

**ATLANTIC COAST PIPELINE, LLC  
ATLANTIC COAST PIPELINE**

**and**

**DOMINION TRANSMISSION, INC.  
SUPPLY HEADER PROJECT**

**Supplemental Filing  
May 12, 2017**

**APPENDIX E**

**Agency Correspondence for the Atlantic Coast Pipeline**

## APPENDIX E

## Supplemental Summary of Public Agency Correspondence for the Atlantic Coast Pipeline

Agency/Contact Name(s)	Date of Correspondence	Format	Description
<b>MULTIPLE AGENCIES</b>			
<b>U.S. Fish and Wildlife Service, U.S. Forest Service, and West Virginia Department of Natural Resources</b>			
Liz Stout, Kent Karriker, Cathy Johnson, Jennifer Adams, Cliff Brown, Craig Stihler	5/12/17	Letter	Transmittal of Protected Bat Species Habitat Assessment Report for West Virginia.
<b>U.S. Fish and Wildlife Service, U.S. Forest Service, and Virginia Department of Game and Inland Fisheries</b>			
Troy Anderson, Sumale Hoskin, Troy Morris, Jennifer Adams, Amy Ewing, Rick Reynolds	5/12/17	Letter	Transmittal of Protected Bat Species Habitat Assessment Report for Virginia.
<b>U.S. Fish and Wildlife Service and North Carolina Wildlife Resources Commission</b>			
Sarah McRae, Tyler Black	5/12/17	Letter	Transmittal of Chowanoke and North Carolina Spiny Crayfish Survey Report for North Carolina.
<b>FEDERAL AGENCIES</b>			
<b>U.S. Forest Service - Monongahela National Forest and George Washington National Forest</b>			
Jennifer Adams	5/11/17	Letter	Transmittal of updated Unanticipated Discovery Plan for the George Washington National Forest.
<b>STATE/Commonwealth AGENCIES</b>			
<b>WEST VIRGINIA AGENCIES</b>			
<b>West Virginia Division of Culture and History</b>			
Susan Pierce	4/26/17	Letter	Comments on Phase I Architectural Survey Addendum 5 Report.
Susan Pierce	5/9/17	Letter	Transmittal of Phase I Archaeological Survey Season 5 Report.
<b>VIRGINIA AGENCIES</b>			
<b>Virginia Department of Historic Resources</b>			
Roger Kichen	4/7/17	Letter	Transmittal of Revised Phase I Architectural Survey Addendum 2 Report.
Roger Kichen	5/3/17	Letter	Transmittal of Revised Phase I Architectural Survey Addendum 3 Report.
Roger Kirchen	5/10/17	Letter	Transmittal of Revised Phase I Architectural Survey Addendum 4 Report.
Roger Kirchen	5/10/17	Letter	Transmittal of Phase I Archaeological Survey Addendum 5 Report.
Roger Kirchen	5/10/17	Letter	Transmittal of Phase II Site Testing Report.
<b>Virginia Department of Environmental Quality</b>			
Bettina Sullivan	5/11/17	Letter	Response to comments on the Draft Environmental Impact Statement for the ACP and SHP.
<b>NORTH CAROLINA AGENCIES</b>			
<b>North Carolina Department of Culture and Natural Resources</b>			
Renee Gledhill-Earley	5/9/17 <sup>1</sup>	Letter	Transmittal of Revised Phase I Historic Architectural Survey Addendum 4 Report.
Renee Gledhill-Earley	5/10/17	Letter	Transmittal of Phase II Site Testing Report.
<sup>a</sup> Letter is dated 4/25/17, but it was not mailed until 5/9/17.			

## **Multiple Agencies**

**U.S. Fish and Wildlife Service, U.S. Forest Service, and West Virginia Department of  
Natural Resources**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 12, 2017

**BY EMAIL**

Ms. Liz Stout  
U.S. Fish and Wildlife Service  
West Virginia Ecological Services Field Office  
Elkins, WV 26241

**Re: Atlantic Coast Pipeline, LLC, Submittal of West Virginia Segment Protected Bat Species Habitat Assessment Report Spring 2017**

Dear Ms. Stout:

On behalf of Atlantic Coast Pipeline, LLC (Atlantic), Dominion Transmission, Inc. (DTI) is pleased to provide the attached Atlantic Coast Pipeline (ACP) West Virginia Segment Protected Bat Species Habitat Assessment Report. The report describes survey methodologies and results of surveys conducted to identify potential habitat for protected bat species within the ACP Project area in West Virginia.

Habitat assessment surveys were performed to assess potential habitat for protected bat species within and adjacent to Project in West Virginia. This assessment included desktop and field surveys for potential hibernacula within 1 kilometer of specified Project areas, which were conducted as described in the approved 2016 Protected Bat Species Year 2 Presence/Probable Absence Survey and Bat Hibernacula Survey Study Plan.

Habitat surveys completed through September 30, 2016 were previously reported in the West Virginia Protected Bat Species Habitat Assessment Addendum Report (filed on October 20, 2016). This report summarizes results reported in the 2016 report and describes additional survey efforts undertaken between October 1, 2016 and April 30, 2017.

Atlantic is requesting your review and concurrence of the attached report, which is based on the results of bat habitat surveys to date on the ACP in West Virginia.

**Project and Company Background**

Atlantic is a company formed by four major U.S. energy companies – Dominion Resources, Inc., Duke Energy Corporation, Piedmont Natural Gas Co., Inc., and Southern Company Gas. Atlantic will own and operate the proposed ACP, an approximately 600-mile-long, interstate natural gas transmission pipeline system designed to meet growing energy needs in Virginia and North Carolina. The ACP will deliver up to 1.5 billion cubic feet per day (bcf/d) of natural gas

to be used to generate electricity, heat homes, and run local businesses. The underground pipeline project will facilitate cleaner air, increase reliability and security of natural gas supplies, and provide a significant economic boost in Virginia and North Carolina. Atlantic has contracted with DTI, a subsidiary of Dominion, to permit, build, and operate the ACP on behalf of Atlantic. The ACP will be regulated by Federal Energy Regulatory Commission (FERC) under Section 7(c) of the Natural Gas Act. The ACP is subject to review by FERC under the National Environmental Policy Act and Section 106 of the National Historic Preservation Act, as well as other environmental and natural resource laws.

Atlantic looks forward to coordinating with you on this Project. Please contact Richard B. Gangle at (804) 273-2814 or Richard.B.Gangle@dom.com, if there are questions regarding this information. Please direct written responses to:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Sincerely,



Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

Cc: Cliff Brown, West Virginia Division of Natural Resources  
Craig Stihler, West Virginia Division of Natural Resources  
Richard B. Gangle, Dominion  
Kent Karriker, U.S. Forest Service Monongahela National Forest  
Cathy Johnson, U.S. Forest Service Monongahela National Forest  
Jennifer Adams, U.S. Forest Service

**Attachments: ACP West Virginia Segment Protected Bat Species Habitat Assessment  
Report Spring 2017**

**U.S. Fish and Wildlife Service, U.S. Forest Service, Virginia Department of Game and  
Inland Fisheries, and Virginia Department of Conservation and Recreation**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 12, 2017

**BY EMAIL**

Mr. Troy Andersen  
U.S. Fish and Wildlife Service  
6669 Short Lane  
Gloucester, VA 23061

**Re: Atlantic Coast Pipeline, LLC, Submittal of Virginia Segment Protected Bat Species Habitat Assessment Report Spring 2017**

Dear Mr. Andersen:

On behalf of Atlantic Coast Pipeline, LLC (Atlantic), Dominion Transmission, Inc. (DTI) is pleased to provide the attached Atlantic Coast Pipeline (ACP) Virginia Segment Protected Bat Species Habitat Assessment Report Spring 2017. The report describes survey methodologies and results of surveys conducted to identify potential habitat for protected bat species within the ACP Project area in Virginia.

Habitat assessment surveys were performed to assess potential habitat for protected bat species within and adjacent to Project in Virginia. This assessment included desktop and field surveys for potential hibernacula within 0.5 mile of Project areas, which were conducted as described in the approved 2016 Protected Bat Species Year 2 Presence/Probable Absence Survey and Bat Hibernacula Survey Study Plan.

Habitat surveys completed through September 30, 2016 were previously reported in the Virginia Segment Protected Bat Species Year 2 Presence/Probable Absence Survey Report (filed on October 17, 2016). This report summarizes results reported in the 2016 report and describes additional survey efforts undertaken between October 1, 2016 and April 30, 2017.

Atlantic is requesting your review and concurrence of the attached report, which is based on the results of bat habitat surveys to date on the ACP in Virginia.

**Project and Company Background**

Atlantic is a company formed by four major U.S. energy companies – Dominion Resources, Inc., Duke Energy Corporation, Piedmont Natural Gas Co., Inc., and Southern Company Gas. Atlantic will own and operate the proposed ACP, an approximately 600-mile-long, interstate natural gas transmission pipeline system designed to meet growing energy needs in Virginia and North Carolina. The ACP will deliver up to 1.5 billion cubic feet per day (bcf/d) of natural gas to be used to generate electricity, heat homes, and run local businesses. The underground



pipeline project will facilitate cleaner air, increase reliability and security of natural gas supplies, and provide a significant economic boost in Virginia and North Carolina. Atlantic has contracted with DTI, a subsidiary of Dominion, to permit, build, and operate the ACP on behalf of Atlantic. The ACP will be regulated by Federal Energy Regulatory Commission (FERC) under Section 7(c) of the Natural Gas Act. The ACP is subject to review by FERC under the National Environmental Policy Act and Section 106 of the National Historic Preservation Act, as well as other environmental and natural resource laws.

Atlantic looks forward to coordinating with you on this Project. Please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), if there are questions regarding this information. Please direct written responses to:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Sincerely,



Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

Cc: Amy Ewing, Virginia Department of Game and Inland Fisheries  
Rick Reynolds, Virginia Department of Game and Inland Fisheries  
Sumalee Hoskin, U.S. Fish and Wildlife Service  
Troy Morris, U.S. Forest Service George Washington National Forest  
Jennifer Adams, U.S. Forest Service George Washington National Forest  
Richard B. Gangle, Dominion

Attachments: **Virginia Segment Protected Bat Species Habitat Assessment Report Spring 2017**

**U.S. Fish and Wildlife Service and North Carolina Wildlife Resources Commission**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 12, 2017

**BY OVERNIGHT (OR EXPRESS) MAIL**

Ms. Sarah McRae  
U.S. Fish & Wildlife Service  
Raleigh Field Office  
551F Pylon Drive  
Raleigh, NC 27606

Mr. Tyler Black  
NC Wildlife Resource Commission  
2430 Turner Road  
Mebane, NC 27302

**Re: Dominion Transmission, Inc., Atlantic Coast Pipeline  
Submittal of the Chowanoke and North Carolina Spiny Crayfish Studies Report**

Dear Ms. McRae and Mr. Black:

Atlantic Coast Pipeline, LLC (Atlantic) is pleased to provide the Chowanoke and North Carolina Spiny Crayfish Studies Report for the proposed Atlantic Coast Pipeline (ACP) Project in North Carolina (attached). This report describes the survey scope, methods for survey, and the results of the survey that the ACP Project implemented to identify potentially suitable habitat and presence of the Chowanoke Crayfish and North Carolina Spiny Crayfish.

The North Carolina Wildlife Resource Commission (NCWRC) (letters dated 21 November 2014 and 10 April 2015) identified potential presence of two Rare Threatened and Endangered (RTE) species in the Roanoke, Chowan, Tar and Neuse river basins, including federal species of concern Chowanoke crayfish (*Orconectes virginienensis*) and state species of concern North Carolina spiny crayfish (*Orconectes carolinensis*). In a letter dated 25 March 2015, the USFWS Raleigh Field Office requested completion of habitat assessments for the Chowanoke crayfish, a federal-species of concern. In a letter dated 10 April 2015, the NCWRC provided additional survey effort recommendations for the Chowanoke crayfish and the North Carolina spiny crayfish.

Atlantic is requesting your review and concurrence of the attached Chowanoke and North Carolina Spiny Crayfish Studies Report for portions of the Project in North Carolina. This survey report describes the Chowanoke and North Carolina Spiny Crayfish habitat assessment and trapping results performed during the 2017 field season along the proposed ACP pipeline project in North Carolina. No target crayfish species were observed during this mobilization.

## **Project and Company Background**

Atlantic Coast Pipeline, LLC (Atlantic) is a company formed by four major U.S. energy companies – Dominion Resources, Inc., Duke Energy Corporation, Piedmont Natural Gas Co., Inc., and Southern Company Gas. Atlantic was created to develop, own, and operate the proposed ACP, an approximately 600-mile-long, interstate natural gas transmission pipeline system designed to meet growing energy needs in Virginia and North Carolina. The ACP will deliver up to 1.5 million dekatherms per day (MMDt/d) of natural gas to be used to generate electricity, heat homes, and run local businesses. The underground pipeline project will facilitate cleaner air, increase reliability and security of natural gas supplies, and provide a significant economic boost in Virginia and North Carolina. For more information about the ACP, visit the company's website at [AtlanticCoastPipeline.com](http://AtlanticCoastPipeline.com).

Dominion looks forward to coordinating with you on this Project. Please contact Richard Gangle at (804) 273-3019 or [Richard.Gangle@dom.com](mailto:Richard.Gangle@dom.com), if there are questions regarding this survey report. Please direct written responses to:

Richard Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Sincerely,



Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle, Dominion

**Attachments: Chowanoke and North Carolina Spiny Crayfish Studies for the Proposed Atlantic Coast Pipeline in North Carolina**

## **Federal Agencies**

**U.S. Forest Service – Monongahela and George Washington National Forests**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 11, 2017

**BY OVERNIGHT (OR EXPRESS) MAIL**

Ms. Jennifer Adams  
U.S. Forest Service  
5162 Valleypointe Parkway  
Roanoke, Virginia 24019

**Re: Dominion Transmission, Inc., Atlantic Coast Pipeline:  
Submittal of Unanticipated Discoveries Plan for Cultural Resources and Human Remains  
Policy in the George Washington National Forest - Revision 3**

Dear Ms. Adams,

Atlantic Coast Pipeline, LLC (Atlantic) is a company formed by four major U.S. energy companies – Dominion, Duke Energy, Piedmont Natural Gas, and Southern Company Gas. The company was created to develop, own, and operate the proposed Atlantic Coast Pipeline (ACP), an approximately 600-mile-long, interstate natural gas transmission pipeline system designed to meet growing energy needs in Virginia and North Carolina. Atlantic has contracted with Dominion Transmission, Inc. (DTI), a subsidiary of Dominion, to permit, build, and operate the ACP on behalf of Atlantic.

Please find attached the third revision of the Unanticipated Discoveries Plan for Cultural Resources and Human Remains Policy in the George Washington National Forest (UDP). The UDP has been revised to reflect a personnel change; Katie Ballew was added as the Patrol Captain in the George Washington and Jefferson National Forests.

We appreciate your review and concurrence and look forward to continuing to work with you on the ACP. Please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), if there are questions regarding this document. Please direct written responses to:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Sincerely,

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Mike Madden, George Washington National Forest  
Michelle Zulauf, George Washington National Forest  
Larry Webb, George Washington National Forest  
Richard B. Gangle, Dominion  
Maria Martin, Galileo Project  
Peter Rocco, Galileo Project

Attachments: Unanticipated Discoveries Plan for Cultural Resources and Human Remains Policy in  
the George Washington National Forest – Revision 3.



**APPENDIX 4E**

**UNANTICIPATED DISCOVERIES PLAN FOR CULTURAL RESOURCES AND  
HUMAN REMAINS POLICY IN THE GEORGE WASHINGTON NATIONAL  
FOREST**

**Revision 3 – 9 May 2017**

**Prepared by:**

**GAI Consultants, Inc.  
385 East Waterfront Drive  
Homestead, Pennsylvania 15120**

**For:**

**Atlantic Coast Pipeline Project**

**Docket No. CP15-554-000**

## APPENDIX 4E

# UNANTICIPATED DISCOVERIES PLAN FOR CULTURAL RESOURCES AND HUMAN REMAINS POLICY IN THE GEORGE WASHINGTON NATIONAL FOREST

## INTRODUCTION

In order to minimize the potential for accidental discovery of cultural resources, Atlantic Coast Pipeline, LLC (Atlantic) will complete or has completed a detailed archaeological survey of the Project's APE, which includes locations associated with the proposed undertaking where there will be alteration and disturbance of surface and subsurface soils that contain or have potential to contain archaeological sites, including proposed construction areas, access roads, staging areas, etc. That investigation will be conducted in accordance with: 16 U.S.C. 551; 36 CFR Part 251, Subpart B; 36 CFR Part 296; and, the National Historic Preservation Act (NHPA) of 1966.

This Unanticipated Discoveries Plan has been prepared for the Project in order for Atlantic to comply with the NHPA and the relevant state and federal regulations concerning the protection of cultural resources. The following procedures are designed to deal with unanticipated discovery of cultural resources encountered during construction. This plan was developed consistent with 36 CFR §800.13 (Post-Review Discovery clause), as well as *Guidelines for Conducting Historic Resources Survey in Virginia* (Virginia Department of Historic Resources [VDHR] 2011) and *Permit Required for Archaeological Excavation of Human Remains* (Code of Virginia 10.1-2305).

Inspectors have the responsibility to monitor altered and disturbed areas for potential archaeological remains throughout construction. Archaeological remains consist of man-made objects or features greater than 50 years of age. These remains include, but are not limited to, items such as artifacts (e.g., stone flakes, stone tools, ceramics, glass, architectural material), fire pits, building foundations, and human remains.

If required by the George Washington National Forest [GWNF], in areas considered to have a high likelihood for significant archaeological remains (as defined in consultation with the GWNF) an Archaeological Inspector (AI) will be present onsite during grading or trenching activities in those areas, and will monitor the areas for cultural and physical remains as grading or trenching occurs. The AI will meet the Secretary of the Interior professional qualifications standards for archaeology.

The Lead Environmental Inspector (LEI) and the AI will be responsible for advising the construction contractor's personnel on the procedures to follow in the event that an unanticipated discovery is made. A copy of this Unanticipated Discoveries Plan will be maintained by the Environmental Inspectors, the AI, and at the construction field office. Training will occur as part of the pre-construction on-site training program for foremen, company inspectors, and construction supervisors. The LEI will advise all operators of equipment involved in grading, stripping, or trenching activities to:

- ◆ Stop work immediately if they observe any indications of the presence of cultural materials or possibly human bone.
- ◆ Immediately contact the LEI (or the Construction Inspector [CI] if the LEI is not available).
- ◆ Treat human remains with dignity and respect.

## **CULTURAL RESOURCES**

The following procedures are designed to deal with unanticipated discovery of potential cultural resources encountered during construction. Additional procedures for discovery of potential human remains are outlined under the next heading.

