

**Dominion Transmission, Inc.**  
701 East Cary Street, Richmond, VA 23219



May 12, 2015

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: Atlantic Coast Pipeline, LLC & Dominion Transmission, Inc.  
Atlantic Coast Pipeline & Supply Header Projects  
Docket Nos. PF15-6-000 & PF15-5-000  
Responses to Issues Raised During Scoping**

Dear Secretary Bose:

On November 13, 2014, the Federal Energy Regulatory Commission (Commission) approved Atlantic Coast Pipeline, LLC and Dominion Transmission, Inc. (DTI)'s request to utilize the pre-filing process for the Atlantic Coast Pipeline and Supply Header Projects (Projects).

As required under 18 CFR 157.21(f)(9), DTI, on behalf of Atlantic Coast Pipeline, LLC, and itself, hereby submits responses to issues raised during the public scoping period for the Projects.

If you have any questions, please contact me at 866-319-3382.

Respectfully submitted,

*Angela M. Woolard*

Angela M. Woolard  
Regulatory and Certificates Analyst III

cc: Mr. Kevin Bowman, FERC



**ATLANTIC COAST PIPELINE, LLC  
ATLANTIC COAST PIPELINE  
Docket No. PF15-6-000**

**and**



**DOMINION TRANSMISSION, INC.  
SUPPLY HEADER PROJECT  
Docket No. PF15-5-000**

**Responses to  
Issues Raised During Scoping**

**Prepared by**



**May 2015**

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**LIST OF ACRONYMS AND ABBREVIATIONS**

ACP	Atlantic Coast Pipeline
AGL	AGL Resources, Inc.
APE	Area of Potential Effect
Atlantic	Atlantic Coast Pipeline, LLC
ATWS	additional temporary workspace
BA	Biological Assessment
bcf/d	billion cubic feet per day
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
Columbia	Columbia Gas Transmission, LLC
Commission	Federal Energy Regulatory Commission
CAA	Clean Air Act
CWA	Clean Water Act
Dominion	Dominion Resources, Inc.
DTI	Dominion Transmission, Inc.
Duke Energy	Duke Energy Corporation
EIS	Environmental Impact Statement
ENGO	environmental non-government organization
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
FWS	U.S. Fish and Wildlife Service
GDS-NWR	Great Dismal Swamp National Wildlife Refuge
GHG	greenhouse gases
GIS	geographic information system
GWNF	George Washington National Forest
HDD	horizontal directional drill
HSWCD	Headwaters Soil and Water Conservation District
LRMP	Land and Resource Management Plan
MBTA	Migratory Bird Treaty Act
MNF	Monongahela National Forest
MP	milepost
NAAQS	National Ambient Air Quality Standards
NCDENR	North Carolina Department of Environment and Natural Resources
NCWRC	North Carolina Wildlife Resources Commission
NEPA	National Environmental Policy Act
NGO	non-government organization
NHNA	Natural Heritage Natural Area
NOAA Fisheries	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NPS	National Park Service
NRDC	Natural Resources Defense Council
NRHP	National Register of Historic Places
OHV	off-highway vehicle
PHMSA	Pipeline and Hazardous Materials Safety Administration
Plan	Upland Erosion Control, Revegetation, and Maintenance Plan

Procedures	Wetland and Waterbody Construction and Mitigation Procedures
Projects	Atlantic Coast Pipeline and Supply Header Projects
SHP	Supply Header Project
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
TNC	The Nature Conservancy
Transco	Transcontinental Gas Pipe Line Company, LLC
USACE	United States Army Corps of Engineers
USDOT	U.S. Department of Transportation
USFS	U.S. Forest Service
VDCR	Virginia Department of Conservation and Recreation
VDEQ	Virginia Department of Environmental Quality
VDGIF	Virginia Department of Game and Inland Fisheries
VDMME	Virginia Department of Mines, Minerals, and Energy
WVDEP	West Virginia Department of Environmental Protection
WVDNR	West Virginia Division of Natural Resources

## 1.0 PROJECT DESCRIPTION

### Atlantic Coast Pipeline

Atlantic Coast Pipeline, LLC (Atlantic) is a company formed by four major U.S. energy companies – Dominion Resources, Inc. (Dominion; NYSE: D), Duke Energy Corporation (Duke Energy; NYSE: DUK), Piedmont Natural Gas Co., Inc. (Piedmont; NYSE: PNY), and AGL Resources, Inc. (AGL; NYSE: GAS). The company was created to develop, own, and operate the proposed Atlantic Coast Pipeline (ACP), an approximately 556-mile-long, interstate natural gas transmission pipeline system designed to meet growing energy needs in Virginia and North Carolina. The ACP will be capable of delivering 1.5 billion cubic feet per day (bcf/d)<sup>1</sup> of natural gas to be used to generate electricity, heat homes, and run local businesses. The underground pipeline Project will facilitate cleaner air, increase the reliability and security of natural gas supplies, and provide a significant economic boost in West Virginia, Virginia, and North Carolina. More information is provided at the company's website at [www.dom.com/acpipeline](http://www.dom.com/acpipeline). Atlantic has contracted with Dominion Transmission, Inc. (DTI), a subsidiary of Dominion, to permit, build, and operate the ACP on behalf of Atlantic.<sup>2</sup>

Atlantic is seeking authorization from the Federal Energy Regulatory Commission (FERC or Commission) under Section 7(c) of the Natural Gas Act to construct, own, operate, and maintain the following proposed facilities for the ACP:

#### Mainline Pipeline Facilities:

- AP-1: approximately 292.8 miles of 42-inch outside diameter natural gas transmission pipeline in Harrison, Lewis, Upshur, Randolph, and Pocahontas Counties, West Virginia; Highland, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, and Greenville Counties, Virginia; and Northampton County, North Carolina.
- AP-2: approximately 181.5 miles of 36-inch outside diameter natural gas transmission pipeline in Northampton, Halifax, Nash, Wilson, Johnston, Sampson, Cumberland, and Robeson Counties, North Carolina.

#### Lateral Pipeline Facilities:

- AP-3: approximately 77.6 miles of 20-inch outside diameter natural gas lateral pipeline in Northampton County, North Carolina; and Greenville and Southampton Counties and the Cities of Suffolk and Chesapeake, Virginia.
- AP-4: approximately 3.1 miles of 16-inch outside diameter natural gas lateral pipeline in Brunswick County, Virginia.
- AP-5: approximately 1.0 mile of 16-inch outside diameter natural gas lateral pipeline in Greenville County, Virginia.

<sup>1</sup> The 1.5 bcf/d is equivalent to approximately 1,537,500 dekatherms per day.

<sup>2</sup> As described in this report, DTI actions associated with the ACP are on behalf of Atlantic.

**Compressor Station Facilities:**

- Compressor Station 1: a new, natural gas-fired compressor station approximately at milepost (MP) 6.8 of the AP-1 mainline in Lewis County, West Virginia.
- Compressor Station 2: a new, natural gas-fired compressor station approximately at MP 186.0 of the AP-1 mainline in Buckingham County, Virginia.
- Compressor Station 3: a new natural gas-fired compressor station approximately at MP 292.8 of the AP-1 mainline in Northampton County, North Carolina.

**Other Aboveground Facilities:**

- Nine new metering and regulating (M&R) stations at receipt and/or delivery points along the new pipelines (including one at Compressor Station 1 and one at Compressor Station 2).
- Twenty-nine valve sites at select points along the new pipelines at intervals specified by U.S. Department of Transportation (USDOT) regulations at Title 49 Code of Federal Regulations (CFR) Part 192.
- Eight sets of pig launcher and/or receiver sites at 11 points along the new pipelines (including launcher/receiver sites at Compressor Stations 2 and 3).

**Supply Header Project**

DTI proposes to construct and operate approximately 36.7 miles of pipeline loop and modify existing compression facilities in Pennsylvania and West Virginia. This Project, referred to as the Supply Header Project (SHP), will enable DTI to provide firm transportation service of up to 1.5 bcf/d to various customers, including Atlantic. Atlantic will be a “Foundation Shipper” in the SHP, and will utilize the SHP capacity to allow its shippers access to natural gas supplies from various DTI receipt points for further delivery to points along the ACP.

DTI is seeking authorization from the FERC under Section 7(c) of the Natural Gas Act to construct, own, operate, and maintain the following proposed facilities for the SHP:

**Pipeline Loops:**

- TL-636: approximately 3.9 miles of 30-inch outside diameter natural gas pipeline looping DTI’s existing LN-25 pipeline in Westmoreland County, Pennsylvania.
- TL-635: approximately 32.8 miles of 36-inch outside diameter natural gas pipeline looping DTI’s existing TL-360 pipeline in Harrison, Doddridge, Tyler, and Wetzel Counties, West Virginia.

**Compressor Station Modifications:**

- JB Tonkin Compressor Station: modifications at DTI’s existing JB Tonkin Compressor Station in Westmoreland County, Pennsylvania.

- Crayne Compressor Station: modifications at DTI's existing Crayne Compressor Station in Greene County, Pennsylvania.
- Burch Ridge Compressor Station: crossover piping at DTI's existing Burch Ridge Compressor Station in Marshall County, West Virginia.
- Mockingbird Hill Compressor Station: modifications at or near DTI's existing Mockingbird Hill Compressor Station in Wetzel County, West Virginia.

**Other Aboveground Facilities:**

- Five valve sites at select points along the new pipeline loops at intervals specified by USDOT regulations at 49 CFR 192.
- Two sets of pig launcher and receiver sites at the ends of each of the new pipeline loops.

**2.0 INTRODUCTION**

On October 31, 2014, Atlantic and DTI filed requests to initiate the Commission's pre-filing process for the ACP and SHP (collectively, the Projects). The Commission accepted these requests on November 13, 2014, opening public dockets for the Projects. After the dockets were open, FERC staff began loading hard-copy comment letters on the Projects into each docket and accepting electronic comment submittals via the Commission's eLibrary website. Atlantic and DTI subsequently implemented a process for tracking, analyzing, and responding to issues identified in the comments placed in the dockets.

In addition to written comments, the Commission accepted verbal comments from stakeholders at the ten public scoping meetings held for the Projects between March 9 and 24, 2015. Atlantic and DTI attended these meetings and took notes on issues raised by the speakers. Transcripts of the meetings were recorded by court reporters and placed in the dockets for the Projects. Atlantic and DTI also reviewed the transcripts from the meetings that were available on the FERC docket to augment the notes taken at the meetings. Atlantic and DTI included the verbal comments from the scoping meetings in the comment tracking process for the Projects.

All comments on the Projects were reviewed, categorized, coded, and entered into a Microsoft Access database. The database included the following fields for identifying, tracking, and categorizing comments:

- the FERC accession number for each comment;
- the format of the comment (e.g., letter, email, eComment, or scoping meeting comment);
- the type of comment (e.g., original or form letter);
- the name, address, and affiliation of the commenter;

- the relative interest of the commenter with regard to the Projects (e.g., support, oppose, or neutral); and
- the issues identified in the comment.

Issues were classified into categories corresponding to Resource Reports (e.g., Resource Report 6 – Geological Resources) and subcategories corresponding to unique topics (e.g., karst). Many of the comments placed in the dockets for the Projects identified multiple issues. In these cases, each issue was individually entered, coded, and categorized by Resource Report and topic in the database.

Individual issues additionally were classified as generic or specific. Generic issues were considered typical for natural gas pipeline projects or were non-specific (e.g., “I am concerned about impacts on wetlands” or “The ACP will affect karst”). Specific issues were considered unique for these Projects (e.g., “The project crosses limestone sinkhole ponds which provide habitat for sensitive species” or “There is an entrance to a cave on my property”). Both generic and specific issues were given equal weight in the analysis of issues. The specific category was used to alert Atlantic’s and DTI’s subject matter experts to unique issues.

The process of identifying and classifying individual issues by category and subcategory allowed Atlantic and DTI to review and summarize comments using several different metrics. For example, the data could be sorted to list the top issues identified by affected landowners in a given County or by local elected officials who support the Projects. The process also provided for the efficient distribution of comments to the appropriate subject matter experts for use in developing draft Resource Reports for the Projects. Comments on wetlands, for example, were routed to the biologist preparing the wetlands section of draft Resource Report 2.

Summary metrics on the comments are provided in Section 3.0. Atlantic’s and DTI’s responses to public comments on the issues to address in the Environmental Impact Statement (EIS) are provided by Resource Report in Section 4.0.

### **3.0 COMMENT METRICS**

#### **Atlantic Coast Pipeline**

Through April 28, 2015, a total of 27,634 written comments were placed in the ACP docket. In addition to these written comments, 321 individuals provided verbal comments at the scoping meetings on the ACP. Summary metrics on the comments and the issues identified in the comments are provided in Tables 3.1 through 3.3.

TABLE 3.1				
Commenters by Stakeholder Category – Atlantic Coast Pipeline				
Stakeholder Category	Total Number of Commenters	Support	Oppose	Neutral
<b>Written Comments</b>				
Federal Agency	5	0	0	5
State Agency	10	0	0	10
Local Agency	1	0	1	0
Federal Elected	16	12	1	3
State Elected	16	13	2	1
Local Elected	32	12	16	4
Landowner	437	8	419	10
Business Civic	23	22	0	1
NGO <sup>a</sup>	21,884	21,865	15	4
ENGO <sup>b</sup>	3,235	0	3,232	3
General Public/Other	1,975	772	1,048	155
<b>Subtotal</b>	<b>27,634</b>	<b>22,704</b>	<b>4,734</b>	<b>196</b>
<b>Verbal Comments</b>				
Federal Agency	0	0	0	0
State Agency	0	0	0	0
Local Agency	4	1	3	0
Federal Elected	0	0	0	0
State Elected	2	2	0	0
Local Elected	18	11	4	3
Landowner	42	5	35	2
Business Civic	35	34	1	0
NGO	12	5	7	0
ENGO	25	2	23	0
General Public/Other	183	60	110	13
<b>Subtotal</b>	<b>321</b>	<b>120</b>	<b>183</b>	<b>18</b>
<b>Total</b>	<b>27,955</b>	<b>22,824</b>	<b>4,917</b>	<b>214</b>
<sup>a</sup>	non-government organization			
<sup>b</sup>	environmental non-government organization			

TABLE 3.2  
**Top Issues by Stakeholder Category – Atlantic Coast Pipeline**

Agencies	Elected Officials	Landowners	Business Civic	NGOs	ENGOS	General Public/Other
1. Invasive Species	1. Economic Impact	1. Safety	1. Economic Impact	1. Economic Impact	1. Waterbodies	1. Economic Impact
2. Permitting	2. Employment	2. Scoping	2. Employment	2. Waterbodies	2. Route Alternatives	2. Purpose and Need
3. Waterbodies	3. Purpose and Need	3. Water Supply	3. General Support	3. Route Alternatives	3. Emissions	3. Employment
4. Construction	4. General Support	4. Route Alternatives	4. Purpose and Need	4. Employment	4. Safety	4. General Support
5. Wildlife	5. Water Supply	5. Property Values	5. Tax Revenues	5. Purpose and Need	5. Fracking / Marcellus Shale	5. National Forests

TABLE 3.3  
**Top Issues by Relative Interest – Atlantic Coast Pipeline**

Support	Oppose	Neutral
1. Employment	1. Waterbodies	1. Scoping
2. Economic Impact	2. Route Alternatives	2. Lack of Notice
3. Emissions	3. Emissions	3. Route Alternatives
4. Purpose and Need	4. Safety	4. Opportunities for Input
5. General Support	5. Water Supply	5. Waterbodies

As shown in the tables, the top issues identified by elected officials, business civic organizations, non-government organizations (NGOs), and the general public focused on economic factors, such as employment opportunities and the purpose and need for the ACP. Issues identified by affected landowners and environmental non-government organizations (ENGOS) focused on safety, alternatives, waterbodies, and water supplies.

**Supply Header Project**

Through April 28, 2015, a total of 27 written comments were placed in the SHP docket. In addition to these written comments, four individuals provided verbal comments at the scoping meeting on the SHP. Summary metrics on the comments are provided in Tables 3.4 through 3.6. Key issues identified by stakeholders include economic impacts, safety, public outreach, and alternatives.

TABLE 3.4				
Commenters by Stakeholder Category – Supply Header Pipeline				
Stakeholder Category	Total Number of Commenters	Support	Oppose	Neutral
<b>Written Comments</b>				
Federal Agency	0	0	0	0
State Agency	5	0	0	5
Local Agency	0	0	0	0
Federal Elected	0	0	0	0
State Elected	0	0	0	0
Local Elected	0	0	0	0
Landowner	4	0	4	0
Business Civic	0	0	0	0
NGO <sup>a</sup>	3	0	2	1
ENGO <sup>b</sup>	2	0	2	0
General Public Other	13	0	12	1
<b>Subtotal</b>	<b>27</b>	<b>0</b>	<b>20</b>	<b>7</b>
<b>Verbal Comments</b>				
Federal Agency	0	0	0	0
State Agency	0	0	0	0
Local Agency	0	0	0	0
Federal Elected	0	0	0	0
State Elected	0	0	0	0
Local Elected	0	0	0	0
Landowner	0	0	0	0
Business Civic	0	0	0	0
NGO	1	0	1	0
ENGO	1	0	1	0
General Public Other	2	0	2	0
<b>Subtotal</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>
<b>Total</b>	<b>31</b>	<b>0</b>	<b>24</b>	<b>7</b>
<sup>a</sup>	non-government organization			
<sup>b</sup>	environmental non-government organization			

TABLE 3.5  
**Top Issues by Stakeholder Category – Supply Header Project**

Agencies	Elected Officials	Landowners	NGOs	ENGOS	General Public/Other
1. Safety	1. None	1. Water Supply	1. Socioeconomics	1. Public Outreach	1. Safety
2. Blasting	2. None	2. Waterbodies	2. Alternatives	2. Scoping	2. Water Supply
3. Land Use	3. None	3. Climate Change/ Greenhouse Gas	3. Cultural Resources	3. Climate Change / Greenhouse Gas	3. Economic Impact
4. Construction	4. None	4. Wildlife	4. Construction	4. Construction	4. Fracking / Marcellus Shale
5. Wildlife	5. None	5. Eminent Domain	5. Purpose and Need	5. Opportunities for Input	5. Transportation Management

TABLE 3.6  
**Top Issues by Relative Interest – Supply Header Project**

Support	Oppose	Neutral
1. None	1. Safety	1 Threatened and Endangered Species
2. None	2. Water Supply	2. Construction
3. None	3. Route Alternatives	3. Wildlife
4. None	4. Economic Impact	4. Safety
5. None	5. Transportation Management	5. Alternatives

1 **4.0 COMMENT RESPONSES**

2 **4.1 Resource Report 1 – Project Description**

3 **4.1.1 General Comments**

4 *Comment:* Numerous individuals and organizations, including the Governor of North  
 5 Carolina, Consumer Energy Alliance, Harrison County (West Virginia) Chamber of Commerce,  
 6 Virginia Economic Development Authority, various members of the United States Congress,  
 7 various members of the North Carolina Congressional Delegation, City of Roanoke Rapids  
 8 (North Carolina), U.S. Chamber of Commerce, Virginia Chamber of Commerce, and other  
 9 individuals and organizations expressed support for the purpose and need of the Projects.  
 10 Additionally, the President of Virginia Natural Gas, which is a customer of the ACP, said that  
 11 there is “not currently enough interstate pipeline capacity to serve any substantial economic  
 12 development east of Richmond”.

13 **Response:** Atlantic and DTI concur with these comments. The purpose and need for the  
 14 Projects will be discussed in Section 1.2 of draft Resource Report 1.

15 *Comment:* Several commenters questioned the demand for natural gas in Virginia and  
 16 North Carolina or said that the ACP will export natural gas overseas. Additionally, one  
 17 commenter said that the ACP should not be constructed because it will transport domestically  
 18 produced gas at a time when the United States should be buying international gas and saving  
 19 domestic reserves.

1            Response: The ACP is a proposed interstate natural gas transmission pipeline that will  
2 serve the growing energy needs of multiple public utilities and local distribution companies in  
3 Virginia and North Carolina. Over ninety percent of the new pipeline’s capacity has been  
4 contracted in binding precedent agreements with major utilities and local distribution companies  
5 in the region. The natural gas transported by the ACP will be used by its customers as a fuel to  
6 generate electricity for industrial, commercial, and residential uses. The natural gas will also be  
7 used directly for residential, commercial, and industrial uses. By providing access to additional  
8 low-cost natural gas supplies, the ACP will increase the reliability and security of natural gas  
9 supplies in Virginia and North Carolina. Demand for natural gas in Virginia and North Carolina  
10 is expected to increase in coming decades due to a combination of population growth and  
11 displacement of coal-fired electric power generation (to be discussed in Section 1.2 of draft  
12 Resource Report 1). The ACP is not designed to export natural gas overseas; it is not a  
13 component of the purpose and need of the Projects. It should further be noted that there are no  
14 licensed terminals to export liquefied natural gas in either Virginia or North Carolina.

15            Comment: *Several commenters said that the ACP could lead to hydraulic fracturing*  
16 *within the Monongahela National Forest (MNF) and George Washington National Forest*  
17 *(GWNF).*

18            Response: Interstate natural gas pipelines act as common carriers to transport natural  
19 gas; they are not part of natural gas exploration or production activities. The SHP links ACP  
20 with access to multiple supply basins throughout the United States. The ACP and SHP will  
21 connect growing demand areas in Virginia and North Carolina with growing supply areas in the  
22 Appalachian region and provide access to the Dominion South Point supply hub, consisting of  
23 abundant supplies on the DTI system that are sourced from a wide variety of upstream pipeline  
24 interconnects and diverse production areas. The Projects are limited to the transmission of  
25 natural gas from production sources upstream of ACP’s commencement point in West Virginia.  
26 The Projects are not designed to facilitate exploration and production activities in the MNF and  
27 GWNF; there are no receipt points in the MNF and GWNF.

