

MEMORANDUM OF UNDERSTANDING:

**Conservation Measures for
ATLANTIC COAST PIPELINE PROJECT**

Developed by

ATLANTIC COAST PIPELINE, LLC

And

**WEST VIRGINIA DIVISION of NATURAL RESOURCES
Wildlife Resources Section**

**Associated with the Construction and Operation of the
ATLANTIC COAST PIPELINE PROJECT**

PREFACE

The ATLANTIC COAST PIPELINE (ACP) is proposed to provide up to 1.5 billion cubic feet per day to electric generation, distribution and end use markets in Virginia and North Carolina (Attachment 1). The Atlantic Coast Pipeline, LLC (Atlantic) is a company formed by Dominion Energy, Inc., Duke Energy Corporation, Piedmont Natural Gas Co., Inc., and Southern Company Gas. ACP will be constructed and owned by Atlantic. Atlantic has received a Certificate of Public Convenience and Necessity from the Federal Energy Regulatory Commission (FERC) for the construction and operation of the ACP.

This Memorandum of Understanding is the direct result of cooperation by Atlantic with the State of West Virginia in response to the Environmental Impact Statement prepared as part of the National Environmental Policy Act review process, Endangered Species Act Section 7 consultation, and Atlantic's compliance with the Migratory Bird Treaty Act concerning migratory birds and their habitat. Specific consideration was given both to the results the Habitat Equivalency Analysis methodology used by the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the Bureau of Land Management and employed by Atlantic and to additional West Virginia-specific methodologies employed by the West Virginia Division of Natural Resources (WVDNR) to further analyze and design conservation measures for forest fragmentation in the State. This Memorandum of Understanding addresses commitments related to forest conservation to offset impacts associated with forest fragmentation caused by the ACP Project.

The ACP has been routed to minimize disruptions to migratory birds and federally listed species by avoiding preferred habitat where practicable, including wetland areas, waterbodies and associated riparian vegetation, large open grasslands and shrubland to the extent practicable. However, in West Virginia, the majority of the pipeline is located within forested areas and would result in the establishment of a new corridor through interior forest. Nearly 90 miles of 42-inch diameter pipeline are proposed in West Virginia for the ACP. The width of the construction right-of-way would vary between 75 and 150 feet, with a permanent operational right-of-way of 50 feet in width. In considering the total acres of forest affected, the quality and use of forest for wildlife habitat, the time required for full restoration in temporary workspaces and the WVDNR's parameter of fragmentation, ACP would have significant impacts on interior forest wildlife.

The Director of the Division of Natural Resources has the authority and responsibility under W. Va. Code §20-1-7, §20-1-18, §20-2-1 and §20-2-3 for ownership and protection of all wildlife, including resident and migratory birds; and to acquire for the State, in the name of the Division of Natural Resources, property, gifts and contributions, bequests, or devises of money for purposes specified in Chapter 20 of the West Virginia Code.

Atlantic recognizes that construction of the ACP and maintenance of the permanent ROW for the pipeline may result in temporary and/or permanent impacts to the habitats upon which interior forest wildlife species depend.

Atlantic will comply with West Virginia Natural Resources Laws and also desires to provide for the restoration and preservation of habitats for interior forest wildlife in West Virginia. For this project, conservation measures for habitat loss are provided by Atlantic. Accordingly, Atlantic and WVDNR have prepared, and will follow, this Memorandum of Understanding (MOU).

GUIDELINES

I. PURPOSE

Atlantic and WVDNR (the Parties) will work cooperatively to implement conservation measures that will provide benefits to interior forest wildlife species protected under West Virginia Natural Resources Laws within West Virginia. This MOU will remain in effect for the life of the ACP. Nothing in this MOU shall be construed as precluding or otherwise barring the State of West Virginia from recovering damages or equitable remedies from Atlantic for spills, leaks or other effects unrelated to forest loss or fragmentation from the ACP. In addition, the conditions as outlined in this MOU do not obviate Atlantic from other consultation or permitting requirements for disturbances to the natural resources of the state, which may be required. Additionally, any concurrence requirements for federally listed species must come from the U.S. Fish and Wildlife Service.