- The LEI or AI will immediately notify the Construction Supervisor who will immediately halt work in the vicinity of the potential find and notify Atlantic's Environmental Project Manager (PM).
- Reasonable effort must be made to protect and secure the discovery. At least a 100-foot buffer between the find and construction activity will be maintained to avoid further impact to the potential cultural resource.
- Atlantic's Environmental PM will immediately by telephone notify the GWNF Forest Supervisor and the GWNF Forest Archaeologist. Within 24 hours Atlantic's Environmental PM will follow-up with a written (via email) notification of the nature of the find to the GWNF Forest Supervisor, the GWNF Forest Archaeologist, and the GWNF Special Project Coordinator.
- If attempts to reach National Forest representatives are unsuccessful (e.g., during construction on weekends), construction in the area will immediately cease, and the area will be marked off with flagging with at least a 100-foot buffer between the find and the construction activity.
- It is the responsibility of the GWNF Forest Archaeologist to conduct the preliminary assessment of the find, as well as within 48 hours consult, as necessary, with the Federal Energy Regulatory Commission (FERC), the VDHR, and other consulting parties (e.g., appropriate tribal organizations).
- The GWNF Forest Archaeologist will by telephone notify Atlantic's Environmental PM regarding the results of the preliminary assessment.
- If the site is determined to be potentially eligible for inclusion in the National Register of Historic Places (NRHP), additional work, such as a Determination of Eligibility, avoidance, or Data Recovery will be performed as required/approved by the Forest Archaeologist. Further construction work at the site of the discovery will be temporarily suspended until applicable requirements of Section 106 of the NHPA and other related federal and state regulations have been successfully completed.

- Atlantic, in direct consultation with the GWNF Forest Archaeologist, will keep construction activities at least 100 feet from the find by installing flagging and/or temporary fencing with signage indicating “Environmentally Sensitive Area” or similar statement as approved by the GWNF.
- Atlantic, with consultation and authorization by the GWNF Forest Archaeologist, will direct their cultural resources consultant to perform necessary fieldwork and reporting to assist the GWNF Forest Archaeologist in determining the site’s eligibility for the NRHP.
- No archaeological excavations will be conducted prior to receiving a FS2700-32 Permit for Archaeological Investigations.
- If the unanticipated discovery does not contain human remains or funerary objects, and is determined by the Forest Archaeologist to be ineligible for inclusion in the NRHP (and the FERC and the VDHR concur), Atlantic may proceed with the Project only after receiving written authorization from the GWNF Forest Supervisor. A binding Data Recovery Plan signed by the Forest Service, the VDHR, the FERC, and affected tribal organizations (if any), may allow construction activities to resume sooner if those activities are also otherwise lawful.

## **HUMAN REMAINS**

If the unanticipated discovery is determined to contain human remains or funerary objects, the following procedures will be followed.

- The LEI (or CI if LEI is not available) or AI will immediately halt work and notify by telephone the GWNF Patrol Captain and the GWNF Forest Archaeologist. The LEI will also follow-up with an email notice to the GWNF Forest Supervisor and the GWNF Special Project Coordinator.
- If the GWNF Patrol Captain is not available, the LEI will notify the local law enforcement.
- Reasonable effort must be made to protect and secure the discovery. The Construction Supervisor will ensure that human remains are protected from further damage, intrusion, or removal until proper examinations can be performed.
- Atlantic, in direct consultation with the GWNF Forest Archaeologist, will keep construction activities at least 100 feet from the find by installing flagging and/or temporary fencing with signage indicating “Environmentally Sensitive Area” or similar statement as approved by the GWNF.
- Discovery of human remains should not be made public, including but not limited to conversations with local residents, posting on social media, or communication with news outlets.

- Under no circumstances should human remains be removed from the site without completing all permitting and coordination processes with the GWNF and, as appropriate, local law enforcement, the medical examiner, the VDHR, affected tribal organizations, and the FERC.
- Further work at the site will be suspended until all applicable requirements of Section 106 of the NHPA and other related state and federal regulations have been successfully completed. Human remains identified on federal lands may be subject to the Native American Graves Protection and Repatriation Act (NAGPRA) and/or the Virginia Antiquities Act (Code of Virginia 10.1-2305).
- The GWNF Patrol Captain and the GWNF Forest Archaeologist, in consultation with other appropriate parties as necessary (e.g., county sheriff, coroner, VDHR), will assess whether the remains are historical or modern and/or part of a crime scene.
- If the remains are determined not to be of recent origin, the GWNF Forest Archaeologist and the FERC will consult appropriate parties (e.g., the VDHR and appropriate tribal representatives) regarding additional steps to be followed.
- If the remains are Native American, a reasonable effort will be made to determine and notify the affiliated tribal organization.
- If the remains are not Native American and not associated with a crime scene, the Forest Service will protect the remains until a plan for avoidance or removal is developed in consultation with the VDHR, the FERC, and interested parties. Actions will be consistent with guidance in National Register Bulletin 41: *Guidelines for Evaluating and Registering Cemeteries and Burial Places* (Potter and Boland 1992). A reasonable attempt will be made to identify the next of kin.
- In consultation with the GWNF (and as appropriate, the VDHR, affected tribal organizations, and interested parties), Atlantic will attempt to locate and survey alternate areas so the human remains can be avoided. Involved parties will be informed of the results before the alternate area is accepted. If more remains are discovered or if there is no feasible alternate area, involved parties will be consulted about the removal and/or reburial of the human remains. In the case of non-Native American burials, the GWNF should also notify the local municipality and discussions should occur with constituencies (such as descendants) regarding removal and reburial of the remains.
- No archaeological excavations will be conducted prior to receiving a FS2700-32 Permit for Archaeological Investigations.
- Archaeological removal of in situ placement of human remains and/or associated grave goods requires a permit from the VDHR in accordance with the Code of Virginia 10.1-2305.

- Construction in the area of the find will only continue after Atlantic receives written authorization from the Forest Service. Only after the human remains have been properly removed from the site, or sufficiently avoided, should construction in the site area be resumed.

## REFERENCES

Potter E.W. and B.M. Boland. 1992. *National Register Bulletin 41: Guidelines for Evaluating and Registering Cemeteries and Burial Places*. U.S. Department of the Interior, National Park Service. Washington, D.C.

Virginia Department of Historic Resources (VDHR). 2011. *Guidelines for Conducting Historic Resources Survey in Virginia*. Virginia Department of Historic Resources, Richmond.

## CONTACT INFORMATION FOR VARIOUS AGENCIES

### Forest Service

Joby Timm  
Forest Supervisor  
George Washington &  
Jefferson National Forests  
5162 Valleypointe Parkway  
Roanoke, VA 24019  
540-265-5118  
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Mike Madden  
Forest Archaeologist  
George Washington &  
Jefferson National Forests  
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Roanoke, VA 24019  
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Katie Ballew  
Patrol Captain  
George Washington &  
Jefferson National Forests  
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Jennifer Adams  
Special Project Coordinator  
George Washington &  
Jefferson National Forests  
5162 Valleypointe Parkway  
Roanoke, VA 24019  
540-265-5114  
jenniferpadams@fs.fed.us

### Atlantic Coast Pipeline, LLC (Atlantic)

Name: *TBD*  
Lead Environmental Inspector  
Address: *TBD*

Phone: *TBD*  
Email: *TBD*

Richard Gangle  
Environmental Project Manager  
5000 Dominion Boulevard  
Glen Allen, VA 23060  
804-273-2814 [o]; 804-229-7026 [m]  
richard.b.gangle@dom.com

### **Virginia Department of Historic Resources (VDHR)**

Roger Kirchen, Archaeologist, Office of Review and Compliance  
Virginia Department of Historic Resources  
2801 Kensington Avenue  
Richmond, Virginia 23221  
804-482-6091  
roger.kirchen@dhr.virginia.gov

### **Federal Energy Regulatory Agency (FERC)**

Ellen Armbruster, Archaeologist  
Federal Energy Regulatory Commission  
888 1st Street NE  
Rm 61-47  
Washington, D.C. 20426  
Ellen.Armbruster@ferc.gov  
202-502-8330

### **Tribal Representatives**

Nekole Alligood  
Delaware Nation, Director of Cultural Preservation  
31064 HWY 281  
P.O. Box 281  
Anadarko, OK 73005  
405-247-2448

### **Local Law Enforcement**

#### **Augusta County Sheriff**

Donald Smith  
127 Lee Highway, P.O. Box 860  
Verona, VA 24482  
540-245-5333

#### **Bath County Sheriff**

Robert Plecker  
77 Courthouse Hill Road, P.O. Box 218  
Warm Springs, VA 24484  
540-839-2375

#### **Highland County Sheriff**

David Neil  
145 W Main Street  
Monterey, VA 24465  
540-468-2210

## **State/Commonwealth Agencies**



## **West Virginia Agencies**

**West Virginia Division of Culture and History**



*The Culture Center*  
1900 Kanawha Blvd., E.  
Charleston, WV 25305-0300

**Randall Reid-Smith, Commissioner**

Phone 304.558.0220 • www.wvculture.org  
Fax 304.558.2779 • TDD 304.558.3562

EEO/AA Employer

April 26, 2017

Mr. Robert Bisha  
Technical Advisor, Atlantic Coast Pipeline  
Dominion Resources Services, Inc.  
5000 Dominion Blvd.  
Glen Allen, VA 23060

RE: Atlantic Coast Pipeline – Phase I Historic Architectural Survey Report Addendum 5 Report  
FERC Docket # PF15-6-000  
FR#: 15-171-MULTI-26

Dear Mr. Bisha:

We have received the draft report titled “Phase I Historic Architectural Survey of the Atlantic Coast Pipeline Project, West Virginia Addendum 5,” which ERM prepared for the aforementioned project to determine potential effects to cultural resources. As required by Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations, 36 CFR 800: “Protection of Historic Properties,” we submit our comments.

Architectural and Battlefield Resources:

We have reviewed the submitted report; however, we are unable to concur with the recommendations documented therein. We ask that a revised draft of the Addendum 5 report and respective HPI forms be prepared with the following corrections and clarifications.

- ERM argues the L. T. Coyner House (PH-0037-0064) and the Coyner Brother’s Store (PH-0037-0065) are eligible for inclusion in the National Register of Historic Places because the two properties are “associated with the railroad and lumber boom of the period in Pocahontas County.” While this is likely true, it is our opinion this argument does not meet the standard established in Criteria A. What evidence exists to suggest this store and home influenced the community’s history? Were there other stores of this type in the area? What distinguishes this store and home from others, if they existed? Furthermore, the argument that the Coyner House “is a good example of an early twentieth century prefabricated home” would suggest it embodies the distinctive characteristics of a method of construction. Why then does the report specify that it is not eligible under Criterion C? Finally, if the house is associated with the owners of the Coyner Store, which the report argues is eligible for economic development in the area, why then are the two properties not eligible under Criterion B? Would not the Coyner Family be considered a prominent family of the community if their store had such an influence thereon? We ask that you further develop the argument that this property is eligible under Criterion A, B, and C, if such is the case. Also, the HPI forms for these two properties document genealogy in the property descriptions. That information should not be in that field, but included under the statement of significance to support any arguments you make regarding the properties’ eligibility. Please revise and correct these two HPI forms and resubmit them to our office for review. We also ask that you provide additional and clearer images of the main Coyner House on its respective HPI form.
- ERM argues the property identified with WV SHPO site no. PH-0461 is eligible under Criterion A because it serves “as a visible reminder of the prosperity of the community during the late nineteenth and early twentieth century.” How does it accomplish this? What evidence exists to support the argument that

this home over others serves as the visible reminder of the community's prosperity? And how does this reflect events that have made a significant contribution to the broad patterns of that particular community's history? Please further develop the argument that this property is eligible under Criterion A, if that is the case. Like the Coyner House and Store HPI forms, the HPI form for this property documents genealogy in the property description field. Please correct this. Also, we ask that you provide clearer and better color photographs of the property's main residence building to facilitate our review under Criterion C.

- ERM argued the Lorentz Methodist Church and Cemetery (UP-0113 and 46-UP-348) are eligible under Criterion A because they "were central to the community from its earliest history." In our opinion, this does not transcend the "historical importance" standard set forth in Criteria Consideration A. Please, develop this argument further and provide evidence to suggest the centrality of that church and cemetery within the community. Keep in mind that our office determined that property was *not eligible* for inclusion in the National Register in 2000.
- Regarding the property identified with SHPO site no. PH-0954, the provided images are insufficient for our office to make a determination on that property's eligibility. Please provide closer and clearer images of the property's main residence.
- ERM documented the property identified with SHPO site no. UP-0818, despite the fact that the property is less than fifty years of age, and asked that the number be deaccessioned. However, doing so creates problems within our survey database and numbering system. Also, the information provided in the HPI form would allow us to confirm in the future why that particular property is not eligible for inclusion in the National Register. Unfortunately, the HPI form is incomplete. Please complete the HPI form and resubmit it to our office.
- We thank you for the information regarding the Buckhannon Civil War Study Area; however, we ask that the revised report include clear aerial and topographic maps indicating the Civil War area and its relationship to the proposed pipeline project areas. We also ask that you submit color photographs that will depict the project areas from the Civil War area and vice versa.
- We ask that the provided project maps include both aerial and topographic layers to help orient our review of the resources in question.
- Finally, we ask that you submit PDFs of the revised report and HPI forms on CD. Please also include GIS shapefiles of all surveyed properties that are documented in the addendum report. These digital files should be included with each report.

We will provide additional comments upon receipt of the revised report and HPI forms.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 process, please contact Mitchell K. Schaefer, Structural Historian, at (304) 558-0240.*

Sincerely,



Susan M. Pierce  
Deputy State Historic Preservation Officer

SMP/MKS

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 9, 2017

Ms. Susan M. Pierce  
Deputy State Historic Preservation Officer  
West Virginia Division of Culture and History  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0300

**Subject: Section 106 Review – Phase I Archaeological Survey Report Season 5  
Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline Project  
FR#: 14-928-Multi**

Dear Ms. Pierce:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review and comment on the enclosed addendum archaeological survey report on investigations conducted during season 5 for the proposed Atlantic Coast Pipeline (ACP). The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, ERM, conducted the survey and prepared the enclosed report pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the attached addendum archaeological survey report, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed report, please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), or by letter at:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Respectfully submitted,

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion)  
Enclosure: **Phase I Archaeological Survey Report Season 5**

## Virginia Agencies

**Virginia Department of Historic Resources**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



April 7, 2017

Mr. Roger Kirchen, Director  
Review and Compliance Division  
Virginia Department of Historic Resources  
2801 Kensington Ave.  
Richmond, VA 23221

**Subject: Section 106 Review –Architectural Survey Report REVISED Addendum 2  
Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline Project  
DHR File No. 2014-0710**

Dear Mr. Kirchen:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review and comment on the enclosed REVISED addendum architectural survey report on investigations conducted for the proposed Atlantic Coast Pipeline (ACP). The revisions are based on your comments in a letter dated March 22, 2017. The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, Dovetail, conducted the survey and authored the original report, which was edited by ERM, who prepared the enclosed revised report. The document is being submitted pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the attached REVISED addendum architectural survey report, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed report, please contact Richard B. Gangle at (804) 273-2814 or Richard.B.Gangle@dom.com, or by letter at:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Respectfully submitted,

*FOR*  *RICHARD GANGLE*

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion)  
Enclosure: **Architectural Survey Report REVISED Addendum 2**



Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 3, 2017

Mr. Roger Kirchen, Director  
Review and Compliance Division  
Virginia Department of Historic Resources  
2801 Kensington Ave.  
Richmond, VA 23221

**Subject: Section 106 Review –Architectural Survey Report REVISED Addendum 3  
Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline Project  
DHR File No. 2014-0710**

Dear Mr. Kirchen:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review and comment on the enclosed REVISED addendum architectural survey report on investigations conducted for the proposed Atlantic Coast Pipeline (ACP). The revisions are based on your comments in a letter dated March 24, 2017. The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, ERM, conducted the survey and prepared the enclosed report pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the attached REVISED addendum architectural survey report, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed report, please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), or by letter at:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Respectfully submitted,

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion)  
Enclosure: **Architectural Survey Report REVISED Addendum 3**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 10, 2017

Mr. Roger Kirchen, Director  
Review and Compliance Division  
Virginia Department of Historic Resources  
2801 Kensington Ave.  
Richmond, VA 23221

**Subject: Section 106 Review –Architectural Survey Report REVISED Addendum 4  
Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline Project  
DHR File No. 2014-0710**

Dear Mr. Kirchen:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review and comment on the enclosed REVISED addendum 4 architectural survey report on investigations conducted for the proposed Atlantic Coast Pipeline (ACP). The revisions are based on your comments in a letter dated April 6, 2017. The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, ERM, conducted the survey and prepared the enclosed report pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the attached REVISED addendum architectural survey report, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed report, please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), or by letter at:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Respectfully submitted,

A handwritten signature in blue ink that reads "Robert M. Bisha".

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion)  
Enclosure: **Architectural Survey Report REVISED Addendum 4**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 10, 2017

Mr. Roger Kirchen, Director  
Review and Compliance Division  
Virginia Department of Historic Resources  
2801 Kensington Ave.  
Richmond, VA 23221

**Subject: Section 106 Review –Phase I Archaeology Survey Report Addendum 5  
Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline Project  
DHR File No. 2014-0710**

Dear Mr. Kirchen:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review and comment on the enclosed addendum 5 archaeology survey report on investigations conducted for the proposed Atlantic Coast Pipeline (ACP). The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, ERM, conducted the survey and prepared the enclosed report pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the attached addendum archaeology survey report, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed report, please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), or by letter at:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Respectfully submitted,

A handwritten signature in blue ink that reads "Robert M. Bisha".

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion)  
Enclosure: **Phase I Archaeology Survey Report Addendum 5**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 10, 2017

Mr. Roger Kirchen, Director  
Review and Compliance Division  
Virginia Department of Historic Resources  
2801 Kensington Ave.  
Richmond, VA 23221

**Subject: Section 106 Review –Phase II Investigations, Sites 44CS0329, 44SN0312, 44SN0342, 44SN0384, and 44SN0385 Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline Project DHR File No. 2014-0710**

Dear Mr. Kirchen:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review and comment on the enclosed Phase II Report on investigations conducted for the proposed Atlantic Coast Pipeline (ACP) in October 2016 and January 2017. The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, ERM, conducted the survey and prepared the enclosed report pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the attached Phase II report, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed report, please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), or by letter at:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Respectfully submitted,

A handwritten signature in blue ink that reads "Robert M. Bisha".

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion)  
Enclosure: **Phase II Investigations, Sites 44CS0329, 44SN0312, 44SN0342, 44SN0384, and 44SN0385**

**Virginia Department of Environmental Quality**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 11, 2017

**BY OVERNIGHT (OR EXPRESS) MAIL**

Ms. Bettina Sullivan  
Virginia Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street  
Richmond, VA 23219

**Re: Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to April 6, 2017 letter to the FERC**

Dear Ms. Sullivan:

Atlantic Coast Pipeline, LLC (Atlantic) is a company formed by four major U.S. energy companies – Dominion, Duke Energy, Piedmont Natural Gas, and Southern Company Gas. The company was created to develop, own, and operate the proposed Atlantic Coast Pipeline (ACP), an approximately 600-mile-long, interstate natural gas transmission pipeline system designed to meet growing energy needs in Virginia and North Carolina. For information about the ACP, visit the company’s website at [www.dom.com/acpipeline](http://www.dom.com/acpipeline). Atlantic has contracted with Dominion Transmission, Inc., a subsidiary of Dominion, to permit, build, and operate the ACP on behalf of Atlantic. The ACP will be regulated by Federal Energy Regulatory Commission (FERC) under Section 7(c) of the Natural Gas Act. The ACP is subject to review by FERC under the National Environmental Policy Act and Section 106 of the National Historic Preservation Act, as well as other environmental and natural resource laws.

The enclosure to this letter provides Atlantic’s responses to the Virginia Department of Environmental Quality’s comments on the Draft Environmental Impact Statement issued by FERC for the ACP and provided in a letter to FERC on April 6, 2017. Atlantic is working with the Commonwealth to address the new recommendations identified in Part I, Subpart 1 of the letter. Responses to the remaining comments are included in the enclosure. Because the waterbody table, included as Attachment 3.c.ii of the enclosure, contains location information for sensitive species, it is marked “Contains Privileged Information – Do Not Release”.