28            Comment: *Several commenters questioned the location and size of the proposed*  
29 *compressor stations for the ACP and suggested the use of smaller stations.*

30            Response: The Projects were designed based on customer requirements and precedent  
31 agreements which specify the locations of receipt and delivery points on the ACP (to be provided  
32 in Table 1.2-1 in draft Resource Report 1). The configuration of the system, including the  
33 location and size of compressor stations, was based on flow dynamics relative to receipts and  
34 deliveries of natural gas into and out of the system to ensure system reliability. This  
35 configuration takes into account several factors such as changes in topography along the pipeline  
36 routes and friction as natural gas moves through the system. The location of the proposed  
37 facilities will be described in Section 1.3.1.1 and depicted in Figure 1.1.1-1 of draft Resource  
38 Report 1.

39            Comment: *The Appalachian Mountain Advocates and several individuals said that the*  
40 *U.S. Forest Service (USFS) should deny the applications submitted by Atlantic for planning*  
41 *permits to conduct survey activities within the MNF and GWNF.*

1            Response: In the Fall of 2014, Atlantic submitted applications to the USFS for planning  
2 permits to conduct routing, biological, cultural resources, and civil surveys along the proposed  
3 AP-1 mainline route in the MNF and both the AP-1 mainline route and an alternative route in the  
4 GWNF. These surveys are necessary to determine a constructible route, collect the  
5 environmental and cultural resources data needed to support permitting of the ACP, and record  
6 the location of the proposed centerline and other features using a global positioning system. The  
7 results of the surveys will be used in conjunction with other data to determine the route with the  
8 least impact on the environment.

9            Comment: *Several commenters asked FERC to extend the scoping periods for the*  
10 *Projects to 90 days.*

11           Response: Atlantic and DTI believe that the length of the scoping period provided ample  
12 opportunity for interested participants to comment on the issues they believe the Commission  
13 should consider in the EIS. Atlantic and DTI previously filed a detailed response to this  
14 comment on March 23, 2015.

15           Comment: *One commenter said that an analysis of water-related regulatory programs*  
16 *and mitigation requirements administered by Federal and State/Commonwealth agencies should*  
17 *be included in the EIS.*

18           Response: The Federal and State/Commonwealth permits, authorizations, and  
19 consultations required for the Projects, including water related permits, will be identified in the  
20 permit tables to be provided with draft Resource Report 1. Specific water-related regulatory  
21 programs will be discussed in draft Resource Report 2. Mitigation requirements for the Projects  
22 will be determined by the agencies in accordance with applicable Federal and  
23 State/Commonwealth regulations and guidelines or as negotiated between Atlantic and DTI and  
24 the agencies.

#### 25 **4.1.2 Specific Comments**

26           Comment: *Several commenters said that demand for natural gas in Virginia and North*  
27 *Carolina could be met by existing pipeline systems, citing a recent study by the U.S. Department*  
28 *of Energy called Natural Gas Infrastructure – Implications of Increased Demand from the*  
29 *Electric Power Sector (2015).*

30           Response: It should be noted that both the Governors of North Carolina and Virginia  
31 have spoken publicly about the need for additional natural gas pipeline capacity in the region,  
32 due in part to the ongoing transition from coal to natural gas as the default fuel for baseload  
33 electricity generation.

34           The U.S. Department of Energy study examined the impact of increased demand for  
35 natural gas from the electric power sector on natural gas pipeline infrastructure in the United  
36 States over a 15-year period from 2015 to 2030. The study did not conclude, as some  
37 commenters suggested, that no additional pipeline capacity is needed to meet the increased  
38 demand for natural gas. Instead, the study found that a projected 38 to 42 bcf/d of new and  
39 expanded pipeline capacity will be necessary to meet demand over the 15 year study  
40 period, including approximately 8.4 bcf/d of additional pipeline takeaway capacity from the

1 Marcellus shale region. The study further found that flow reversal is projected to occur  
 2 “southward out of the Marcellus to serve markets in the Southeast” and that existing pipelines  
 3 that historically transported natural gas from the Gulf Coast region to points further north are  
 4 expected to change the direction of flow “so that Marcellus production can serve the Virginia  
 5 and Carolina markets”. However, there are no existing long haul interstate pipelines with  
 6 available takeaway capacity from the southwestern Marcellus and Utica region directly serving  
 7 Virginia and North Carolina.

8 Moreover, market participants have determined that their needs cannot be adequately met  
 9 by existing pipeline systems. In April 2014, Duke Energy and Piedmont issued a request for  
 10 proposals for incremental pipeline transportation service due to their existing and future natural  
 11 gas generation requirements, core load growth, and system reliability and supply diversity goals.  
 12 In addition, in June 2014, Virginia Power Services Energy Corp., Inc. issued a request for  
 13 proposals for firm transportation service to serve Virginia. Following their request for proposals  
 14 process, these companies contracted for transportation service on the ACP, as did other  
 15 companies in the region.

16 *Comment: One commenter asked about the percentage of the natural gas transported by*  
 17 *the ACP that will remain in the Appalachian region.*

18 *Response:* The proposed delivery points on the ACP system will be depicted on  
 19 Figure 1.2-1 of draft Resource Report 1. The natural gas supplied to each delivery point will be  
 20 provided to local distribution companies, power generators, and/or other interstate pipeline  
 21 companies. Table 1.2-1 of draft Resource Report 1 will provide a breakdown of the existing  
 22 customer commitments for the ACP. The intended use of the gas supplied to each delivery point  
 23 will be summarized in Table 1.2-2 of draft Resource Report 1.

24 *Comment: The Cowpasture River Preservation Association asked what type of backfill*  
 25 *will be used for the pipeline trench, including the source of backfill material and the disposal*  
 26 *locations of excavated material taken from the pipeline trench. Another commenter said that*  
 27 *coal ash will be used to backfill the pipeline.*

28 As will be discussed in Section 1.5.1 of draft Resource Report 1, the trench will be  
 29 backfilled with the same material excavated from the trench. Excavated material (e.g., rock) not  
 30 required for backfill will be removed and disposed of at approved upland disposal sites. Coal  
 31 ash and/or coal byproduct will not be utilized as fill material for backfilling the trench.

32 *Comment: One commenter said that all stormwater inspection reports, whether*  
 33 *conducted by government, private, or other groups, should be made available for public review.*

34 *Response:* Weekly reports prepared by Atlantic’s and DTI’s Environmental Inspectors  
 35 and reports prepared by third-party compliance monitors will be public documents which are  
 36 filed with the Commission and posted to the dockets for the Projects, as appropriate. Inspection  
 37 reports prepared by other agencies would be treated in accordance with the applicable agencies  
 38 regulations or guidelines regarding the availability of reports for public review.

39 *Comment: The Shannon Farm Community commented that the Projects should be*  
 40 *merged into one docket.*

1            Response: The ACP and SHP are separate Projects proposed by different applicants.  
2 Because the Projects are related, environmental impacts associated with the ACP and SHP are  
3 addressed in the same set of draft Resource Reports. Additionally, Commission staff will review  
4 both Projects in the same EIS.

5            Comment: *The U.S. Environmental Protection Agency (EPA) commented that the EIS*  
6 *should contain sufficient information and analysis to document compliance with the Clean Water*  
7 *Act (CWA) 404b guidelines, including identification of the least environmentally damaging*  
8 *practicable alternative, and mitigation sequencing: avoidance, minimization, and then lastly*  
9 *compensation for impacts that cannot be avoided or minimized. The EPA said that the applicant*  
10 *must rebut the presumption that there is a less environmentally damaging practicable alternative*  
11 *to any proposal to fill a water of the United States.*

12           Response: Draft Resource Report 10 and the U.S. Army Corps of Engineers (USACE)  
13 404 permit application will address practicable alternatives.

14           Comment: *The EPA commented that the alternatives analysis must evaluate the potential*  
15 *for violations of State/Commonwealth water quality standards, toxic effluent standards,*  
16 *endangered species habitat, and designated marine sanctuaries.*

17           Response: The analysis of major route alternatives and minor route variations in Sections  
18 10.8 and 10.9 of draft Resource Report 10 includes comparisons of waterbody crossings for each  
19 alternative considered in the analysis. Generally speaking, the types of impacts on waterbodies  
20 due to pipeline construction and operations, as well as measures for avoiding, minimizing, or  
21 mitigating impacts, will be the same regardless of the route selected. While specific construction  
22 methods for waterbody crossings are still being evaluated, most waterbodies with flowing water  
23 will be crossed using a dry crossing method, such as flume, dam-and-pump, cofferdam, or  
24 horizontal direction drill (HDD) (to be discussed in Section 1.5.2 of draft Resource Report 1).  
25 Use of these methods, which are consistent with the FERC's *Wetland and Waterbody*  
26 *Construction and Mitigation Procedures* (Procedures), will avoid or minimize instream impacts  
27 from sedimentation and turbidity and ensure that construction activities comply with  
28 State/Commonwealth water quality and effluent standards. Moreover, construction and  
29 restoration activities for waterbody crossings will comply with applicable permits and  
30 authorizations, including Department of the Army permits from the USACE under Section 404  
31 of the CWA and water quality certificates from the applicable State/Commonwealth agencies  
32 under Section 401 of the CWA.

33           As discussed in more detail below, the Projects will comply with Section 7 of the  
34 Endangered Species Act. Atlantic and DTI are conducting surveys for Federal and  
35 State/Commonwealth listed species identified through consultations with the U.S. Fish and  
36 Wildlife Service (FWS), Federal land managing agencies, and State/Commonwealth wildlife  
37 agencies. Potential impacts on species, and measures for avoiding, minimizing, or mitigating  
38 impacts, will be assessed as surveys are completed. Additionally, Atlantic and DTI will prepare  
39 a draft Biological Assessment (BA) evaluating the potential impacts of the Projects on federally  
40 listed species. Atlantic and DTI expect to file the draft BA with FERC in the Fall of 2015.

41           The Projects do not cross designated marine sanctuaries.

1            *Comment:* The EPA commented that a determination of whether the discharge of fill  
2 material into wetlands crossed by the Projects constitutes significant degradation (i.e.,  
3 individual or cumulative impacts on human health and welfare; fish and wildlife; ecosystem  
4 diversity, productivity and stability; and recreation, aesthetic or economic values) should be  
5 included in the EIS.

6            Response: Atlantic and DTI are conducting wetland delineation surveys to document the  
7 locations and types of wetlands along the proposed pipeline routes and in other construction  
8 areas. Construction and restoration methods for wetlands, which will be described in Section  
9 1.5.2 of draft Resource Report 1, will comply with the Procedures as well as applicable permits  
10 and authorizations, including Department of the Army permits from the USACE under Section  
11 404 of the CWA and water quality certificates from the applicable State/Commonwealth  
12 agencies under Section 401 of the CWA. Additionally, Atlantic and DTI anticipate preparing  
13 Compensatory Wetland Mitigation Plans as part of their applications to the USACE and the  
14 applicable State/Commonwealth agencies for these authorizations (to be discussed in Section  
15 2.3.7 of draft Resource Report 2). Additionally, Atlantic and DTI have identified a number of  
16 route alternatives, route variations, and route adjustments which collectively will reduce impacts  
17 on wetlands due to construction and operation of the Projects (to be discussed in draft Resource  
18 Report 10).

## 19    **4.2    Resource Report 2 – Water Use and Quality**

### 20    **4.2.1    General Comments**

21            *Comment:* Several commenters said that constructing the proposed ACP pipeline  
22 through the headwaters of the Rockfish River, James River, and Chesapeake Bay watershed  
23 could adversely impact these waters.

24            Response: Atlantic and DTI will use a dry crossing method, such as flume, dam-and-  
25 pump, cofferdam, or a trenchless crossing technique (e.g., conventional bore, guided bore, or  
26 HDD) to construct the pipelines across waterbodies (to be discussed in Section 1.5.2 of draft  
27 Resource Report 1). In each case and for each method, Atlantic and DTI will adhere to the  
28 measures specified in the Procedures and requirements identified in Federal or  
29 State/Commonwealth waterbody crossing permits, including applicable permits and approvals  
30 from the USACE and State/Commonwealth regulatory agencies. Implementation of these  
31 measures (such as installation of erosion and sediment controls) will avoid or minimize impacts  
32 on waterbodies.

33            The use of dry crossing methods, such as flume, dam-and-pump, cofferdam, or HDD, can  
34 be used to avoid impacts in sensitive waterbodies from sedimentation and turbidity. Appendix  
35 2A of draft Resource Report 2 will list the crossing methods identified to date for waterbodies  
36 along the proposed ACP pipeline routes.

37            Crossing methods for the Rockfish River and its tributaries are still being evaluated as are  
38 most of the waterbody crossings in the Lower Chesapeake watershed (though the Southern  
39 Branch Elizabeth River is proposed to be crossed by HDD). The James River is proposed to be  
40 crossed by HDD, while its tributaries are proposed to be crossed using the dam-and-pump or

1 flume methods. Proposed crossing methods for all waterbodies will be identified in the final  
2 Resource Report 2.

3 *Comment:* Several commenters expressed concern regarding impacts on wells, including  
4 water quality and yield.

5 *Response:* Impacts on wells are not expected due to the depth of bedrock aquifers  
6 relative to the depth of the pipeline trench (to be discussed in Section 2.1.6 of draft Resource  
7 Report 2). The aquifers are deeper than the pipeline trench. Additionally, Atlantic and DTI will  
8 implement several measures to avoid impacts on wells. Atlantic will install erosion and  
9 sediment controls as required by the FERC's *Upland Erosion Control, Revegetation, and*  
10 *Maintenance Plan* (Plan) and Procedures, and a Project-specific *Karst Monitoring and*  
11 *Mitigation Plan*, including the installation of controls upslope of karst features with a direct  
12 connection to the phreatic zone of the karst (i.e., groundwater). Atlantic and DTI additionally  
13 will prepare and implement a *Spill Prevention, Control, and Countermeasures Plan* (SPCC  
14 Plan), which will describe procedures for avoiding, minimizing, and mitigating spills of  
15 hazardous materials associated with construction (e.g., fuel or hydraulic fluid). Atlantic and DTI  
16 will prohibit refueling within 100 feet of karst features with a direct connection to the phreatic  
17 zone of the karst, within 200 feet of private water supply wells, and within 400 feet of municipal  
18 water supply wells. Atlantic and DTI additionally will conduct pre- and post-construction testing  
19 of well quality and yields (with landowner permission) for wells within 150 feet of construction  
20 activities.

21 *Comment:* Several commenters expressed concern regarding impacts on groundwater  
22 quality in karst areas.

23 *Response:* Section 2.1.6 of draft Resource Report 2 and Section 6.6 of draft Resource  
24 Report 6 will address mitigation measures to protect groundwater quality in karst areas during  
25 construction of the Projects. Erosion and sediment controls will be installed along the edge of  
26 the construction right-of-way and in other work areas upslope of known sinkholes or other karst  
27 features with a direct connection to the phreatic zone of the karst. In addition, refueling,  
28 hazardous materials storage, and overnight equipment parking within 100 feet of karst features  
29 with a direct connection to the phreatic zone will be prohibited. These measures will avoid the  
30 introduction of sediment or other materials into karst features.

31 *Comment:* Several commenters expressed concern that sediment contamination in water  
32 due to pipeline construction could affect local industries such as tourism, agriculture, and water-  
33 dependent activities, such as breweries and orchards.

34 *Response:* While specific construction methods for waterbody crossings are being  
35 evaluated, most waterbodies with flowing water will be crossed using a dry crossing method  
36 such as flume, dam-and-pump, cofferdam, or a trenchless crossing technique (e.g., conventional  
37 bore, guided bore, or HDD), in accordance with applicable permits. Use of these methods will  
38 avoid or minimize instream impacts from sedimentation and turbidity, including the spread of  
39 contaminated sediments (if present) during construction. Descriptions of construction methods  
40 for waterbodies are provided in Section 1.5.2 of draft Resource Report 1. In addition, the erosion  
41 and sediment controls required by the Plan and Procedures will minimize sedimentation.

1            *Comment:* Several commenters expressed concern regarding long-term degradation of  
2 waterbodies due to sedimentation from pipeline construction.

3            Response: Construction across waterbodies is a short-term activity limited to 24 hours  
4 for waterbodies that are 10 feet or less in width and 48 hours for waterbodies that are greater than  
5 10 feet and up to 100 feet wide. Additionally, while specific construction methods for  
6 waterbody crossings are still being evaluated, most waterbodies with flowing water will be  
7 crossed using a dry crossing method such as flume, dam-and-pump, cofferdam, or a trenchless  
8 method (e.g., conventional bore, guided bore, or HDD), in accordance with applicable permits.  
9 Use of these methods will avoid or minimize instream impacts from sedimentation and turbidity,  
10 including the spread of contaminated sediments (if present) during construction. Descriptions of  
11 construction methods for waterbodies will be provided in Section 1.5.2 of draft Resource Report  
12 1. Furthermore, post-construction restoration will reduce the likelihood of future sedimentation  
13 (to be discussed in Section 2.2.10 of draft Resource Report 2).

14            *Comment:* Several commenters said that blasting of bedrock could cause new fractures  
15 and change the existing flow of surface water and groundwater, which may cause streams and  
16 wells to go dry. Other commenters said that construction of the pipelines could result in reduced  
17 volumes in many local wells, which would require upgrades or drilling of new wells. Another  
18 commenter said that mountain bedrock contains fractures that convey water underground near  
19 the surface, and that blasting in these areas could cause a substantial loss of underground water,  
20 which feeds streams and wetlands.

21            Response: Blasting may be necessary along portions of the proposed ACP and SHP  
22 facilities where bedrock is located at or near the ground surface (to be discussed in Section 2.1.6  
23 of draft Resource Report 2). Atlantic and DTI will develop a *Blasting Plan* that identifies  
24 blasting procedures consistent with safety requirements as defined by Federal,  
25 State/Commonwealth, and local agency regulations. Blasting will be conducted in a manner to  
26 minimize impacts on nearby public and private water supply wells, springs, and/or karst features.

27            As a result of blasting, temporary changes in water level and turbidity could affect  
28 groundwater quality and bedrock-based water well systems located in close proximity to the  
29 construction right-of-way. The use of controlled blasting techniques, where small, localized  
30 detonations are utilized, will avoid or minimize the impacts of blasting and limit rock fracture to  
31 the immediate vicinity of these activities. Additionally, if construction activities are required  
32 within 150 feet of a water well or private water supply spring, Atlantic and DTI will, with  
33 landowner permission, conduct preconstruction and post-construction well testing (including  
34 testing for well quality and yields), and perform any necessary repair or restoration to maintain  
35 well productivity and water quality.

36            *Comment:* Several commenters said that blasting and drilling to lay the pipeline across  
37 waterbodies could cause pollution in the waterbodies.

38            Response: As noted above, Atlantic and DTI will develop a *Blasting Plan* that identifies  
39 blasting procedures consistent with safety requirements as defined by Federal,  
40 State/Commonwealth, and local agency regulations. If blasting is necessary in a flowing  
41 waterbody, the use of controlled blasting techniques, where small, localized detonations are

1 utilized, will avoid or minimize the impacts of blasting and limit rock fracture to the immediate  
2 vicinity of these activities. Immediately following blasting, Atlantic and DTI will remove shot  
3 rock that impedes stream flow. The potential impacts on waterbodies due to construction  
4 activities, including blasting, will be discussed in Section 2.2.10 of draft Resource Report 2.

5 Use of the HDD method will avoid impacts on waterbodies because it allows for the pipe  
6 to be installed underneath the ground surface without disturbance of the streambed or banks.  
7 However, a temporary, localized increase in turbidity could occur in the event of an inadvertent  
8 release of drilling fluid to the waterbody. Drilling fluid to be used on the ACP will be composed  
9 of water and bentonite clay (a naturally occurring mineral). The EPA does not list bentonite as a  
10 hazardous substance. If an inadvertent return occurs in a waterbody, the drilling fluid will be  
11 dispersed into the water and carried downstream. No long-term adverse environmental impacts  
12 are expected should an inadvertent release occur. The HDD method is discussed in Section 1.5.2  
13 of draft Resource Report 1 and Section 2.10.2 of draft Resource Report 2.

14 *Comment:* Several commenters said that Atlantic will use large amounts of water for  
15 hydrostatic testing, and that there is no plan to return the water to the natural ecosystem. Other  
16 commenters requested an analysis of the amounts and locations of water withdrawals for  
17 hydrostatic testing.

18 Response: Each pipeline will be hydrostatically tested in sections to verify that the  
19 system is free from leaks and will provide the required margin of safety at operating pressures (to  
20 be discussed in Section 1.5.1 of draft Resource Report 2). Individual sections of pipeline to be  
21 tested will be determined by water availability and terrain conditions. Water for hydrostatic  
22 testing will be obtained from surface or groundwater sources in accordance with  
23 State/Commonwealth regulations and required permits. As practicable, water will be transferred  
24 from one test section to another to reduce the amount of water that is required for testing. Once  
25 hydrostatic testing is complete, the test water will be discharged in accordance with the Plan and  
26 Procedures and applicable permits through an approved discharge structure to remove turbidity  
27 or suspended sediments (i.e., dirt left in the pipe during construction). Alternatively, the water  
28 will be hauled offsite for disposal at an approved location.

29 Atlantic and DTI are evaluating the required volumes and potential sources of water for  
30 use during hydrostatic testing of the pipelines as well as discharge locations after testing is  
31 complete. Information on test volumes, water sources, and discharge points will be provided in  
32 the final Resource Report 2.

33 *Comment:* Several commenters said that small leaks in the pipeline will be undetected  
34 and will slowly contaminate groundwater and surface water over time.

35 Response: Atlantic and DTI will utilize a rigorous Integrity Management Plan, which  
36 will be described in Section 11.2.3 of draft Resource Report 11. The proposed pipelines will  
37 transport natural gas, which primarily is methane. Methane is buoyant at atmospheric  
38 temperatures and disperses rapidly in air. Therefore, in the unlikely event of a leak, impacts on  
39 soil and groundwater from methane are not anticipated. The proposed pipelines will not carry  
40 liquids.

1            *Comment:* Several commenters said that headwater streams will be impacted due to  
2 pipeline construction.

3            *Response:* See the responses above regarding waterbody construction and restoration  
4 methods.

5            *Comment:* Several commenters said that Atlantic should evaluate the feasibility of using  
6 trenchless crossing methods for all sensitive or high-quality waterbodies.