II. ROLES OF THE PARTIES

A. Atlantic

1. Atlantic recognizes that construction, operation, and maintenance of the ACP may result in temporary and/or permanent impacts on habitat for interior forest wildlife species. Accordingly, Atlantic has taken, or will take, the following actions to minimize and/or offset these impacts:
 - (a) To avoid direct take of migratory bird nests and nestlings, Atlantic will remove forested habitat when nests are not active to the greatest extent practicable, as reflected in Atlantic Coast Pipeline Migratory Bird Conservation Plan.
 - (b) Atlantic will cooperate with the WVDNR to provide conservation measures for direct habitat impacts (both permanent and temporary) and indirect habitat impacts (forest fragmentation) by contributing funds for habitat impacts to interior forest that will be cleared or disturbed in West Virginia (see Attachment 2). Fragmentation effects are considered to be 20% of permanent effects (e.g. for a forest core with a 2.5:1 mitigation ratio for permanent effects, fragmentation effects will have a 0.5:1 mitigation ratio). Permanent and temporary forest impacts will be mitigated on a category basis using the following ratios¹.

Replacement Ratios by Forest Core			
Forest Core	Permanent	Temporary	Fragmentation
Interior Forest Wildlife Habitat			
>500 acre core	2.5:1	1.8:1	0.5:1
250-500 acre core	2.5:1	1.8:1	0.5:1
<250 acre core	1.25:1	0.9:1	0.25:1
Perforated core	1.25:1	0.9:1	0.25:1

¹ Ratios for construction and permanent impacts were determined using visual Habitat Equivalency Analysis. (NOAA. 2000) based on West Virginia University Natural Resource Analysis Center data.

2. WVDNR has determined that a one-time payment of \$13,238,545 would be needed to adequately replace lost value for interior forest wildlife habitat in West Virginia (Attachment 2 and Attachment 3). Atlantic will also pay a Fiduciary Management Fee (\$794,312) equivalent to 6% of the total payment to the fiduciary as compensation for their services. The Conservation Fund, a Maryland non-profit corporation, will serve as fiduciary. Atlantic will transfer \$14,032,857 (sum of the payment and the Fiduciary Management Fee) to The Conservation Fund to support the WVDNR in performing habitat restoration in West Virginia. Habitat restoration may include, but is not limited to: forest habitat enhancement and restoration projects, acquisition of public lands (including conservation easements) for protection of habitat for interior forest wildlife species, including migratory birds, forest dwelling bats and species of conservation concern in West Virginia. Such lands shall be managed by the West Virginia Division of Natural Resources, Wildlife Resources Section under the authority granted to the WVDNR Director in W.Va. Code §20-1-7 or by other statewide conservation-based entities in which the projects have been approved by the WVDNR. In addition, a Land Management Fee (\$1,059,084), equivalent to 8% of the total payment will be deposited in the West Virginia Wildlife Endowment Fund and specifically designated per W.Va. Code §20-2B-6 for the operation and management of wildlife management areas to benefit interior forest wildlife species. Payments shall occur to each fund immediately following issuance by the Federal Energy Regulatory Commission of a Final Notice to Proceed for the ACP Project.
3. Atlantic will transmit via email to the fiduciary and the WVDNR written notices (the "Impact Notice") at the end of each clearing season indicating the amount of clearing that has been completed. The WVDNR will review the Impact Notice and if it concurs, shall confirm the release amount (the "Release Amount"), in proportion to the amount of habitat clearing that has occurred, to the fiduciary and Atlantic via (the "Release Notice"). Upon receipt of the Release Notice, the fiduciary shall be authorized to use the Release Amount to offset impacts, as noted in the Impact Notice.
4. If for any reason the ACP is not constructed to completion and Atlantic relinquishes Federal permits and clearances for the ACP, Atlantic will notify the WVDNR of its action and provide a final Impact Notice. This final Impact Notice will indicate the amount of habitat impacted by the ACP since the date of the last Release Notice and the associated mitigation costs using the methods described above (the "Final Release Amount"). The WVDNR shall instruct the fiduciary in writing to return to Atlantic funds previously deposited into the Atlantic account but for which the impacts to habitat never occurred (the "Refund Notice") in an amount as set forth in the Refund Notice (the "Refund Amount"). The Refund Amount shall equal the total amount of funds deposited into the Atlantic accounts, less the sum of all prior Release Amounts, the Final Release Amount, and the Fiduciary Management Fee. Refund of a portion of the Fiduciary and Land Management Fees shall be calculated separately as described below. Provided that the fiduciary has utilized funds in the Atlantic accounts in compliance with the Release Notices, the fiduciary shall not be liable or responsible for returning amounts in excess of the Refund Amount, plus a portion of the Fiduciary Management Fee, as described below.
5. In the event the WVDNR issues a Refund Notice as described in Paragraph 4 above, the fiduciary shall also return to Atlantic a portion of the Fiduciary Management Fee previously withdrawn from the Atlantic account. The proportion of the Fiduciary Management Fee to

be returned will be the same as the proportion of the payment represented by the Refund Amount, less any outstanding uncompensated amounts needed to cover the fiduciary's time, costs and overhead incurred by the fiduciary for managing the mitigation funds. For example, if the ACP Project is abandoned with 60% of expected acres impacted, 40% of the payment will be returned, plus 40% of the combined Management Fee, less outstanding uncompensated costs to the fiduciary as described above.