Please contact Mr. Richard Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), if there are questions regarding this submittal.

Please direct written responses to:

Richard Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Sincerely,

A handwritten signature in blue ink that reads "Robert M. Bisha". The signature is written in a cursive style with a large initial "R".

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle, Dominion

Enclosure: Atlantic's response matrix

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<b>Part I: Section 5.2 of the Final Environmental Impact Statement</b>	
<b>2) Modifications to Existing Recommendations in Section 5.2</b>	
a) Recommendation 5: Require Atlantic to provide information on new route realignments or facility relocations, including staging areas, contractor yards, new access roads, and other areas that have not been previously identified in filings to DEQ and other entities responsible for permitting.	Atlantic Coast Pipeline, LLC (Atlantic) will provide information on new route realignments or facility relocations, including staging areas, contractor yards, new access roads, and other areas that have not been previously provided to the Commonwealth and responsible permitting agencies. Furthermore, any future project changes would be permitted by applicable federal, commonwealth, or local agencies, as required.
b) Recommendation 6(a): Incorporate the recommended mitigation measures in Attachments A and B into the referenced Implementation Plans.	Atlantic will incorporate all agreed-upon mitigation measures into the Implementation Plans.
c) Recommendations 8 and 24: Require Atlantic to provide DEQ with updated status reports, plans, and site-specific crossing plans for major waterbody crossings. See the DEQ comments in Attachment B.	Atlantic will provide Virginia Department of Environmental Quality (VDEQ) with updated reports and site-specific crossing plans for major waterbody crossings as changes occur.
d) Recommendation 28: Direct Atlantic to consult with the Virginia Department of Forestry (DOF) regarding recommended mitigation measures and seed mixtures for any forested area that may be adjacent to or near DOF state forest and/or easement properties. See the DOF comments in Attachment B.	The Atlantic Coast Pipeline (ACP or Project) will not cross any Virginia Department of Forestry lands.
<b>Part II: Recommendations for Other Sections of the FEIS, Plans and Procedures</b>	
<b>1) Route Changes and Variations</b>	
<b>a) Conservation Sites</b>	
i) Avoid the Cochran's Cave Conservation Site entirely or follow DCR's recommendations in Attachment B for the protection of this very sensitive area.	Atlantic has coordinated with the Virginia Department of Conservation and Recreation (VDCR) to identify mitigation measures that will minimize or avoid impacts on the Cochran's Cave Conservation Site. As recommended by the VDCR, Atlantic will have authorized karst specialists on site during construction in this area.
ii) Avoid the Spruce Creek Tributary Conservation Site and the Emporia Powerline Bog Conservation Site. See the DCR comments in Attachment B.	Atlantic has coordinated with the VDCR to identify mitigation measures including route adjustment that will minimize or avoid impacts on the Spruce Creek Tributary Conservation Site.
iii) Avoid all other DCR-designated conservation sites. See DCR comments in Attachment B.	Atlantic has coordinated with the VDCR to identify mitigation measures that will minimize or avoid impacts on the conservation sites.
iv) Reroute the pipeline so that it is at least 300 meters from a tiger salamander breeding pond within the Lyndhurst Ponds Conservation Site and follow DCR's recommendations to protect this species. See DCR comments in Attachment B.	The current proposed route is located over 300 meters from the Lyndhurst Ponds Conservation Site. All surveys and conservation measures developed for tiger salamanders have been coordinated closely with the Virginia Department of Game and Inland Fisheries (VDGIF). Tiger salamanders were found in one wetland in 2016, which is outside the Lyndhurst Ponds Conservation Site. The wetland is within 20 meters of the proposed workspace. Atlantic conducted a field meeting with the VDGIF to review this location in 2016 and a slight route adjustment was adopted to move further away from the pond and out of the immediate drainage basin of the wetland. Due to the number of routing constraints in this area further route adjustments are not feasible. Atlantic has adopted a 50 foot maintained right-of-way width as recommended. The VDGIF Letter to the VDEQ dated February 24, 2017 states "we are satisfied that significant adverse impacts upon waua050f and the eastern tiger salamanders that inhabit it have been avoided." Atlantic will continue to coordinate with the VDGIF regarding conservation measures for tiger salamanders as additional surveys in 2017 are completed.
<b>b) Gardner Spring</b>	
i) Consider the concerns raised by the City of Staunton when evaluating route adjustments in the Gardner Spring recharge area. See the City of Staunton comments in Attachment B.	Atlantic considered the Gardner Spring well and recharge area in the initial routing. The Spill Prevention, Control and Countermeasure Plan (SPCC Plan), Karst Mitigation Plan, and Best Management Practices (BMPs) will protect the spring from contamination during construction. The depth of the trench will typically be less than 10 feet; the depth to the aquifer in that area is well below that. In the unlikely event of a leak from the ACP, the natural gas would dissipate to the atmosphere rather than remaining in the groundwater. Atlantic does not believe a route adjustment is warranted.



**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<b>c) Surface Waters</b>	
i) Evaluate recommendations from DEQ on the proposed reroutes and alignment adjustments, including co-location of utilities, that DEQ provided by milepost. See the DEQ comments in Attachment B.	Atlantic has coordinated with federal and Commonwealth agencies to adjust the route and incorporate co-location opportunities to the maximum extent practicable.
<b>d) Water Supply</b>	
i) Consider moving the staging area/construction site away from the sinking portion of Hamilton Branch which may have a direct connection to the municipal water supply for the Town of Deerfield. See the DEQ comments in Attachment B.	The site has been designed with a 25 foot buffer from Hamilton Branch. Erosion and sediment control (ESC) measures as well as measures outlined in the SPCC Plan will be employed to protect this resource.
<b>e) Wildlife Resources</b>	
i) Consider the long-term impacts of forest fragmentation and minimize them to the greatest extent possible by co-locating the pipeline within already-disturbed utility corridors and early successional habitats. See the Department of Game and Inland Fisheries (DGIF) comments in Attachment B.	During the routing process, the right-of-way was co-located where possible to minimize increased edge effects and impacts on interior forest. In addition, when reviewing and selecting alternate routes, Atlantic considered overall impacts to resources (such as waterbodies, wetlands, forested areas, listed species, and landowners) to determine the least environmentally impactful route, including efforts to minimize long term forest fragmentation. Atlantic has provided discussions regarding forest fragmentation in several locations including a response to the October 26, 2016 FERC data request filed on January 10, 2017 (FERC Accession Number 20170110 -5142).
ii) Modify the pipeline route to avoid impacts upon suitable habitat for timber rattlesnakes, state-listed endangered canebrake rattlesnakes, especially canebrake rattlesnakes in eastern Virginia, and scarlet kingsnakes. See the DGIF comments in Attachment B.	Atlantic submitted a Protected Snake Conservation Plan for the Projects to the FERC on July 29, 2016. The conservation measures presented within this plan were developed using guidance provided in the VDGIF 2011 Canebrake Rattlesnake Conservation Plan. The Plan describes Project-specific construction conservation measures, to avoid and reduce impacts on protected snakes. During active construction from April 1 through October 31, Atlantic will provide training to contractors working within two miles of the respective range of each snake species to properly identify each, and become familiar with the conservation measures for the scarlet kingsnake, timber rattlesnake, and canebrake rattlesnake. Daily on-site construction briefings will also be provided to all contractors working within the range of the snakes. These will provide daily verbal reinforcement of mitigation measures to Project personnel.
<b>f) Karst Features</b>	
i) Avoid impacts to karst features to the maximum extent practicable and monitor resurgent springs in Highland County. See the DCR comments in Attachment B.	Karst features have been avoided to the maximum extent practicable. Atlantic has performed and continues to perform field surveys, including ERI analysis of the route where access has been granted. Based on field surveys Atlantic is currently evaluating a route shift to avoid some karst features in Highland County. Atlantic is testing springs and wells within 500 feet of the pipeline centerline to develop baseline water quality and flow rate information.
<b>2) Recommendations for Preconstruction Planning, Surveys and Studies</b>	
<b>a) Wetlands and Surface Waters</b>	
i) Include an inventory of the location of private ponds relative to the pipeline and road network. Locate road and pipeline crossings down gradient of private ponds to the maximum extent possible and develop enhanced ESC measures to protect ponds from secondary impacts of construction where route adjustments are not possible. See the DEQ comments in Attachment B.	The ESC plans, developed in accordance with Commonwealth requirements, will minimize or avoid impacts on these resources along the entire route.
ii) Provide details regarding the material to be used and installation methods for all temporary culverts and temporary fill in waterbodies and wetlands for permanent and temporary access roads, including methods proposed to stabilize fill material. Include a detailed analysis of all alternatives relative to the use of culverts and temporary fill, such as relocations and bridges, to reduce both permanent and temporary waterbody impacts. Discuss and identify the location of fill sources, as obtaining fill may cause additional impacts. See the DEQ comments in Attachment B.	Atlantic will use commercially available materials and structures for temporary culverts and bridges. In the event fill or gravel is needed for temporary fill, this will be sourced from locally available and permitted sources. Atlantic has analyzed the pipeline and road crossing methods anticipated for each waterbody to determine the best available option.

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<p>iii) Consider HDD, if practicable, at crossings of sensitive waters since the method would not result in impacts to streams and is considered an avoidance measure. See the DEQ comments in Attachment B.</p> <p>iv) Consider DEQ recommendations to protect surface water resources, including increasing the number of temporary access roads where possible and using a more robust method of determining stream type. See the DEQ comments in Attachment B.</p> <p>v) Conduct pre- and post-construction monitoring of benthic assemblages, relative bed stability, and riparian forest cover for segments of the pipeline that cross applicable total maximum daily load (TMDL) watersheds, Class V and VI waters, threatened and endangered species waters, and benthic impairments. See the DEQ comments in Attachment B for location-specific details and additional recommendations for TMDL watersheds, benthic impairments, Class V Stocked Trout Streams, Class VI Wild Trout Streams, Threatened and Endangered Species Waters, and other impairments.</p> <p>vi) Clarify that all stream crossings, including those associated with cathodic protection systems, will adhere to established Wetland and Waterbody Construction and Mitigation Procedures. See the DEQ comments in Attachment B.</p> <p>vii) Provide additional information on how the 10-foot-wide corridor centered over the pipeline within wetlands would be maintained in an herbaceous state due to the potential for impacts to DCR powerline bog conservation sites. Follow DCR's recommendations for maintaining the corridor and manage pipeline and transmission right-of-ways as one unit within the Handsom-Gum Powerline, Emporia Powerline Bog and Branchville Powerline Conservation Sites. See the DCR comments in Attachment B.</p>	<p>Atlantic has adopted the use of horizontal directional drills (HDDs) to the maximum extent possible. Since an HDD requires approximately 2,000 feet of straight path, approximately the same elevation at the entry and exit locations, and sufficient fairly flat space to fabricate the drill string to be practical, rolling terrain and/or ground conditions prohibit the use of HDDs in many locations. Most crossings at sensitive waters will be accomplished using dry crossing methods (dam and pump, coffer dam, etc.). Atlantic has coordinated with agencies for crossing methods at specific crossing locations.</p> <p>Atlantic will comply with FERC and Commonwealth requirements to protect surface water resources. Access road impacts have been reassessed and many previously reported have been avoided. An updated version of the Master Waterbody Crossing table will be filed with the FERC in May 2017.</p> <p>Atlantic is consulting with the Fish and Wildlife Service (FWS) and the Commonwealth on the conservation measures to protect these classes of waterbodies. Pre- and post-construction monitoring will be conducted where it is deemed appropriate by Atlantic and the Commonwealth.</p> <p>Atlantic has coordinated with Commonwealth agencies to develop wetland and waterbody crossing methods that are acceptable.</p> <p>Atlantic proposes to maintain the right-of-way in these areas in accordance with FERC's Plans and Procedures with the exception of wetlands at these crossing locations that would be mowed the entire width of the right-of-way so as to manage both rights-of-way as one unit within the element occurrence of these conservation sites, per VDCR recommendations.</p>
<b>b) Soil and Slope Stabilization</b>	
<p>i) Consider DGIF's comments and follow its recommendations to protect sensitive biological and hydrogeological features as provided to Atlantic in a February 7, 2017 letter, which is attached to the DGIF comments in Attachment B.</p>	<p>Atlantic has incorporated these recommendations into the Project design to the maximum extent practicable.</p>
<b>c) Karst Resources</b>	
<p>i) Follow DCR's recommendations to address the impacts if a failure occurs and there is a discharge to karst waters, potentially resulting in impacts to subsurface habitat, drinking water, and surface streams fed by karst springs. See the DCR comments in Attachment B.</p> <p>ii) Consider that effects to wells and springs could potentially extend outside of the current 500-foot karst investigation buffer since blasting has the potential to include permanent alteration of groundwater flow patterns and yields of wells and springs. See the DEQ comments in Attachment B.</p> <p>iii) Ensure the protection of karst structures, the wildlife species they support, and the waters they contain. See the DGIF comments in Attachment B.</p>	<p>Atlantic will perform hydrological delineations of the significant springs in order to determine watershed identity. Atlantic will coordinate these delineation plans and requirements with VDCR.</p> <p>Atlantic has performed and continues to perform field surveys, including ERI analysis combined with desktop analyses to understand the karst features that are known and that may be encountered during construction in order to assess and address potential concerns.</p> <p>Atlantic acknowledges the VDGIF comment regarding the protection of karst features and the species they support. Atlantic has implemented a comprehensive karst survey study and a detailed Karst Mitigation Plan which addresses the protection of these features and species.</p>
<b>d) Wildlife Resources</b>	
<p>i) Update preconstruction requirements to include a recommendation for a mussel survey regarding the proposed location for crossing the Cowpasture River, which has been designated a Threatened and Endangered Species Water due to the presence of federally listed endangered James spiny mussels. See the DGIF comments in Attachment B.</p>	