7            *Response:* Atlantic and DTI will use a dry crossing method such as flume, dam-and-  
8 pump, cofferdam, or a trenchless crossing technique (e.g., conventional bore, guided bore, or  
9 HDD) to construct the pipelines across waterbodies (to be discussed in Section 1.5.2 of draft  
10 Resource Report 1). Atlantic and DTI continue to evaluate appropriate construction methods for  
11 each waterbody crossing based on engineering design, constructability, and potential impacts on  
12 sensitive resources. In each case and for each method, Atlantic and DTI will adhere to the  
13 measures specified in the Procedures and requirements identified in Federal or  
14 State/Commonwealth waterbody crossing permits, including applicable permits and approvals  
15 from the USACE and State/Commonwealth agencies.

16            *Comment:* Several commenters said that Atlantic should test municipal and private water  
17 sources before, during, and after construction for toxic metals and hazardous industrial  
18 contaminants.

19            *Response:* Atlantic and DTI will develop and implement a comprehensive SPCC Plan,  
20 which will describe procedures for avoiding, minimizing, and mitigating spills of hazardous  
21 materials associated with construction (e.g., fuel or hydraulic fluid). Atlantic and DTI will  
22 prohibit refueling within 100 feet of karst features with a direct connection to the phreatic zone  
23 of the karst (i.e., groundwater), within 200 feet of private water supply wells, and within 400 feet  
24 of municipal water supply wells. Atlantic and DTI additionally will conduct pre- and post-  
25 construction testing of well quality and yields (with landowner permission) for wells within 150  
26 feet of construction activities.

27            *Comment:* Several commenters said that baseline water quality, quantity, and biological  
28 data should be collected for wetlands and waterbodies crossed by the Projects, prior to  
29 beginning construction activities.

30            *Response:* Wetland field data along the ACP and SHP routes are being collected  
31 according to the methods outlined by the USACE 1987 Wetlands Delineation Manual and  
32 appropriate regional supplements of the 1987 Wetlands Delineation Manual. The wetland data  
33 include observations of vegetation, hydrology, and soils, which are recorded on the appropriate  
34 USACE wetland delineation data sheet. Similarly, waterbody data are recorded at each  
35 waterbody crossing to document physical characteristics of the stream and the data necessary to  
36 support permit applications to the applicable Federal and State/Commonwealth agencies (e.g.,  
37 ordinary high water mark width, bank height, flow regime, estimated depth of water, etc.). The  
38 data collected will be provided in the wetland and waterbody delineation reports for the ACP and  
39 SHP, which will be filed prior to or with the final Resource Report 2.

1            *Comment:* Several individuals commented that Atlantic should evaluate potential  
2 hydrologic impacts of pipeline installation in riparian corridors, including water table flow,  
3 stream morphology, stream temperatures, and water retention quantities.

4            *Response:* The pipeline will be buried below the ground surface and therefore will not  
5 impact water retention or floodplain storage within riparian corridors. Atlantic and DTI are  
6 routing the proposed pipelines to avoid sharp angle crossings at waterbodies or crossings of  
7 waterbodies where high stream energy could result in bank erosion. Atlantic and DTI will  
8 implement measures outlined in the Procedures to minimize impacts on the waterbodies crossed,  
9 including the installation of trench plugs to prevent water from flowing along the trenchline  
10 during and after construction. These measures will minimize potential impacts on surface and  
11 below ground hydrology. All waterbody crossings will be in accordance with requirements  
12 identified in the Federal or State/Commonwealth waterbody crossing permits obtained for the  
13 Projects.

#### 14    **4.2.2 Specific Comments**

15            *Comment:* One commenter said that the Rockfish River is susceptible to heavy siltation  
16 after a rain event and that removal of the riparian buffer along the pipeline right-of-way will  
17 cause increased siltation of the river. Several other commenters said that erosion and  
18 sedimentation from construction will threaten local waterbodies.

19            *Response:* Atlantic and DTI will install erosion and sediment controls at waterbody  
20 crossings in accordance with the Plan and Procedures (to be discussed in Section 1.5.2.1 of draft  
21 Resource Report 1). During clearing, temporary sediment barriers will be installed and  
22 maintained across the right-of-way adjacent to waterbodies to minimize the potential for  
23 sediment runoff. Following installation of the pipeline, stream banks will be restored as near as  
24 practicable to pre-existing conditions and stabilized. Stabilization measures could include  
25 seeding, tree planting, installation of erosion control blankets, or installation of riprap materials,  
26 as appropriate. Permanent erosion controls will be installed immediately following bank  
27 restoration. These measures will avoid or minimize erosion and sedimentation into waterbodies  
28 during construction and operation of the Projects.

29            *Comment:* One commenter identified the Cowpasture River as a high quality trout  
30 stream and said that the pipeline should avoid impacts on this waterbody.

31            *Response:* The Cowpasture River is currently proposed to be crossed using the dam-and-  
32 pump method (to be shown in Appendix 2A of draft Resource Report 2). Use of this method,  
33 like other dry-crossing methods, will isolate trenching activities from flowing water. This will  
34 avoid impacts on water quality from downstream sedimentation and turbidity as well as impacts  
35 on fisheries. No long term impacts on the Cowpasture River are anticipated. A description of  
36 the dam-and-pump method, as well as the planned duration of the crossing, will be provided in  
37 Section 1.5.2 of draft Resource Report 1.

38            *Comment:* One commenter said that Trout Unlimited has invested nearly one million  
39 dollars in habitat improvements to the East Fork Greenbrier River in West Virginia. This

1 *commenter and other commenters said that construction of the ACP could cause sedimentation*  
2 *in waterbodies, which could damage brook trout habitat.*

3 The East Fork Greenbrier River is currently proposed to be crossed using the cofferdam  
4 method (to be shown in Appendix 2A of draft Resource Report 2). Use of this method, like other  
5 dry-crossing methods, will isolate trenching activities from flowing water. This will avoid  
6 impacts on water quality from downstream sedimentation and turbidity as well as impacts on  
7 fisheries. No long term impacts on the East Fork Greenbrier River are anticipated. A description  
8 of the cofferdam method will be provided in Section 1.5.2 of draft Resource Report 1.

9 *Comment: The Shenandoah Valley Chapter of Trout Unlimited identified several streams*  
10 *where the ACP could impact trout populations or trout fisheries.*

11 As discussed above, while specific construction methods for waterbody crossings are still  
12 being evaluated, most waterbodies with flowing water will be crossed using a dry crossing  
13 method such as flume, dam-and-pump, cofferdam, or HDD. Use of these methods will avoid or  
14 minimize instream impacts from sedimentation and turbidity as well as impacts on fisheries.  
15 Descriptions of crossing methods for waterbodies will be provided in Section 1.5.2 of draft  
16 Resource Report 1.

17 *Comment: The Headwaters Soil and Water Conservation District (HSWCD) said that*  
18 *Atlantic should adhere to all Federal, State/Commonwealth, and local erosion and sediment*  
19 *control regulations to avoid erosion and deposition of sediment into HSWCD reservoirs in*  
20 *Augusta County, Virginia.*

21 *Response: Atlantic and DTI will implement the Plan and Procedures as well as*  
22 *applicable State/Commonwealth and local regulations or guidelines, including the Virginia*  
23 *Department of Environmental Quality's (VDEQ) Virginia Erosion and Sediment Control*  
24 *Handbook (1992).*

25 *Comment: The Virginia Native Plant Society commented that a four-mile-wide study*  
26 *corridor along the proposed pipeline routes in Virginia crosses approximately 38,115 acres of*  
27 *wetland identified by the Virginia Department of Conservation and Recreation (VDCR) 2014*  
28 *Wetland Catalog.*

29 *Response: Wetland crossings will be discussed in Section 2.4.2 of draft Resource Report*  
30 *2. Based on field surveys conducted to date augmented by desktop data, the ACP temporarily*  
31 *will affect 255.2 acres of wetland in Virginia, of which 181.3 acres will be converted from*  
32 *forested or shrub wetland to herbaceous wetland in the permanent maintained easements for the*  
33 *pipelines. Construction and restoration methods for wetlands will be in accordance with*  
34 *applicable permits and approvals, including those from the USACE, VDEQ, and Virginia Marine*  
35 *Resources Commission. Construction and restoration methods for wetlands will be discussed in*  
36 *Section 1.5.2 of draft Resource Report 1.*

37 *Comment: Friends of Nelson County commented that the ACP will cross headwaters of*  
38 *the Piney River, Rockfish River, and Tye River, and extend across nine watersheds. They also*  
39 *said that many of these headwaters feed the James River, which supplies water to the City of*

1 *Richmond. Friends of Nelson County commented that construction of the ACP will increase*  
2 *sedimentation and increase costs of water treatment for many people.*

3 Response: See the responses above regarding construction and restoration methods for  
4 waterbodies. For all waterbody crossing methods, Atlantic and DTI will adhere to the measures  
5 specified in the Procedures and requirements identified in Federal or State/Commonwealth  
6 waterbody crossing permits, including applicable permits and approvals from the USACE and  
7 VDEQ. No long term impacts on waterbodies due to sedimentation are anticipated.

8 Comment: *One commenter said that the ACP will cross over two miles of riparian buffer*  
9 *along the North Fork of the Rockfish River and impact forested wetlands along the river.*

10 Response: The current alignment for the ACP does not cross the North Fork of the  
11 Rockfish River.

12 Comment: *One commenter from Nelson County, Virginia said that the ACP will cross*  
13 *two wetlands which are connected by an underground aquifer, and that pipeline construction*  
14 *could impact their drinking water and livestock.*

15 Response: Documentation of wetlands in this area is pending permission to access  
16 properties along this segment of the route. Potential impacts on these wetlands will be assessed  
17 when field surveys are completed. Construction and restoration methods for wetlands will be  
18 discussed in Section 1.5.2 of draft Resource Report 1.

19 Documentation of springs and wells in this area similarly are pending permission to  
20 access properties along this segment of the route. Potential impacts on springs and wells will be  
21 assessed as field surveys are completed. Potential impacts and mitigation for wells are discussed  
22 in responses above and will be discussed in Section 2.1.6 of draft Resource Report 2.

23 Comment: *Several commenters said that the West Virginia Department of Environmental*  
24 *Protection (WVDEP) cited Dominion with violations for breaches of sediment controls resulting*  
25 *in sedimentation into waterbodies along the existing G-150 pipeline in West Virginia.*

26 Response: DTI and Dominion both have outstanding environmental compliance records  
27 and have a long-standing record of environmental stewardship. DTI is in the process of  
28 completing corrective actions to resolve the WVDEP citation concerning the existing G-150  
29 pipeline in West Virginia (to be discussed in Section 6.4.2 of draft Resource Report 6).  
30 Additionally, Atlantic and DTI will implement the Plan and Procedures as well as applicable  
31 State/Commonwealth and local regulations or guidelines, including the WVDEP's *Erosion and*  
32 *Sediment Control Best Management Practice Manual* (2006) (as discussed in these responses  
33 and to be discussed in draft Resource Reports 1, 2, and 6).

34 In landslide prone areas, Atlantic and DTI will conduct site-specific geotechnical studies  
35 along the proposed pipeline routes to assess the potential for landslides to occur during  
36 construction and operation of the Projects. Atlantic and DTI will implement mitigation measures  
37 to stabilize all areas identified in the site-specific geotechnical studies as having a high potential  
38 for slope failures. These measures could involve burial of the pipeline below the potential  
39 landslide depth, if feasible, and/or drainage control (e.g., slope and ditch breakers, subsurface

1 gravel or cobble drains, and culverts and drainage ditches to divert water away from the right-of-  
2 way). Additionally, Atlantic and DTI will make every effort to promote the rapid, successful  
3 establishment of vegetation in areas disturbed by construction.

4 *Comment: One commenter requested the following information for each stream crossing*  
5 *along the pipeline routes: stream discharge, channel gradient, channel sinuosity, stream*  
6 *substrate, cross-sectional surveys, channel debris, sediment storage, stream order, bed and bank*  
7 *stability, scour depth and depth of pools, and scour depth analysis to determine the vertical or*  
8 *lateral adjustment of each stream.*

9 Response: Atlantic and DTI are completing waterbody surveys to document waterbody  
10 crossings along the pipeline route and collect the information needed to support Federal and  
11 State/Commonwealth permitting for these crossings. Data collected during surveys are based on  
12 the permit application requirements. Information on the results of the surveys, including data  
13 sheets for each crossing, will be included in Atlantic's and DTI's wetland and waterbody  
14 delineation reports, which will be filed prior to or with the final Resource Report 2.

15 *Comment: One commenter said that Atlantic should provide a plan for the crossing of*  
16 *Shavers Fork in West Virginia and establish an escrow account to pay for damages that occur to*  
17 *Shavers Fork as a result of construction.*

18 Response: Shavers Fork is currently proposed to be crossed using the cofferdam method  
19 (to be shown in Appendix 2A of draft Resource Report 2). Use of this method, like other dry-  
20 crossing methods, will isolate trenching activities from flowing water. This will avoid impacts  
21 on water quality from downstream sedimentation and turbidity as well as impacts on fisheries.  
22 No long term impacts on Shavers Fork are anticipated. A description of the cofferdam method  
23 will be provided in Section 1.5.2 of draft Resource Report 1. Construction alignment sheets  
24 depicting the crossing, and the locations of erosion and sediment controls relative to the crossing,  
25 will be filed prior to construction.

26 Atlantic and DTI will take the necessary actions to repair third-party damage directly  
27 attributable to the construction and operation of the ACP. Furthermore, it is FERC's expectation  
28 that interstate pipeline companies take responsibility for damages that result from construction of  
29 jurisdictional pipeline facilities. To the extent necessary, Atlantic and DTI will provide  
30 compensation for any construction related property damage directly caused by the Projects  
31 consistent with any agreements that Atlantic and DTI may have with private landowners.  
32 Atlantic and DTI maintain a comprehensive liability insurance program that will remain in place  
33 during construction and operation of the Projects. In addition, the construction contractors will  
34 be required to have liability insurance covering claims for third party property damage.

35 *Comment: One commenter asked if water would be withdrawn from the James River to*  
36 *cool the compressor station in Buckingham County, Virginia, and if so, if the water would be*  
37 *recycled back into the James River.*

38 Response: None of the proposed compressor stations will be cooled with water,  
39 including Compressor Station 2 in Buckingham County, Virginia.

1            *Comment:* The Jackson River Preservation Association asked for a site-specific  
2 evaluation of impacts on the Back Creek and Jackson River watersheds in Highland County,  
3 Virginia.

4            Response: The Jackson River and its tributaries are currently proposed to be crossed  
5 using the dam-and-pump method (to be shown in Appendix 2A of draft Resource Report 2).  
6 While specific construction methods for Back Creek and its tributaries are still being evaluated,  
7 most waterbodies with flowing water will be crossed using a dry crossing method such as flume,  
8 dam-and-pump, or cofferdam. Use of these methods will avoid or minimize instream impacts  
9 from sedimentation and turbidity. Descriptions of construction and restoration methods for  
10 waterbodies will be provided in Section 1.5.2 of draft Resource Report 1.

11           *Comment:* One commenter said that construction could increase turbidity in  
12 groundwater and break sanitary seals around wells due to subsurface vibrations from blasting.

13           Response: See the responses above regarding potential impacts on water wells due to  
14 blasting.

15           *Comment:* One commenter in Augusta County said their property contains globally rare  
16 limestone sinkhole ponds, and that the proposed pipeline will impact this ecosystem.

17           Response: Documentation of wetlands and waterbodies in this area is pending  
18 permission to access properties along this segment of the route. Potential impacts on limestone  
19 sinkhole ponds will be assessed when field surveys are completed. Construction and restoration  
20 methods for waterbodies and wetlands will be discussed in Section 1.5.2 of draft Resource  
21 Report 1.

22           *Comment:* Several commenters said that the pipeline route is located near the public  
23 water wells of the towns of Monterey and McDowell in Highland County, Virginia. These  
24 commenters said that the pipeline will threaten the quality of the public water supply and that  
25 Atlantic should be required to pay for damages if the water supply is affected.

26           Response: FERC requires the Applicant to identify any wells within 150 feet of  
27 construction activities. Atlantic and DTI will identify and in addition will conduct pre- and post-  
28 construction testing of well quality and yields (with landowner permission) for wells within 150  
29 feet of construction activities and perform necessary repairs or restoration to maintain well  
30 productivity and water quality. Based on information from the Virginia Department of Health –  
31 Office of Drinking Water, no known public water supply wells are located within 150 feet of the  
32 proposed workspace for the ACP facilities in Virginia.

33           *Comment:* The Sierra Club of Virginia commented that soil compaction along the  
34 pipeline right-of-way due to construction activities will inhibit revegetation of the construction  
35 area, decrease infiltration of runoff, and increase runoff in waterbodies. They also commented  
36 that stream banks and channels will have more issues with water quality, especially from erosion  
37 and sedimentation, due to the increased water volume.

38           Response: Compaction impacts will be mitigated through the segregation of topsoil,  
39 where appropriate. After construction activities are complete, subsoil compaction will be

1 addressed through the use of deep tillage operations during restoration activities using a  
2 paraplow or similar implement. In areas where topsoil segregation occurs, plowing with a  
3 paraplow or other deep tillage implement to alleviate subsoil compaction will be conducted  
4 before replacement of the topsoil.

5 Additionally, Atlantic and DTI will install erosion and sediment controls at waterbody  
6 crossings in accordance with the Plan and Procedures (to be discussed in Section 1.5.2 of draft  
7 Resource Report 1). During clearing, sediment barriers will be installed and maintained across  
8 the right-of-way adjacent to waterbodies and within additional temporary workspace (ATWS) to  
9 minimize the potential for sediment runoff. Following installation of the pipeline, stream banks  
10 will be restored as near as practicable to pre-existing conditions and stabilized. Stabilization  
11 measures could include seeding, tree planting, installation of erosion control blankets, or  
12 installation of riprap materials, as appropriate. Temporary erosion controls will be installed  
13 immediately following bank restoration. These measures will avoid or minimize erosion and  
14 sedimentation into waterbodies during construction and operation of the Projects. Atlantic and  
15 DTI will monitor all disturbed areas, and implement corrective actions as needed, until the  
16 density and cover of non-nuisance vegetation is similar to the density and cover of comparable  
17 adjacent undisturbed areas.

18 *Comment: The Cowpasture River Preservation Association commented that the total*  
19 *amount of erosion and sediment from construction expected to reach the Cowpasture River*  
20 *should be evaluated due to the steep and rugged terrain that will be crossed by the pipeline*  
21 *within the Cowpasture River watershed.*

22 *Response: Atlantic and DTI will install erosion and sediment controls at waterbody*  
23 *crossings that are appropriate for the particular terrain that is being crossed, in accordance with*  
24 *the Plan and Procedures and State/Commonwealth regulations (to be discussed in Section 1.5.2*  
25 *of draft Resource Report 1). During clearing, sediment barriers will be installed and maintained*  
26 *across the right-of-way adjacent to waterbodies and within ATWS to minimize the potential for*  
27 *sediment runoff. Following installation of the pipeline, stream banks will be restored as near as*  
28 *practicable to pre-existing conditions and stabilized. As discussed above, stabilization measures*  
29 *could include seeding, tree planting, installation of erosion control blankets, or installation of*  
30 *riprap materials, as appropriate. Temporary erosion controls will be installed immediately*  
31 *following bank restoration. These measures will avoid or minimize erosion and sedimentation*  
32 *into waterbodies during construction and operation of the Projects.*

33 *Comment: The Augusta County Service Authority commented that the pipeline route*  
34 *should avoid Augusta County Source Water Protection Areas and delineated recharge areas in*  
35 *accordance with the Augusta County Source Water Protection Ordinance.*

36 *Response: Wellhead and surface water protection areas crossed by the Projects will be*  
37 *discussed in Sections 2.1.3 and 2.2.5 of draft Resource Report 2, respectively. Atlantic has met*  
38 *several times with the Augusta County Service Authority to identify the location of these*  
39 *protection areas and to coordinate the route of proposed ACP facilities. To the extent possible,*  
40 *the proposed route (as will be shown in the draft Resource Reports) will minimize impacts on the*  
41 *Augusta County Source Water Protection Areas.*

1            *Comment: The Augusta County Service Authority commented that a study of the impacts*  
2 *of pipeline construction on the Lyndhurst Groundwater Recharge Area and water wells in this*  
3 *area should be completed and the results reviewed by the public.*

4            Response: Atlantic will coordinate with the Augusta County Service Authority regarding  
5 the Lyndhurst Groundwater Recharge Area. Impacts on wells are not expected. A more detailed  
6 discussion of water wells will be included in Section 2.1 of draft Resource Report 2. Atlantic  
7 and DTI will develop and implement a SPCC Plan, which will describe procedures for avoiding,  
8 minimizing, and mitigating spills of hazardous materials associated with construction, including  
9 prohibiting refueling within 400 feet of municipal water supply wells. Atlantic and DTI will  
10 conduct pre- and post-construction testing of well quality and yields (with landowner  
11 permission) for wells within 150 feet of construction activities.

12           *Comment: One commenter said that the Virginia Stormwater Management Act requires*  
13 *that post-construction areas have similar runoff rate and flow characteristics that replicate as*  
14 *nearly as practicable, existing pre-construction runoff characteristics and site hydrology to*  
15 *maintain the health of watersheds.*

16           Response: Upon completion of construction, Atlantic and DTI will restore the ground  
17 surface as closely as practicable to original contours and reestablish vegetation on the right-of-  
18 way to facilitate restoration of preconstruction overland flow and recharge patterns.

