to assist the Forest Service and other conservation groups in significant forest restoration replanting of red spruce and other tree species in surrounding MNF areas that, while not directly affected by construction, would benefit the future management of this species by increasing the acreage of red spruce within the MNF. Through implementation of the above listed avoidance, minimization and conservation measures, the ACP project is consistent with the MNF LRMP.</p>	<p>width of the construction right-of-way, fragmentation of suitable habitat could have many adverse effects to both bordering habitat and local populations.</p> <p>A final assessment of the potential/probable impacts to WVNFS habitat and populations cannot be made by the USFS until all information is received from ACP, including final proposed pipeline alignment, exact location of other disturbance areas, and construction specifications. However, to say that, “<i>Through implementation of the above listed avoidance, minimization and conservation measures, the ACP project is consistent with the MNF LRMP</i>” is incorrect given the extent of potential impacts from the currently proposed alignment and the lack of specificity in the measures noted here).</p> <p>Per the MNF LRMP, vegetation management activities shall not be conducted in suitable habitat, with few exceptions. Those include: research; to improve or maintain WVNFS or other TEP species habitat after research has demonstrated the beneficial effects of the proposed management; when a project-level assessment results in a no effect or may affect, not likely to adversely affect determination or to address public safety concerns. Based on a preliminary review of the proposed pipeline corridor, the ACP does not appear to meet any of these exceptions and so would not be consistent with Forest Plan direction.</p> <p>It should also be noted that the de-listing of the WVNFS was largely predicated on the protection of large patches of suitable habitat on the Monongahela National Forest</p>
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			<p>per the 5-Year review for the WVNFS (USFWS 2006); the Final Rule for Removal of the NFS from the list of Endangered Species (USFWS 2008; “<i>guidelines by the Monongahela National Forest (MNF) effectively abated the main threat to the squirrel ... throughout the majority of its range, by eliminating adverse impacts on all suitable habitat on the MNF ...</i>”); and the Post-delisting Monitoring Plan for the species (USFWS 2007; “<i>The Monongahela National Forest contains the greatest amount of modeled WVNFS habitat and therefore bears primary responsibility for the protection, restoration, and management of the red spruce and red spruce-northern hardwood ecosystem in the central Appalachians. The Forest's 2006 Land and Resource Management Plan provides substantial long-term direction and guidance toward implementing this responsibility</i>”). Thus, implementation of the MNF LRMP, and its protective standards and guidelines relative to the WVNFS and its habitat is critical to the continued recovery of the species.</p>
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Topic	Where Addressed	Summary of ACP Adopted Measures	FS Response
Spruce Forest and Spruce Restoration Areas	RR3, Page 3-60 through 3-61	<p>TOPIC - We are aware of the MNF's goal to restore the spruce-hardwood ecosystem in an area heavily influenced by mining . Specifically, the USFS has been implementing the Lambert Restoration Project to improve watershed conditions and wildlife habitat, and restore native red spruce-northern hardwood ecosystems on the Lambert Run Strip coalmine and approximately 1,000 acres of additional abandoned coal mine lands in Randolph, County, West Virginia. The proposed AP-1 mainline route crosses approximately 4.2 miles of the Lambert Spruce Restoration Area.</p> <p>SOLUTION - In routing the AP-1 mainline, we focused on avoiding areas of high red spruce cover. The proposed route across the MNF avoids all areas with high red spruce cover (greater than 50 percent cover). The AP-1 mainline will cross approximately 0.8 mile of medium red spruce cover (10 to 50 percent red spruce). We understand the concern that a permanent pipeline easement maintained in an herbaceous state would not allow a contiguous forested landscape as the restoration area matures. Our conservation measures proposed for the WVNFS will help to minimize the Project impacts to the</p>	<p>Although the proposed route would avoid most areas mapped as currently containing medium or high red spruce cover, the route passes between and very close to existing areas of mature, relatively unfragmented red spruce forest. Some of the areas that would be impacted by the route contain relatively mature northern hardwoods that have spruce regenerating in the understory. The impacted areas have excellent potential for spruce restoration, and they are a high priority for ongoing and future restoration efforts that are intended to lessen existing fragmentation and re-connect existing mature spruce forest. The route also would thwart ongoing restoration efforts on former mine lands by running directly through recently restored areas. Because the Forest Service is in the process of restoring the area, the existing fragmentation is being reduced. Constructing a pipeline through the area would make the existing fragmentation permanent, and would exacerbate it by cutting completely across the Cheat Mountain ecosystem from west to east. While ACP's proposed restoration of the temporary construction ROW would reduce the long-term footprint of disturbance relative to the full construction impact, it would not fully mitigate the complete east-west fragmenting effect. Off-site compensatory mitigation may have the potential to improve red spruce ecosystems elsewhere, but it would not address the increase in fragmentation across the core of the largest red spruce ecosystem in the central Appalachians.</p> <p>The fragmentation issue goes beyond the needs of</p>