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<ul style="list-style-type: none"> <li>• Perform a mussel survey and relocation from 100 meters upstream through 400 meters downstream of impact areas in the Cowpasture River. This survey should be performed by a qualified, permitted biologist, preferably no more than six months prior to the start of construction.</li> <li>• Ensure that all survey and relocation activities adhere to draft guidance for freshwater mussels in Virginia (attached to DGIF's detailed comments in Attachment B).</li> <li>• Coordinate any relocations with DGIF.</li> <li>• Coordinate with the U.S. Fish and Wildlife Service (FWS) prior to relocating federally listed species.</li> <li>• Submit survey results to DGIF. Upon review of the results, DGIF will make final recommendations regarding the protection of listed species known from the area.</li> <li>• Adhere to a time-of-year restriction of May 15 through July 31 on all instream work.</li> </ul> <p>ii) Assess all newly proposed areas of disturbance for their suitability to support any of the listed species known from the area per DGIF's previous comments to FERC and Atlantic, and report the results to DGIF. See the DGIF comments in Attachment B.</p> <p>iii) Adhere to DGIF's recommendations regarding instream work best management practices (BMPs) and ways to minimize the impacts of linear utility development on wildlife and their habitats as described in the agency's February 7, 2017 letter to Atlantic. See the DGIF comments in Attachment B for a copy of the letter.</p> <p>iv) Adhere to all of DGIF's time-of-year restrictions that are detailed in the DGIF comments and attachments in Attachment B.</p> <p>v) Incorporate the following recommendations to protect wildlife resources (see the DGIF comments in Attachment B for additional information):</p> <ul style="list-style-type: none"> <li>• Coordinate with the National Oceanic and Atmospheric Administration Fisheries Service regarding the protection of Atlantic sturgeon and consider additional time-of-year restrictions.</li> <li>• Follow DGIF's guidance on the Roanoke logperch and provide clarifications as requested by DGIF: <ul style="list-style-type: none"> <li>○ Follow an instream work time-of-year restriction from March 15 through June 30 of any year in the Nottoway River drainage and at the site of any instream work within 1-mile upstream of these waters.</li> <li>○ Provide results of the on-site assessment performed in 2016 at UNT Nottoway River 1 Access Road and UNT Nottoway 2.</li> <li>○ Adhere to the remainder of DGIF's recommendations regarding the Roanoke logperch in its attached comments.</li> <li>○ Adhere to the Fish Relocation Plan developed cooperatively between FWS, DGIF, and Atlantic.</li> </ul> </li> </ul>	<p>Surveys were conducted 100 meters upstream through 400 meters downstream of impact areas in the Cowpasture River. Atlantic confirms that all pre-construction mussel relocation efforts will be performed by permitted biologists no more than six months prior to the start of construction following the previously provided mussel survey and relocation guidance.</p> <p>Atlantic plans to adhere to draft guidance for freshwater mussels in Virginia and will continue to consult with the VDGIF.</p> <p>Atlantic will coordinate mussel relocations with VDGIF. All relocations will follow agency established protocols.</p> <p>Atlantic submitted the Virginia Fish Relocation Plan to the FWS Virginia Field Office in August 2016 and will continue to coordinate with the FWS regarding the relocation of federally listed species.</p> <p>Atlantic will submit the results to the VDGIF once the report has been finalized.</p> <p>Atlantic plans to adhere to the recommended time-of-year restriction (TOYR) protective of mussels from designated Threatened and Endangered Species Waters and their tributaries per VDGIF's June 1, 2016 letter, or work with that agency on a variance from the TOYRs, if required. Due to the potential occurrence of James spiny mussel in Back Creek and Jackson River, mussel surveys and relocations will be performed at both locations following VDGIF protocols. An instream TOYR is in place for both waters from May 15 through July 31.</p> <p>Atlantic will provide photographs of the surveyed streams, including upstream, downstream, and across bank photographs to sufficiently show the study area.</p> <p>All newly proposed areas of disturbance will be assessed for their suitability to support protected species known in the area. Additional information will be provided in Spring 2017.</p> <p>These requirements will be integrated into the Project's environmental construction and mitigation plans, along with BMPs designed to reduce and/or eliminate impediments to water flow and aquatic life that could occur as a result of culvert installations.</p> <p>Atlantic plans to adhere to the recommended TOYRs outlined in the VDGIF's June 1, 2016 letter, or work with that agency on a variance from the TOYRs, if required.</p> <p>Atlantic has developed and will adhere to an Inadvertent Release Plan and a SPCC Plan to address any inadvertent return or spill events that may potentially occur during HDD crossings and during all construction activities near waterbodies.</p> <p>Atlantic plans to adhere to the recommended TOYRs protective of mussels from designated Threatened and Endangered Species Waters and their tributaries per VDGIF's June 1, 2016 letter, or work with that agency on a variance from the TOYRs, if required.</p> <p>A total of five locations were surveyed for Roanoke Logperch in the 2015-2016 survey season (Nottoway River 1, Waqua Creek, Sturgeon Creek, Big Branch, and Spring Branch). Of the three locations where presence was not assumed, Sturgeon Creek was determined to have suitable habitat and Big Branch and Spring Branch were observed to be unsuitable. Although surveys were not required at Nottoway River 1 and Waqua Creek due to assumed presence, surveys were conducted in order to provide supplemental information. A juvenile logperch was observed at Nottoway River 1, and habitat was determined suitable at Waqua Creek. Surveys were completed at UNT Nottoway River 1 Access Road and habitat was unsuitable. UNT Nottoway River 2 survey results will be provided once survey access is provided.</p> <p>In an e-mail dated September 9, 2016, the FWS informed Atlantic that aquatics surveys were no longer required at Nottoway River 2 due to the planned HDD crossing method. The anticipated and currently preferred potential crossing methods for the five locations surveyed for Roanoke Logperch in 2015-2016 are below:</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<ul style="list-style-type: none"> <li>• Adhere to typical instream work BMPs, including adherence to erosion and sediment controls and the Fish Relocation Plan, to protect the Orangefin madtom.</li>   <li>• Coordinate with DGIF, FWS, and DCR regarding survey and protective recommendations for the Madison Cave isopod.</li>   <li>• Follow DGIF’s recommendations to protect freshwater mussels:               <ul style="list-style-type: none"> <li>○ Follow DGIF’s recommendations made in the February 7, 2017 letter to Atlantic regarding Threatened and Endangered Species Waters as well as associated freshwater mussels.</li> <li>○ Adhere to recommendations for assessments and surveys related to the presence of mussels at the crossing of the Cowpasture River, James River, Appomattox River, Nottoway River, Sturgeon Creek, Meherrin River and their perennial tributaries.</li> <li>○ Continue to coordinate with DGIF and FWS regarding the survey of the Jackson River for freshwater mussels.</li> <li>○ Adhere to previously recommended time-of-year restrictions for instream work to protect mussels known from designated Threatened and Endangered Species Waters and instream work at sites within 1 mile upstream, whether or not listed mussels were found during surveys. Update Appendix K1 to reflect the commitment from Atlantic to adhere to this time-of-year restriction.</li> <li>○ Coordinate with DGIF and FWS to determine if additional surveys need to occur prior to construction since negative surveys are only valid for two years.</li> </ul> </li>   <li>• Follow DGIF’s recommendations to protect listed salamanders:               <ul style="list-style-type: none"> <li>○ Evaluate wetlands proposed to be impacted by pipeline construction, operation, maintenance, and within the documented range of listed salamanders for habitat suitability. Protect wetlands with suitable habitat and an upland buffer of 300 meters around the wetland or pond from project impacts.</li> <li>○ Assess any wetlands located in Augusta or Nelson counties for suitable eastern tiger salamander habitat that are newly proposed for impacts or were not accessible during 2016, and survey any suitable wetlands following previously provided protocols. Survey wetlands in 2017 that were determined to provide suitable habitat in 2016 but that were not occupied.</li> <li>○ Conduct additional habitat surveys to confirm lack of presence of ambystomid salamander in wetlands and ponds.</li> <li>○ Assess any wetlands located in the City of Suffolk for suitable Mabee’s salamander habitat that are newly proposed for impacts or were not accessible during 2016, and survey any suitable wetlands following previously provided protocols.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Nottoway River 1 - cofferdam</li> <li>• Waqua Creek - 1) flume 2) dam and pump</li> <li>• Sturgeon Creek - 1) flume 2) dam and pump</li> <li>• Big Branch - 1) flume 2) dam and pump</li> <li>• Spring Branch - 1) dam and pump 2) flume</li> </ul> <p>Atlantic submitted the Virginia Fish and Aquatic Taxa Collection and Relocation Protocol for Instream Construction Activities to the FWS Virginia Field Office on April 28, 2017 and is currently waiting for concurrence. Atlantic will respond to any future comments provided by the VDGIF regarding new reported occurrences of Protected species that may be affected by ACP construction, operation, or maintenance.</p> <p>Atlantic will continue to consult with the VDGIF, FWS, and VDCR regarding Madison Cave isopod surveys and protective measures. More information on the Madison Cave isopod is provided and protective measures are outlined in the Biological Assessment submitted on January 27, 2017 (Accession Number 20170127-5202).</p> <p>Atlantic plans to adhere to the recommended TOYR schedules protective of mussels from designated Threatened and Endangered Species Waters and their tributaries per VDGIF's June 1, 2016 letter, or work with that agency on a variance from the TOYRs, if required.</p> <p>Due to the potential occurrence of James spiny mussel in Back Creek and Jackson River, mussel surveys and relocations will be performed at both locations following VDGIF protocols. An instream TOYR is in place for both waters from May 15 through July 31.</p> <p>Any new wetlands that have not been previously evaluated and those previously inaccessible will be reviewed for suitability via desktop analysis, and all suitable wetlands will be surveyed following the previously provided protocols. Wetlands surveyed for Mabee's salamanders and eastern tiger salamanders in 2016 with negative results (wsuc101e and wsuc007e) will be re-surveyed in 2017.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<ul style="list-style-type: none"> <li>• Follow DGIF’s recommendations to protect listed bats:               <ul style="list-style-type: none"> <li>○ Consider DGIF’s comments and follow its recommendations related to acoustic and mist-net surveys of federally- and state-listed bats as conveyed in DGIF’s February 7, 2017 letter to Atlantic.</li> <li>○ Avoid impacts upon all previously-known and newly documented hibernacula, roost sites, and roost trees, and adhere to federal guidelines for their protection.</li> <li>○ Coordinate with DGIF regarding any unavoidable impacts located within half a mile of such resources for state-listed bats only.</li> <li>○ Assess any new lands and habitats now within the project scope following previously used protocols.</li> <li>○ Adhere to DGIF’s Best Management Practices for Conservation of Little Brown Bats and Tri-colored Bats, and coordinate with DGIF and FWS on potential impacts.</li> </ul> </li>   <li>• Follow DGIF’s recommendations to protect listed small mammals:               <ul style="list-style-type: none"> <li>○ Consider comments and follow recommendations on completed habitat assessments and small mammal surveys provided in DGIF’s February 7, 2017 letter to Atlantic.</li> <li>○ Avoid impacts upon areas that have been identified from previous assessments and surveys as suitable habitat for listed small mammals.</li> <li>○ Continue to coordinate with DGIF regarding small mammals as surveys and assessments continue in 2017, on lands not accessible during 2016, and on lands that are newly within the project scope.</li> </ul> </li>   <li>• Follow DGIF’s recommendations to protect listed birds:               <ul style="list-style-type: none"> <li>○ Protect state-listed threatened loggerhead shrikes and adhere to time-of-year restrictions from April 1 through July 31 of any year for ground clearing and tree removal in Highland, Bath, or Augusta counties and within the Rockfish Valley Region of Nelson County.</li> <li>○ Consider and follow recommendations on surveys for loggerhead shrikes provided in DGIF’s February 7, 2017 letter to Atlantic.</li> <li>○ Update the DEIS to include information about loggerhead shrikes, DGIF’s recommendations regarding their protection, survey results, and Atlantic’s commitment to adhere to time-of-year restrictions.</li> <li>○ Assess habitat for state-listed threatened peregrine falcons along the pipeline route for nests or nesting habitat during already planned aerial surveys.</li> <li>○ Coordinate with DGIF if significant bridge or near-bridge disturbance in eastern Virginia becomes part of the project to protect nesting peregrine falcons on such structures.</li> <li>○ Continue to coordinate with FWS regarding red-cockaded woodpeckers.</li> </ul> </li> </ul>	<p>Atlantic plans to continue bat surveys in 2017 for any areas not previously accessible that require survey using the previously approved protocols, and results will be provided in summer 2017. The FWS has recommended that potential roost trees be removed outside of the summer roosting season for Indiana bats and outside the pup season for northern long-eared bats. Atlantic will begin site preparation and clearing activities in November 2017, which avoids the active summer roosting season and fall swarming periods for bats.</p> <p>Detailed discussion of conservation measures for all previously known and newly documented hibernacula for federally listed bats are included in the updated Draft Biological Assessment filed on January 27, 2017 (FERC Accession Number 20170127-5203). Atlantic has considered impacts to previously listed Species of Greatest Conservation Need (SGCN) and provided tables of SGCN and the general conservation measures to be implemented by the Project to minimize potential impacts to these species, which was filed with FERC on July 29, 2016 (FERC Accession Number 20160729-5256). Potential impacts to recently incorporated SGCN, including eastern red bats, hoary bats, and silver-haired bats, will be assessed as requested. Project bat surveys in 2015 and 2016 encountered each of these species during acoustic and/or mist netting surveys in Virginia, as reported in the 2015 and 2016 Presence/Probable Absence Survey Reports (FERC Accession Numbers 20151113-5193 and 20161017-5046).</p> <p>As requested, Atlantic will adhere to the Best Management Practices for Conservation of Little Brown Bats and Tri-Colored bats. Atlantic is not currently aware of any little brown or tri-color bat hibernacula within 0.25 mile of the Project workspace or of any roost trees in the Project area containing more than 50 individuals (per the 2016 VDGIF guidance document).</p> <p>Atlantic will continue to coordinate with VDGIF during 2017 small mammal surveys. All findings will be provided in a survey report to the VDGIF in August of 2017.</p> <p>Atlantic will adhere to TOYRs from April 1 through July 31 of any year for ground clearing and tree removal in Highland, Bath, or Augusta counties and within the Rockfish Valley Region of Nelson County.</p> <p>Aerial surveys for raptor nest were completed in February and March 2016 and the results were submitted to the VDGIF in April 2016. As described in the Migratory Bird Plan, if any active raptor nests are identified, a 100 foot buffer will be implemented until the nest is no longer active.</p> <p>Atlantic conducted pedestrian surveys to identify suitable habitat for red-cockaded woodpeckers and followed up with aerial surveys within 0.5 mile of any potentially suitable habitat. No active cavity trees were identified during surveys in Virginia. Atlantic submitted a final draft version of the Biological Assessment to the FWS on January 27, 2017 (FERC Accession Number 20170127-5203) to summarize survey efforts and findings. The findings in the applicant-prepared BA indicate that the Project may affect, but is not likely to adversely affect the red-cockaded woodpecker. Atlantic will consult with the FWS regarding this species under Section 7 of the Endangered Species Act should the Project alignment change in areas of known red-cockaded woodpecker habitat.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<ul style="list-style-type: none"> <li>• Follow DGIF’s recommendations to protect Bald and Golden eagles:               <ul style="list-style-type: none"> <li>○ Continue coordination with FWS regarding potential impacts upon bald and golden eagles under the Bald and Golden Eagle Protection Act and adhere to Virginia’s Bald eagle management guidelines.</li> </ul> </li> <li>• Follow DGIF’s recommendations to protect listed snakes and other snakes:               <ul style="list-style-type: none"> <li>○ Implement long-term vegetation management along the pipeline corridor in areas known to support canebrake rattlesnakes that is consistent with conservation measures for the species.</li> <li>○ Adhere to the Protected Snake Conservation Plan.</li> </ul> </li> <li>• Follow DGIF’s recommendations to protect trout streams:               <ul style="list-style-type: none"> <li>○ Adhere to a time-of-year restriction from October 1 through March 31 of any year in waters known to support brook trout and/or brown trout for waters identified in DGIF’s February 7, 2017 letter.</li> <li>○ Adhere to a time-of-year restriction from March 15 through May 15 of any year in waters known to support rainbow trout for waters identified in DGIF’s February 7, 2017 letter.</li> <li>○ Confirm that Atlantic will adhere to the DGIF time-of-year restrictions and update Appendix K1 to reflect this commitment.</li> <li>○ Adhere to DGIF recommendations to ensure avoidance or minimization of conflicts with the stocking and angling activities in the stocked streams identified in DGIF’s February 7, 2017 letter.</li> </ul> </li> <li>• Follow DGIF’s recommendations to protect anadromous fish use areas:               <ul style="list-style-type: none"> <li>○ Adhere to a time-of-year restriction from February 15 through June 30 of any year for instream work to protect fish migration and spawning in designated Confirmed and Potential Anadromous Fish Use Areas and their tributaries or instream work within 1 mile upstream of these areas as listed in DGIF’s February 7, 2017 letter.</li> <li>○ Clarify Atlantic’s commitment to adhere to time-of-year restrictions to protect anadromous fish use areas due to conflicting information in the DEIS and Appendix K1.</li> </ul> </li> </ul>	<p>Atlantic will continue to consult with the FWS regarding potential impacts on bald and golden eagles and has submitted applications for disturbance to three bald eagle nests that fall within the 0.5 mile recommended buffer for blasting activities.</p> <p>Atlantic submitted a Protected Snake Conservation Plan for the Project to the FERC on July 29, 2016 (FERC Accession Number 2016729- 5256). The conservation measures presented within this plan were developed using guidance provided in the VDGIF 2011 Canebrake Rattlesnake Conservation Plan, and are intended to avoid or reduce impacts on protected snakes.</p> <p>The Protected Snake Conservation Plan describes Project-specific construction conservation measures, to avoid and reduce impacts on protected snakes. During active construction from April 1 through October 31, Atlantic will provide training to contractors working within two miles of the respective range of each snake species to properly identify each, and become familiar with the conservation measures for the scarlet kingsnake, timber rattlesnake, and canebrake rattlesnake. Daily on-site construction briefings will also be provided to all contractors working within the range of the snakes. These will provide daily verbal reinforcement of mitigation measures to Project personnel.</p> <p>Atlantic plans to adhere to a TOYR of October 1 through March 31 for all waters confirmed to support brook trout and/or brown trout, and March 15 through May 15 for all waters confirmed to support rainbow trout, or work with VDGIF on a variance from the TOYRs, if required.</p> <p>Bradley Branch Road is the singular public access road to Braley Pond, and a 0.18 mile portion of this road is currently designated as Project AR 07-001-A009.AR1. In order to minimize public impacts, Atlantic will limit use of this road during construction and particularly during fishing and stocking seasons.</p> <p>The Nottoway River, Waqua Creek, Butterwood Creek, and White Oak Creek have an instream TOYR in place from March 15 through June 30 which will be adhered to for all in-stream work, including any work within 1 mile upstream of these waters and their tributaries, or Atlantic will work with the VDGIF on a variance from the TOYR, if required.</p>
<b>e) Contaminated Soil, Sediment and Groundwater</b>	
<ul style="list-style-type: none"> <li>i) Ensure that the Environmental Inspectors (EIs) complete more specific training, use proper field equipment for contamination analyses, and contact the appropriate regulating agency. Update the Contaminated Media Plan with this recommendation. See the DEQ comments in Attachment B.</li> </ul>	<p>Atlantic’s Environmental Inspectors (EIs), project supervisors, and construction supervisors will have additional training outside of the overall general project training that is more specific to multiple construction activities including but not limited to contaminated media and appropriate response.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<b>f) Recreational and Scenic Resources</b>	
<p>i) Include coordination with the DCR Division of Planning and Recreational Resources on mitigation of impacts to the Great Eastern Trail, Appalachian National Scenic Trail, James River Heritage Trail, East Coast Greenway, and the Beaches to Bluegrass trails. See the DCR comments in Attachment B for additional information.</p> <p>ii) Coordinate with local governments to explore the possibility of creating water access sites at water crossings that correspond with established water trails, and use native plants species to restore areas along the proposed route. See DCR comments in Attachment B.</p>	<p>The ACP crosses the Great Eastern Trail in the George Washington National Forest (GWNF). Atlantic is working with the United States Forest Service (USFS) on all trail crossings in the GWNF. Atlantic is also working with the National Park Service on the crossing of the Appalachian National Scenic Trail, including visual assessments at key observation points. The James River Heritage Trail appears currently to be in the planning stage. Atlantic believes the James River Heritage Trail will cross the ACP right-of-way in the James River Wildlife Management area. Atlantic will work with VDGI and VDCR on this crossing when it occurs. The ACP will cross the East Coast Greenway (ECG) in Brunswick County. The ECG currently uses US Rt. 1 in the area of the crossing. The ACP crossing of US Rt. 1 will be bored, so use of the ECG on US Rt. 1 will not be interrupted. It appears that future plans for the ECG in this area will be to use the Tobacco Heritage Trail which in this area is currently in the planning stage. Atlantic will work with VDCR when plans for the Tobacco Heritage Trail in this area are finalized. The Beaches to Bluegrass Trail also is currently in the planning stage. It appears that the ACP will cross the trail twice, once in Suffolk and a second time in Brunswick using the Tobacco Heritage Trail and crossing at the same location as the East Coast Greenway. Again Atlantic will work with VDCR on these crossings when plans for the trails are finalized.</p> <p>In most cases, the crossings of waterbodies will occur on privately held lands. Atlantic will hold an easement to construct and operate the ACP on these properties, but the primary use of the land is subject to the landowner's discretion. In addition, use of the right-of-way for water access is not compatible with the right-of-way restoration and maintenance. Therefore, Atlantic does not agree with the recommendation to seek water access at these crossings.</p>
<b>g) Water Withdrawals</b>	
<p>i) Identify steps that Atlantic and its contractors will take during the hydrostatic testing to meet the requirements to avoid an adverse effect or impairment as stated in Item 1(e) in Part 1 of these comments under recommendations for Section 5.2. See also DEQ comments in Attachment B.</p> <p>ii) Add a requirement that Atlantic or its contractors notify the DEQ Office of Water Supply (OWS) of the locations and dates of withdrawals for hydrostatic testing at least 60 days prior to the proposed withdrawals for guidance on any restrictions due to low flow or drought conditions. See DEQ comments in Attachment B.</p> <p>iii) Withdraw water for hydrostatic testing during periods of higher streamflow (as compared to the proposed August through October timeframe, which is typically the lowest flow period for all stream channels), and provide an assessment of the river flows where withdrawals are proposed that includes a discussion of how the withdrawals will affect flows, particularly during low flow or drought conditions. See DEQ comments in Attachment B.</p> <p>iv) Assess whether water withdrawals may affect downstream water users, particularly during low flow periods, including but not limited to the water users identified in DEQ's comments in Attachment B.</p> <p>v) Include an acknowledgement that if direct withdrawals from groundwater or surface water sources are needed for hydrostatic testing that exceed 10,000 gallons during any single day, Atlantic must comply with the requirements of 9 VAC 25-200 Virginia Water Withdrawal Registration and Reporting and provide a discussion of what steps Atlantic and its contractors will take during the withdrawals to ensure that these requirements are met. See the DEQ comments in Attachment B.</p> <p>vi) Ensure that all intakes are fitted with a 1 millimeter mesh screen, intake velocities do not exceed 0.25 fps, and no more than 25 percent of stream input is withdrawn to protect resident aquatic species from impingement and entrainment. Continue to coordinate with DGIF and FWS regarding proposed water use during pipeline construction to ensure avoidance or minimization of impacts upon native systems. See the DGIF comments in Attachment B.</p>	<p>Atlantic has committed to restricting rates to 25 percent of the average daily flow as measured from the nearest upstream USGS stream gage, per previous recommendations. Intake screen openings will not exceed 1 millimeter and the screen face intake velocities will not be greater than 0.25 fps.</p> <p>Atlantic will notify VDEQ OWS of withdrawal locations and dates as much in advance as is practicable. Hydrostatic testing typically does not occur until the end of the construction season once the pipeline is assembled into sections.</p> <p>Atlantic has committed to restricting rates to 25 percent of the average daily flow as measured from the nearest upstream USGS stream gage, per previous recommendations.</p> <p>Atlantic has committed to using municipal water, where available, and limit water withdrawals from waterbodies to not exceed 25 percent of the daily flow as measured from the nearest upstream gaging station. Many of the waterbodies where withdrawals are proposed are larger and are expected to accommodate the proposed usage. Atlantic does not anticipate an adverse effect to downstream water users.</p> <p>Atlantic has committed to restricting rates to 25 percent of the average daily flow as measured from the nearest upstream USGS stream gage, per previous recommendations.</p> <p>Atlantic has committed to restricting rates to 25 percent of the average daily flow as measured from the nearest upstream USGS stream gage, per previous recommendations. Intake screen openings will not exceed 1 millimeter and the screen face intake velocities will not be greater than 0.25 fps.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response																																																																																																				
<p>vii) Avoid introductions of non-native aquatic invasive species during water withdrawals and develop and use an aquatic invasive species management plan. See the DGIF comments in Attachment B.</p>	<p>Over the last three years, Atlantic has conducted consultations regarding invasive plant species with the Virginia Department of Agriculture and Consumer Services (VDACS), Virginia Division of Conservation and Recreation (VDCR), the U.S. Forest Service (USFS), and VDGIF. An Invasive Plant Species Management Plan was developed for the ACP based on recommendations from the agencies above, Commonwealth plans like the Virginia Invasive Species Management Plan (Virginia Invasive Species Working Group, 2012) and the Virginia Invasive Plant Species List (VDCR, 2014), and standards established in the FERC's Plans and Procedures.</p> <p>In the letter dated February 7, 2017, the VDGIF commented that Atlantic did not address impacts and mitigation for invasive animal species. The VDGIF specifically identified concerns related to the spread of zebra mussels (<i>Dreissena polymorpha</i>) during hydrostatic testing of the pipeline. Table 1 identifies the waterbodies proposed as sources for hydrostatic testing water. Although these waterbodies were surveyed to identify rare mussels, all mussels found during the survey were documented. No zebra mussels were identified in any of the waterbodies during the studies. A copy of the Mussel Survey Report was filed with the FERC on September 30, 2016 (Accession Number 20160930-5311).</p> <div style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>TABLE 1</b></p> <p>Hydrostatic Test Water Sources for the Atlantic Coast Pipeline in Virginia</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Pipeline/AP-Line</th> <th style="width: 15%;">Approximate Milepost</th> <th style="width: 15%;">Unique ID</th> <th style="width: 40%;">USGS Waterbody Name</th> <th style="width: 15%;">Stream Classification</th> </tr> </thead> <tbody> <tr> <td colspan="5"><b>MAINLINE PIPELINE</b></td> </tr> <tr> <td colspan="5"><b>AP-1</b></td> </tr> <tr> <td></td> <td style="text-align: center;">87.2</td> <td style="text-align: center;">shie061</td> <td style="text-align: center;">Back Creek</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">91.5</td> <td style="text-align: center;">nhd_va_j_003</td> <td style="text-align: center;">Jackson River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">97.8</td> <td style="text-align: center;">sbaa015</td> <td style="text-align: center;">Cowpasture River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">111.4</td> <td style="text-align: center;">sauy004</td> <td style="text-align: center;">Calfpasture River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">129.2</td> <td style="text-align: center;">saaa413</td> <td style="text-align: center;">Jennings Branch</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">161.8</td> <td style="text-align: center;">nhd_va_c_037</td> <td style="text-align: center;">South Fork Rockfish River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">184.7</td> <td style="text-align: center;">sbup015</td> <td style="text-align: center;">James River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">220.8</td> <td style="text-align: center;">scuk011</td> <td style="text-align: center;">Appomattox River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">260.7</td> <td style="text-align: center;">sdic007</td> <td style="text-align: center;">Nottoway River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td colspan="5"><b>LATERAL PIPELINE</b></td> </tr> <tr> <td colspan="5"><b>AP-3</b></td> </tr> <tr> <td></td> <td style="text-align: center;">32.6</td> <td style="text-align: center;">sso1015</td> <td style="text-align: center;">Nottoway River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">38.6</td> <td style="text-align: center;">ssoa010</td> <td style="text-align: center;">Blackwater River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">61.0</td> <td style="text-align: center;">osur001</td> <td style="text-align: center;">Prince Lake</td> <td style="text-align: center;">Reservoir</td> </tr> <tr> <td></td> <td style="text-align: center;">62.4</td> <td style="text-align: center;">osua400</td> <td style="text-align: center;">Western Branch Reservoir</td> <td style="text-align: center;">Reservoir</td> </tr> <tr> <td></td> <td style="text-align: center;">64.4</td> <td style="text-align: center;">nhd_va_c_048</td> <td style="text-align: center;">Nansemond River</td> <td style="text-align: center;">Perennial</td> </tr> <tr> <td></td> <td style="text-align: center;">81.8</td> <td style="text-align: center;">schp001</td> <td style="text-align: center;">South Branch Elizabeth River</td> <td style="text-align: center;">Perennial</td> </tr> </tbody> </table> </div> <p>According to the U.S. Geological Survey (USGS, 2017), the sighting of zebra mussels nearest to the ACP was one cluster identified in the Buckhannon River in Barbour County, West Virginia in 1997, over 10 miles from the Project. This area lies outside of the scope of the Project, and the species will not impose a threat to the waterbodies crossed by the proposed route.</p> <p>Once hydrostatic testing is complete, the test water will be discharged to well-vegetated upland areas or back to the same source from which it was obtained, which will eliminate the translocation of invasive aquatic species that may be present. Prior to discharging hydrostatic test water into an upland location, all applicable buffers, slope, soil permeability, and depth to bedrock will be considered to prevent hydrostatic test water from flowing back to regulated surface waters. Personnel will monitor the flow rate into a containment structure to better allow the water to absorb into the ground.</p>	Pipeline/AP-Line	Approximate Milepost	Unique ID	USGS Waterbody Name	Stream Classification	<b>MAINLINE PIPELINE</b>					<b>AP-1</b>						87.2	shie061	Back Creek	Perennial		91.5	nhd_va_j_003	Jackson River	Perennial		97.8	sbaa015	Cowpasture River	Perennial		111.4	sauy004	Calfpasture River	Perennial		129.2	saaa413	Jennings Branch	Perennial		161.8	nhd_va_c_037	South Fork Rockfish River	Perennial		184.7	sbup015	James River	Perennial		220.8	scuk011	Appomattox River	Perennial		260.7	sdic007	Nottoway River	Perennial	<b>LATERAL PIPELINE</b>					<b>AP-3</b>						32.6	sso1015	Nottoway River	Perennial		38.6	ssoa010	Blackwater River	Perennial		61.0	osur001	Prince Lake	Reservoir		62.4	osua400	Western Branch Reservoir	Reservoir		64.4	nhd_va_c_048	Nansemond River	Perennial		81.8	schp001	South Branch Elizabeth River	Perennial
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**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
	<p>According to the VDCR, additional invasive animal species of high concern in Virginia include:</p> <ul style="list-style-type: none"> <li>• Rapa whelk (<i>Rapana venosa</i>)</li> <li>• Chinese mitten crab (<i>Erlochelr sinensis</i>)</li> <li>• Emerald ash borer (<i>Agrilus planipennis</i>)</li> <li>• Northern snakehead fish (<i>Channa argus</i>)</li> <li>• Imported fire ant (<i>Solenopsis invicta</i>)</li> <li>• Rusty crayfish (<i>Orconectes rusticus</i>)</li> <li>• Sirex woodwasp (<i>Sirex noctillo</i>)</li> </ul> <p>The rapa whelk inhabits marine environments, and has been found in the Chesapeake Bay area of Virginia (USDA, 2016). The proposed route will not cross the Chesapeake Bay, and therefore will not likely encounter this invasive species. Similarly, the Chinese mitten crab inhabits coastal estuaries and has been found along the Chesapeake Bay. The proposed route terminates in Chesapeake, Virginia, but crosses few tidal wetlands. The emerald ash borer is a beetle that inhabits forested areas and feeds on ash (<i>Fraxinus</i>) foliage and bark. The only confirmed populations within Virginia are in Fairfax County (Emerald Ash Borer Information Network, 2017). The proposed route is over 100 miles from this county, and therefore will not likely encounter this invasive species. The only confirmed populations of the Northern snakehead fish in Virginia are within the tributaries to the Potomac and Rappahannock Rivers (VDCR, 2014). The proposed route is over 50 miles from these two rivers, and will not likely encounter the invasive species. According to the Purdue University Pest Tracker, the imported fire ant has not been found to date in Virginia (CERIS, 2016). The U.S. Geological Survey has confirmed no observations of the rusty crayfish in Virginia to date (USGS, 2017). Although the sirex woodwasp inhabits pine species, the USDA has not listed any positive sirex woodwasp counties and/or independent cities within Virginia (USDA, 2011). To remedy the spread of invasive species, the Monongahela and George Washington National Forests have requested that wash stations be located at the entrances and exits of both forests. Several of these wash stations will be located near the border of West Virginia and Virginia, which will avoid spread of the invasive species from West Virginia to Virginia.</p> <p>REFERENCES</p> <p>Center for Environmental and Research Information Systems (CERIS). 2016. Purdue University. Survey Status of Red imported fire ant - <i>Solenopsis invicta</i>. Accessed February 2017. Available at: <a href="http://pest.ceris.purdue.edu/map.php?code=ISASAZA">http://pest.ceris.purdue.edu/map.php?code=ISASAZA</a>.</p> <p>Emerald Ash Borer Information Network. 2017. Virginia Information. Accessed February 2017. Available at: <a href="http://emeraldashborer.info/state/virginia.php">http://emeraldashborer.info/state/virginia.php</a>.</p> <p>U.S. Department of Agriculture. 2011. 2011 Sirex noctilio Positive Counties. Accessed February 2017. Available at: <a href="http://www.nyis.info/user_uploads/files/ER_SirexPosCounties_2011.pdf">http://www.nyis.info/user_uploads/files/ER_SirexPosCounties_2011.pdf</a>.</p> <p>U.S. Department of Agriculture. 2016. Rapa whelk. Accessed February 2017. Available at: <a href="https://www.invasivespeciesinfo.gov/aquatics/rapawhelk.shtml">https://www.invasivespeciesinfo.gov/aquatics/rapawhelk.shtml</a>.</p> <p>U.S. Department of Agriculture. 2017. Chinese Mitten Crab. Accessed February 2017. Available at: <a href="https://www.invasivespeciesinfo.gov/aquatics/mittencrab.shtml">https://www.invasivespeciesinfo.gov/aquatics/mittencrab.shtml</a>.</p> <p>U.S. Geological Survey. 2017. <i>Orconectes rusticus</i>. Accessed February 2017. Available at: <a href="https://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=214">https://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=214</a>.</p> <p>Virginia Department of Conservation and Recreation. 2014. Virginia Invasive Plant Species List. Accessed January 2015. Available at: <a href="http://www.dcr.virginia.gov/natural-heritage/document/nh-invasive-plant-list-2014.pdf">http://www.dcr.virginia.gov/natural-heritage/document/nh-invasive-plant-list-2014.pdf</a>.</p> <p>Virginia Department of Game and Inland Fisheries. 2014. Northern Snakehead. Accessed February 2017. Available at: <a href="https://www.dgif.virginia.gov/fishing/snakehead/">https://www.dgif.virginia.gov/fishing/snakehead/</a>.</p> <p>Virginia Invasive Species Working Group. 2012. Twelve Invasive Species of High Concern in Virginia. Accessed January 2015. Available at: <a href="http://www.dcr.virginia.gov/natural-heritage/vaisc/documents/VISWG-Invasives-Brochure.pdf">http://www.dcr.virginia.gov/natural-heritage/vaisc/documents/VISWG-Invasives-Brochure.pdf</a>.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
viii) Coordinate with facilities that have existing groundwater withdrawals regarding construction, pipeline-related water withdrawals, and other activities that may affect them. See a map in the DEQ comments in Attachment B.	Atlantic has committed to using only municipal and surface water for testing the pipelines. No groundwater wells will be installed for use during construction or operation of the Project.
<b>h) Geologic and Mineral Resources and Mines</b>	
i) Consider comments and follow recommendations from the DMME regarding analysis on bedrock and surficial geology. See the DMME comments in Attachment B.	Refer to the Geohazard Analysis Report submitted to the FERC on August 2, 2016 (FERC Accession Number 20160802-5107) for a comprehensive list of the data sources used. Atlantic referenced 1:24,000 scale mapping as well as Project LiDAR data and aerial and satellite imagery.
ii) Update mineral resources to include sand and gravel sites, abandoned non-fuel mineral resource sites, abandoned mine sites, and abandoned fuel mineral resources. See the DMME comments in Attachment B.	Based on a review of data from the U.S. Geological Survey, West Virginia Department of Environmental Protection, Virginia Department of Mines, Minerals, and Energy, and North Carolina Department of Environmental Quality, 5 active and 47 inactive or abandoned mining operations were identified within 0.25 mile of the proposed centerline. These sites are identified in Table 2.h.ii, which is attached below.
iii) Evaluate the potential of subsidence of all mineral resource sites, including but not limited to mining pits and shafts. See the DMME comments in Attachment B.	Atlantic evaluated the potential for ground settlement and subsidence from subsurface mines. The results are summarized in the Geohazard Analysis Report.
<b>i) Acid-Producing Rock and Soils</b>	
i) Evaluate the significant potential for encountering acid producing minerals such as pyrite in the Andersonville Mining District in Buckingham County. See the DMME comments in Attachment B.	<p>The Andersonville Mining District is an area of sulfide deposits (zinc, copper, gold and lead mineralization) in metavolcanic rocks including the Chopawamsic Formation and quartzite and schist of the Arvonnia Formation near Andersonville, Virginia (VDMR 1980). This area has been drilled and mined since the 1800s. The rock units trend northeast to southwest and are limited to an area between milepost 200.8 and 210.3 of the AP-1 mainline.</p> <p>Based on a review of the Virginia Department of Mines, Minerals and Energy (DMME)'s Mineral Mine Database, no active, released, or orphaned mines within the Andersonville area were identified within 0.25 mile of the ACP pipeline. The closest mines are:</p> <ul style="list-style-type: none"> <li>• DMM04933 – 0.45 mile northeast of milepost 204.8 of the AP-1 mainline;</li> <li>• DMM04934 – 0.65 mile northeast of milepost 204.8 of the AP-1 mainline; and</li> <li>• DMM04952 – 1.0 mile southwest of milepost 206.5 of the AP-1 mainline.</li> </ul> <p>Atlantic will continue coordinating with the coal owners/operators to minimize and/or avoid sterilization of coal reserves. In addition, if acid-producing materials are encountered within the construction workspace, Atlantic will implement the measures outlined in section 6.6.8 of Resource Report 6.</p> <p>REFERENCE Virginia Division of Mineral Resources (VDMR). 1980. Geology of the Andersonville Quadrangle, Virginia. Publication 26. Available online at <a href="https://www.dmme.virginia.gov/commercedocs/PUB_26.pdf">https://www.dmme.virginia.gov/commercedocs/PUB_26.pdf</a>. Accessed April 2017.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<p><b>j) Pollution Prevention</b></p> <p>i) Include additional information on reuse, recycling, and pollution prevention as identified below by the DEQ Office of Pollution Prevention (see comments in Attachment B).</p> <ul style="list-style-type: none"> <li>• Consider the development of an effective Environmental Management System (EMS). An effective EMS will ensure that Atlantic is committed to complying with environmental regulations, reducing risk, minimizing environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program (VEEP). VEEP provides recognition, annual permit fee discounts, and the possibility for alternative compliance methods.</li> </ul> <ul style="list-style-type: none"> <li>• Consider reuse and recycling opportunities when evaluating waste handling, including asphalt recycling, mulching of brush and timber, and water reuse opportunities.</li> <li>• Consider the contractors' commitment to the environment when choosing contractors. Specifications regarding raw materials and construction practices should be included in contract documents and requests for proposals.</li> <li>• Choose sustainable materials and practices for construction and design, including the use of native species and pollinators when re-establishing vegetation.</li> <li>• Integrate pollution prevention techniques into maintenance and operation.</li> </ul> <ul style="list-style-type: none"> <li>• Encourage supply chain partners to implement pollution prevention, sustainability, and environmental management systems.</li> <li>• Coordinate with the DEQ Office of Pollution Prevention for additional information and technical assistance relating to pollution prevention techniques and EMS.</li> </ul>	<p>Atlantic has designed and located the pipeline to avoid and minimize environmental impacts to the greatest extent possible along its entire length. Additionally, Atlantic will employ a number of environmental protection processes to ensure compliance with all permits and related regulatory requirements during construction and operation of the ACP project.</p> <p>An Environmental Compliance Plan will be prepared and followed during construction and restoration to ensure compliance. Compliance will be monitored and tracked on a continuous basis by the Environmental Compliance Coordinators (ECC), EI, and other subject matter experts assigned to the project. Periodic environmental self-assessments will be conducted during construction and restoration as well to check and validate compliance.</p> <p>Atlantic will utilize a detailed tracking system designed specifically for the project which captures all permit requirements, training, mitigation measures, and other environmentally-related commitments for the ACP. The tracking system will allow the environmental and construction teams to identify and manage all commitments in a timely manner prior to, during, and after construction. The system will link location-specific commitments, such as unique protective measures for a waterbody, to the appropriate construction alignment sheets and will provide a direct link to permits and other source documents. The system will allow environmental and construction teams to plan and track the status of all environmental commitments to ensure that the construction and restoration activities are in compliance.</p> <p>A permit validation process and permit rollout process will be utilized to ensure that all environmental permits and permit requirements accurately reflect construction activities are captured in training and in the Compliance Plan.</p> <p>A Waste Disposal Management System (WDMS) electronic database will be utilized for tracking and documentation of waste management and disposal activities.</p> <p>Additionally, numerous environmental and natural resource protection Plans have been developed and filed with FERC and will be implemented to ensure compliance with FERC and Commonwealth regulatory requirements and permits.</p> <p>Atlantic will evaluate reuse and recycling opportunities during construction and operation of the Project and implement practices where practicable.</p> <p>When Atlantic evaluates contractors, their history with environmental stewardship and compliance is considered and included in selection criteria.</p> <p>Atlantic is including the use of native species and pollinators in its restoration plans for construction and design.</p> <p>Atlantic will implement pollution prevention measures outlined in the FERC Procedures and its Project-specific plans. For example, Atlantic will implement measures outlined in its SPCC Plan to avoid or minimize impacts from hazardous waste spills.</p> <p>When Atlantic evaluates contractors, their history with environmental stewardship and compliance is considered and included in selection criteria.</p> <p>Atlantic will coordinate with DEQ's Office of Pollution Prevention for any specific technical assistance needs that arise.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<b>k) Aviation</b>	
i) Coordinate with any private airfield land owner that may be impacted by the proposed project route. See the Virginia Department of Aviation (DOAV) comments in Attachment B for additional information.	Atlantic is coordinating with and obtaining easements from all directly affected landowners, including private airfield owners.
<b>l) Water Supplies and Drinking Water Sources</b>	
i) Follow recommendations from the Virginia Department of Health (VDH) to protect drinking water sources (groundwater wells, springs, and surface water intakes), conduct a survey of onsite sewage systems and private wells in relation to the pipeline route to determine potential impacts, and coordinate with the VDH Office of Environmental Health Services. See the VDH comments in Attachment B.	During the routing process ACP worked with landowners to avoid any sewage systems.
ii) Follow DEQ's recommendations for the water well and spring testing program that include but are not limited to notification of DEQ when a groundwater impact has been reported or suspected and submittal to DEQ of a final georeferenced compilation of well and spring sampling results. See the DEQ comments in Attachment B for additional recommendations.	Landowners have been provided test results when requested.
iii) Conduct a detailed analysis of potential impacts to Gardner Spring and its recharge area, develop a mitigation plan, and report on the findings. Consider comments from the City of Staunton in Attachment B when developing the mitigation plan.	Atlantic has conducted a review of Gardner Spring and its recharge area. Protection of Gardner Spring and the recharge area is addressed by the Karst Mitigation Plan which provides for the protection of these resources, as well as any other water supply resource in the project area. A detailed analysis is not necessary as the Karst Mitigation Plan is developed to prevent contamination from entering the groundwater aquifer.
iv) Consider DEQ's recommendations in Attachment B as they relate to the use of water supply wells as a depth to water reference in the coastal plain.	Atlantic will consider the VDEQ's comments regarding water supply well information and consult with VDEQ regarding any additional measures.
<b>m) Shapefiles</b>	
i) Provide shapefiles to the DCR Division of Natural Heritage and DGIF as changes occur to the project footprint, including but not limited to, the right-of-way, access roads, and associated infrastructure (including proposed cellular towers). See DCR and DGIF comments in Attachment B.	Atlantic will provide updated Project footprint shapefiles as changes occur.
ii) Submit a shapefile of the Wavyleaf grass location and additional details regarding the population. See DCR comments in Attachment B.	The population of plants originally identified as wavyleaf basketgrass was misidentified. The plants are actually small carpetgrass ( <i>Arthraxon hispidus</i> ), which appears similar to wavyleaf basketgrass. This finding was confirmed by Atlantic's rare plant botanist and a confirmation of this finding was provided in a phone call to Chris Ludwig of the VDCR on August 24, 2016. The agency correspondence was submitted to the FERC on September 1, 2016 (FERC Accession Number 20160901-5260).
<b>n) Waste Database Search</b>	
i) Evaluate the identified waste sites in the DEQ comments in Attachment B that may impact project activity.	Atlantic has evaluated the waste sites included in Attachment B of the VDEQ comments. A review of the sites has been completed and responses by facility site type are provided in the sections below.  <u>RCRA Corrective Action Facilities</u> Atlantic utilized the EPA's Facility Registry System map service (EPA, 2014), as referenced in the ACP DEIS, and The Royster Co. Resource Conservation and Recovery Act (RCRA) Corrective Action Site (VAD003178126) was not included within the EPA map service. Based on further review, and according to the Environmental Protection Agency (EPA) "Cleanups in My Community" database, The Royster Co. site is located approximately 0.5 mile north of the Project centerline. Cleanup activities were completed in 2008 and human exposure and contaminated groundwater migration are reported as being under control. No violations of the RCRA statute or uncontrolled releases to the environment have been reported within the last five years. The site appears to be located hydraulically down-gradient of the Project centerline. Due to the distance from the Project centerline and hydraulic gradient direction, contamination from the site is unlikely to impact soil and/or groundwater in the Project area.  <u>CERCLA Sites</u> The Eppinger & Russel Co. Inc. Site (VAD002352151) and Money Point Creosote Site (VAN000306937) were