19           *Comment: The EPA recommended that the acres of wetlands that will be converted from*  
20 *one cover type to another be identified and the proposed mitigation measures for these*  
21 *conversions should be addressed.*

22           Response: Wetland conversion will be discussed in Section 2.4.4 of draft Resource  
23 Report 2 and a list of wetlands affected by the Projects will be included in Appendix 2G. This  
24 appendix will list each wetland that would be crossed by the ACP and SHP, respectively, and  
25 will provide the cover type, temporary impacts, and wetland community type conversion  
26 impacts. Wetland vegetation type conversion impacts are associated with scrub-shrub and  
27 forested wetlands. Operational requirements (corrosion/leak surveys) allow a 10-foot-wide  
28 corridor centered over the pipeline to be maintained in an herbaceous state, and allow trees  
29 within 15 feet on either side of the pipeline with roots that could compromise the integrity of the  
30 pipeline to be selectively cut from the right-of-way. To determine permanent conversion impacts  
31 on scrub-shrub wetlands, a 10-foot-wide corridor centered over the pipeline was assessed. A 30-  
32 foot-wide corridor centered over the pipeline was assessed for forested wetlands. There are no  
33 permanent operational impacts associated with emergent wetlands.

34           Atlantic and DTI anticipate preparing Compensatory Wetland Mitigation Plans for the  
35 Projects as part of their applications to the USACE for a Department of the Army Permit under  
36 Section 404 of the CWA. Copies of the plans will be filed with the Commission when they have  
37 been approved by the USACE.

38           *Comment: The EPA commented that State or Federally designated outstanding waters,*  
39 *designated wildlife management areas, State or Federal parks, pristine water resources, or*  
40 *areas with similar designations should be identified.*

1            Response: Waterbodies with special Federal and State/Commonwealth designations will  
2 be identified in Section 2.2.8 and Appendix 2C of draft Resource Report 2. In addition, draft  
3 Resource Report 8 will address wildlife management areas/wildlife refuges, National Forests,  
4 and National Park Service (NPS) lands.

5            Comment: *The EPA commented on the proposed crossing of the Great Dismal Swamp  
6 National Wildlife Refuge (GDS-NWR), the permanent conversion of forested wetlands, and the  
7 potential to spread invasive species, and recommended the use of an HDD or alternative route to  
8 avoid impacts on the swamp.*

9            Response: Atlantic will continue to consult with the FWS regarding the crossing location  
10 and crossing method for the GDS-NWR. Several crossings were considered through the GDS-  
11 NWR. The most recent route revision (as will be shown in the draft Resource Reports) reduced  
12 the crossing length through the GDS-NWR from 4.8 miles to 1.7 miles, the majority of which  
13 abuts existing utility corridors. Consequently, there is a corresponding significant reduction in  
14 both temporary and conversion impacts on wetlands. Draft Resource Report 2 will provide a  
15 summary of wetlands affected on federal lands crossed by the ACP, including the GDS-NWR.  
16 Additionally, an *Invasive Plant Species Management Plan* will be developed and implemented  
17 for the Projects to prevent the spread of invasive species (to be provided in Appendix 1F of the  
18 final Resource Report 1). In accordance with the Procedures, post-construction monitoring will  
19 be conducted on all wetlands disturbed by the Projects.

20            Restoration/revegetation of wetlands will be considered successful when the affected  
21 wetland satisfies the Federal definition of a wetland (i.e., soils, hydrology, and vegetation); the  
22 vegetation is at least 80 percent of the cover documented for the wetland prior to construction, or  
23 at least 80 percent of the cover in adjacent, undisturbed areas of the wetland; or the plant species  
24 composition is consistent with early successional wetland plant communities in the affected  
25 ecoregion (if natural rather than active revegetation is used); and invasive species and noxious  
26 weeds are absent, unless they are abundant in adjacent areas that were not disturbed by  
27 construction (to be discussed in Section 2.4.4 of draft Resource Report 2).

28            Comment: *The EPA commented that wetlands identified as being of particularly high  
29 sensitivity (e.g., the presence of Federal or State listed species) should be documented and that  
30 high functioning, high quality, and rare systems should be avoided.*

31            Response: Impacts on all jurisdictional wetlands will be avoided, minimized, or  
32 mitigated to the extent practicable. Any wetlands impacted by the Projects will be documented.

33            Comment: *The EPA recommended that impacts and mitigation related to public water  
34 supplies, including aquifers, springs, wells, and surface waterbodies, should be addressed and  
35 that any sole source aquifers be identified.*

36            Response: Sections 2.1 and 2.2 of draft Resource Report 2 will provide a discussion of  
37 public water supplies proximate to the Projects, including aquifers, springs, wells, and surface  
38 waterbodies. The ACP and SHP do not cross any designated sole source aquifers.

39            Comment: *The EPA recommended that the analysis of impacts on water resources  
40 should consider designated water use, compliance with applicable water quality standards, and*

1 any CWA Section 401 Certifications issues. The EPA also commented that Section 303(d)  
2 waterbodies crossed should be identified, any potential impacts on the Total Maximum Daily  
3 Load of the waterbody should be assessed, and applicable mitigation measures should be  
4 discussed.

5 Response: State/Commonwealth surface water standards will be described in Section  
6 2.2.3 of draft Resource Report 2, and designations for waterbodies crossed by the Projects will  
7 be identified in Appendix 2A of draft Resource Report 2. Section 303(d) waterbodies will be  
8 discussed in Section 2.2.4 and identified in Appendix 2B of draft Resource Report 2. Based on  
9 the impairments to be listed in Appendix 2B, and through implementation of appropriate erosion  
10 and sediment controls as outlined in the Plan and Procedures, Atlantic and DTI do not anticipate  
11 causing or contributing to exceedances of water quality standards in any Total Maximum Daily  
12 Load waterbodies.

13 Comment: The EPA recommended that the dimensions at the crossing point and the  
14 crossing method for each waterbody should be identified. The EPA also commented that “worst  
15 case” scenarios associated with the proposed crossing method should be addressed, including  
16 the likelihood of occurrence, and said that impact avoidance and minimization should be  
17 discussed in the EIS.

18 Response: Appendix 2A of draft Resource Report 2 will include the approximate  
19 crossing widths and proposed crossing method for each waterbody crossed by the ACP and SHP,  
20 respectively. Atlantic and DTI are continuing to evaluate appropriate construction methods for  
21 each waterbody crossing based on engineering design, constructability, and potential impacts on  
22 sensitive resources. In each case and for each method, Atlantic and DTI will adhere to the  
23 measures specified in the Procedures and requirements identified in Federal or  
24 State/Commonwealth waterbody crossing permits, including applicable permits and approvals  
25 from the USACE and State/Commonwealth agencies.

26 Comment: The EPA recommended that the potential for contaminants to be introduced  
27 upstream of drinking water intakes, and potential impacts on drinking water, should be  
28 addressed (e.g., the introduction of contaminants at an HDD crossing).

29 Response: Surface water intakes for public water supplies within 3 miles downstream of  
30 the Projects will be identified in Section 2.2.5 of draft Resource Report 2, so that the appropriate  
31 notifications can be made to authorities before beginning work in the waterbodies in accordance  
32 with the Procedures. Atlantic and DTI will minimize or avoid impacts on the waterbodies  
33 upstream of these intakes through implementation of the erosion and sediment control measures  
34 outlined in the Plan and Procedures as well as applicable State/Commonwealth and local  
35 regulations or guidelines. In addition, the Project-specific SPCC Plan will restrict refueling or  
36 other liquid transfer areas within 100 feet of waterbodies in accordance with the Procedures.

37 Comment: The EPA commented that water withdrawn for hydrostatic testing should be  
38 returned to the same watershed (aquifer). The EPA also recommended that impacts on the  
39 hydrology and aquatic ecosystems of the waterbodies where water would be withdrawn,  
40 particularly during drought conditions, should be addressed. Other organizations and  
41 individuals commented on the use of water for hydrostatic testing.

1            Response: Each pipeline will be hydrostatically tested in sections to verify that the  
2 system is free from leaks and will provide the required margin of safety at operating pressures (to  
3 be discussed in Section 1.5.1 of draft Resource Report 1). Individual sections of pipeline to be  
4 tested will be determined by water availability and terrain conditions. Water for hydrostatic  
5 testing will be obtained from surface or groundwater sources in accordance with  
6 State/Commonwealth regulations and required permits. As practicable, water will be transferred  
7 from one test section to another to reduce the amount of water that is required for testing. Once  
8 hydrostatic testing is complete, the test water will be discharged in accordance with the Plan and  
9 Procedures and applicable permits through an approved discharge structure to remove turbidity  
10 or suspended sediments (i.e., dirt left in the pipe during construction). Alternatively, the water  
11 will be hauled offsite for disposal at an approved location. Atlantic and DTI are evaluating the  
12 required volumes and potential sources of water for use during hydrostatic testing of the  
13 pipelines as well as discharge locations after testing is complete. Information on test volumes,  
14 water sources, and discharge points will be provided in the final Resource Report 2.

15            Comment: *The Laurel Mountain Preservation Association commented on the cumulative*  
16 *impacts on surface and groundwater resources and the effects of soil compaction and*  
17 *deforestation relative to surface runoff and groundwater recharge. The association commented*  
18 *that impacts should be evaluated using delineations of first-order stream watersheds.*

19            Response: An assessment of cumulative impacts for the Projects will be provided as  
20 Appendix 1L of draft Resource Report 1. Through wetland and waterbody field surveys,  
21 Atlantic and DTI are documenting each water resource (e.g., wetlands, waterbodies, and springs)  
22 that will be impacted by the Projects. Impacts on each of these resources will be evaluated to  
23 determine the appropriate construction method and special construction considerations (e.g., time  
24 of year restrictions) to minimize the impacts on each aquatic resource and associated resources  
25 (i.e., fisheries, mussels, etc.). In each case and for each method, Atlantic and DTI will adhere to  
26 the measures specified in the Procedures and requirements identified in Federal or  
27 State/Commonwealth waterbody crossing permits, including applicable permits and approvals  
28 from the USACE and State/Commonwealth agencies.

29            Comment: *The Laurel Mountain Preservation Association commented on possible*  
30 *changes to groundwater flow in terms of direction and quantity resulting from blasting. The*  
31 *association said that changes to ground water flow could impact drinking water supplies, base*  
32 *stream level stream water supplies, and moisture conditions in caves.*

33            Response: Blasting may be necessary along portions of the proposed ACP and SHP  
34 facilities where bedrock is located at or near the ground surface (to be discussed in Section 2.1.6  
35 of draft Resource Report 2). Atlantic and DTI will develop a *Blasting Plan* that identifies  
36 blasting procedures consistent with safety requirements as defined by Federal,  
37 State/Commonwealth, and local agency regulations. Blasting will be conducted in a manner to  
38 minimize impacts on nearby public and private water supply wells, springs, and/or karst features.

39            As a result of blasting, temporary changes in water level and turbidity could affect  
40 groundwater quality and bedrock-based water well systems located in close proximity to the  
41 construction right-of-way. The use of controlled blasting techniques, where small, localized  
42 detonations are utilized, will avoid or minimize the impacts of blasting and limit rock fracture to

1 the immediate vicinity of these activities. Additionally, if disturbance is required within 150 feet  
2 of a water well or private water supply spring, Atlantic and DTI will, with landowner permission,  
3 conduct preconstruction and post-construction well testing (including testing for well quality and  
4 yields) and perform necessary repair or restoration to maintain well productivity and water  
5 quality.

6 *Comment: The USFS commented on the need to analyze the impacts of water  
7 contamination from construction equipment and materials as well as long-term maintenance and  
8 operation of the pipeline.*

9 *Response: Atlantic and DTI will develop and implement a SPCC Plan, which will  
10 describe procedures for avoiding, minimizing, and mitigating spills of hazardous materials  
11 associated with construction (e.g., fuel or hydraulic fluid). Atlantic and DTI will prohibit  
12 refueling within 100 feet of wetlands, waterbodies, and karst features with a direct connection to  
13 the phreatic zone of the karst (i.e., groundwater). The long-term maintenance and operation of  
14 the pipeline will not result in water contamination.*

15 *Comment: The USFS commented on high priority watersheds where long-term water  
16 quality degradation is not allowed including the Upper Greenbrier River. The proposed study  
17 corridor does not include specific watershed/aquatic restoration sites.*

18 *Response: Atlantic will coordinate with the USFS to identify the locations of high  
19 priority watersheds as they pertain to the scope of the proposed ACP.*

20 *Comment: The USFS commented that excavation and fill on areas crossing Cheat  
21 Mountain-Back Allegheny Mountain may affect shallow groundwater dynamics. Karst terrain  
22 on Cheat Mountain-Back Allegheny Mountain also necessitates evaluating potential direct and  
23 indirect impacts at a distance from the proposed corridor.*

24 *Response: Atlantic will excavate the trench, bury the pipeline, and fill the trench using  
25 the material from the trench to restore the ground surface to preconstruction elevations. Atlantic  
26 will install temporary trench plugs and slope breakers as specified in the Plan and Procedures to  
27 prevent or minimize surface and shallow groundwater from flowing into and along the trenchline  
28 during and after construction. These measures will minimize potential impacts on surface and  
29 below ground hydrology.*

30 Atlantic and DTI will prepare and implement a *Karst Monitoring and Mitigation Plan* (to  
31 be provided in Appendix 1F of the final Resource Report 1), which will identify measures for  
32 avoiding or minimizing impacts on karst features during construction. These measures include  
33 the installation of erosion and sediment controls along the edge of the construction right-of-way  
34 and other work areas upslope of known sinkholes or other karst features with a direct connection  
35 to the phreatic zone of the karst (i.e., groundwater), and prohibiting construction related water  
36 discharges, equipment servicing, hazardous materials storage, overnight parking, and equipment  
37 refueling, within 100 feet of an identified karst feature.

38 *Comment: Trout Unlimited commented that field reconnaissance by pipeline personnel is  
39 necessary for the identification of stream crossings not visible on topographic maps.*

1           Response: Atlantic and DTI are currently conducting field surveys to identify water  
2 resources crossed by the Projects. The results of these surveys will be provided in the wetland  
3 and waterbody delineation reports for the SHP and ACP, which will be filed prior to or with the  
4 final Resource Report 2.

5           Comment: *The City of Buckhannon, West Virginia, commented that the ACP will cross*  
6 *the Buckhannon River and eight tributaries that are within five flow hours of the City of*  
7 *Buckhannon's public water intake. According to the West Virginia Department of Health and*  
8 *Human Resources, the pipeline crossing is located within the delineated "Zone of Critical*  
9 *Concern" for the City of Buckhannon public water supply. Therefore, the City of Buckhannon*  
10 *requests that the cement casing around the pipeline be extended to the length of ordinary high*  
11 *water mark of the Buckhannon River.*

12           Response: Atlantic will coordinate with the City of Buckhannon regarding the crossing  
13 of the zone of critical concern for this public water supply. Atlantic plans to install concrete  
14 coated pipe to at least the edge of the ordinary high water mark on the Buckhannon River  
15 crossing.

16           Comment: *The HSWCD commented that several protections be included as part of the*  
17 *federal approvals including: no pipeline installation through spillways, protection of existing*  
18 *dam easements, avoidance of dam access roads, and adherence to sediment control regulations*  
19 *impacting the dam pool.*

20           Response: Two HSWCD dams are within 0.75 mile of the proposed AP-1 mainline  
21 route. The dams would not be directly affected by pipeline construction and access roads to the  
22 dams are not crossed by the ACP (to be discussed in Section 8.9.2 of draft Resource Report 8).  
23 Indirect impacts on these dams or the associated reservoir are not anticipated.

24           Comment: *The Augusta County Board of Supervisors commented that karst features*  
25 *make their groundwater supply susceptible to contamination, and that blasting should be*  
26 *prohibited near flood control dams. The County requested that it be recognized as a "High*  
27 *Consequence Area" as defined by the USDOT's Pipeline and Hazardous Material Safety*  
28 *Administration (PHMSA).*

29           Response: Atlantic and DTI will prepare and implement a *Karst Monitoring and*  
30 *Mitigation Plan* (to be provided in Appendix 1F of the final Resource Report 1), which will  
31 identify measures for avoiding or minimizing impacts on karst features during construction.  
32 These measures include the installation of erosion and sediment controls along the edge of the  
33 construction right-of-way and other work areas upslope of known sinkholes or other karst  
34 features with a direct connection to the phreatic zone of the karst (i.e., groundwater), and  
35 prohibiting construction related water discharges, equipment servicing, hazardous materials  
36 storage, overnight parking, and equipment refueling, within 100 feet of an identified karst  
37 feature.

38           As discussed above, two HSWCD dams are within 0.75 mile of the proposed AP-1  
39 mainline route in Augusta County, Virginia: the Waynesboro Nursery Dam and the Tom's  
40 Branch Dam. Based on review of shallow bedrock areas along the AP-1 mainline route, Atlantic

1 does not anticipate blasting where the route comes within 0.75 mile of the Waynesboro Nursery  
2 Dam. It is possible that hard bedrock could be encountered during pipeline trenching within 0.75  
3 mile of the Tom's Branch Dam, however, and blasting in this area could be required. If blasting  
4 is necessary in the vicinity of the dam, Atlantic will work with the HSWDC to determine  
5 appropriate procedures and mitigation for the dam.

6 High Consequence Areas along the proposed ACP and SHP pipelines will be identified in  
7 Section 11.2.2 of the final Resource Report 11, based on the relationship of the pipeline  
8 centerlines to nearby structures and identified sites.

9 *Comment: The Virginia Department of Game and Inland Fisheries (VDGIF) commented*  
10 *that all in-stream work within all designated trout streams be completed in adherence with the*  
11 *VDGIF timing restrictions.*

12 Response: Atlantic will comply with VDGIF in-stream work timing restrictions for the  
13 crossings of designated trout streams.

14 *Comment: The VDGIF commented that all in-stream activities occur during low or no-*  
15 *flow conditions, using non-erodible cofferdams or turbidity curtains to isolate the construction*  
16 *area, blocking no more than 50 percent of the streamflow at any given time, stockpiling*  
17 *excavated material in a manner that prevents reentry into the stream, restoring original*  
18 *streambed and stream bank contours, re-vegetating barren areas within native vegetation, and*  
19 *implementing strict erosion and sediment control measures.*

20 Response: While specific construction methods for waterbody crossings are being  
21 evaluated, most waterbodies with flowing water will be crossed using a dry crossing method  
22 such as flume, dam-and-pump, cofferdam, or a trenchless crossing method (e.g., conventional  
23 bore, guided bore, or HDD) in accordance with applicable permits. Use of these methods will  
24 avoid or minimize instream impacts from sedimentation and turbidity. Descriptions of  
25 construction methods for waterbodies will be provided in Section 1.5.2 of draft Resource Report  
26 1. The crossing and restoration of all waterbodies will be in accordance with the the Procedures  
27 and requirements identified in Federal or State/Commonwealth waterbody crossing permits,  
28 including applicable permits and approvals from the USACE and State/Commonwealth agencies.

29 *Comment: The VDGIF commented that in-stream use of concrete should be done only in*  
30 *dry conditions, allowing all concrete to harden prior to returning stream flow.*

31 Response: The Project-specific SPCC Plan, which will be included in Appendix 1F of  
32 the final Resource Report 1, will require that concrete coating activities be completed a  
33 minimum of 100 feet from wetlands, waterbodies, springs, and karst features. Concrete coated  
34 pipe will be installed after the concrete is dried and will not disperse when submerged in water.

35 *Comment: The VDGIF commented that clear-span bridges should be used for*  
36 *construction stream crossings, rather than the installation of culverts, to minimize the loss of*  
37 *riparian and aquatic habitats. If the use of culverts is unavoidable, VDGIF recommended using*  
38 *countersinking culverts below the streambed at least six inches, or the use of bottomless culverts,*  
39 *to allow passage of aquatic organisms. VDGIF also recommended installation of floodplain*  
40 *culverts to carry bank full discharges.*

1            Response: Atlantic and DTI are currently evaluating both temporary and permanent  
2 stream crossings on a case-by-case basis. All crossings will be in compliance with applicable  
3 permits.

4            Comment: *The VDGIF commented that a “stream/wetland crossing table” should be*  
5 *provided to them to review the crossing method for each stream crossing. The table should*  
6 *include the latitude/longitude of the crossing, name of stream, stream classification, description*  
7 *of stream substrate at crossing location, depth and width of stream, pictures of the stream*  
8 *crossing site (including up and down stream photos), and a map depicting each crossing site that*  
9 *is referenced in the stream crossing table.*

10           Response: Appendix 2A of draft Resource Report 2 will provide a list of the waterbodies  
11 crossed by the proposed ACP and SHP facilities. For each waterbody crossing, information  
12 provided will include the field survey designation (Feature ID), waterbody name, approximate  
13 crossing width, flow regime (perennial, intermittent, ephemeral, or canal/ditch), currently  
14 proposed crossing method, and State/Commonwealth water classification, and will note if there  
15 is a time of year restriction on an intrusive water crossing.

16           Comment: *The VDGIF commented that naturally occurring stream buffers should be*  
17 *maintained at least 100 feet on either side of perennial and intermittent streams, where*  
18 *practicable.*

19           Response: Atlantic and DTI will install erosion and sediment controls at waterbody  
20 crossings in accordance with the Plan and Procedures (to be discussed in Section 1.5.2 of draft  
21 Resource Report 1). During clearing, temporary sediment barriers will be installed and  
22 maintained across the right-of-way adjacent to waterbodies to minimize the potential for  
23 sediment runoff. Except as requested in draft Resource Report 1 and approved by the FERC,  
24 additional workspace will be located at least 50 feet away from the water’s edge at each  
25 waterbody (with the exception of site-specific modifications as requested by Atlantic and DTI  
26 and approved by the FERC). Following installation of the pipeline, stream banks will be  
27 restored as near as practicable to pre-existing conditions and stabilized. Stabilization measures  
28 could include seeding, tree planting, installation of erosion control blankets, or installation of  
29 riprap materials, as appropriate. Temporary erosion controls will be installed immediately  
30 following bank restoration.

31           Comment: *One commenter said all spring recharge areas within the influence of or*  
32 *down gradient of the pipeline corridor must be identified and protected.*

33           Response: Springs along the ACP and SHP will be identified in Section 2.1.4 of draft  
34 Resource Report 2. Atlantic and DTI will avoid or minimize impacts on springs through  
35 implementation of the erosion and sediment control measure outlined in the Plan and Procedures,  
36 as well as applicable State/Commonwealth and local regulations or guidelines. In addition, the  
37 Project-specific SPCC Plan will restrict refueling or other liquid transfer areas within 100 feet of  
38 springs. Upon completion of construction, Atlantic and DTI will restore the ground surface as  
39 closely as practicable to original contours and reestablish vegetation on the right-of-way to  
40 facilitate restoration of preconstruction overland flow and recharge patterns.