6. In the event a Final Refund Notice is issued as described in Paragraph 4 above, the WVDNR shall also return to Atlantic a portion of the Land Management Fee. The proportion of the Land Management Fee to be returned will be the same as the proportion of the payment represented by the Refund Amount. For example, if the ACP Project is abandoned with 60% of expected acres impacted, 40% of the Land Management Fee will be returned to the Atlantic.
7. Separate license agreements will be developed for impacts to public lands managed by WVDNR (Greenbrier River Rail Trail and Seneca State Forest).

B. West Virginia Division of Natural Resources, Wildlife Resources Section

1. The WVDNR will continue to coordinate with Atlantic in an effort to provide for the conservation of interior forest wildlife while the company proceeds with the construction of the ACP. The WVDNR will do the following:
 - (a) The WVDNR will continue to coordinate with Atlantic through technical assistance and guidance concerning reasonable measures as provided in this MOU to be taken by Atlantic to avoid or minimize the impacts to interior forest wildlife during construction of the ACP.
 - (b) As appropriate, the WVDNR will issue Release Notices, issue a Refund Notice, and otherwise act as intermediary for communication between Atlantic and the fiduciary, as discussed in sections II.A.4. and II.A.5 of these guidelines.
 - (c) The WVDNR will outline criteria for receipt of funds and obligations with regard to management of funds in a separate document, likely a Memorandum of Agreement (MOA). For clarification and continuity with the MOA, it is the express intent of the Parties that The Conservation Fund leverages the contributed funds to the maximum extent practicable by supplemental funding from any legally available source. Leverage of funds does not decrease or increase the payment amount of Atlantic.
 - (d) This MOU shall be governed by the laws of the State of West Virginia.

III. ACKNOWLEDGEMENT

Appropriate promotional materials (i.e., signage, brochure, articles, etc.) for the ACP project regarding forest wildlife habitat conserved through acquisition of fee title or conservation easements and/or restored with contributed funds may contain the following statement acknowledging the source of the contributed funds and technical assistance: "These lands are being conserved, in part, by funding and technical assistance for habitat impacts anticipated to arise through construction of the Atlantic Coast Pipeline in partnership with the West Virginia Division of Natural Resources and The Conservation Fund."

IV. GENERAL PROVISIONS

A. Limitations on Authorities:

Nothing in these Guidelines shall be construed as affecting the authorities of any party or as binding them beyond their respective authorities or responsibilities. Nothing in these Guidelines shall be construed as obligating the State, its officers, agents or employees, to expend any funds in excess of appropriations authorized by law.

B. Third Party Challenges or Appeals:

This MOU, including these Guidelines, does not create any right of action for a third party and may not be the basis of any third party challenges or appeals.

V. CONTACTS

Notifications required hereunder may be sent by first class mail, postage pre-paid, or by properly addressed electronic mail to the following working contacts:

Atlantic Coast Pipeline, LLC:

Leslie Hartz
Vice President, Engineering and Construction
707 East Main Street, 19th Floor
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West Virginia Division of Natural Resources:

Stephen S. McDaniel
Director
West Virginia Division of Natural Resources
324 Fourth Avenue
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Gary M. Foster
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West Virginia Division of Natural Resources
Wildlife Resources Section
PO Box 67
Elkins, WV 26241
Phone: 304-637-0245
E-mail: Gary.M.Foster@wv.gov

ATTACHMENTS

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| ATTACHMENT 1 | Atlantic Coast Pipeline Project Overview Map |
| ATTACHMENT 2 | Summary of Atlantic Coast Pipeline Project Acreage Impacts (Permanent, Temporary, and Fragmentation) and Funds Necessary to Provide Conservation Measures for Interior Forest Wildlife. |

ATTACHMENT 3

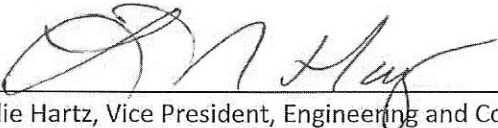
Summary of Funds Necessary for Atlantic Coast Pipeline Project to Provide Habitat Restoration and Fiduciary and Land Management Costs to Provide Conservation Measures for Interior Forest Wildlife.