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
	<p>previously identified and evaluated within section 4.3.1 of the DEIS.</p> <p><u>Hazardous Waste</u> Possession of a RCRA permit to generate hazardous waste is not documentation of an uncontrolled release to the environment. If a release to the environment was associated with any of these sites, they would typically be identified within one of the other databases reviewed. Therefore, the Small Quantity Generators (SQGs) and Large Quantity Generators (LQGs) listed in the data request were not included in the DEIS and are not expected to require further review.</p> <p><u>Formerly Used Defense Sites (FUDS)</u> Formerly Used Defense Sites (FUDS) were not included in the analysis for the DEIS, as these records were not available in the EPA's Facility Registry System map service (EPA, 2014) utilized during this evaluation. However, the listed FUDS have subsequently been evaluated for their potential impact on the Project area, as described below:</p> <ul style="list-style-type: none"> <li>o St. Julien's Creek Annex (VA 23323) is cross-listed as a Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLA)/Superfund Site (EPA ID: VA5170000181) and is included on the National Priority List (NPL). According to spatial point data contained in the CERCLIS database, the site is located more than 1 mile from the Project centerline. For this reason, the site was not included in the analysis for the DEIS. Based on a review of topographic maps, the property boundary appears to be located approximately 0.6 mile north of the Project area. According to EPA files, human exposure and contaminated groundwater are reported as being under control and the site is ready for anticipated use. The EPA and the U.S. Navy are currently considering various alternatives for the site. The site appears to be located hydraulically down-gradient from the Project area and is hydraulically separated from the Project area by St. Julian's Creek. Due to the distance, hydraulic separation and hydraulic gradient direction from the Project area, the site is unlikely to impact soil and/or groundwater in the Project area.</li> <li>o Fort Pickett (VA 23824) is not cross-listed as a CERCLA site or on any other publicly available database that Atlantic reviewed as part of the analysis for the DEIS. According to VDEQ records, the site is included on the FUDS list due to the storage of containerized hazardous, toxic, and/or radioactive waste. Due to the lack of documented soil, groundwater, and/or off-site contamination, the site is unlikely to impact soil and/or groundwater in the Project area.</li> </ul> <p><u>Solid Waste</u> The VDEQ Solid Waste Permittees (SWP) listed were identified and evaluated within section 4.3.1 of the DEIS. However, the Permit by Rule (PBR) facilities, which consisted of three Materials Recovery Facilities (PBR596, 619, and 554) and one RCRA LQG (PBR 078), were not included in the analysis for the DEIS, as PBR facilities are not necessarily associated with uncontrolled releases to the environment and these records were not available in the VDEQ's Virginia Environmental Geographic Information Service (VEGIS) map service (VDEQ, 2014b) that was referenced during the environmental review. For reasons to those for the Hazardous Waste sites described above, it is unlikely that these sites impact soil and/or groundwater in the Project area.</p> <p><u>Voluntary Remediation Program (VRP)</u> The Norfolk Steel VRP Site (VRP00186) and Steuart Investment Company/Borden Smith Douglas VRP Site (VRP00386) are both cross-listed as CERCLA sites and were evaluated in section 4.3.1 of the DEIS.</p> <p>VRP00278 and IndustryVRP00470 were not evaluated in the DEIS, as these records were not available in the VEGIS map service that was referenced during this evaluation; however, these sites have subsequently been evaluated for their potential impact on the Project area, as described below:</p> <ul style="list-style-type: none"> <li>o Based upon a review of topographic maps, VRP00278, GE Tidewater Service Center, is located approximately</li> </ul>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
	<p>75 feet south of the Project centerline and estimated to be located hydraulically down-gradient from the Project area. According to VDEQ records, the site was enrolled in the VRP in 2001 and is currently listed as an active VRP site. In 2015, soils contaminated with petroleum and solvent were removed from the site and groundwater monitoring was initiated. The VDEQ is currently awaiting submittal of a Site Characterization and Risk Assessment Report from the property owner. Based on correspondence with the VDEQ, the agency is not aware of any institutional controls or land use restrictions currently in place for the site.</p> <ul style="list-style-type: none"> <li>o Based upon a review of topographic maps, IndustryVRP00470, Chesapeake Propane Two-Acre Site, is located approximately 500 feet north of the Project centerline and is estimated to be located hydraulically down-gradient from the Project area. The site was enrolled in the VRP in 2007 and is currently listed as an active VRP site in VDEQ files. According to VDEQ records, no activity has been documented at the site since August of 2009 and the VDEQ has been awaiting submittal of a Risk Assessment Report from the property owner since 2014. No additional information is readily available in VDEQ files. Due to the distance from the Project and hydraulic gradient direction, the site is unlikely to impact soil and/or groundwater in the Project area.</li> </ul> <p><b>Petroleum Releases</b> Petroleum releases located within 1,000 feet of the Project facilities were identified and evaluated in the Section 4.3.1 of the DEIS for potential impacts to soil and/or groundwater in the Project area. Petroleum releases located more than 1,000 feet outside of the Project corridor were not included in the analysis for the DEIS. Based on the distance from the Project, sites located over 1000 feet from the Project are considered unlikely to impact the soil and/or groundwater in the Project area. However, if evidence of petroleum-impacted soil and/or groundwater is encountered during Project activities, Atlantic will implement the Contaminated Media Plan accordingly.</p> <p><b>REFERENCES</b> U.S. Environmental Protection Agency, Office of Environmental Information Facility Registry System. 2014. FRS Interests Map Service. Available at: <a href="http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer">http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer</a>. Accessed November 2014.</p> <p>Virginia Department of Environmental Quality. 2014b. Virginia Environmental GIS. Available online at: <a href="http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS/VEGISDatasets.aspx">http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS/VEGISDatasets.aspx</a>. Accessed November 2014.</p>
<b>o) Plant and Wildlife Surveys and Special Status and State-Sensitive Resources</b>	
<ul style="list-style-type: none"> <li>i) Coordinate with DCR regarding state-sensitive species and submit survey results to DCR for review. See the DCR comments in Attachment B.</li> <li>ii) Avoid and reduce impacts to rare, threatened, and endangered species from water withdrawals and discharge locations through identification of alternatives and implementation of conservation measures. See the DCR comments in Attachment B.</li> <li>iii) Complete all required and recommended plant and wildlife surveys and biological assessments prior to construction and provide DCR with copies of all surveys that DCR requested in Attachment B.</li> </ul>	<p>Atlantic has coordinated with the VDCR and other state agencies regarding state-sensitive species, and survey recommendations and conservation measures have been incorporated as appropriate. All survey reports and results from the 2015 and 2016 field season have been provided to the VDCR. Atlantic will continue to provide the results of any additional surveys as they are conducted.</p> <p>Atlantic has adopted the published VDGIF recommended TOYRs for water withdrawals, as applicable, depending on species survey results or the classification of the waterbody. Water for hydrostatic testing will be withdrawn and discharged in accordance with federal and Commonwealth regulations and required permits. Atlantic and DTI are implementing measures to minimize impacts from water withdrawals on federally listed species. These measures include: using one and a half-inch or smaller screening to minimize impingement/entrainment on mussel host fish species; limiting water withdrawals to not exceed 25 percent of the waterbody discharge (as measured at the nearest upstream USGS gauging station); using floating intake structures to avoid impacts on the stream bed; and implementing TOYRs, or work with that agency on a variance from the TOYRs, if required. Once hydrostatic testing is complete, the test water will be discharged to well-vegetated upland areas.</p> <p>Atlantic has continued to complete species surveys in the 2017 field season and will continue to provide survey results to the VDCR as they are available.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<p>iv) Reduce the temporary construction right-of-way to 75 feet and the permanent right-of-way to 50 feet in known maternity or roost sites as indicated in the Virginia Bat Survey. See DCR comments in Attachment B.</p> <p>v) Follow DCR's recommendations regarding Table S-2 of the Virginia List and Species of Greatest Conservation Need with Potential to Occur in the Atlantic Coast Pipeline Project area and respond to requests for additional clarification. See the DCR comments in Attachment B.</p> <p>vi) Consider DCR's suggestions regarding the classification of vegetation communities in Appendix Q. See the DCR comments in Attachment B.</p> <p>vii) Incorporate edits to wildlife survey reports and conduct new surveys as suggested by DCR in its comments in Attachment B.</p>	<p>A temporary construction right-of-way nominal width of 125 feet is necessary to construct the pipeline; provide a travel lane for the equipment; store the graded and excavated material; and install the erosion control devices. Atlantic will maintain 50 feet of permanent right-of-way.</p> <p>Atlantic will review the VDCR's recommendations regarding the Virginia List and Species of Greatest Conservation Need with Potential to Occur in the Project area and will submit an updated analysis in June 2017.</p> <p>Atlantic will review and classify the National Land Cover Database communities using The Natural Communities of Virginia Classification of Ecological Community Groups document and submit this table to the VDCR and FERC in May 2017.</p> <p>Atlantic will incorporate any necessary edits into the 2017 survey reports and will provide these reports to the VDCR upon completion.</p>
<b>p) Transportation System</b>	
<p>i) Document the existing conditions of affected roadways, pavement conditions, and drainage structures in Virginia and provide the documentation to the Virginia Department of Transportation (VDOT). See VDOT comments in Attachment B.</p>	<p>Atlantic will develop a transportation plan that identifies the roadways that will be used during construction, and document by videotape the existing conditions of the roads that are identified in the transportation plan (except for the conditions of interstates and four lane highways). Atlantic will provide Virginia Department of Transportation (VDOT) a copy of the videotape that shows the existing conditions of the roads that have been documented.</p>
<b>3) Mitigation Measures for Construction and Maintenance Activities</b>	
<b>a) Wetlands and Surface Waters</b>	
<p>i) Include temporary wetland impact soil handling requirements as detailed in the DEQ comments in Attachment B. During trench excavation in all wetlands, both saturated or unsaturated, segregate the upper 12 inches of the soil profile as "wetland topsoil" from the underlying subsoil, store the wetland topsoil in a soil stockpile separate from other soil materials, and upon closing the trench, use the wetland topsoil to fill the upper 12-inches of the trench to reconstruct the wetland soil profile. Restore temporarily disturbed wetland areas to pre-existing conditions within 30 days of completing work at each respective temporary impact area, including reestablishing preconstruction elevations and contours with topsoil from the impact area and planting or seeding with appropriate wetland vegetation according to pre-disturbance cover type until the disturbed sites are permanently stabilized.</p> <p>ii) Apply precautions identified in Chapter 9 of the Draft Construction, Operations and Maintenance Plan to protect sediment TMDL watersheds, public water supply waters, Class V and VI waters, sensitive fisheries, Threatened and Endangered Species Waters, critical habitat, and waters with benthic impairments both on and off U.S. Forest Service lands. See specific proposed precautions listed in the DEQ comments in Attachment B.</p> <p>iii) Include final wetland mitigation plans for all proposed temporary and permanent tidal wetland impacts in the final EIS for consideration by the Virginia Marine Resources Commission (VMRC). See the VMRC comments in Attachment B.</p> <p>iv) Implement measures identified in the Invasive Plant Species Management Plan to minimize the potential introduction of the invasive comment reed, <i>Phragmites australis</i>, for all wetland crossing sites except for site wChr002. See the VMRC comments in Attachment B.</p>	<p>Atlantic will adhere to the recommended FERC Wetland and Waterbody Construction and Mitigation guidelines for constructing in wetlands.</p> <p>In consultation with FWS and various Commonwealth agencies, Atlantic has agreed to implement specific best management practices to address specific resource concerns including enhanced erosion control devices. It is also important to note that Atlantic has worked to accommodate landowner preferences into the Project design. USFS has required specific conservation measures as a landowner rather than as a regulatory agency.</p> <p>Atlantic has provided impact assessments for temporary and permanent tidal wetland impacts and will update these impact assessments as necessary in support of the final Virginia Joint Permit Application (JPA) submittal. Atlantic is working to develop a final mitigation plan for submittal in support of the JPA that will be in compliance with Virginia Marine Resources Commission (VMRC), VDEQ, and U.S. Army Corps of Engineers compensatory wetland mitigation requirements.</p> <p>Atlantic will consult with the VMRC on recommendations to deter the introduction and/or spread of <i>Phragmites australis</i>.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<b>b) Hydrostatic Testing</b>	
i) Implement BMPs to ensure that hydrostatic tests do not impact natural heritage resources. See DCR comments in Attachment B.	Atlantic will utilize agreed-upon conservation measures (i.e., 1 mm screen, 0.25 feet/second flow rate, 25 percent maximum withdrawal, and TOYRs) during water withdrawal for hydrostatic testing, and will implement best management practices during discharge of water after hydrostatic testing (e.g., discharge to uplands, utilization of energy dissipation devices and straw bale structures, other erosion and sediment control devices).
<b>c) Stream Crossings</b>	
<p>i) Incorporate the following VMRC recommendations, which are standard instream permit conditions, for jurisdictional stream crossings as set forth in the VMRC comments in Attachment B:</p> <ul style="list-style-type: none"> <li>• A "frac-out" contingency plan must be provided for any crossings utilizing the directional drill method to address potential frac-outs or related spills associated with any directional drilling activities. In an effort to minimize adverse impacts to threatened and endangered fish and mussel species, instream surveys and species relocations may be required.</li> <li>• No instream construction shall be conducted during any recommended time-of-year restrictions of any year unless waived by DGIF in writing.</li> <li>• The instream construction activities shall be accomplished during low flow periods utilizing dam and pump, flume around, or within cofferdams constructed of nonerodible materials in such a manner that no more than half the width of the waterway is obstructed at any point in time. All areas of state-owned bottom and adjacent lands disturbed by this activity shall be restored to their original contours and natural conditions within thirty (30) days from the date of completion of the authorized work. All excess materials shall be removed to an upland site and contained in such a manner to prevent its reentry into state waters.</li> <li>• Erosion and sediment control measures shall be in conformance with the 1992 Third Edition of the Virginia Erosion and Sediment Control Handbook and shall be employed throughout construction.</li> <li>• If it is determined that blasting is necessary at any of the crossings, DGIF shall be notified a minimum of 48 hours in advance of the blasting.</li> <li>• DCR shall be contacted for any stream crossings where karst landscape features are encountered during installation.</li> <li>• DGIF shall be contacted for any work in trout waters to avoid conflicts with trout stocking activities.</li> </ul> <p>ii) Include a table citing DGIF's recommendations at each VMRC non-tidal jurisdictional stream crossing and a statement from Atlantic that the applicant intends to follow the recommendations. See the VMRC comments in Attachment B.</p> <p>iii) Follow recommendations from DEQ provided in Attachment B for specific milepost crossings of the Jackson River, Calfpasture River, South River, James River, Appomattox River, Flat Creek, Nottoway River and tributaries, Meherrin River, Blackwater River, Western Branch Nansemond River, Nansemond River and Southern Branch Elizabeth River.</p>	<p>Atlantic has developed and will adhere to an Inadvertent Release Plan to address any inadvertent returns that could potentially occur during HDD crossings.</p> <p>Atlantic will not conduct construction activities during any recommended TOYRs of any year unless waived by DGIF in writing.</p> <p>Atlantic proposes to follow the recommended FERC Wetland and Waterbody Construction and Mitigation guidelines for constructing in streams.</p> <p>Erosion and sediment control measures are being developed in accordance with the 1992 Third Edition of the Virginia Erosion and Sediment Control Handbook and DTI Standards and Specifications.</p> <p>If it is determined that blasting is necessary at any of the crossings, VDGIF shall be notified a minimum of 48 hours in advance of the blasting.</p> <p>Atlantic has committed to notify the VDCR and FERC when an unknown karst feature (e.g. void) is encountered during construction.</p> <p>If Atlantic seeks waivers to TOYRs associated with trout waters, VDGIF would be contacted to avoid conflicts with trout stocking activities.</p> <p>Table 3.c.ii, which is attached below, identifies a list of VMRC non-tidal jurisdictional streams crossed by the ACP and the recommended mitigation measures that will be implemented at each waterbody. The final permit application and review by VMRC will determine the non-tidal streams that will require approvals for subaqueous lands crossing, and therefore the list provided is subject to change based on the final permit application submittal and review.</p> <p><u>AP-1 Mainline:</u></p> <ul style="list-style-type: none"> <li>• Jackson River - Atlantic will adhere to all TOYRs. Atlantic will also construct in low flow conditions to the maximum extent possible.</li> <li>• Calfpasture River - Atlantic will construct in low flow conditions to the maximum extent possible.</li> <li>• South River - Several route variations were considered on this river crossing. Atlantic decided on this particular crossing with the input from the property owner to the north. The proposed route has a good perpendicular crossing of the river and takes into consideration other sensitive resources on the north side of this river.</li> </ul>