1            *Comment: The Virginia Cave Board commented that all hydrostatic test water*  
2 *discharged in the Jackson River Valley should be prohibited and must be confined to holding*  
3 *ponds in a non-carbonate area.*

4            *Response: Atlantic and DTI will prepare and implement a *Karst Monitoring and**  
5 *Mitigation Plan* (to be provided in Appendix 1F of the final Resource Report 1), which will  
6 identify measures for avoiding or minimizing impacts on karst features during construction.  
7 These measures will include prohibiting construction related water discharges within 100 feet of  
8 an identified karst feature. Water for hydrostatic testing will be withdrawn and discharged in  
9 accordance with State/Commonwealth regulations and required permits. Hydrostatic test water  
10 will be discharged to well-vegetated upland areas or back to the same source from which it was  
11 obtained. Water discharged over land will be directed through containment structures such as  
12 hay bales and/or filter bags. Atlantic and DTI are evaluating the required volumes and potential  
13 sources of water for use during hydrostatic testing of the pipelines as well as discharge locations  
14 after testing is complete. Information on test volumes, water sources, and discharge points will  
15 be provided in the final Resource Report 2.

16            *Comment: The Virginia Cave Board commented that any project discharge fluids should*  
17 *not be discharged into sinkholes or other karst depressions, including sinking streams.*

18            *Response: As discussed above, the discharge of any construction related water will be*  
19 *prohibited within 100 feet of an identified karst feature. Erosion and sediment controls and site*  
20 *grading will be designed to divert surface runoff from the construction workspace away from*  
21 *karst features and/or prevent sediments from entering the karst features.*

22            *Comment: One commenter said that the only source water for their home is the*  
23 *convergence of the Birch Fork, Middle Fork, and Kittle Creek in Randolph County, West*  
24 *Virginia, and that the proposed route climbs a steep slope directly above their water intake.*  
25 *They are concerned that construction runoff will ruin their drinking water supply.*

26            *Response: Atlantic and DTI will avoid or minimize impacts on surface water through*  
27 *implementation of the erosion and sediment control measures outlined in the Plan and*  
28 *Procedures as well as applicable State/Commonwealth and local regulations or guidelines. In*  
29 *addition, the Project-specific SPCC Plan will restrict refueling or other liquid transfer areas*  
30 *within 100 feet of surface water.*

31            *Comment: The West Virginia Division of Natural Resources (WVDNR) Wildlife*  
32 *Resources Section commented that HDD is preferred for crossing sensitive streams, and that an*  
33 *HDD inadvertent return contingency plan with best management practices for erosion and*  
34 *sediment control should be provided to WVDNR. In the event of an inadvertent return of drilling*  
35 *material, the Wildlife Resources Section commented that notification will be required to the*  
36 *WVDNR and WVDEP.*

37            *Response: Atlantic and DTI will use a dry crossing method, such as flume, dam-and-*  
38 *pump, cofferdam, or a trenchless crossing technique (e.g., conventional bore, guided bore, or*  
39 *HDD) to construct the pipelines across waterbodies (to be discussed in Section 1.5.2 of draft*  
40 *Resource Report 1). Atlantic and DTI are continuing to evaluate appropriate construction*

1 methods for each waterbody crossing based on engineering design, constructability, and potential  
2 impacts on sensitive resources. In each case and for each method, Atlantic and DTI will adhere  
3 to the measures specified in the Procedures and requirements identified in Federal or  
4 State/Commonwealth waterbody crossing permits, including applicable permits and approvals  
5 from the USACE and State/Commonwealth agencies.

6 Atlantic and DTI will prepare and implement a *Horizontal Directional Drill Fluid*  
7 *Monitoring, Operations, and Contingency Plan* (to be provided in Appendix 1F of the final  
8 Resource Report 1). The plan will describe measures to prevent, detect, and respond to  
9 inadvertent returns, including but not limited to, monitoring during drilling operations, the types  
10 of equipment and materials that must be readily available to contain and clean up drilling mud,  
11 containment and mitigation measures, notification requirements, and guidelines for abandoning  
12 the directional drill, if necessary.

13 *Comment: The WVDNR Wildlife Resources Section commented that the cumulative*  
14 *impacts of multiple waterbody crossings be given full consideration and that the crossings*  
15 *method be identified. A Stream Activity Application for Right of Entry from the WVDNR Office*  
16 *of Land and Streams is needed for proposed crossings to all streams and wetland waterbodies.*

17 Response: Cumulative impacts of the Projects on waterbodies will be evaluated through  
18 the National Environmental Policy Act (NEPA) process and applications for Federal and  
19 State/Commonwealth waterbody crossing permits. Atlantic and DTI are continuing to evaluate  
20 appropriate construction methods for each waterbody crossing based on engineering design,  
21 constructability, and potential impacts on sensitive resources. In each case and for each method,  
22 Atlantic and DTI will adhere to the measures specified in the Procedures and requirements  
23 identified in Federal or State/Commonwealth waterbody crossing permits, including the Stream  
24 Activity Permit required from the WVDNR Office of Land and Streams.

25 *Comment: The WVDNR Wildlife Resources Section commented on potential impacts on*  
26 *the spread of aquatic nuisance species due to hydrostatic testing. The Wildlife Resources*  
27 *Section said that the potential dispersal of aquatic disease organisms should be evaluated and*  
28 *preventative methods discussed in the EIS.*

29 Response: Water for hydrostatic testing will be obtained from surface or groundwater  
30 sources in accordance with State/Commonwealth regulations and required permits. Once  
31 hydrostatic testing is complete, test water will be discharged to well-vegetated upland areas or  
32 back to the same source from which it was obtained, in accordance with the Plan and Procedures  
33 and applicable permits. Water discharged over land will be directed through containment  
34 structures such as hay bales and/or filter bags. Alternatively, the water will be hauled offsite for  
35 disposal at an approved location.

36 *Comment: One individual commented that the preferred pipeline route in Highland*  
37 *County crosses the recharge area for the Cowpasture River sinking points, which feed Meadow*  
38 *Spring at the Coursey Springs State Fish Hatchery, and that the pipeline should be moved.*

1            Response: The proposed route (as will be shown in the draft Resource Reports) crosses  
2 the Cowpasture River approximately 13 miles upstream from where the Coursey Springs Fish  
3 Hatchery is located along the Cowpasture River.

#### 4    **4.3    Resource Report 3 – Fish, Wildlife, and Vegetation**

##### 5    **4.3.1    General Comments**

6            Comment: *Several commenters said that construction of the pipelines will cause forest*  
7 *fragmentation, including fragmentation of the MNF and GWNF, and loss of forested wildlife*  
8 *habitat.*

9            Response: As will be discussed in Sections 3.2.3 and 3.3.2 of draft Resource Report 3,  
10 the Projects will cause fragmentation and edge effects in forested areas. The edge effect on  
11 forested habitat in temporary workspace could last several decades. In the maintained pipeline  
12 easements, the impact on forested habitat will be permanent due to the conversion of forest to  
13 herbaceous cover. In areas where the proposed pipeline corridors are adjacent to existing rights-  
14 of-way, clearing will result in moving an existing edge outward, rather than creating newly  
15 fragmented forested habitat.

16            As will be discussed in Sections 10.8, 10.9, and 10.10 of draft Resource Report 10, a  
17 number of route alternatives, route variations, and route adjustments have been identified and  
18 incorporated into the Projects to reduce impacts on habitats, including forested areas. For  
19 example, Atlantic’s route for the AP-1 mainline across the MNF avoids habitat disturbances by  
20 utilizing an approximately 4.7-mile-long segment of abandoned strip mine, which is mostly  
21 cleared of trees. Other route alternatives or variations identified and evaluated by Atlantic and  
22 DTI parallel existing utilities or roads.

23            Due to concerns about the reduction of forested habitats, particularly as they relate to  
24 impacts on migratory birds, Atlantic and DTI are developing a *Migratory Bird Plan* that will  
25 include measures to mitigate for impacts in forested areas. Other measures to protect forested  
26 wildlife habitat include timing restrictions on tree clearing to avoid the nesting seasons for birds  
27 and bats.

28            Comment: *Several commenters said that construction and operation of the pipeline will*  
29 *impact federally listed threatened and endangered species within the MNF and GWNF.*

30            Response: Potential impacts on federally listed threatened and endangered species will  
31 be discussed in Section 3.7.1 of draft Resource Report 3. Atlantic and DTI are consulting with  
32 the FWS to identify federally listed and proposed threatened and endangered species and  
33 designated critical habitat. Atlantic and DTI additionally are consulting with the FWS and USFS  
34 to address potential impacts on federally listed and proposed species within the MNF and  
35 GWNF. Field assessments to identify suitable habitat or presence/absence surveys for listed  
36 species are ongoing. Potential impacts on species, and measures for avoiding, minimizing, or  
37 mitigating impacts, will be assessed as surveys are completed. Based on desktop data, agency  
38 consultations, and the results of field surveys, Atlantic and DTI will prepare a draft BA  
39 evaluating the potential impacts of the Projects on federally listed species. Atlantic and DTI  
40 expect to file the draft BA in the Fall of 2015.

1            *Comment:* Several commenters said that the proposed pipelines will allow invasive plant  
2 species to enter previously undisturbed areas. Additionally, the Virginia Native Plant Society  
3 said that the ACP will cause the spread of invasive species like the *Ailanthus altissima* (paradise  
4 tree) and the *Microstegium vimineum* (Japanese stiltgrass).

5            *Response:* As will be discussed in Section 3.2.3 of draft Resource Report 3, Atlantic and  
6 DTI will prepare and implement an *Invasive Plant Species Management Plan* for the Projects.  
7 The plan will describe procedures to be implemented during construction and operation of the  
8 Projects to avoid or minimize the spread of invasive plant species. The plan will identify  
9 methods to prevent the introduction and spread of invasive species from construction equipment  
10 moving along the right-of-way; methods to contain weed seeds and propagules by preventing  
11 segregated topsoil from being spread to adjacent areas; and methods to address weed infestations  
12 that develop during operation of the Projects.

13           *Comment:* Several commenters said that construction of the pipeline will result in the  
14 death of many animals.

15           *Response:* As will be discussed in Section 3.3.2 of draft Resource Report 3, construction  
16 and operation of the Projects could result in short- and long-term impacts on wildlife species and  
17 their existing habitats along the proposed pipeline routes and at aboveground facility sites. The  
18 extent and duration of impacts will vary depending on the species present in each affected habitat  
19 type and their individual life histories. Construction activities will likely displace species from  
20 within and in areas adjacent to the rights-of-way, but the impact is expected to be temporary and  
21 limited to the period of construction. Timing restrictions for various construction activities will  
22 minimize potential impacts on some species. For example, timing restrictions for tree clearing  
23 will minimize potential impacts on nesting migratory birds and roosting bats, and timing  
24 restrictions on in-stream construction activities will minimize potential impacts on sensitive  
25 fisheries.

26           After construction is complete, Atlantic and DTI will restore the rights-of-way as near as  
27 practicable to preconstruction conditions in accordance with the Plan and Procedures and the  
28 other construction, restoration, and mitigation plans to be prepared for the Projects. Cropland  
29 will be restored to active agricultural production, and other areas will be revegetated using  
30 methods and seed mixes appropriate to existing land uses and cover types. With the exception of  
31 forested lands, which are discussed above, the Projects will not permanently alter the  
32 characteristics of the majority of the available wildlife habitats. Consequently, most impacts on  
33 wildlife are expected to be temporary.

34           *Comment:* Several commenters said that impacts on threatened, endangered, and rare  
35 species are unknown; therefore, the risk of building the pipelines is too high.

36           *Response:* Section 7 of the Endangered Species Act requires Federal agencies to verify  
37 that any actions authorized, funded, or carried out by the agencies do not jeopardize the  
38 continued existence of a federally listed threatened or endangered species, or result in the  
39 destruction or adverse modification of designated critical habitat for a federally listed species.  
40 The law is jointly administered by the FWS, which is responsible for terrestrial and freshwater  
41 species, and the National Oceanic and Atmospheric Administration, National Marine Fisheries

1 Service (NOAA Fisheries), which is responsible for marine and anadromous species. As the lead  
 2 Federal agency for authorizing the Projects, the FERC is required to coordinate with the FWS  
 3 and NOAA Fisheries to determine whether federally listed endangered or threatened species or  
 4 designated critical habitat are found in the vicinity of the Projects, and to evaluate the potential  
 5 effects of the proposed actions on those species or critical habitat.

6 Atlantic and DTI are conducting surveys for Federal and State/Commonwealth listed  
 7 species identified through consultations with the FWS, Federal land managing agencies, and  
 8 State/Commonwealth wildlife agencies. Potential impacts on species, and measures for  
 9 avoiding, minimizing, or mitigating impacts, will be assessed as surveys are completed.  
 10 Additionally, as noted above, Atlantic and DTI will prepare a draft BA evaluating the potential  
 11 impacts of the Projects on federally listed species. Atlantic and DTI expect to file the draft BA  
 12 with FERC in the Fall of 2015.

### 13 **4.3.2 Specific Comments**

14 *Comment:* One commenter said that the pipeline will impact intact forest landscapes  
 15 around Signal Corps Knob, Shenandoah Mountain, and Laurel Fork, which have high levels of  
 16 biodiversity and rare species.

17 *Response:* As will be discussed in Section 3.2.4 of draft Resource Report 3, the ACP  
 18 does not cross the Laurel Fork Conservation Site or Signal Corps Knob. The ACP will  
 19 temporarily impact 3.1 acres of the Shenandoah Mountain Trail Conservation site associated  
 20 with the Shenandoah Mountain. If warranted, and based on consultation with the applicable  
 21 regulatory agencies, field surveys for rare species will be conducted along the Shenandoah  
 22 Mountain Trail Conservation Site or in nearby locations where habitats for rare species could  
 23 occur within the ACP survey corridor. Potential impacts on sensitive communities, such as the  
 24 Shenandoah Mountain Trail Conservation Site, and measures for avoiding, minimizing, or  
 25 mitigating impacts, will be assessed as surveys are completed.

26 *Comment:* A comment by the Southern Environmental Law Center said that the proposed  
 27 crossing of the Signal Corps Knob area of the GWNF will cause adverse impacts on the Cow  
 28 Knob salamander, and that the ACP is not consistent with the 1994 Cow Knob salamander  
 29 conservation agreement or the Endangered Species Act.

30 *Response:* The Cow Knob salamander is not currently listed under the Endangered  
 31 Species Act. As will be discussed in Section 3.7.2 of draft Resource Report 3, the Cow Knob  
 32 salamander is recognized as a management indicator species within the GWNF. In 1994, the  
 33 FWS and the USFS entered into a Conservation Agreement for the Cow Knob salamander  
 34 resulting in protection of occupied habitats within the GWNF. Based on consultation with FWS  
 35 and USFS staff, presence/absence surveys for the Cow Knob salamander in suitable habitat areas  
 36 along the proposed pipeline route across the GWNF are being completed. Atlantic and DTI are  
 37 utilizing a qualified biological surveyor to review the route, prepare a survey plan, and conduct a  
 38 survey beginning in the Spring of 2015. Atlantic and DTI note, however, that the proposed route  
 39 for the AP-1 mainline avoids the Signal Corps Knob area of the GWNF (to be discussed in  
 40 Section 10.8.1 of draft Resource Report 10, which will describe route alternatives across the

1 GWNF). Potential impacts on the Cow Knob salamander, and measures for avoiding,  
2 minimizing, or mitigating impacts, will be assessed as surveys are completed.

3 *Comment:* The Southern Environmental Law Center said that consultation with the FWS  
4 under Section 7 of the Endangered Species Act regarding impacts on the Indiana bat, Virginia  
5 big-eared bat, and the northern long-eared bat is required.

6 Response: As discussed above, the FERC as lead Federal agency is required to  
7 coordinate with the FWS and NOAA Fisheries to determine whether federally listed threatened  
8 and endangered species or designated critical habitat are found in the vicinity of the Projects, and  
9 to evaluate the potential effects of the proposed actions on those species or critical habitat.  
10 Additionally, Atlantic is consulting with the FWS to assess potential impacts on federally listed  
11 species and designated critical habitat, including bats. Information on the status of consultations  
12 will be provided in Section 3.7 of draft Resource Report 3. Information specific to bats will be  
13 provided in Section 3.7.1 of draft Resource Report 3.

14 *Comment:* Several commenters said that construction of the ACP in the GWNF will  
15 adversely affect the James spinymussel.

16 Response: As will be discussed in Section 3.7.1 of draft Resource Report 3, surveys for  
17 the James spinymussel will be conducted in waterbodies with suitable habitat in Highland,  
18 Augusta, Nelson, and Buckingham Counties, Virginia. Potential impacts on this species, and  
19 measures for avoiding, minimizing, or mitigating impacts, will be assessed as surveys are  
20 completed.

21 *Comment:* One commenter said that the ACP will cause permanent impacts on sensitive  
22 insects in the area near Yogaville in Buckingham County, Virginia. Another commenter said  
23 that natural bee populations have been in decline across the U.S., and that Nelson County has  
24 the fourth largest bee population in Virginia. The commenter said that the ACP will impact  
25 these bee populations.

26 Response: Potential impacts on insects due to construction and operation of the Projects  
27 will be discussed in Section 3.3.2 of draft Resource Report 3.

28 Atlantic and DTI are investigating potential seed mixes and restoration and maintenance  
29 practices which would provide suitable habitat for pollinator species (such as bees and  
30 butterflies) in the maintained permanent easements for the pipelines. Additional information on  
31 this issue will be provided in the final Resource Report 3.

32 *Comment:* The Virginia Native Plant Society said that the ACP crosses sensitive shale  
33 barrens, such as the Central Appalachian outcrop, which are home to endemic species.

34 Response: Appendix 3A-1 of draft Resource Report 3 will provide information on the  
35 vegetation communities and sub-communities crossed by the Projects. Twelve federally listed  
36 plant species have the potential to occur in the ACP Project area, including the Shale Barren  
37 Rock Cress. Atlantic and DTI will conduct surveys for these species in areas containing  
38 potentially suitable habitat or as directed by the FWS. Potential impacts on

1 State/Commonwealth or federally listed species, and measures for avoiding, minimizing, or  
2 mitigating impacts, will be assessed as surveys are completed.

3 *Comment:* Several commenters said that populations of cowbird, a species which uses  
4 nest parasitism and lives on the forest edge, will increase within interior forests due to clearing  
5 and maintenance of the pipeline rights-of-way. In addition, these commenters said that  
6 mitigation should be required to compensate for the loss of nesting/feeding areas and increased  
7 predations on migratory songbirds due to forest fragmentation.

8 Response: The cowbird is a brood parasite which lays eggs in other birds' nests. The  
9 species is endemic to North America, and like many songbirds, is protected under the Migratory  
10 Bird Treaty Act (MBTA). While the activities required for construction have the potential to  
11 affect migratory bird habitat (to be discussed in Section 3.4 of draft Resource Report 3), Atlantic  
12 and DTI have already taken steps to minimize impacts on migratory birds, e.g., by routing the  
13 proposed pipelines to avoid sensitive areas (to be discussed in draft Resource Report 10).  
14 Additionally, Atlantic and DTI will implement other measures to avoid and minimize impacts,  
15 such as clearing outside of the nesting season and implementing activity buffers around active  
16 nests for certain species. Atlantic and DTI are preparing a *Migratory Bird Plan* for the Projects,  
17 which will describe measures for avoiding and minimizing impacts on migratory birds.

18 *Comment:* One commenter said that construction and operation of the ACP will impact  
19 the cerulean warbler. Another commenter said that a large tract of unfragmented forest in  
20 Eades Hollow, Nelson County, Virginia, supports a large population of Cerulean warblers.

21 Response: The cerulean warbler, a songbird endemic to North American, is protected  
22 under the MBTA. See the response above regarding potential impacts and measures to avoid or  
23 minimize potential impacts on migratory birds protected under the MBTA.

24 *Comment:* One commenter said that the Wintergreen area in Nelson County, Virginia  
25 contains a large area of old-growth forest, and that new plant species are occasionally identified  
26 in the area. The commenter said that construction of the ACP pipeline could put these species at  
27 risk or prevent them from being discovered.

28 Response: Surveys are currently being conducted to identify sensitive habitats and rare  
29 plant communities that may be impacted by the Projects. If old growth forest is identified or rare  
30 plant species are found, avoidance, minimization, and mitigation measures will be implemented  
31 as required through Federal, State/Commonwealth, and local permit processes.

32 *Comment:* One commenter said that the FERC Plan is insufficient in addressing invasive  
33 species during construction and restoration of pipeline projects. The commenter said that a plan  
34 by the USFS – Southern Research Station called “A Management Guide for Invasive Plants in  
35 Southern Forests” should be used instead of the FERC Plan.

36 Response: As described above, Atlantic and DTI are preparing an *Invasive Plant Species*  
37 *Management Plan* for the Projects. The plan will describe procedures to be implemented during  
38 construction and restoration of the Projects to avoid or minimize the spread of invasive plant  
39 species. Atlantic and DTI will review the USFS document while developing the plan.

1            *Comment:* One commenter said that pipeline rights-of-way are often maintained by  
2 aerial application of herbicides, which are known to cause health problems in both children and  
3 adults, including Parkinson's disease.

4            *Response:* Herbicides will not be used for general right-of-way maintenance. Where  
5 required as control measures for invasive plant species, targeted application of EPA-approved  
6 herbicides could occur; however, aerial application of herbicides will be prohibited. Information  
7 on control measures for invasive plant species, including the limited use of herbicides, will be  
8 provided in Atlantic's and DTI's *Invasive Plant Species Management Plan*.

9            *Comment:* One commenter said that glyphosate is listed as a carcinogen by the World  
10 Health Organization, and if it is used as an herbicide to maintain the pipeline right-of-way, it  
11 would cause a large health risk for those living within a quarter mile of the pipeline.