		<p>red spruce-hardwood ecosystem. We are supportive of MNF's restoration efforts of the red spruce to provide suitable habitat to support rare species like the northern flying squirrel and the Cheat Mountain salamander, and believe we can have a significant positive influence on the MNF's planned restoration activities (e.g., expending restoration efforts outside of the project area, and post construction monitoring of restoration areas) in this area.</p>	<p>individual species such as the WVNFS; it is an issue of overall integrity and resiliency of the landscape and its ability to adapt to future changes. The central Appalachians contain the last relatively unfragmented large forest blocks in the mid-Atlantic states. The effects analysis needs to quantify landscape-level changes in connectivity, species flow, and potential adaptation to climate change within large forest blocks like the Cheat Mountain area and the Upper Greenbrier watershed. The analysis needs to be projected far enough into the future to account for reductions in fragmentation due to ongoing ecosystem restoration efforts, as well as the impacts to any such restoration efforts that would be negated by construction of the proposed pipeline. What is the impact on landscape level connectivity and adaptation capability throughout the mid-Atlantic region if these few remaining large blocks are fragmented further? Refer to The Nature Conservancy's Northeast Resilience Analysis for further information on the resiliency of the central Appalachians and the types of factors that need to be addressed (http://tinyurl.com/qbuzcr9).</p>
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Review of the Cheat Mountain Salamander Survey Report

The CMS survey report (dated 29 October 2015) was written by ESI rather than Drs. Pauley and Waldron who, as the experts that were recognized as capable of performing the survey work and assessing potential CMS habitat, were the individuals that we expected to have written the report. As a result, the report is deficient in analyzing potential habitat along the proposed ACP pipeline route. In addition, there are inconsistencies both within the document and among the document's mapping and the shapefiles provided to the MNF in response to our request. Since the receipt of this report and subsequent conversations, it is our understanding that ESI has retained Drs. Waldron and Pauley to provide a revised CMS Survey Report, which we look forward to reviewing. Pending receipt of that revised report, we are providing a review of the current report.

Surveyed Areas:

- Thirty-seven polygon areas are delineated in the report's attached mapping. For each of these areas, a description is provided in the text, however no final determination of the habitat is provided with those descriptions; such a determination needs to be provided for each area.
- A determination of "known" or "occupied" habitat should be given to any area in which CMS were detected; a determination of "potential habitat" should be given to any area which was considered to provide potential/suitable habitat for CMS but where no individuals were detected; and a determination of "not potential habitat" should be given for those areas where habitat characteristics were not considered indicative of potential CMS habitat. For any surveyed areas that were determined to not provide potential habitat, a justification should be provided (i.e., why was the area considered unsuitable for CMS).
- The labels given to Areas are not consistent between the report text and mapping. For this review, Areas will be referred to by the label given in the document mapping.
- In addition to the area where CMS were observed (Area #33), five sites appear to have been surveyed the maximum of four times – the three located in the same vicinity (Areas 34, 35, & 37) and two others located near Barton Knob (Areas #13 & 14). Given that the habitat characteristics of these areas justified the maximum number of survey repetitions per protocol and the fact that, while the survey protocol was very good for a single year survey effort, a lack of detection does not equate to absence, especially for a salamander, it is likely that these areas represent suitable habitat. Since there was no determination given in the descriptions, we assume that these areas represent potentially suitable CMS habitat, pending a final determination by Drs. Pauley and Waldron.