LITERATURE CITED

NOAA. 2000. Habitat Equivalency Analysis: An Overview. Prepared by the Damage Assessment And Restoration Program, March 21, 1995. Revised October 4, 2000 and May 23, 2006. <https://crrc.unh.edu/sites/crrc.unh.edu/files/media/docs/Workshops/hea_metrics/heaoverv_Paper.pdf>, accessed June 9, 2016.

IN WITNESS WHEREOF, the Parties have caused this MOU to be executed by their respective authorized representatives intending this to be bound legally.

Atlantic Coast Pipeline, LLC

By:  Date: 4/18/18
Leslie Hartz, Vice President, Engineering and Construction

STATE OF Virginia
COUNTY OF Rockingham, To-wit:

I, Cheryl Robinson, a Notary Public in and for said County and State, do hereby certify that LESLIE HARTZ, the Vice President, Engineering and Construction, of ATLANTIC COAST PIPELINE, LLC, a limited liability company, who signed the foregoing and hereto annexed writing bearing date the 18th day of April, 2018, for ATLANTIC COAST PIPELINE, LLC, has this day in my said County, before me, acknowledged the said writing to be the act and deed of said Company.

Given under my hand this 18th day of April 2018.

My commission expires 12-31-18.

Cheryl L. Robinson
NOTARY PUBLIC
Commonwealth of Virginia
Reg. #167639
My Commission Expires 12/31/2018

(Seal)

Cheryl Robinson
Notary Public

West Virginia Division of Natural Resources

By: [Signature] Date: 5/2/18
Stephen S. McDaniel, Director

STATE OF WEST VIRGINIA

COUNTY OF KANAWHA, To-wit:

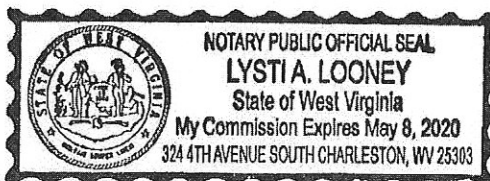
I, Lysti A. Looney, a Notary Public in and for the county and state aforesaid, do hereby certify that STEPHEN S. McDANIEL, who signed the writing hereto annexed, for the State of West Virginia, Department of Commerce, Division of Natural Resources, bearing date the 2nd day of ~~April~~ May, 2018, has this day in my said County and State, before me, acknowledged the said writing to be the act and deed of said Division.

Given under my hand this 2nd day of ~~April~~ May 2018.