12           *Response:* Herbicides will not be used for general right-of-way maintenance.

13           *Comment:* The Virginia Chapter of the Sierra Club commented that sediment deposits in  
14 healthy waterbodies, which could be caused by increased soil erosion from construction, will  
15 smother fish eggs in gravel and cobble bars of streams, and inhibit fish reproduction.

16           *Response:* Atlantic and DTI will not conduct work in spawning stream reaches during  
17 spawning time of year restrictions. Additionally, as discussed in previous responses, Atlantic  
18 and DTI will install erosion and sediment controls at waterbody crossings in accordance with the  
19 Plan and Procedures. During clearing, temporary sediment barriers will be installed and  
20 maintained across the right-of-way adjacent to waterbodies to minimize the potential for  
21 sediment runoff. Following installation of the pipeline, stream banks will be restored as near as  
22 practicable to pre-existing conditions and stabilized. These measures will avoid or minimize  
23 erosion and sedimentation into waterbodies during construction and operation of the Projects.

24           *Comment:* The Virginia Chapter of the Sierra Club commented that a 125-foot-wide  
25 pipeline right-of-way could not be crossed by salamanders and therefore would impact all  
26 salamander populations within forests crossed by the Projects.

27           *Response:* Atlantic and DTI are consulting with the FWS and VDGIF, respectively,  
28 regarding impacts on federally listed threatened and endangered species and Virginia listed  
29 threatened and endangered species, including salamanders. Habitat assessments and  
30 presence/absence surveys for listed salamander species will be completed in the Spring and  
31 Summer of 2015, as landowner access allows. Impacts on these species, and measures for  
32 avoiding, minimizing, or mitigating impacts, will be assessed as surveys are completed.

33           *Comment:* The VDCR commented that it would like to work with Atlantic to determine  
34 the best management practices used to maintain the pipeline right-of-way and control invasive  
35 species along the pipeline route.

36           *Response:* Atlantic will consult with the VDCR regarding best management practices for  
37 maintaining the pipeline right-of-way and controlling invasive plant species. Additionally,  
38 Atlantic will develop and implement an *Invasive Plant Species Management Plan* (to be

1 provided in Appendix 1F of the final Resource Report 1). A summary of measures for  
2 controlling invasive plant species will be included in Section 3.2.2 of draft Resource Report 3.

3 *Comment:* The North Carolina Department of Environment and Natural Resources  
4 (NCDENR) provided a list of Natural Heritage Element Occurrences, Natural Areas, and  
5 Managed Areas intersecting the pipeline route in North Carolina. Field surveys are required to  
6 verify the presence or absence of certain species, and encounters with rare species need to be  
7 reported to the NCDENR.

8 *Response:* Atlantic and DTI are conducting surveys for Federal and  
9 State/Commonwealth listed species identified through coordination with the FWS and  
10 State/Commonwealth wildlife agencies, including NCDENR. Potential impacts on species, and  
11 measures for avoiding, minimizing, or mitigating impacts, will be assessed as surveys are  
12 completed.

13 *Comment:* The Nature Conservancy (TNC) commented that the ACP should avoid three  
14 areas within the central Appalachian region: Cheat Mountain, the Laurel Fork Highlands, and  
15 the Sugarloaf Mountain/Rockfish/Shields Gap complex.

16 *Response:* The proposed AP-1 mainline route (as will be shown in the draft Resource  
17 Reports) crosses Cheat Mountain (Randolph County, West Virginia) within a previously  
18 disturbed or recently replanted abandoned strip mine, which will minimize new forest clearing in  
19 this area. The proposed AP-1 mainline route crosses areas mapped by TNC as forest habitat in  
20 the Laurel Fork Highlands (Pocahontas County, West Virginia and Highland County, Virginia),  
21 but avoids a TNC conservation easement in this area. The initial AP-1 mainline route bisected  
22 the Sugarloaf Mountain/Rockfish/Shields Gap complex (Nelson County, Virginia), but the  
23 proposed route (the East of Lovingsston Major Route Alternative), as will be shown in the draft  
24 Resource Reports) will significantly reduce the crossing length of this area.

25 *Comment:* TNC commented that bottomland (wetland) forests within the Meherrin River  
26 and Fountains Creek should be avoided.

27 *Response:* Atlantic identified and incorporated a route alternative (the Meherrin River  
28 Major Route Alternative) into the proposed AP-3 lateral route to reduce crossings of floodplain  
29 forest areas in the Meherrin River and Fountains Creek watersheds (to be discussed in Section  
30 10.8 of draft resource Report 10). The proposed route (as will be shown in the draft Resource  
31 Reports), which includes this alternative, avoids Fountains Creek altogether and crosses 2.7  
32 miles less of the floodplain forest areas identified as critical habitat by TNC. Most of the  
33 floodplain forest along the proposed route in this area occurs at the Meherrin River crossing,  
34 which is adjacent to an existing railroad. This will minimize impacts in the watershed due to  
35 forest fragmentation.

36 *Comment:* TNC commented that the loss of site resilience to climate change consequent  
37 to an interruption in connectedness within large patches of intact habitats due to the location of  
38 the pipeline corridor should be evaluated.

1            Response: Fragmentation will be addressed in draft Resource Report 3. Assumptions  
2 and detailed calculations for greenhouse gases (GHG) associated with the Projects will be  
3 provided in the final Resource Report 9.

4            Comment: *TNC commented that impacts on migratory birds, which are protected under*  
5 *the MBTA, should include an analysis of the loss of large intact forested habitat.*

6            Response: Atlantic and DTI will implement measures, such as construction timing  
7 restrictions on tree clearing in the nesting season, to avoid or minimize impacts on migratory  
8 birds. Additionally, Atlantic and DTI will prepare and implement a *Migratory Bird Plan*, which  
9 will include measures for mitigating impacts in forested areas. The *Migratory Bird Plan* will be  
10 provided in Appendix 1F of the final Resource Report 1. Additionally, fragmentation will be  
11 addressed in draft Resource Report 3.

12            Comment: *TNC commented that a Migratory Bird Plan, including avoidance,*  
13 *minimization, and compensation measures, should be developed in coordination with the FWS*  
14 *and in accordance with a Presidential Memorandum of Understanding regarding enforcement of*  
15 *the MBTA.*

16            Response: See the response above regarding migratory birds.

17            Comment: *The EPA commented that a vegetative management plan should be developed*  
18 *to prevent and control noxious weeds and exotic species in a manner minimizing herbicide use.*

19            Response: See the previous responses regarding invasive plant species.

20            Comment: *The Laurel Mountain Preservation Association commented on cumulative*  
21 *impacts on surface and groundwater resources and the effects on benthic macroinvertebrates.*

22            Response: As discussed in previous responses, Atlantic and DTI will install erosion and  
23 sediment controls at waterbody crossings in accordance with the Plan and Procedures to avoid or  
24 minimize downstream impacts on water quality due to erosion and sedimentation into  
25 waterbodies. Additionally, while specific construction methods for waterbody crossings are still  
26 being evaluated, most waterbodies with flowing water will be crossed using a dry crossing  
27 method such as flume, dam-and-pump, cofferdam, or a trenchless crossing (e.g., conventional  
28 bore, guided bore, or HDD) in accordance with applicable permits. Use of these methods will  
29 avoid or minimize instream impacts from sedimentation and turbidity. Collectively, these  
30 measures will minimize impacts on macroinvertebrates downstream of the crossing.

31            Five federally listed mussel species and several State/Commonwealth listed mussel  
32 species could occur in waterbodies crossed by the proposed ACP and SHP pipelines. Habitat  
33 assessments and presence/absence surveys for these species are ongoing. Potential impacts on  
34 mussel species will be assessed as these surveys are completed.

35            Comment: *The Laurel Mountain Preservation Association commented on increased*  
36 *sedimentation in streams and the impacts of fine-sized sediment (clay, silt, and sand) in spaces*  
37 *between larger pebbles and cobbles that may impact habitat for aquatic benthic organisms that*  
38 *live in those spaces.*

1            Response: See the previous responses regarding measures to minimize turbidity and  
2 sedimentation.

3            Comment: *The USFS commented on impacts on the spruce-northern hardwood*  
4 *ecosystem and said that a pipeline across the Cheat Mountain- Back Allegheny massif would be*  
5 *inconsistent with the emphasis on spruce ecosystem restoration for Management Prescription 4.1*  
6 *(Monongahela Land and Resource Management Plan). The comment also noted that the current*  
7 *route reduces impacts on mature forests at the expense of impacts on areas under restoration.*  
8 *Other commenters said that impacts on red spruce restoration efforts should be analyzed and*  
9 *addressed in the EIS.*

10           Response: Atlantic has consulted and will continue to consult with the USFS with regard  
11 to impacts on red spruce forest, including impacts on planned restoration activities in red spruce  
12 restoration areas. Based on geographic information system (GIS) shapefiles provided by the  
13 USFS, the proposed AP-1 mainline route does not cross areas with high (greater than 50 percent)  
14 red spruce cover density. The route across Cheat Mountain crosses previously disturbed,  
15 cleared, or recently replanted areas in an abandoned strip mine, which Atlantic believes will  
16 minimize forest fragmentation on the MNF.

17           Comment: *The USFS commented that the EIS should analyze the impacts of the ACP on*  
18 *the Management Indicator Species identified in each Land Resource Management Plan (LRMP),*  
19 *and said that the analyses should be sufficiently detailed to allow the USFS to make*  
20 *determinations of effect on population viability within each forest.*

21           Response: Management Indicator Species will be addressed in Section 3.7 of draft  
22 Resource Report 3.

23           Comment: *The USFS commented that the proposed study corridor crosses streams that*  
24 *are remaining strongholds for sensitive species, including the Cheat minnow, Appalachian*  
25 *darter, candy darter, New River shiner, eastern hellbender, elktoe, green floater, and brook*  
26 *trout. Additionally, the USFS said that the MNF contains 90 percent of the reproducing trout*  
27 *water in the State of West Virginia, so protection of the best trout waters in the Forest is critical.*

28           Response: Atlantic has consulted and will continue to consult with USFS biologists to  
29 address potential impacts on sensitive aquatic species that occur within the MNF. See also the  
30 previous responses regarding waterbody crossing methods.

31           Comment: *The USFS commented that the EIS should analyze effects on potentially*  
32 *occurring aquatic special status species in the GWNF including, but not limited to, Sherando*  
33 *spiny amphipod, James spinymussel, swamp pink, Madison Cave isopod, and brook trout.*  
34 *Potential impacts on trout streams should be assessed.*

35           Response: Atlantic has consulted and will continue to consult with USFS biologists to  
36 address potential impacts on aquatic special status species that occur within the GWNF. See also  
37 the previous responses regarding waterbody crossing methods.

38           Comment: *The USFS commented that bald and golden eagle nests are located along*  
39 *ridges adjacent to Back Creek, Jackson North, and James River; that effects on habitat for these*

1 *species should be analyzed; and that appropriate mitigation measures should be implemented to*  
2 *comply with the Bald and Golden Eagle Protection Act. The USFS also commented that bald*  
3 *eagles are a Regional Forester's Sensitive Species in the Southern and Eastern Regions due to*  
4 *recent federal ESA post-listing requirements.*

5 Response: Atlantic is conducting surveys for eagle nests and has consulted and will  
6 continue to consult with USFS biologists regarding impacts on sensitive species, including  
7 eagles. Additionally, Atlantic will comply with the Bald and Golden Eagle Protection Act by  
8 implementing appropriate buffers or timing restrictions around active nests as necessary.

9 Comment: *The USFS commented that field surveys will be needed around Cheat*  
10 *Mountain-Back Allegheny Mountain to determine potential habitat for Cheat Mountain*  
11 *salamander, buffalo clover, and Virginia northern flying squirrel. The USFS also commented*  
12 *that the LRMP requires avoidance of disturbance within 300 feet of occupied Cheat Mountain*  
13 *salamander habitat unless the analysis can show that activities would not adversely affect*  
14 *populations or habitat.*

15 Response: Habitat assessment and/or presence/absence surveys along the proposed  
16 pipeline route in the MNF are planned for Cheat Mountain salamander, running buffalo clover,  
17 Virginia northern flying squirrel, and other species. Potential impacts on these species, and  
18 measures for avoiding, minimizing, or mitigating impacts, will be assessed as surveys are  
19 completed.

20 Comment: *The USFS commented that all locally rare and sensitive species should be*  
21 *surveyed to determine presence of the species or habitats.*

22 Response: Atlantic and DTI are conducting field surveys for species identified through  
23 consultation with MNF and GWNF biologists as well as the FWS and State/Commonwealth  
24 resource agencies. Potential impacts on sensitive species, and measures for avoiding,  
25 minimizing, or mitigating impacts, will be assessed as surveys are completed.

26 Comment: *The USFS commented that impacts on existing, possible, and future old*  
27 *growth forest as well as size and connectivity of old growth patches should be disclosed.*

28 Response: Atlantic and DTI will consult with USFS biologists regarding potential  
29 impacts on existing, possible, and future old growth forests in the MNF and GWNF.

30 Comment: *The USFS commented that a large prescribed fire project (the South*  
31 *Shenandoah Mountain Block) is being planned in an area of the GWNF crossed by the proposed*  
32 *pipeline.*

33 Response: Atlantic and DTI will coordinate with the GWNF regarding the planned fire  
34 project.

35 Comment: *Trout Unlimited commented that the EIS should include impacts on stream*  
36 *morphology, particularly for important trout streams.*

1            Response: The Projects are not expected to affect stream morphology. The pipelines  
2 will be installed beneath the surface of streams, and the bed and banks will be restored as near as  
3 practicable to pre-construction condition. Post-construction restoration and revegetation along  
4 stream banks will minimize degradation and erodibility of the stream banks.

5            Comment: *Trout Unlimited requested an explanation of how stream crossing methods are*  
6 *selected and what criteria are used. They said that the open-cut crossing method should not be*  
7 *used in any streams within trout watersheds.*

8            Response: Construction methods for waterbodies are based on engineering and  
9 environmental review of the crossing as well as consultation with regulatory agencies and  
10 conditions identified in applicable permits. As noted in other responses, while specific  
11 construction methods for waterbody crossings are still being evaluated, most waterbodies with  
12 flowing water will be crossed using a dry crossing method such as flume, dam-and-pump,  
13 cofferdam, or a trenchless crossing method (e.g., conventional bore, guided bore, or HDD) in  
14 accordance with applicable permits. Use of these methods will avoid or minimize instream  
15 impacts from sedimentation and turbidity, including impacts on fisheries.

16            Comment: *Trout Unlimited commented that construction activities near streams should*  
17 *coincide with established time frames to mitigate impacts on cold water fish species.*

18            Response: Atlantic and DTI have consulted and will continue to consult with the FWS,  
19 land managing agencies, and State/Commonwealth resource agencies regarding time of year  
20 restrictions for coldwater fisheries.

21            Comment: *Trout Unlimited commented that hydrostatic testing impacts on aquatic life*  
22 *should be determined if large quantities of water are removed from the stream.*

23            Response: Water for hydrostatic testing will be obtained from surface or groundwater  
24 sources in accordance with State/Commonwealth regulations and applicable permits.  
25 Additionally, Atlantic and DTI will implement a number of measures to minimize impacts on  
26 fisheries due to water withdrawals and discharges associated with hydrostatic testing. These  
27 measures will include installing screens on water intakes to avoid entrapment, controlling water  
28 withdrawal rates to avoid impingement, placing water intakes above streambeds to avoid  
29 disturbing sediments, re-using water from one test section to another, filtering test water prior to  
30 discharge, and regulating discharge rates to avoid scour (to be discussed in Section 3.1.4 of draft  
31 Resource Report 3).

32            Comment: *The Shannon Farm Community commented that various plant and animal*  
33 *species living on their property will be impacted and require monitoring, including a great blue*  
34 *heron rookery as well as rare, threatened, and endangered species. The Shannon Farm*  
35 *Community also commented that the EIS should provide a detailed State-wide, regional,*  
36 *National-Forest, Nelson County, and Shannon-Farm-specific management plan for invasive*  
37 *species.*

38            Response: The proposed route (as will be shown in the draft Resource Reports) will not  
39 cross the Shannon Farm Community. Also see the previous responses regarding listed and  
40 invasive species.

1            *Comment: The Appalachian Trail Conservancy commented that a plan to prevent the*  
2 *introduction of non-native or invasive species within the pipeline right-of-way and Appalachian*  
3 *Trail corridor should be implemented.*

4            Response: Atlantic is currently evaluating a crossing of the Appalachian Trail and Blue  
5 Ridge Parkway by HDD, which would avoid direct impacts on the trail, including potential  
6 impacts associated with the spread of invasive plant species. Also see the previous responses  
7 regarding invasive species.

8            *Comment: The North Carolina Wildlife Resources Commission (NCWRC) commented*  
9 *that an alternate route which was incorporated into the AP-2 mainline (i.e., the Cape Fear Route*  
10 *Variation) crosses Rockfish Creek as well as the Rockfish Corridor Natural Heritage Natural*  
11 *Area (NHNA) in Cumberland County, North Carolina. The original route avoided Rockfish*  
12 *Creek and Rockfish Corridor.*

13           Response: The Cape Fear Route Variation was incorporated into the proposed route  
14 because it avoids lands enrolled in the Natural Resource Conservation Service's Wetland  
15 Reserve Program. Digital boundary data for the Rockfish Corridor NHNA was not available at  
16 the time the initial alternatives analysis was completed. However, Atlantic is currently  
17 evaluating use of the HDD method to cross the Cape Fear River and its tributary, Rockfish  
18 Creek. The HDD method would avoid direct impacts on the Cape Fear River and Rockfish  
19 Creek as well as the Rockfish Corridor NHNA. Atlantic will consult with the NCWRC as plans  
20 for these crossings are finalized.

21           *Comment: The Horizons EcoVillage commented that a stand of 12 to 15 swamp white*  
22 *oak trees are located along the proposed pipeline route in Nelson County, Virginia. Other*  
23 *commenters stated that American chestnut trees are located along the proposed pipeline in*  
24 *Nelson County, Virginia.*

25           Response: Field surveys in these areas are pending permission to survey along this  
26 segment of the route. Potential impacts on natural resources located within the study corridor  
27 will be assessed as field surveys are completed.

28           *Comment: The FWS commented that a detailed habitat assessment should be conducted*  
29 *for the federally listed species within specified areas of potential habitat.*

30           Response: As discussed in other responses, as lead Federal agency the FERC is required  
31 to coordinate with the FWS to determine whether federally listed threatened and endangered  
32 species or designated critical habitat are found in the vicinity of the Projects, and to evaluate the  
33 potential effects of the proposed actions on those species or critical habitat. Additionally,  
34 Atlantic and DTI are consulting with the FWS and conducting field surveys to assess potential  
35 impacts on federally listed species and designated critical habitat. Information on the status of  
36 consultations to date will be provided in Section 3.7 of draft Resource Report 3.

37           *Comment: The VDGIF recommends that significant tree clearing should occur outside of*  
38 *the songbird nesting season of March 15 through August 15.*

39           Response: Significant tree clearing will not occur between March 15 and August 15.

1            *Comment: The VDGIF commented that the Virginia Wildlife Action Plan should be*  
2 *reviewed to determine what threats are known to species of “greatest conservation need” along*  
3 *the pipeline route in Virginia.*

4            Response: Atlantic and DTI will coordinate with the VDGIF regarding actions to avoid  
5 or minimize impacts on species listed in Appendix A of the Virginia Wildlife Action Plan.  
6 Impacts on species listed in Appendix A which are federally listed will be addressed in  
7 consultation with the FWS.

8            *Comment: The VDGIF commented that the Virginia Department of Forestry should be*  
9 *consulted to evaluate forest loss along the pipeline route and to mitigate the impacts as*  
10 *appropriate.*

11           Response: Atlantic has consulted and will continue to consult with the Virginia  
12 Department of Forestry regarding impacts on forest lands in Virginia.

13           *Comment: One commenter asked how often and by what methods the pipeline right-of-*  
14 *way will be maintained.*

15           Response: The permanent pipeline rights-of-way will be mowed periodically by Atlantic  
16 or DTI (no more frequently than once every three years, pursuant to the Plan) and maintained in  
17 herbaceous vegetation, except for where the land is maintained by the landowner (e.g.,  
18 agricultural and residential areas). During operations, the Procedures allow for a 10-foot-wide  
19 corridor centered over the pipeline to be permanently maintained in an herbaceous state in  
20 wetlands. Additionally, the Procedures allow trees greater than 15 feet in height within 15 feet  
21 of the pipeline to be cut and removed from wetlands along the right-of-way.

22           *Comment: One commenter said that springs with recharge areas within or down-*  
23 *gradient of the pipeline corridor should be sampled for invertebrate fauna to establish a*  
24 *preconstruction baseline of the health of the karst environment.*

25           Response: See the responses below regarding Atlantic’s and DTI’s ongoing karst  
26 assessment and survey for the ACP. Atlantic and DTI have and will continue to coordinate with  
27 the appropriate agencies to implement measures to protect karst resources, including invertebrate  
28 fauna.

29           *Comment: The West Virginia DNR Wildlife Resources Section commented that streams*  
30 *providing habitat for freshwater mussels and State Species of Concern be surveyed and*  
31 *evaluated.*

32           Response: All native mussels in West Virginia are protected in accordance with the West  
33 Virginia Mussel Survey Protocols. Surveys for mussels will be conducted in the Spring and  
34 Summer of 2015 in accordance with the West Virginia Mussel Survey Protocols. The results of  
35 the surveys will be provided to the WVDNR for review.

36           *Comment: The WVDNR Wildlife Resources Section commented that spawning season for*  
37 *West Virginia State 401 Water Quality Certification Conditions for Nationwide Permits are*  
38 *April-June for warm water streams and September 15 – March 31 for trout waters and adjacent*

1 *tributaries. If stream work cannot be avoided during these dates, the Wildlife Resources Section*  
2 *requests that impacts be evaluated to determine whether to grant or deny a spawning season*  
3 *waiver.*

4 Response: Atlantic will work with WVDNR staff to identify and implement appropriate  
5 measures during construction to avoid or minimize impacts on streams and adjacent riparian  
6 habitats to the extent practicable, including implementing time of year restrictions. If necessary,  
7 Atlantic will work with the agency to request approval for a spawning season waiver.