**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<p>iv) Take all efforts to minimally contact the benthos (railcar flatbeds, bottomless culverts, etc.), place spoil a minimum of 10 feet away from the water’s edge or in areas with sediment barriers, and locate additional temporary workspace at least 100 feet away from the water’s edge in sediment TMDL watersheds, public water supply waters, Class V and VI waters, sensitive fisheries, threatened and endangered species waters, critical habitat, and waters with benthic impairments. See the DEQ comments in Attachment B for additional details.</p> <p>v) Nighttime work on stream crossings should be minimized so that proper inspection, spills, and water quality issues can be resolved promptly. See the DEQ comments in Attachment B.</p>	<ul style="list-style-type: none"> <li>• James River - Several crossings of this river has been reviewed. Based on several other competing constraints Atlantic feels this is best location to cross this river. Shifting the workspace to the east would require quite a bit more grading because of the placement of the workspace (a drill pad) on the side of a steep hill. Moving the workspace south would have adverse effects on an existing wetland mitigation bank. Moving the workspace north would affect more landowners and would not provide sufficient area for lay down/ pullback on the west side of the river.</li> <li>• Flat Creek - The proposed route would need to be shifted approximately 400 feet north to avoid the mentioned feature and a unnamed tributary to Flat Creek that runs parallel to the currently proposed route. This would result in similar impacts to the proposed crossing and affect new landowners that are currently not crossed by the Project.</li> <li>• Appomattox - slightly more than 50 percent of the waterbody will have to be blocked in order to allow the space to make the tie-in in the middle of the river. Only blocking 50 percent or less does not allow enough exposed pipe to connect the two halves of the pipe at the crossing. Therefore, Atlantic will commit to reducing the waterbody blockage to the maximum extent practicable.</li> <li>• Nottoway Rivers - see comment above regarding the need to block more than 50 percent of the waterbody.</li> </ul> <p><u>AP-3 Lateral:</u></p> <ul style="list-style-type: none"> <li>• Meherrin River - see comment above regarding the need to block more than 50 percent of the waterbody.</li> <li>• Nottoway River and its tributaries - Atlantic will adhere to all TOYRs.</li> <li>• Blackwater and its tributaries - Atlantic will adhere to all TOYRs.</li> <li>• Western Branch Reservoir - Atlantic will adhere to all TOYRs.</li> <li>• Nansemond River - Atlantic will adhere to all TOYRs.</li> <li>• South Branch Elizabeth River - Atlantic will adhere to all TOYRs.</li> </ul> <p>Atlantic will install span bridges where possible to minimize contact with the benthos and will place spoil a minimum of 10 feet away from the water’s edge. Locating ATWS 100 feet from waterbodies, as opposed to the 50 foot setback required by the FERC Procedures, would increase the vehicle traffic and equipment needed to relay spoil an additional 50 feet from the waterbody, increase the duration of the crossing, and increase the chances of a rain event and erosion occurring during the crossing. Consequently, Atlantic believes that locating ATWS 100 feet from waterbodies would result in overall greater environmental impact.</p> <p>Atlantic will minimize nighttime work to the maximum extent practicable. Work at night is anticipated only when a critical tie-in or stream timing window is in jeopardy.</p>
<p><b>d) Forest Resources</b></p> <p>i) Incorporate the following recommendations to mitigate the impacts of forest fragmentation on biodiversity provided in the DOF comments in Attachment B:</p> <ul style="list-style-type: none"> <li>• Keep right-of-way clearing to the minimum width necessary to prevent interference from trees and other vegetation.</li> <li>• Establish herbaceous species and shrubs or some low-growing trees that are considered desirable ground cover and valuable wildlife habitat along the right-of-way in the project’s vegetation management and revegetation plan.</li> <li>• Maintain a scrub habitat, dominated by low growing, bushy vegetation and young trees, which is preferable to mowing in forest habitats. It can provide quality habitat for wildlife species that are dependent on early successional habitat (birds, reptiles, and amphibians).</li> </ul>	<p>Atlantic will keep right-of-way clearing to the minimum width necessary to prevent interference from trees and other vegetation.</p> <p>Atlantic has worked with various agencies to develop a restoration and rehabilitation plan. In addition, the right-of-way will be maintained every three years, which would result in recruitment of herbaceous and shrub species valuable to wildlife.</p> <p>Atlantic would maintain the right-of-way in accordance with FERC Plans and Procedures to facilitate inspections and safe operation of the ACP.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<p>ii) Incorporate the following best management activities to protect forest resources provided in the DOF comments in Attachment B:</p> <ul style="list-style-type: none"> <li>• Restore contours to pre-construction conditions and control erosion until re-vegetation stabilizes the disturbed areas.</li> <li>• Restore vegetation to native species and protect the natural functions of the pre-construction ecosystem.</li> <li>• Use machinery where feasible that when combined (example: earth mover and cart) weigh less than 10 tons per axle. Research has shown that this will help alleviate compaction to the top 6-8 inches of soil where it can be more easily addressed. Combination vehicles weighing more than 10 tons can create compaction as deep as 3 feet which is very difficult to mitigate.</li> <li>• Minimize traffic lanes for transporting cleared timber from the site.</li> <li>• Follow Forestry BMPs for water quality as outlined by DOF's Voluntary BMP Guidelines publication for all harvesting operations.</li> <li>• Stock pile soil away from trees that are to remain standing. Piling soil at a tree stem can kill the root system of the tree. Soil stockpiles should be covered, as well, to prevent soil erosion and fugitive dust.</li> <li>• Retain existing groupings and/or clusters of trees and natural vegetation on the sites of the support facilities, where feasible, to provide aesthetic and environmental benefits, as well as reducing future open space maintenance costs.</li> </ul>	<p>During final cleanup (including final grading and installation of permanent erosion control devices) preconstruction contours will be restored as closely as practicable. Temporary erosion and sediment controls will be inspected and maintained throughout the construction and restoration until revegetation of disturbed areas is successful.</p> <p>Atlantic has worked with various agencies to develop a restoration and rehabilitation plan. In addition, the right-of-way will be maintained every three years, which would result in recruitment of herbaceous and shrub species valuable to wildlife.</p> <p>The majority of pipeline construction equipment is tracked. DOF comments in regards to wheeled equipment are acknowledged.</p> <p>Atlantic will minimize traffic lanes for transporting cleared timber from the Project workspace.</p> <p>Atlantic will follow FERC's Plans and Procedures during harvesting operations.</p> <p>Atlantic will stock pile soil away from trees that are to remain standing.</p> <p>Atlantic has retained natural vegetation and trees to the maximum extent practicable at proposed facility sites.</p>
<b>e) Wildlife Resources</b>	
<p>i) Adhere to all of DGIF's time-of-year restrictions that are detailed in the DGIF comments and attachments in Attachment B.</p>	<p>Atlantic plans to adhere to recommended TOYRs outlined by the VDGIF, or request a waiver from that agency, if required.</p>
<b>f) Government-Funded Best Management Practices</b>	
<p>i) Ensure that any impacted BMPs along the route (see map and the DCR comments in Attachment B) are reinstalled or relocated, and reestablish ground cover vegetation. Examples include livestock fences and stream crossings re-erected, watering systems relocated, cover crops reimbursed to the farmers, and disturbed areas re-vegetated.</p>	<p>Atlantic will coordinate with individual landowners with property in the Virginia Agricultural Cost Share (VACS) Program in order to field delineate conservation areas located within the Project workspace. These conservation areas will be identified and marked in the field prior to land disturbance. Where VACS Program BMPs are crossed by the ACP pipeline, the area will be restored to pre-existing conditions in accordance with landowner requirements. For example, stream exclusion fencing, livestock crossings, and controlled hardened stream accesses will be restored to pre-existing conditions and locations. Watering system components (including piping, troughs, and hardened pads around watering facilities) may need to be relocated outside the permanent right-of-way to a nearby area in consultation and agreement with the landowner. Disturbed areas will be re-vegetated to pre-existing conditions, as practicable. Of the 147 properties along the proposed pipeline containing VACS Program BMPs, only 35 properties contain BMPs with a forested land cover. In the event that a forested BMP is crossed by ACP, the area will not be restored to pre-existing land cover since the permanent right-of-way must be maintained as open herbaceous cover for proper operation and inspection of the pipeline. In this case, Atlantic will enter into an agreement with the landowner to reimburse for any damages or losses incurred as a result of the change in land cover from forested to herbaceous cover.</p>
<p>ii) For segments of the ACP that cross TMDL Implementation Planning (IP) watersheds, where implementation has already occurred, incorporate a requirement that ACP, LLC replace BMPs such as livestock exclusion and riparian buffers if they need to be destroyed or allocate funds to replace the BMPs nearby (see the DEQ comments in Attachment B for details). This recommendation includes, but may not be limited to, the following IP watersheds:</p> <ul style="list-style-type: none"> <li>• One watershed of the Chowan River Watershed (Beaver Pond Creek watershed) IP</li> <li>• Three watersheds of the Flat, Nibbs, Deep, and West Creeks (Flat Creek, West Creek,</li> </ul>	<p>BMPs within the TMDL Implementation Planning (IP) watersheds will be addressed as noted in the response to Comment 3.f.i above.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<ul style="list-style-type: none"> <li>• and Deep Creek) IP</li> <li>• Three watersheds of the Middle River Watershed (Upper Middle River, Lower Middle River, and Moffett Creek) IP</li> <li>• Two watersheds of the Rockfish River Watershed (South Fork Rockfish River and Lower Rockfish River) IP</li> <li>• Three watersheds of the Slate River and Rock Island Creek TMDL (North River, Lower Slate River, Upper Slate River watershed) IP</li> <li>• Two watersheds of the South River Watershed and Christians Creek (Christians Creek and Lower South River) IP</li> <li>• One watershed of the Spring Creek, Briery Creek, Bush River, Little Sandy River and Saylers Creek (Saylers Creek) IP</li> <li>• One watershed of the Tye River, Hat Creek, Rucker Run and Piney River (Rucker Run) IP</li> <li>• One watershed of the Willis River Watershed (Willis River) IP</li> </ul> <p>iii) Coordinate with the DCR Division of Planning and Recreational Resources and Nottoway County regarding potential impacts to Nottoway Lake, which was acquired pursuant to the Land and Water Conservation Fund Act. See DCR comments in Attachment B.</p> <p>iv) Continue to coordinate with DGIF to resolve issues related to the crossing of the James River Wildlife Management Area, a public resource that was purchased with federal grant funds from FWS. If the project interferes even temporarily with the use of the land for the purposes established pursuant to the federal grant, DGIF's current and future funding from these grants may be in jeopardy.</p>	<p>ACP does not cross Nottoway Lake, or any properties acquired using LWCF funding in the vicinity of Nottoway Lake. Atlantic is continuing to coordinate with the VDCR and Nottoway County to identify mitigation measures that will minimize or avoid impacts on Nottoway Lake.</p> <p>Atlantic is continuing to coordinate with the VDGIF to identify mitigation measures that will minimize or avoid impacts on the James River Wildlife Management Area.</p>
<b>g) Open Burning and Fugitive Dust</b>	
<p>i) Include requirements that open burning will be allowed only in accordance with 9 VAC 20-81-95 of the Virginia Solid Waste Management Regulations (VSWMR), and localities should be consulted since they may have additional open burning restrictions. See the DEQ comments in Attachment B.</p> <p>ii) Include requirements that construction activities are subject to the Air Pollution Control Regulations regarding open burning (9 VAC 5-130 et seq.) and fugitive dust (9 VAC 5-50-60 et seq.) and that the project would be subject to any applicable existing source regulations related to the cities of Suffolk and Chesapeake, which are part of a volatile organic compound (VOC) and nitrogen oxide (NOx) emissions control area. See the DEQ comments in Attachment B.</p>	<p>Atlantic will conduct any open burning in accordance with Commonwealth requirements or as approved with a variance.</p> <p>Atlantic will comply with Commonwealth requirements regarding open burning and fugitive dust.</p>
<b>h) Aviation</b>	
<p>i) Submit Form 7460-1 to the Federal Aviation Administration for any portion of the project that is proposed to be constructed within 20,000 linear feet of a public-use or military airport to determine if the project constitutes a hazard to air navigation. See the DOAV comments in Attachment B.</p>	<p>Atlantic will submit Form 7460-1 to the Federal Aviation Administration in connection with communication towers to be constructed by Atlantic for the ACP.</p>
<b>i) Water Supplies</b>	
<p>i) Implement heightened erosion and sediment control practices for segments of the pipeline that cross public water supplies. See the DEQ comments in Attachment B for specific location information.</p>	<p>Atlantic is designing erosion and sediment controls based on site-specific conditions, including the presence of sensitive resources. Atlantic will review the areas identified by the VDEQ and implement additional control measure if needed.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
ii) Closely monitor construction activities in Augusta County where the pipeline's route passes karst areas in proximity to several significant springs and municipal water supply wells, including Gardner Spring – City of Staunton, Town of Churchville Wells – Augusta County Service Authority, Lyndhurst Augusta County Service Authority. See the DEQ comments in Attachment B. Consider concerns raised by the City of Staunton in its comments within Attachment B when monitoring construction activities in the Gardner Spring recharge area.	Atlantic will closely monitor all construction activities, including those in karst areas.
<b>j) Polychlorinated Biphenyl (PCB) Contamination</b>	
i) Ensure that either hydroseeding and mulch tackifiers are not used within 100 feet of a waterbody classified as having a PCB TMDL, or ensure that the tackifier is tested for PCB content prior to application for segments of the pipeline that cross PCB TMDL regions, including Lewis Creek headwaters in the Shenandoah River PCB TMDL area, middle James River near Buckingham, Meherrin River near Emporia, Nansemond River near Suffolk, and the Elizabeth River in Chesapeake. See the DEQ comments in Attachment B.	If hydroseeding and mulch tackifiers are used within 100 feet of a waterbody classified as having a PCB TMDL, Atlantic will ensure that the tackifier is tested for PCB content prior to application.
<b>k) Flood Hazard Area</b>	
i) Follow DCR's recommendations regarding potential impacts to special flood hazard areas, and coordinate with the locality if the floodplain will be modified. See the DCR comments in Attachment B.	Atlantic is actively consulting with localities on floodplain crossings and plans to seek floodplain permits from appropriate jurisdictions, if needed.
<b>l) Conservation Sites</b>	
i) Continue coordination with DCR regarding the Handsom- Gum Powerline, Branchville Powerline, and Emporia Powerline Bog Conservation Sites. See the DCR comments in Attachment B.	Atlantic is continuing to coordinate with the VDCR to identify mitigation measures that will minimize or avoid impacts on the Handsom-Gum Powerline, Branchville Powerline, and Emporia Powerline Bog Conservation Sites.
<b>m) Transportation System</b>	
i) Monitor and report conditions throughout construction and for a period of two years following construction completion and restore roadway features to preconstruction conditions or better. See the VDOT comments in Attachment B.	Atlantic will provide a copy of a videotape that will show the existing conditions of the roadway as described above in Section 2.p.i. If there are any complaints of roadway damage by Atlantic during construction, Atlantic will investigate the complaint by determining the conditions of the pavement before construction and if Atlantic was using the roadway during construction. If there are any damages caused by Atlantic during construction, Atlantic will repair the damage to preconstruction conditions or better.
<b>4) Recommendations for Specific Plans</b>	
<b>a) Spill Prevention Controls and Countermeasures (SPCC)</b>	
i) Update appropriate plans to include the results of dye tracing investigations performed in karst areas in the event that contaminants enter a karst feature, and incorporate DCR's recommendations for monitoring high risk springs and other karst features. See the DCR comments in Attachment B.	Atlantic will perform hydrological delineations of the significant springs in order to determine watershed identity. Atlantic will coordinate these delineation plans and requirements with VDCR.
ii) Update the SPCC with correct information, including replacing existing contact information with the Virginia Department of Emergency Management 24-hour notification number. As stated in DEQ's comments in Attachment B, provide clarifications that include, but are not limited to, the statutory requirement that notifications of an oil spill are to occur immediately upon learning of the discharge.	Atlantic submitted the SPCC Plan to FERC on July 18, 2016 (FERC Accession Number 20160718-5164). Atlantic acknowledges the comments from the VDEQ and will continue to consult with them on any updates needed to the SPCC Plan.
<b>b) Migratory Bird Conservation Plan</b>	
i) Update the Migratory Bird Conservation Plan to include the recommendations from DGIF (as stated in the comments in Attachment B) that include, but are not limited to, the following:	