- Area #37, labelled as Potential Habitat, and Area #33, labelled as Occupied Habitat, are contiguous and given that no reasoning was provided for separating the two areas in mapping, the entire area is considered Occupied CMS Habitat for analysis purposes.

Areas not surveyed/polygon boundaries:

A field review of the area brought up questions regarding a lack of survey in some areas along the proposed route, south of the area identified as Occupied Habitat, and the reasoning for delineation of the western edge of the Occupied Habitat polygon (Area #33).

- The surveying of mapped CMS habitat ended just south of the CMS observations. Mapping provided to ACP included both mapped and modelled habitat polygons south of this area and within the 300' buffer of the proposed line.
- Unless Drs. Pauley and Waldron reviewed this area and determined that it did not provide suitable habitat worthy of survey efforts, the area should have been surveyed because this area encompasses other known CMS occurrences. If this was an oversight, then additional surveys should be conducted in this area in the spring/summer of 2016 to determine the extent of occupied habitat. Without such surveys and/or a determination by the experts that the area does not provide suitable habitat, this area would be considered to provide suitable and (given a nearby historical occurrence) occupied CMS habitat.
- The reasoning for the mapped southwestern boundary of the Occupied Habitat polygon (where it narrows down) is not clear based on a field review. Justification should be provided for the termination/drawing of the polygon in that way if the boundary was delineated by Drs. Pauley and Waldron as extending less than the full 300' survey width from the centerline.

Response to the Cow Knob Route Variation Proposed by Atlantic Coast Pipeline, LLC

ACP's proposal, as filed on October 30, 2015, includes two HDDs which would be connected by pipe installed by the open trench method for a distance of about 0.5 mile. CKS populations and habitat would also be affected in the pullback areas, at drill pad locations, test drilling sites, access areas, and any other area that would affect CKS and their habitats. ACP's proposal states that 0.7 mile of CKS habitat at or above 2500 feet msl would be affected. This proposal does not fully avoid CKS populations or habitat and remains inconsistent with the CKS Conservation Agreement. In addition to this inconsistency, other concerns and issues are discussed below.

During a meeting between the Forest Service and Atlantic Coast Pipeline, LLC (ACP) held on June 30, 2015, the Forest Service and ACP discussed the feasibility of horizontal directional drill (HDD) as a measure to avoid Cow Knob salamander (CKS) habitat. Discussions included the engineering challenges associated with HDD that often contribute to failure, such as the length of the HDD, elevation of entrance and exit points, drilling mud, frac outs, and required pull back areas. A significant portion of the discussion focused on the length of the HDD required to avoid CKS habitat and if that length of HDD would be feasible given the engineering challenges. No feasibility study or report was provided with the proposal.

In its October 30 submittal, ACP requested concurrence from the Forest Service and CKS Conservation Team upon completion of the HDD plan, before the work is completed. Concurrence cannot be provided on the basis of the current proposal because the proposal does not fully avoid CKS populations and habitat. If the proposal were modified to fully avoid CKS populations and habitat, concurrence could not be provided until the HDDs have been successfully completed. If the HDDs prove to be infeasible or unsuccessful by any means during testing or implementation, the CKS route variation would no longer be viable. Subsequently, ACP would have to select a route that fully avoids CKS habitat, as stated in the Forest Service's September 17, 2015 filing. Therefore, the Forest Service would need to assure that CKS habitat would be protected through measures such as conditioning the special use permit and also requesting that FERC condition the order issuing the certificate to require the HDDs in CKS habitat to be completed prior to any other project construction, so that ACP could subsequently select another route in the event the proposed HDDs prove infeasible or unsuccessful.