8 Comment: *The WVDNR Wildlife Resources Section commented that that the EIS should*  
9 *include an evaluation of potential fish mortality due to entrainment and impingement, and*  
10 *requested an evaluation of potential impacts on the aquatic resources of proposed water*  
11 *withdrawal sites.*

12 Response: Atlantic and DTI are currently evaluating the required volumes and potential  
13 sources of water for use during hydrostatic testing of the pipelines as well as discharge locations  
14 after testing is complete. See the response above regarding potential impacts on aquatic species  
15 due to water withdrawals for hydrostatic testing, which will be discussed in Section 3.1.4 of draft  
16 Resource Report 3.

17 Comment: *The VDCR said that the Cochran's Conservation Site near Stuarts Draft in*  
18 *Augusta County, Virginia should be avoided because it is a likely location of the Madison Cave*  
19 *isopod.*

20 Response: In addition to the VDCR, Atlantic and DTI are consulting with the FWS  
21 regarding potential impacts on the Madison Cave isopod, which is a federally listed species  
22 found in karst features such as caves. Additionally, as discussed in other responses above and  
23 below, Atlantic and DTI are conducting a karst assessment and survey to identify karst features  
24 along the proposed pipeline route. Based on the results of the ongoing consultations with the  
25 VDCR and FWS, as well as the results of the karst assessment and survey, new route alternatives  
26 or variations which avoid the Cochran's Conservation Site may be identified and evaluated.

## 27 **4.4 Resource Report 4 – Cultural Resources**

### 28 **4.4.1 General Comments**

29 Comments: *Several commenters said that construction of the ACP will impact*  
30 *archaeological and historic sites. In particular, a number of commenters said that Nelson,*  
31 *Augusta, Highland, and Buckingham Counties, Virginia, have a rich cultural heritage that will*  
32 *be impacted by the ACP, including Native American villages and burial sites.*

33 Response: Atlantic is conducting archaeological and aboveground historic structures  
34 surveys along the proposed pipeline routes and in other ACP Project areas to identify sites,  
35 structures, districts, cemeteries, and other cultural resources that could be affected by  
36 construction and operation of the proposed facilities, in accordance with Section 106 of the  
37 National Historic Preservation Act. The status and results of these surveys to date will be  
38 discussed in Sections 4.3 and 4.4 of draft Resource Report 4. Atlantic intends to avoid impacts  
39 on cultural resource sites that are listed on or eligible for listing on the National Register of

1 Historic Places (NRHP). In the event that listed or eligible sites cannot be avoided, Atlantic will  
2 prepare treatment plans for these sites in consultation with FERC staff, the appropriate  
3 State/Commonwealth agency (e.g., the Virginia Department of Historic Resources), and any  
4 consulting parties.

5 *Comment:* Several commenters said that battlefields and buildings near battlefields will  
6 be impacted by blasting for pipeline construction.

7 *Response:* To the extent feasible, Atlantic and DTI have routed the proposed pipelines to  
8 avoid Civil War battlefields or to cross previously disturbed areas within battlefields. Potential  
9 impacts on Civil War battlefields, including impacts due to blasting, will be evaluated as part of  
10 Atlantic's ongoing archaeological and aboveground historic structures surveys.

#### 11 **4.4.2 Specific Comments**

12 *Comment:* Several commenters said that the James River basin in Virginia has various  
13 Native American cultural and archeological sites, including burial sites, which could be  
14 disturbed by the ACP.

15 *Response:* The completion of field surveys in the James River basin is pending  
16 permission to access properties along this segment of the AP-1 mainline route. Potential impacts  
17 on archaeological and historic sites in this area will be assessed when surveys are completed. In  
18 the event that listed or eligible sites cannot be avoided, Atlantic will prepare treatment plans for  
19 these sites in consultation with FERC staff, the appropriate State/Commonwealth agency (e.g.,  
20 the Virginia Department of Historic Resources), and any applicable stakeholders.

21 *Comment:* Several commenters said that the Norwood-Wingina Historic District, which  
22 is crossed by the AP-1 mainline route in Nelson County, Virginia, will be adversely affected by  
23 construction of the ACP. The district has been nominated for listing on the NRHP.

24 *Response:* The completion of field surveys across the Norwood-Wingina Historic  
25 District is pending permission to access properties along this segment of the route. Potential  
26 impacts on the district, including archaeological sites, historic buildings, and other resources,  
27 will be assessed when surveys are complete. Additionally, as will be discussed in Section 10.9.1  
28 of draft Resource Report 10, Atlantic is evaluating a potential route variation which, if adopted,  
29 will avoid the historic district.

30 *Comment:* One commenter said that their property in Augusta County, Virginia, which is  
31 not crossed by the ACP, contains a home built around 1778 which was the birthplace of John  
32 Colter. The commenter said that the building could be damaged by blasting, drilling, and  
33 operation of heavy equipment. The commenter also said that arrowheads have been found on  
34 their property.

35 *Response:* The completion of field surveys in this area is pending permission to access  
36 properties along this segment of the route. Direct impacts on the site, which is not crossed by the  
37 pipeline, are not expected. Potential indirect impacts will be assessed when surveys are  
38 completed.

1            *Comment:* One commenter identified Davis Creek in Nelson County, Virginia, which is  
2 crossed by the AP-1 mainline route, as an area where several people died during Hurricane  
3 Camille in 1969. The commenter said that remains of many of these people have never been  
4 found.

5            The East of Lovingson Major Route Alternative avoids a majority of the documented  
6 debris flow of Hurricane Camille (to be discussed in Section 10.8 of draft Resource Report 10).  
7 Additionally, as described above, Atlantic is conducting a cultural resources survey of the  
8 proposed pipeline route. The completion of field surveys in the Davis Creek area is pending  
9 permission to access properties along this segment of the route. In addition to the field survey,  
10 Atlantic will prepare and implement a *Plan for Unanticipated Discovery of Historic Properties*  
11 *or Human Remains during Construction* (to be provided in Appendix 1F of the final Resource  
12 Report 1), which will outline procedures to be followed in the event that artifacts or human  
13 remains are uncovered during construction activities.

14            *Comment:* Several commenters said that the AP-3 lateral route will adversely affect the  
15 Sunray Agricultural Rural Historic District in the City of Chesapeake, Virginia.

16            *Response:* Atlantic identified and adopted a route variation which avoids this site (to be  
17 discussed in Section 10.8.1 of draft Resource Report 10). Potential indirect impacts on this site  
18 will be assessed when surveys in the vicinity of the district are completed.

19            *Comment:* The Monacan Indian Nation sent a letter to the FERC indicating its  
20 opposition to the ACP in Nelson County, Virginia. The tribe requested a *Traditional Cultural*  
21 *Properties* study in areas that could impact Monacan historical and archaeological resources.

22            *Response:* As noted above, Atlantic is conducting archaeological and aboveground  
23 historic structures surveys along the proposed pipeline routes and in other ACP Project areas to  
24 identify sites, structures, districts, cemeteries, and other cultural resources that could be affected  
25 by construction and operation of the proposed facilities. The completion of field surveys in  
26 Nelson County, Virginia is pending permission to access properties along this segment of the  
27 route. Impacts on sites in this area will be assessed as surveys are completed.

28            *Comment:* One commenter said that shovel testing should be supplemented by metal  
29 detector survey within recorded battlefields in accordance with survey guidelines of the Virginia  
30 Department of Historic Resources.

31            *Response:* Atlantic is conducting archaeological and aboveground historic resources  
32 surveys of the proposed pipeline routes and other work areas in Virginia in accordance with the  
33 *Guidelines for Conducting Historic Resources Survey in Virginia*.

34            *Comment:* The USFS commented that a cultural resources survey should be conducted  
35 throughout the entire Area of Potential Effect (APE) for the ACP and that federally recognized  
36 Indian Tribes should be consulted.

37            *Response:* Atlantic and DTI are conducting archaeological and aboveground historic  
38 resources surveys throughout the entire APE for the Projects (to be discussed in Sections 4.3.1  
39 and Section 4.4.1 of draft Resource Report 4). Additionally, Atlantic and DTI have sent letters

1 to federally recognized Indian Tribes with historic or cultural ties to the ACP Project area and/or  
2 SHP Project area (to be discussed in Section 4.7.3 of draft Resource Report 4). These tribes also  
3 received a copy of the FERC's *Notice of Intent to Prepare an EIS* for the Projects.

4 *Comment: The Shannon Farm Community commented that several historic and cultural*  
5 *resources will be affected by the ACP and that a plan for an archaeological survey should be*  
6 *implemented. The Shannon Farm Community additionally commented that the proposed*  
7 *pipeline corridor would destroy at least four and possibly six land-based art works protected by*  
8 *Federal copyright, and impact the installation of these art works as a Poetry-Art-Nature Trail.*

9 Response: The proposed route (as will be shown in the draft Resource Reports) will not  
10 cross the Shannon Farm Community.

11 *Comment: The NPS commented that the ACP is located in the vicinity of the Native*  
12 *American town of Monahassanugh, as recorded by Captain John Smith, near Wingina, Virginia.*  
13 *The Monacan Indian Nation, Inc., a Commonwealth recognized tribe in Virginia, made a similar*  
14 *comment.*

15 Response: Atlantic is aware of historic records regarding this site as well as locations of  
16 previously recorded prehistoric and historic sites in the vicinity of Wingina, Virginia. The  
17 completion of field surveys in this area is pending permission to access properties along this  
18 segment of the route. Any sites identified during the survey will be recorded and assessed. As  
19 noted above, Atlantic intends to avoid, minimize, and mitigate effects to cultural resource sites  
20 that are listed on or eligible for listing on the NRHP. If the potential for adverse effects is  
21 identified, then Atlantic will consult with the Virginia Department of Historic Resources to  
22 determine avoidance, minimization, and/or mitigation options.

23 *Comment: The NPS commented that six National Historic Landmarks as well as two*  
24 *National Heritage Areas and eight Civil War battlefields are located within five miles of the*  
25 *proposed pipeline routes. Of these areas, the pipeline route crosses the Cumberland Church and*  
26 *McDowell Battlefields and is adjacent to the Sailor's Creek and Cheat Mountain Battlefields.*  
27 *All of these battlefields are part of the Shenandoah Valley Battlefields National Historic District,*  
28 *which is managed by the Shenandoah Valley Battlefields Foundation. The NPS said that this*  
29 *foundation should be consulted about the Projects.*

30 Response: See the previous responses regarding the completion of archaeological and  
31 aboveground historic resources surveys along the pipeline routes and in other work areas,  
32 including responses pertaining to battlefields. Atlantic will assess potential adverse effects on  
33 the battlefield sites as studies are completed in these areas. Atlantic additionally is consulting  
34 with the Shenandoah Valley Battlefields Foundation regarding battlefield resources within the  
35 Shenandoah Valley Battlefields National Historic District.

36 *Comment: The Cheat Mountain Club, in Randolph County, West Virginia, commented*  
37 *that construction of the pipeline near their property would undermine their pending inclusion on*  
38 *the NRHP.*

39 Response: Although the initial route depicted in the December 2014 version of Resource  
40 Report 10 crossed the Cheat Mountain Club property, the proposed route will no longer cross

1 Cheat Mountain Club property (to be discussed in Section 10.8.1 of draft Resource Report 10).  
2 Construction of the ACP is not expected to affect the Cheat Mountain Club property or its  
3 eligibility for listing in the NRHP.

4 *Comment: One commenter said that a slave graveyard with unmarked headstones is*  
5 *located on their property in Nelson County, Virginia. Another commenter said that there are*  
6 *unmarked historic cemeteries on his property that have been registered with appropriate State*  
7 *offices.*

8 *Response: Atlantic is committed to avoiding cemeteries and graves. Atlantic is*  
9 *documenting cemeteries and graves as part of its archaeological survey and will coordinate with*  
10 *landowners regarding locations of known cemeteries and graves (marked or unmarked) along the*  
11 *proposed pipeline routes and in other work areas. Additionally, Atlantic will prepare and*  
12 *implement a *Plan for Unanticipated Discovery of Historic Properties or Human Remains during**  
13 *Construction, which will outline procedures to be followed in the event that artifacts or human*  
14 *remains are uncovered during construction activities. This plan will be provided in Appendix 1F*  
15 *of the final Resource Report 1.*

16 *Comment: One commenter said that the proposed route would destroy a historic home*  
17 *site that belonged to an African-American tenant farmer.*

18 *Response: The completion of field surveys in the vicinity of this site is pending*  
19 *permission to access properties along this segment of the route. Potential impacts on the site will*  
20 *be assessed when surveys are completed.*

## 21 **4.5 Resource Report 5 – Socioeconomics**

### 22 **4.5.1 General Comments**

23 *Comment: Several commenters said that the outdoor recreation and tourism economy in*  
24 *the Appalachian region of Virginia will be negatively impacted by construction and operation of*  
25 *the ACP, including the Shenandoah Valley, Nelson and Highland Counties, and the Blue Ridge*  
26 *Parkway.*

27 *Response: Descriptions of existing conditions and potential impacts on tourism and*  
28 *tourist resources will be discussed in Sections 5.3.1 and 5.3.2 of draft Resource Report 5 and in*  
29 *Section 8.8 of draft Resource Report 8. Construction of the ACP could result in minor, short-*  
30 *term impacts on users of outdoor tourist resources at locations where the proposed pipeline*  
31 *facilities cross or are located near recreational or special interest attractions. Impacts on tourism*  
32 *could result from construction activities, such as noise, or competition for housing resources,*  
33 *such as campgrounds, motels, and for-rent properties due to the influx of non-local workers.*  
34 *These impacts will be short-term, temporary, and limited to the period of construction. The*  
35 *positive impact from the influx of workers on the economy will be discussed in Section 5.3.2 of*  
36 *draft Resource Report 5.*

37 Short- and long-term visual impacts on recreational or special interest attractions could  
38 occur during construction and operation of the ACP. A discussion of the potential impacts on

1 visual resources in the vicinity of the ACP, and measures to minimize or mitigate these impacts,  
2 will be provided in draft Resource Report 8.

3           The proposed AP-1 mainline route crosses the Blue Ridge Parkway and Appalachian  
4 Trail in Virginia. Atlantic is evaluating the feasibility of using the HDD construction method to  
5 install the proposed pipeline under the parkway and trail. The HDD method would avoid direct  
6 impacts on these features. Section 1.5.2 of draft Resource Report 1 will provide a description of  
7 the HDD method and Section 5.3.2 of draft Resource Report 5 will provide a preliminary  
8 assessment of indirect impacts resulting from the HDD.

9           Because of the short construction period, the Projects are not expected to affect tourism  
10 industry revenues at State/Commonwealth or local levels. The Projects are not expected to affect  
11 visits to the national forests, which contain multiple and widely dispersed recreational and tourist  
12 opportunities, or visits to the Blue Ridge Parkway, Appalachian Trail, and GDS-NWR. No  
13 impacts on tourist revenues are expected from operation of the Projects.

14           Comment: *Several commenters opposed the use of eminent domain for the Projects.*

15           Response: Atlantic and DTI will acquire easements for the temporary construction and  
16 permanent rights-of-way for the proposed pipelines. In general, the easements will give Atlantic  
17 and DTI the right to construct, operate, and maintain the pipelines. Where the proposed pipeline  
18 routes cross Federal or State/Commonwealth lands, Atlantic and DTI will acquire the rights  
19 necessary for construction and operation of the proposed facilities from the appropriate land  
20 managing agency. On private lands, Atlantic and DTI will seek to purchase easements from  
21 private property owners through direct negotiations with the landowners.

22           Atlantic and DTI will negotiate in good faith with property owners to obtain the required  
23 easements, paying compensation based upon principles supplied by State/Commonwealth law,  
24 using valuations based on comparable property transactions and with reference to the particular  
25 characteristics of the property. If the FERC issues Certificates of Public Convenience and  
26 Necessity (Certificates) for the Projects, and easement agreements cannot be negotiated between  
27 Atlantic or DTI and the landowners, Atlantic and DTI will acquire the necessary rights through  
28 eminent domain. However, it is Atlantic and DTI's practice to avoid eminent domain to the  
29 maximum extent practicable through negotiations. As a result, the vast majority of the  
30 easements required for the Projects will be obtained through negotiation, not eminent domain.

31           Comment: *Several commenters questioned the number of full-time jobs that will be*  
32 *supported by the ACP after construction is complete.*

33           Response: Atlantic and DTI estimate that 82 and 11 permanent employees, respectively,  
34 will be hired to support operation and maintenance of the ACP and SHP facilities (to be  
35 discussed in Section 5.2.2 of draft Resource Report 5). In addition to the 82 full-time jobs  
36 directly created by the ACP, a study by Chmura Economics and Analytics estimated that  
37 ongoing operation of the ACP could support 189 indirect and induced full-time jobs. A study by  
38 ICF International estimated that over a 20-year period, economic activity due to ACP-enabled  
39 energy cost savings will support 2,200 permanent, full-time jobs. Section 5.4 of draft Resource

1 Report 5 and Appendices 5C and 5D will provide additional information on the Chmura and ICF  
2 studies.

3 *Comment:* Several commenters said that construction of the ACP will cause property  
4 values to go down and that Atlantic should be required to compensate landowners for the loss of  
5 property value.

6 Response: As will be discussed in Section 5.8 of draft Resource Report 5, several studies  
7 have found that the sales price of property is unaffected by the presence of natural gas  
8 transmission pipelines.

9 *Comment:* Several commenters said that local communities along the pipeline routes  
10 should have access to the natural gas transported by the pipelines.

11 Response: The proposed ACP and SHP pipelines will provide open access natural gas  
12 transmission service. Any party can request a tap into the pipeline; however, requests for local  
13 distribution service should be coordinated with public utilities and the local distribution  
14 companies with franchise rights in the area.

15 As will be indicated in Section 5.4 of draft Resource Report 5, according to ICF  
16 International, local communities will benefit from approximately \$377 million dollars in annual  
17 energy cost savings associated with the ACP's provision of low cost supplies for natural gas and  
18 electricity consumers. These benefits accrue to all electricity consumers in both Virginia and  
19 North Carolina because of how the electricity markets function in those states.

20 *Comment:* Several commenters said that the ACP will provide much needed economic  
21 improvements to rural areas in North Carolina that are still recovering from the economic  
22 recession and still have unemployment rates higher than the national average.

23 Response: Atlantic and DTI concur with these comments. A description of the economic  
24 impact of the ACP will be provided in Section 5.4 of draft Resource Report 5.

25 *Comment:* Several commenters said that the ACP will impact breweries and wineries in  
26 Nelson County, Virginia.

27 Response: As will be discussed in Section 5.3.2 of draft Resource Report 5, the ACP  
28 does not cross properties on which wineries or breweries are located. The AP-1 mainline route  
29 crosses a parcel of land in Nelson County, Virginia owned by the proprietors of the Bold Rock  
30 Cidery. Atlantic is consulting with the landowners to confirm the locations of cider facilities and  
31 orchards relative to the AP-1 mainline route as well as potential future developments associated  
32 with the cidery. A positive impact on breweries and wineries, as well as restaurants and hotels,  
33 is expected from the influx of workers during construction.

34 *Comment:* Several commenters, including Thistle Top Farms, L.L.C., said that the ACP  
35 will adversely impact agricultural lands.

36 Response: Atlantic and DTI will implement the construction and restoration measures  
37 described in Section 1.5.2 of draft Resource Report 1 and Section 8.3 of draft Resource Report 8,

1 including full-width topsoil segregation and soil decompaction, to restore agricultural land. Most  
2 agricultural practices will be allowed to resume along the pipeline rights-of-way and within  
3 temporary construction areas at aboveground facility sites in the first growing season following  
4 construction and restoration of the Projects. Following restoration, Atlantic and DTI will  
5 monitor croplands disturbed by construction of the Projects to identify additional restoration or  
6 mitigation measures which could be necessary to restore agricultural productivity. Additionally,  
7 landowners will be compensated for crop losses during the construction and restoration phases of  
8 the Projects as well as for losses in crop productivity (if any).

9           Some crops, such as trees and deep-rooted shrubs, will be restricted in the permanent  
10 pipeline rights-of-way. Landowners will be compensated for crop losses associated with  
11 restrictions on these crops in the permanent pipeline rights-of-way.

12           Comment: *Several commenters said that the costs of local emergency response due to*  
13 *the ACP will be greater than the taxes and revenue provided by the pipelines.*

14           Response: As will be discussed in Section 5.6.2 of draft Resource Report 5, demands on  
15 public services due to construction activities could include coordination for emergency response  
16 in the event of an accident. Prior to construction, Atlantic and DTI will meet with emergency  
17 responders in each County/City along the pipeline routes to develop a response plan tailored to  
18 the capabilities or needs of each County/City. A Google Earth or equivalent digital shape file  
19 and wall maps depicting the pipeline centerline and access roads will be provided to emergency  
20 responders. The construction contractors will set up on-site medipods to provide first aid  
21 treatment for minor injuries, and Atlantic and DTI will ensure that airlift services are available in  
22 the event of a major accident during construction. No significant costs to emergency responders  
23 during operation of the Projects are anticipated.

24           Comments: *Several commenters said that the Projects could result in natural gas*  
25 *exploration and production activities in Virginia and North Carolina.*

26           Response: The Projects will support the natural gas industry in the Mid-Atlantic and  
27 South regions of the United States by providing for the transportation of natural gas from supply  
28 points in the Appalachian region to demand areas in Virginia and North Carolina. The Projects  
29 are not designed to facilitate exploration and production activities in Virginia and North  
30 Carolina. Further, the Projects will not cause any specific upstream gas exploration and  
31 production activity, and no specific production activity is reasonably foreseeable as an effect of  
32 the Projects.