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
<ul style="list-style-type: none"> <li>• Adhere to time-of-year restrictions from March 15 through August 31 of any year for tree removal and ground clearing activities to protect nesting migratory birds.</li> <li>• Provide DGIF a map for review of the great blue heron colony documented from Suffolk (ROOK-ACT-02) and any other colonies located within a quarter mile of the project areas.</li> <li>• Follow DGIF's recommendations included in its February 7, 2017 letter to Atlantic, which is included in Attachment B.</li> </ul>	<p>During a conference call on February 23, 2017 VDGIF noted that this TOYR is a change from the previous recommendation and was based on recent input from their staff biologist. VDGIF offered to communicate with the FWS to reach concurrence on a recommended TOYR. Atlantic will continue to coordinate with VDGIF and the FWS to determine the appropriate TOYR.</p> <p>Atlantic provided the VDGIF with a map of the great blue heron colony on April 12, 2017 (Accession Number 20170412-5098).</p> <p>Atlantic has acknowledged recommendations from the VDGIF and will continue to consult with them on the Migratory Bird Conservation Plan. Atlantic responded to the VDGIF questions related to the Migratory Bird Conservation Plan on April 12, 2017 (Accession Number 20170412-5098).</p>
<b>c) Invasive Plant Species Management Plan</b>	
<p>i) Update the Invasive Plant Species Management Plan with the following mitigation recommendations from state agencies (see the DOF comments in Attachment B for additional information):</p> <ul style="list-style-type: none"> <li>• Consider the likely response of invasive species or target species when prescribing activities that result in soil disturbance or increased sunlight.</li> <li>• During construction and follow-on maintenance activities, take steps to guard against construction vehicles inadvertently bringing into forest interiors invasive and/or non-native plant species from other locations. Weed seed and fungal spores can be transported in the mud or dirt on vehicles. Prior to moving equipment onto and off of an activity area, scrape or brush soil and debris from exterior surfaces, to the extent practical, to minimize the movement of invasive plants, pests, and diseases to non-infested areas. Another option is to wash vehicles before they enter a weed-free area or when they leave an infested area. The emphasis of the cleaning should be in the wheels, wheel wells, bumpers, and undercarriage of the vehicle where most mud and dirt collects.</li> <li>• If seeding or planting is necessary to minimize the threat of highly damaging invasive species from spreading, use native seed or noninvasive cover plants for revegetation.</li> </ul> <p>ii) Update the Invasive Plant Species Management Plan with the information and recommendations provided to Atlantic in DGIF's February 7, 2017, which is included in Attachment B.</p>	<p>Over the last three years, Atlantic has conducted consultations regarding invasive plant species with VDACS, VDCR, the USFS, and VDGIF. An Invasive Plant Species Management Plan was developed for the ACP based on recommendations from the agencies above, Commonwealth plans like the Virginia Invasive Species Management Plan and the Virginia Invasive Plant Species List, and standards established in the FERC's Plans and Procedures.</p> <p>Invasive plant species along the ACP were documented during wetland/waterbody delineations and rare plant field surveys. All surveys results have been recorded, including instances of non-listed invasive plants. A draft of the Invasive Plant Species Management Plan was submitted to the FERC as an appendix to Resource Report 1 in September 2015. Several updates have also been filed with the FERC since then; the latest version of the plan was filed with the FERC on November 15, 2016 (Accession Number 20161115-5160). Atlantic will continue to consult, as needed, with the agencies above to ensure invasive plants are not spread to other areas of the Commonwealth during construction and operation of the Project.</p> <p>Atlantic will use weed-free material during construction. Please refer to the Revegetation and Seeding Plan, which is Appendix A of Resource Report 1 and was submitted to the FERC on July 18, 2016 (Accession Number 20160718-5164).</p> <p>See Atlantic's responses to Comment 4.c.i. above.</p>
<b>d) Plans for the Management of Waste and Contaminated Soil, Sediment and Groundwater</b>	
<p>i) Include a Waste and Debris Management Plan. The plan should address how all excess material and debris will be managed in accordance with all applicable federal, state, and local laws and regulations. See the DEQ comments in Attachment B.</p>	<p>With the exception of garbage as defined by the VDEQ, which will be handled by commercial solid waste disposal contractors, Atlantic will manage all wastes generated by construction and operation of the Project in accordance with the waste management practices described below. The EI or the ECC will inspect the activity and the waste to determine the proper classification and disposal for every waste, including hazardous waste, non-hazardous waste, universal waste, asbestos containing material, PCB's, and any other characterization required by federal, state, and local regulations. Any discarded materials that may be suitable for recycling will be evaluated for recycle outlets. The EI/ECC will coordinate with the contractor for sampling, analyses, transportation and disposal necessary to classify and characterize wastes, transport the waste and dispose the waste in accordance with applicable regulatory requirements and protocols. An automated waste documentation and tracking system maintained by Atlantic environmental staff will be utilized by the EI/ECC to manage and document all wastes disposed.</p> <p>The EI/ECC will coordinate with the contractor and the project manager on all aspects of the waste process including waste collection, final waste treatment, transportation and disposal. The contractor, in consultation with the EI/ECC</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
	<p>will arrange for containment and temporary storage of wastes generated by the Project as well as transportation and disposal.</p> <p>Atlantic EIs, ECCs and certain Atlantic environmental staff are required to be fully trained for compliance with the US DOT Hazardous Materials Transportation regulations, be trained in RCRA procedures to the US EPA and State Large Quantity Generator Standards, and the compliance aspects of Universal Waste, asbestos containing materials, and PCBs. All training is tracked and recorded. Qualified contractors hired to support the Project's waste management process will be required to complete the same training at a minimum.</p>
<b>e) Plan for Discovery of Unanticipated Paleontological Resources</b>	
<p>i) Update the Plan for Discovery of Unanticipated Paleontological Resources to consider the potential for encountering Tertiary or Quaternary vertebrate and plant fossils in unconsolidated (non-bedrock) deposits west of the Blue Ridge in Virginia. See the DMME comments in Attachment B.</p>	<p>Atlantic and DTI consulted with four state agencies to identify areas and formations crossed by the Project that have the potential to contain significant paleontological resources, including the VADMME (see Appendix 1H of Resource Report 1, which contains copies of all agency correspondence prior to the submittal of Atlantic and DTI's Project application). Atlantic and DTI recognize that some geologic formations, including Tertiary or Quaternary vertebrate and plant fossils in unconsolidated (non-bedrock) deposits, could be encountered during construction. While Atlantic has not prepared a Project-specific plan for discovery of unanticipated paleontological resources, Atlantic's and DTI's EIs will be instructed to take note of significant paleontological materials (i.e., fossilized vertebrate remains such as bones, teeth, etc.) encountered during clearing, grading, or trenching operations. Atlantic will notify the VADMME if significant fossil materials are encountered during construction.</p>
<b>f) Blasting Plan</b>	
<p>i) Update the blasting plan to reflect notification of DGIF prior to blasting. See the DGIF and VMRC comments in Attachment B.</p>	<p>The blasting plan will be updated to reflect notification of VDGIF prior to blasting in VMRC jurisdictional streams.</p>
<b>g) Karst Terrain Assessment Construction, Monitoring and Mitigation Plan</b>	
<p>i) Update the plan with DCR's recommendations to address the impacts of mitigation if there were to be an accidental discharge to karst waters and continue to coordinate with interested state agencies. See the DCR comments in Attachment B.</p>	<p>Atlantic submitted a revised Karst Terrain Assessment, Construction, Monitoring and Mitigation Plan to the FERC on January 27, 2017 (FERC Accession Number 20170127-5202). Potential impacts resulting from an accidental discharge will be addressed in a subsequent revision to the Karst Survey Report.</p>
<b>h) Karst Survey Report</b>	
<p>i) Conduct karst hydrological delineations of the area in the report in order to identify karst waters at risk if a release or discharge were to occur from activities associated with pipeline construction. See the DCR comments in Attachment B.</p> <p>ii) Provide technical clarification to the report as requested by DCR. See the DCR comments in Attachment B.</p>	<p>Atlantic will perform hydrological delineations of the significant springs in order to determine watershed identity. Atlantic will coordinate these delineation plans and requirements with VDCR.</p> <p>Atlantic will provide technical clarifications to the six comments in an updated Karst Survey Report anticipated prior to construction.</p>
<b>i) Traffic and Transportation Management Plan</b>	
<p>i) Incorporate recommendations from VDOT on appropriate requirements, entrances and crossings, pipeline installation, plans, permits and coordination. Consider district-specific comments when updating the plan. See the VDOT comments in Attachment B.</p>	<p>Atlantic has met with all the districts of VDOT that the pipeline crosses to address any concerns they might have with the Project. During the meetings, Atlantic has discussed requirements for entrances and crossings, pipeline installation, plans and permits, and further coordination if needed.</p>
<b>j) Wetland and Waterbody Construction and Mitigation Procedures</b>	
<p>i) Ensure that the wetland mitigation plan meets DEQ's regulatory requirement of compensation for permanent conversion impacts to wetlands. See the DEQ comments in Attachment B.</p>	<p>Atlantic has provided impact assessments for temporary and permanent wetland impacts, including permanent conversion impacts and will update these impact assessments as necessary in support of the final Virginia Joint Permit Application (JPA) submittal. Atlantic is working to develop a final mitigation plan for submittal in support of the JPA that will be in compliance with VMRC, VDEQ, and U.S. Army Corps of Engineers compensatory wetland mitigation requirements.</p>

**Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline  
Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

Comment	Response
ii) Ensure that project-specific procedures specify how the upstream and downstream dams should be removed in both the open cut and dry ditch methods, and address how dam removal will limit sediment introduction to waterways and limit scour when flow is restored. See the DEQ comments in Attachment B.	Once the pipeline is installed beneath the stream, the top layer of native material will be returned to the streambed. The stream banks will be restored. The downstream dam (constructed of native material) will be removed. The upstream dam will then be removed while the pump is still transporting the majority of the steam around. The dams are removed by equipment working from the restored stream banks. Once the dam is pulled the pump will be removed.
<b>k) Restoration and Rehabilitation Plan</b>	
i) Update the plan to include monitoring of water quality and riparian habitat. See the DEQ comments in Attachment B.	Atlantic continues to consult with VDEQ on the establishment of a monitoring plan, which would be separate from the Restoration and Rehabilitation Plan.
ii) Consider DCR's recommendations regarding seed mixes (general and specific milepost comments), soil compaction, topsoil stockpiles, maintenance methods, and requests for detailed plans for monitoring of restoration success. See the DCR comments in Attachment B.	The VDCR seed mix recommendations have been incorporated into Atlantic's current seed mixes that are contained within the Restoration and Rehabilitation Plan. Atlantic has also been working closely with the VDCR to update and make specific seed mix changes as determined possible. Atlantic will follow the FERC's Upland Erosion Control, Revegetation and Maintenance Plan (Plan) and other state construction requirements to ensure the protection and conservation of topsoil during construction. These measures specifically address the prevention of compaction of topsoil, and the decompaction of subsoil, as well as the storage and stockpiling and maintenance of topsoil stockpiles. The revegetation monitoring and reporting requirements contained in the Plan will also be implemented for at least two years following construction to ensure successful revegetation of the disturbed construction right-of-way.
iii) Incorporate the West Virginia Department of Forestry's recommended mitigation measures into the plan and apply the measures to Virginia. Follow Virginia DOF measures where appropriate. See the DOF comments in Attachment B.	Several of the mitigation measures identified in the VDOF letter are addressed separately above. Atlantic will continue to coordinate with the VDOF regarding mitigations measures for the ACP.
<b>l) Site-Specific Horizontal Directional Drill Plans</b>	
i) Follow DEQ's recommendations for the HDD plan and profile at Reeds Gap that include but are not limited to the development of a contingency plan to protect groundwater resources. See the DEQ comments in Attachment B for specific recommendations.	Groundwater encountered during the drilling process would be removed from the drill path and disposed of by the same means, and at the same location, as the drilling fluids used during the drilling operations.
<b>m) Timber Removal Plan</b>	
i) Add a requirement that all slash, chips, and debris be managed in accordance with all applicable federal, state, and local laws and regulations, and consider the DEQ recommendation regarding training. See the DEQ comments in Attachment B.	All slash, chips, and debris will be managed in accordance with applicable federal, state, and local laws and regulations.
<b>n) Contaminated Media Plan</b>	
i) Follow DEQ's recommendations for testing of contaminated media and contamination that is found to be a health or safety hazard. See the DEQ comments in Attachment B.	Atlantic filed its revised Contaminated Media Plan with FERC July 18, 2016. The Plan includes specific training and testing requirements for identification and characterization of contaminated media that is found to be a safety hazard. Testing to characterize potentially contaminated media will be conducted in accordance with the process described in response to comment 4.d.  Qualified EIs, ECCs, and Construction Contractors will be employed to assess and manage any contaminated media encountered during construction of the Project. These EIs and Construction Contractors will receive specific training for this Project that addresses full compliance with applicable regulations and permits, and that includes the necessary communication plan in the event of a safety hazard.
<b>o) Protected Snake Conservation Plan</b>	
i) Consider DCR's recommendations regarding the Protected Snake Conservation Plan. See the DCR comments in Attachment B.	Atlantic will review the VDCR's comments on the Protected Snake Conservation Plan and will submit an updated plan in June 2017.
<b>p) Non-Native Invasive Plant Species Management Plan within the Draft Construction, Operations and Maintenance Plans</b>	
i) Follow DCR's suggestions on the Non-Native Invasive Plant Species Management Plan. See the DCR comments in Attachment B.	Over the last three years, Atlantic has conducted consultations regarding invasive plant species with VDACS, VDCR, the USFS, and VDGIF. An Invasive Plant Species Management Plan was developed for the ACP based on recommendations from the agencies above, Commonwealth plans like the Virginia Invasive Species Management Plan and the Virginia Invasive Plant Species List, and standards established in the FERC's Plans and Procedures.

**ATLANTIC COAST PIPELINE, LLC  
ATLANTIC COAST PIPELINE**

**and**

**DOMINION TRANSMISSION, INC.  
SUPPLY HEADER PROJECT**

**Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

**Attachment 2.h.ii**

**Mining Operations within 0.25 Mile of the Proposed Atlantic Coast  
Pipeline and Supply Header Project Pipeline Routes**



TABLE 2.h.ii

## Mining Operations within 0.25 Mile of the Proposed Atlantic Coast Pipeline and Supply Header Project Pipeline Routes

State/Mine Status	Project Facility/Milepost	Operation	Permit Number/ [Identification Number]/ (Name)	Distance and Direction From the Centerline
<b>West Virginia</b>				
Permit Revoked	AP-1, MP 15.5	Coal	U043300	664 feet southwest
Abandoned	AP-1, MP 15.8	Coal	[364758A]	0.0 feet
Abandoned	AP-1, MP 21.8	Coal	[905578A]	0.0 feet
Abandoned	AP-1, MP 22.9	Coal	[305248B]	0.0 feet
Permit Revoked	AP-1, MP 24.0	Coal	S003984	80 feet east
Abandoned	AP-1, MP 28.4	Coal	[906416A]	0.0 feet
Abandoned	AP-1, MP 31.3	Coal	[904226W]	0.0 feet
Abandoned	AP-1, MP 32.0	Coal	[906658A]	0.0 feet
Abandoned	AP-1, MP 33.2	Coal	[500407A]	0.0 feet
Active – Reclamation Only	AP-1, MP 35.0	Coal	U200201	937 feet northeast
Reclaimed	AP-1, MP 37.8	Coal	S009183	0.0 feet
Active	AP-1, MP 39.6	Coal	O006182	12 feet north
Reclaimed	AP-1, MP 39.6	Coal	S010882	175 feet north
Reclaimed	AP-1, MP 39.7	Coal	S005780	765 feet north
Reclaimed	AP-1, MP 40.0	Coal	S001282	64 feet northeast
Abandoned	AP-1, MP 48.7	Coal	[383339A]	0.0 feet
Abandoned	AP-1, MP 50.1	Coal	[906032A]	0.0 feet
Closed – Released	AP-1, MP 50.8	Coal	O104791	0.0 feet
Permit Revoked	AP-1, MP 50.8	Coal	S200693	0.0 feet
Abandoned	AP-1, MP 50.9	Coal	[904939A]	0.0 feet
Abandoned	AP-1, MP 51.0	Coal	[904939D]	0.0 feet
Active	AP-1, MP 51.4	Coal	O003185	0.0 feet
Closed – Released	AP-1, MP 52.1	Coal	U200387	0.0 feet
Closed – Released	AP-1, MP 52.2	Coal	S205586	0.0 feet
Not Started	AP-1, MP 52.2	Coal	U201408	0.0 feet
Abandoned	AP-1, MP 52.4	Coal	[364208A]	0.0 feet
Closed – Released	AP-1, MP 54.3	Coal	U200997	0.0 feet
Approved - Inactive	AP-1, MP 54.3	Coal	U201297	0.0 feet
Abandoned	AP-1, MP 56.2	Coal	[313336A]	0.0 feet
Permit Revoked	AP-1, MP 57.3	Coal	U009084	186 feet west
Abandoned	AP-1, MP 58.4	Coal	[341325A]	0.0 feet
Permit Revoked	AP-1, MP 59.5	Coal	O000783	283 feet northeast
Permit Revoked	AP-1, MP 59.5	Coal	U019583	290 feet northeast
Permit Revoked	AP-1, MP 59.5	Coal	H050200	0.0 feet
Permit Revoked	AP-1, MP 59.6	Coal	S201189	0.0 feet
Abandoned	AP-1, MP 60.0	Coal	[381216A]	0.0 feet
Permit Revoked	AP-1, MP 60.1	Coal	U103791	0.0 feet
<b>Virginia</b>				
Orphaned	AP-1, MP 107.3	Manganese	DMM16011	1234 feet northwest
Orphaned	AP-1, MP 111.3	Limestone	DMM02576	1049 feet northwest
Orphaned	AP-1, MP 113.6	Manganese	DMM031284	823 feet southeast
Orphaned	AP-1, MP 135.2	Manganese	DMM31283	607 feet west
Orphaned	AP-1, MP 140.2	Clay	DMM00252	1075 feet east
Orphaned	AP-1, MP 149.1	Shale	DMM01275	1125 feet northeast
Orphaned	AP-1, MP 181.9	Shale	DMM01273	1160 feet east
Orphaned	AP-1, MP 181.9	Shale	DMM01274	633 feet east
Orphaned	AP-1, MP 182.2	Limestone	DMM07300	1302 feet west
Active	AP-3, MP 11.0	Sand & Gravel	13772AA	750 feet north
Released	AP-3, MP 77.6	Sand	05827AA	16 feet north

TABLE 2.h.ii (cont'd)

**Mining Operations Within 0.25 Mile of the Proposed Atlantic Coast Pipeline and Supply Header Project Pipeline Routes**

State/Mine Status	Project Facility/Milepost	Operation	Permit Number/ [Identification Number]/ (Name)	Distance and Direction From the Centerline
<b>North Carolina</b>				
Released	AP-2, MP 46.3	Sand & Gravel	64-04	690 feet southeast
Released	AP-2, MP 46.7	Sand & Gravel	64-05	707 feet east
Released	AP-2, MP 66.2	Sand & Gravel	98-36	127 feet northeast
Released	AP-2, MP 67.4	Other/Unknown	98-19	834 feet east
Released	AP-2, MP 155.0	Sand & Gravel	26-49	1104 feet north
Active	AP-2, MP 177.6	Sand & Gravel	78-35	914 feet east
<b>Pennsylvania</b>				
Abandoned	TL-636, MP 0.0	Coal	(Delmont Mine)	0.0 feet

**Sources:**

North Carolina Department of Environmental Quality. 2017. North Carolina Mine Inventory. Available online at <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/mining-program>. Accessed April 2017.

Virginia Department of Mineral Mining. 2017. Interactive GIS Map and Database. Available online at <https://www.dmme.virginia.gov/webmaps/DMM/>. Accessed April 2017.

West Virginia Department of Environmental Protection. 2017. Geographic Information Server – Data Download. Available online at <https://tagis.dep.wv.gov/home/Downloads>. Accessed April 2017.

West Virginia Geological and Economic Survey. 2017. Underground and Surface Coal Mines. Available online at [http://www.wvgs.wvnet.edu/GIS/CBMP/all\\_mining.html](http://www.wvgs.wvnet.edu/GIS/CBMP/all_mining.html). Accessed April 2017.

**ATLANTIC COAST PIPELINE, LLC  
ATLANTIC COAST PIPELINE**

**and**

**DOMINION TRANSMISSION, INC.  
SUPPLY HEADER PROJECT**

**Response to Virginia Department of Environmental Quality  
Dated April 6, 2017**

**Attachment 3.c.ii**

**Virginia Marine Resources Commission Non-Tidal Jurisdictional  
Streams Crossed by the Atlantic Coast Pipeline  
(Contains Privileged Information - Filed Under Separate Cover)**

## **North Carolina Agencies**

**North Carolina Department of Culture and Natural Resources**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



April 25, 2017

Renee Gledhill-Earley  
State Historic Preservation Office  
109 East Jones Street, Room 258  
Raleigh, NC 27601

**Subject: Section 106 Review –Phase I Historic Architecture Survey Report Addendum 4  
Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline Project  
File No. Multi-County ER 14-1475**

Dear Ms. Gledhill-Earley:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review and comment on the enclosed addendum architecture survey report, which reports on investigations conducted for the proposed Atlantic Coast Pipeline (ACP). This replaces the original submittal and is based on comments provided in the meeting on March 24, 2017. The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, ERM, conducted the survey and prepared the enclosed report pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the attached addendum architecture survey report, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed report, please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), or by letter at:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Respectfully submitted,

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion)  
Enclosure: **Phase I Historic Architecture Survey Report Addendum 4**

Dominion Resources Services, Inc.  
5000 Dominion Boulevard,  
Glen Allen, VA 23060



May 10, 2017

Renee Gledhill-Earley  
State Historic Preservation Office  
109 East Jones Street, Room 258  
Raleigh, NC 27601

**Subject: Section 106 Review –Phase II Investigations Sites 31CD2112, 31CD2120, 31CD2124, 31HX307, 31JT487, 31JT491, and 31WL351, Atlantic Coast Pipeline, LLC, Atlantic Coast Pipeline Project File No. Multi-County ER 14-1475**

Dear Ms. Gledhill-Earley:

Atlantic Coast Pipeline, LLC (Atlantic) is requesting review and comment on the enclosed Phase II report on investigations conducted for the proposed Atlantic Coast Pipeline (ACP) from August 2016 through November 2016. The Federal Energy Regulatory Commission (FERC) is the lead Federal agency for this Project. Atlantic's consultant, ERM, conducted the survey and prepared the enclosed report pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended.

Atlantic would appreciate your comments on the attached Phase II testing report, and we look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed report, please contact Richard B. Gangle at (804) 273-2814 or [Richard.B.Gangle@dom.com](mailto:Richard.B.Gangle@dom.com), or by letter at:

Richard B. Gangle  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Respectfully submitted,

A handwritten signature in blue ink that reads "Robert M. Bisha". The signature is written in a cursive, slightly slanted style.

Robert M. Bisha  
Technical Advisor, Atlantic Coast Pipeline

cc: Richard Gangle (Dominion)  
Enclosure: **Phase II Investigations Sites 31CD2112, 31CD2120, 31CD2124, 31HX307, 31JT487, 31JT491, and 31WL351**