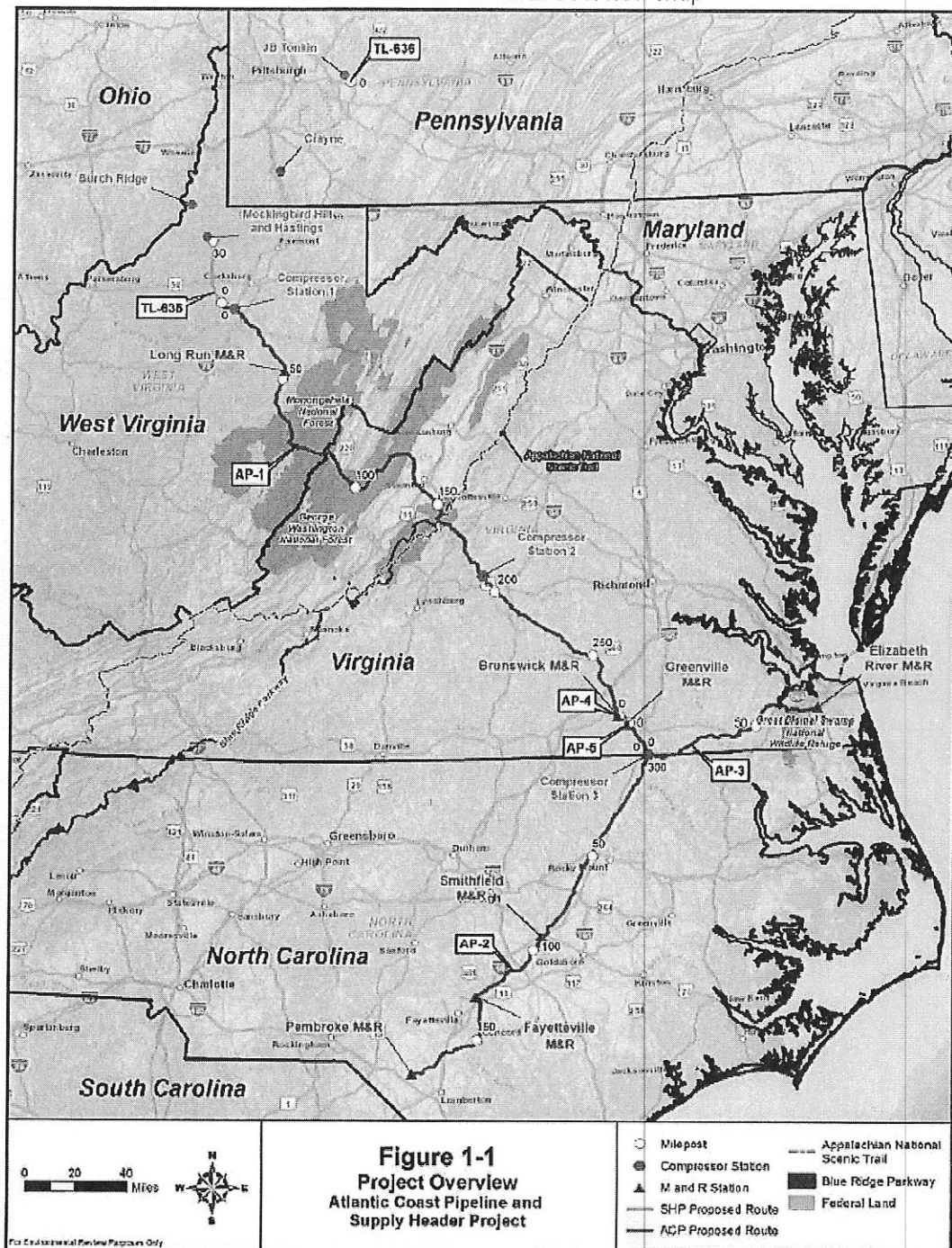
My commission expires: May 8, 2020

[Seal]

[Signature]
Notary Public



ATTACHMENT 1
ATLANTIC COAST PIPELINE Overview Map



ATTACHMENT 2

Summary of Atlantic Coast Pipeline Project Acreage Impacts (Permanent, Temporary, and Fragmentation) and Funds Necessary to Provide Conservation Measures for Interior Forest Wildlife.

West Virginia Forest Core	Replacement Ratio	Impact Acres	Replacement Acres	Land Value	Total Land Cost*
250 to >500 acre core					
Permanent	2.5	365.0	912.5	\$2,441.50	\$2,227,869
Temporary	1.8	543.3	977.9	\$2,441.50	\$2,387,543
Fragmentation	0.5	4,414.0	2,207.0	\$2,441.50	\$5,388,390
<250 acre core					
Permanent	1.25	10.4	23.9	\$2,441.50	\$58,352
Temporary	0.9	15.6	25.7	\$2,441.50	\$62,747
Fragmentation	0.25	136.3	56.2	\$2,441.50	\$137,212
Perforated core					
Permanent	1.25	139.7	263.5	\$2,441.50	\$643,335
Temporary	0.9	215.8	284.1	\$2,441.50	\$693,630
Fragmentation	0.25	1,789.7	671.5	\$2,441.50	\$1,639,467
West Virginia Total		7,629.8	5,422.3		\$13,238,545

*totals subject to rounding

ATTACHMENT 3

Summary of Funds Necessary for Atlantic Coast Pipeline Project to Provide Habitat Restoration and Fiduciary and Land Management Costs to Provide Conservation Measures for Interior Forest Wildlife.

West Virginia Forest Core	Impact Acres	Replacement Acres	Replacement Land Value	Fiduciary Management Fee	Land Management Fee	Total Cost*
250 to >500 acre core						
Permanent	365.0	912.5	\$2,227,869	\$133,672	\$178,230	\$2,539,771
Temporary	543.3	977.9	\$2,387,543	\$143,253	\$191,004	\$2,721,800
Fragmentation	4,414.0	2,207.0	\$5,388,390	\$323,303	\$431,071	\$6,142,764
<250 acre core						
Permanent	10.4	23.9	\$58,352	\$3,501	\$4,668	\$66,521
Temporary	15.6	25.7	\$62,747	\$3,764	\$5,020	\$71,531
Fragmentation	136.3	56.2	\$137,212	\$8,233	\$10,977	\$156,422
Perforated core						
Permanent	139.7	263.5	\$643,335	\$38,600	\$51,467	\$733,402
Temporary	215.8	284.1	\$693,630	\$41,618	\$55,490	\$790,738
Fragmentation	1,789.7	671.5	\$1,639,467	\$98,368	\$131,157	\$1,868,992
West Virginia Total	7,629.8	5,422.3	\$13,238,545	\$794,312	\$1,059,084	\$15,091,942

*totals subject to rounding