33           Comment: *Several commenters said that construction traffic on two lane mountain roads*  
34 *in Highland, Nelson, and Augusta Counties, Virginia, will negatively impact tourism during the*  
35 *construction period.*

36           Response: The movement of construction equipment, materials, and personnel will cause  
37 a slight, temporary increase in traffic volumes along area roadways (to be discussed in Section  
38 5.7 of draft Resource Report 5). Impacts are expected to be minor and short term because  
39 construction spreads and personnel will be geographically dispersed and personnel will commute  
40 to and from work areas in early morning and late evening during non-peak traffic hours. Atlantic

1 and DTI do not anticipate that this slight increase in traffic will impact tourism given the  
 2 relatively brief construction period and alternative routes available to tourists. Additionally,  
 3 Atlantic and DTI are preparing a *Traffic and Transportation Management Plan*, which will be  
 4 included in Appendix 1F of the final Resource Report 1. This plan will identify measures to be  
 5 implemented during construction of the Projects to minimize impacts on roadways and traffic.  
 6 The plan will address access to construction work areas, road and railroad crossings, traffic  
 7 control and mitigation, road maintenance, snow removal, and dust control.

8 **4.5.2 Specific Comments**

9 *Comment: One commenter said that Nelson County, Virginia will not see any job*  
 10 *creation as a result of pipeline construction. Other commenters questioned the number of local*  
 11 *jobs provided by the Projects.*

12 Response: As will be discussed in Section 5.3.2 and 5.4 of draft Resource Report 5,  
 13 Atlantic estimates that approximately 7,395 full-time equivalent workers will be used to build the  
 14 ACP at peak construction. Of these, Atlantic and DTI anticipate that approximately 50 percent  
 15 of the full-time equivalent workers associated with construction of the Projects (an estimate of  
 16 3,698 workers) will be workers who reside within commuting distances of the ACP Project area.  
 17 Additional local job creation in supply and service sector industries is expected from indirect and  
 18 induced spending during construction.

19 *Comment: One commenter said that locating the proposed compressor station in*  
 20 *Buckingham County, Virginia is an environmental justice issue because people living in the*  
 21 *vicinity of the compressor station are low income and/or minority.*

22 Response: As will be discussed in Section 5.8 of draft Resource Report 5, the racial  
 23 composition of local populations and income levels were not considered in routing the proposed  
 24 pipelines or siting the aboveground facilities. Routing and siting of the proposed facilities was  
 25 based on the locations of delivery and receipt points, terrain, proximity to residential areas,  
 26 environmental and cultural resource constraints, and flow dynamics of natural gas in the  
 27 proposed system (for compressor stations). The proposed pipelines and aboveground facilities  
 28 for the Projects will cross or affect Counties/Cities with minority populations that are both less  
 29 than and greater than 50 percent of the Countywide/Citywide population as well as  
 30 Counties/Cities that are poorer and wealthier. Therefore, the Projects will not result in  
 31 disproportionately high and adverse human health or environmental effects on minority or low  
 32 income populations.

33 *Comment: One commenter said that Atlantic and DTI should repair rural and County*  
 34 *roads damaged by construction equipment.*

35 Response: As will be discussed in Section 5.7 of draft Resource Report 5, Atlantic and  
 36 DTI will implement a variety of measures to avoid, minimize, or mitigate impacts on roads.  
 37 Additionally, Atlantic and DTI will coordinate with the appropriate transportation authority  
 38 regarding the need for road repair following construction. Atlantic's and DTI's construction  
 39 contractors will repair road damage that occurs as a result of construction, and roadways will be  
 40 restored to their preconstruction condition.

1            *Comment: The Fire Chief of the Wintergreen Community Volunteer Fire Department*  
2 *asked about access to and from the Wintergreen community in Nelson County, Virginia during*  
3 *construction. The proposed AP-1 mainline crosses Route 664, which provides access into and*  
4 *out of Wintergreen.*

5            Response: Atlantic anticipates that the proposed pipeline will be installed beneath Route  
6 664 by a trenchless method. Typically, there is little or no disruption to traffic at road crossings  
7 during such operations. Brief traffic delays could occur when construction vehicles or  
8 equipment cross the road; however, Atlantic will use flaggers and traffic signs to slow or direct  
9 traffic as appropriate. Therefore, no impact on traffic along Route 664 during construction is  
10 anticipated.

11           *Comment: One commenter said that access to the Yogaville community in Buckingham*  
12 *County, Virginia, will be restricted by construction across State Route 604 (Woodland Church*  
13 *Road).*

14           Response: Atlantic anticipates that the proposed pipeline will be installed beneath Route  
15 604 by a trenchless method, which will avoid impacts on traffic along the road during  
16 construction. See the response above regarding Route 664.

17           *Comment: One commenter said that Bryant Mountain Road should not be crossed by the*  
18 *ACP because it provides the only access to an area near the Wintergreen Resort in Nelson*  
19 *County, Virginia.*

20           Response: Access will be maintained on Bryant Mountain Road at all times. Brief traffic  
21 delays could occur when construction vehicles or equipment cross the road; however, Atlantic  
22 will use flaggers and traffic signs to slow or direct traffic as appropriate. Therefore, minimal  
23 impact on traffic along Bryant Mountain Road during construction is anticipated.

24           *Comment: One commenter said that financial impacts of increased property insurance*  
25 *and decreased property values resulting from the pipeline within a 1,100-foot “blast radius” and*  
26 *3,300-foot “evacuation zone” should be considered.*

27           Response: Several studies have found that the sales price of property is unaffected by the  
28 presence of natural gas transmission pipelines. Additionally, the presence of a pipeline and  
29 associated facilities is not expected to affect homeowner insurance rates or the availability of  
30 coverage. This issue has been studied on previous natural gas transmission projects. A summary  
31 of these studies and related information will be provided in Section 5.8 of draft Resource Report  
32 5.

33           *Comment: The Laurel Mountain Preservation Association commented on FERC’s*  
34 *statement that there must be a strong showing of public benefit to allow the use of eminent*  
35 *domain. The association said that FERC must consider weighing public benefits relative to*  
36 *cumulative impacts regarding radon exposure, water quality/quantity, damage to aquatic*  
37 *organisms, and endangered species.*

38           Response: The Projects must meet the FERC Public Policy Statement, which determines  
39 whether a Project is in the public convenience and necessity. The ACP is a proposed interstate

1 natural gas transmission pipeline that will serve the growing energy needs of multiple public  
 2 utilities and local distribution companies in Virginia and North Carolina. The natural gas  
 3 transported by the ACP will be used as a fuel to generate electricity for industrial, commercial,  
 4 and residential uses. The natural gas will also be used directly for residential, commercial, and  
 5 industrial uses. By providing access to additional low-cost natural gas supplies, the ACP will  
 6 increase the reliability and security of natural gas supplies in Virginia and North Carolina.  
 7 Atlantic and DTI believe that this purpose and need demonstrates that the Projects meet public  
 8 convenience and necessity, as required by FERC’s Policy Statement.

9 Atlantic and DTI will negotiate in good faith with property owners to obtain the required  
 10 easements, paying compensation based upon principles supplied by State/Commonwealth law,  
 11 using valuations based on comparable property transactions and with reference to the particular  
 12 characteristics of the property. If the FERC issues Certificates for the Projects, and easement  
 13 agreements cannot be negotiated between Atlantic or DTI and the landowners, Atlantic and DTI  
 14 will acquire the necessary rights through eminent domain. However, it is Atlantic and DTI’s  
 15 practice to avoid eminent domain to the maximum extent practicable through negotiations. As a  
 16 result, the vast majority of the easements required for the Projects will be obtained through  
 17 negotiation, not eminent domain.

18 An assessment of cumulative impacts for the Projects will be provided as Appendix 1L of  
 19 draft Resource Report 1 and in the EIS.

20 *Comment: The USFS commented that the proposed right-of-way and construction*  
 21 *activities would adversely impact an existing timber sale under contract in the GWNF and that*  
 22 *the volume and value of timber to be removed should be disclosed as a part of an economic*  
 23 *analysis in the effects disclosure. Wood felled during construction that has a product value*  
 24 *should be removed and utilized properly.*

25 Response: A discussion of impacts on timber and forest products industries will be  
 26 provided in draft Resource Report 5 and draft Resource Report 8. Atlantic and DTI will prepare  
 27 and implement a *Timber Removal Plan*, which will describe construction and restoration  
 28 activities in areas where timber is removed (to be provided in Appendix 1F of the final Resource  
 29 Report 1). The plan also will address compensation for loss of merchantable timber as well as  
 30 elements of timber removal/sale that are unique to public lands.

31 Temporary loss of timber will occur in the construction right-of-way, and permanent loss  
 32 of timber will occur within the maintained pipeline easements and permanent footprints for  
 33 aboveground facility sites. Trees cleared in the forested lands crossed or affected by the Projects  
 34 may or may not be sold for timber depending on many factors, such as age, size, and type of tree.  
 35 Non-merchantable timber will most likely be chipped and used for mulch or other restoration  
 36 purposes or burned. For merchantable timber, estimated timber sale revenue and timber tax  
 37 revenue from land affected by construction of the Projects will be determined once timber stands  
 38 have been assessed. Atlantic and DTI will coordinate with landowners and land managing  
 39 agencies to minimize impacts on forest and timber resources and determine fair compensation  
 40 for damages to merchantable timber that result from construction and operation of the Projects.  
 41 Landowners or land managing agencies will be compensated for the loss of merchantable timber  
 42 based on factors such as board feet, age, and type of trees.

1            *Comment: Key Log Economics, on behalf of Friends of Nelson County, commented that*  
2 *the Chmura report is based on outdated and improperly applied models, omits the external cost*  
3 *of the proposed development, and is inappropriate for planning purposes. They also commented*  
4 *that the cumulative effects analysis must consider environmental effects along the entire routes*  
5 *and throughout the entire lifecycle of each alternative, and consider the full economic effects of*  
6 *ACP construction, operation, and presence because the pipeline will cause loss of ecosystem*  
7 *services, degradation of scenic and recreational amenities, and erosion of community character*  
8 *and cultural heritage in areas like Nelson County, Virginia.*

9            *Response:* The Chmura report analyzed the anticipated direct and indirect economic  
10 benefits attributable to the ACP. Because there is no commonly accepted methodology to weigh  
11 the economic benefits of the ACP against possible environmental, health, and safety risks using  
12 all possible positive and negative externalities, the economic impact assessment can only address  
13 tangible economic benefits of the ACP using known variables and economic modeling. The  
14 Chmura Report methodologies are based on an economic impact assessment modeling system  
15 developed by the Minnesota IMPLAN Group that is used by economists to build economic  
16 models that estimate the impacts of economic changes in local economies. The Chmura  
17 Economics and Analytics report accurately uses variables and methodologies that are accepted  
18 by economists.

19            *Comment: The Shannon Farm Community commented that sustainable agriculture and*  
20 *wild-gathering practiced at the farm will be disrupted by the proposed pipeline and will*  
21 *jeopardize the farm's economic viability.*

22            *Response:* The proposed route (as will be shown in the draft Resource Reports) will not  
23 cross the Shannon Farm Community.

24            *Comment: The EPA commented that environmental justice communities and locations*  
25 *should be identified and potential impacts (e.g., hazardous/toxic material exposure, air quality,*  
26 *or noise impacts) and mitigation should be evaluated. The EPA recommended that data and*  
27 *maps for unconsolidated tracts and/or block groups that readily identify high minority and low-*  
28 *income populations should be provided. The EPA also recommended that the methodology used*  
29 *to conduct the environmental justice assessment; potential direct, indirect, and cumulative*  
30 *impacts; public comments on environmental justice; and efforts to avoid, minimize, and mitigate*  
31 *impacts should be discussed.*

32            *Response:* A review of Environmental Justice communities will be provided in Section  
33 5.9 of draft Resource Report 5.

34            *Comment: The EPA commented that maps and figures that clearly describe all potential*  
35 *impacts on children's health (e.g., locations of schools, day-care facilities, multifamily housing,*  
36 *and hospitals) be provided.*

37            *Response:* School counts and type, housing counts and type, and the number of hospitals  
38 along the proposed route will be provided in Sections 5.6 of draft Resource Report 5.

39            *Comment: The Blue Ridge Environmental Defense League commented that new census*  
40 *data indicates that the project route would disproportionately impact minority communities and*

1 *families living at or below the poverty level in the counties crossed by the pipeline in Virginia*  
2 *and North Carolina.*

3 Response: A review of Environmental Justice communities crossed by the Projects will  
4 be provided in Section 5.9 of draft Resource Report 5.

5 Comment: *One commenter said that sportsmen who hunt and fish in Randolph and*  
6 *Pocahontas Counties, West Virginia will leave and not return to the areas due to construction.*  
7 *This, in turn, will hurt local businesses that rely on tourist spending.*

8 Response: Construction of the Projects could result in minor, short-term impacts on users  
9 of tourism resources, including hunting and fishing (to be discussed in Section 5.3 of draft  
10 Resource Report 5). However, these impacts will be temporary and limited primarily to the  
11 construction phase of the ACP. Because of the short construction period, the Projects are not  
12 expected to affect tourism industry revenues (including from hunting and fishing) at  
13 State/Commonwealth or local levels. No impacts on tourist revenues are expected from  
14 operation of the Projects.

## 15 **4.6 Resource Report 6 – Geologic Resources**

### 16 **4.6.1 General Comments**

17 Comment: *Several commenters said that construction and operation of a 42-inch-*  
18 *diameter pipeline cannot be done safely through karst terrain. These and other commenters said*  
19 *that the pipeline should be routed around karst features and avoid Augusta County, Virginia,*  
20 *which contains karst.*

21 Response: Atlantic and DTI are conducting a detailed assessment and field survey to  
22 identify sinkholes and other karst features along the proposed pipeline routes in areas known to  
23 contain karst. As karst features are identified along the routes, they will be evaluated by a  
24 geotechnical engineer and, if deemed necessary, route adjustments will be made on a feature-by-  
25 feature basis. The results of the assessment and field survey will be provided as Appendix 6D of  
26 the final Resource Report 6.

27 Atlantic and DTI additionally will prepare and implement a *Karst Monitoring and*  
28 *Mitigation Plan* to minimize or avoid impacts on karst features during construction (e.g.,  
29 installation of erosion and sediment controls upslope of known sinkholes or other karst features  
30 with a direct connection to groundwater). Atlantic and DTI will monitor clearing, grading,  
31 trenching, and blasting activities to identify karst features that could have been unidentifiable on  
32 the surface during the preconstruction survey. As appropriate, Atlantic and DTI will make minor  
33 route adjustments to avoid sinkholes and/or develop specific design and monitoring criteria,  
34 which could include sinkhole stabilization and/or use of heavier wall pipe.

35 Atlantic and DTI additionally note that there are many miles of existing natural gas  
36 gathering and transmission pipelines, including existing DTI pipelines, which cross areas of karst

1 terrain<sup>3</sup> in the ACP and SHP Project areas. The total number of miles<sup>4</sup> of existing DTI pipelines  
 2 by State/Commonwealth in karst areas is as follows:

- 3 • West Virginia = 0.9 miles
- 4 • Virginia = 0.0 miles
- 5 • Maryland = 6.8 miles
- 6 • Ohio = 302.5 miles
- 7 • Pennsylvania = 111.7 miles
- 8 • Total = 421.9 miles

9 The total number of existing natural gas transmission pipelines by State/Commonwealth  
 10 in karst areas is as follows:

- 11 • West Virginia = 39.4 miles
- 12 • Virginia = 453.7 miles
- 13 • Maryland = 15.3 miles
- 14 • Ohio = 2392.0 miles
- 15 • Pennsylvania = 1261.9 miles
- 16 • Total = 4162.3 miles

17 *Comment:* Several commenters said that construction of the pipeline could result in  
 18 spills of hazardous materials, which could spread over a large geographic area due to the karst  
 19 terrain.

20 As will be discussed in Section 2.1.6 of draft Resource Report 2, Atlantic and DTI will  
 21 develop and implement a SPCC Plan to address preventive and mitigation measures for spills.  
 22 The SPCC Plan will specify preventive measures such as regular inspection of storage areas for  
 23 leaks, replacement of deteriorating containers, and construction of containment systems around  
 24 hazardous liquids storage facilities. The SPCC Plan additionally will restrict refueling or other  
 25 liquid transfer areas within 100 feet of karst features with a direct connection to the phreatic zone  
 26 of the karst (i.e., groundwater), require additional precautions (e.g., secondary containment)  
 27 when specified setbacks cannot be maintained, and identify emergency response procedures,  
 28 equipment, and cleanup measures in the event of a spill.

29 *Comment:* Several commenters noted that the Virginia Hazard Management Plan states  
 30 that pipeline infrastructure within karst terrain can be damaged by a collapse in the supporting  
 31 soil. These commenters and others asked if the pipeline could withstand the opening of a  
 32 sinkhole.

33 The Virginia Hazard Management Plan states “pipeline infrastructure, underlain by karst  
 34 terrain, can be damaged by a collapse in the supporting soil.” As noted in Section 6.6 of draft  
 35 Resource Report 6, the fact that pipelines are structurally strong greatly reduces the probability  
 36 that a sinkhole would impact the integrity of the pipeline. Steel pipe has considerable strength as  
 37 a structural member. Maintained pipelines constructed using modern arc-welding techniques

<sup>3</sup> Areas where the bedrock consists of limestone or dolomite.

<sup>4</sup> Based on digital data from REXTAG for existing pipeline facilities.

1 have performed well in seismically active areas of the United States, where ground movement  
2 sometimes occurs, as well as in areas containing karst, including Virginia. Atlantic and DTI note  
3 that there are existing natural gas transmission pipelines crossing Counties in Virginia with karst  
4 terrain, including Augusta County, Virginia.

5 *Comment: Several commenters expressed concern that clearing of the right-of-way will*  
6 *leave many areas in Nelson County, Virginia susceptible to rockslides and landslides, which*  
7 *could damage the pipeline. In addition, the commenters said that construction of a large*  
8 *diameter pipeline along steep terrain will be intrusive and environmentally damaging.*

9 *Response: Atlantic and DTI will conduct site-specific geotechnical studies along the*  
10 *proposed pipeline routes in landslide prone areas to assess the potential for landslides to occur*  
11 *during construction and operation of the Projects. Atlantic and DTI will implement mitigation*  
12 *measures to stabilize all areas identified in the site-specific geotechnical studies as having a high*  
13 *potential for slope failures. These measures could involve burial of the pipeline below the*  
14 *potential landslide depth, if feasible, and/or drainage control (e.g., slope and ditch breakers,*  
15 *subsurface gravel or cobble drains, and culverts and drainage ditches to divert water away from*  
16 *the right-of-way). Additionally, Atlantic and DTI will make every effort to promote the rapid,*  
17 *successful establishment of vegetation in areas disturbed by construction.*

18 *Comment: Several commenters said that Hurricane Camille in 1969 and a tropical*  
19 *storm in 1995 caused numerous landslides and washouts in Nelson and Augusta Counties,*  
20 *Virginia, and expressed concern regarding the potential for future storms to uncover and*  
21 *damage the pipeline.*

22 *Response: As described above, Atlantic and DTI will implement measures to reduce the*  
23 *potential impacts of landslides and rockslides during construction and operation of the Projects.*  
24 *Additionally, Atlantic adopted an alternative route that avoids a majority of the documented*  
25 *debris flows and flood effects from Hurricane Camille (i.e., the East of Lovington Major Route*  
26 *Alternative to be discussed in Section 10.8.1 of draft Resource Report 10).*

27 *Comment: The VDCR commented that Atlantic should avoid the use of directional*  
28 *drilling within karst areas to prevent loss of drilling fluids into karst features.*

29 *Response: Atlantic does not expect to use the HDD method in areas with the potential to*  
30 *contain karst features due to the potential for drilling fluid to enter aquifers through pre-existing*  
31 *voids or conduits in limestone or dolomite bedrock. This will avoid the potential for drilling*  
32 *fluid to reach groundwater and contaminate wells in karst areas.*

33 *Comment: The VDCR commented that the structural integrity of the pipeline should be*  
34 *sufficient to bridge any voids that occur in areas prone to soil subsidence.*

35 *Response: Atlantic and DTI are currently conducting a detailed assessment and field*  
36 *survey to identify sinkholes and other karst features (e.g., cave entrances, closed depressions, and*  
37 *sinking streams) along the Projects. As karst features are identified, they will be evaluated by a*  
38 *geotechnical engineer and, if deemed necessary, route adjustments will be made on a feature-by-*  
39 *feature basis. The results of the assessment and field survey will be provided as Appendix 6D of*  
40 *the final Resource Report 6. Atlantic and DTI will also monitor clearing, grading, trenching, and*

1 blasting activities to identify karst features that could have been unidentifiable on the surface  
2 during the preconstruction survey.

3 As noted above, the fact that pipelines are structurally strong greatly reduces the  
4 probability that a sinkhole would impact the integrity of the pipeline. Steel pipe has considerable  
5 strength as a structural member. Allowable span lengths that will prevent over-stressing the steel  
6 depend upon pipe diameter, wall thickness, and soil conditions. As appropriate, and based on the  
7 results of the karst assessment, Atlantic and DTI will make minor route adjustments to avoid  
8 sinkholes and/or develop specific design and monitoring criteria, which could include sinkhole  
9 stabilization and/or use of heavier wall pipe.

10 *Comment:* The VDCR commented that slug test water should not be discharged into  
11 sinkholes or the land surface in karst areas, as this practice has been known to open new  
12 sinkholes on previous pipeline projects.

13 *Response:* Atlantic and DTI will prepare and implement a *Karst Monitoring and*  
14 *Mitigation Plan* (to be provided in Appendix 1F of the final Resource Report 1), which will  
15 identify measures for avoiding or minimizing impacts on karst features during construction.  
16 These measures include the installation of erosion and sediment controls along the edge of the  
17 construction right-of-way and other work areas upslope of known sinkholes or other karst  
18 features with a direct connection to the phreatic zone of the karst (i.e., groundwater), and  
19 prohibiting construction related water discharges, equipment servicing, hazardous materials  
20 storage, overnight parking, and equipment refueling, within 100 feet of an identified karst  
21 feature.

#### 22 **4.6.2 Specific Comments**

23 *Comment:* Several commenters said that Virginia Highway 250 and Interstate 64 in the  
24 vicinity of the proposed pipeline route have been closed a number of times in recent years due to  
25 sinkhole damage. These and other commenters noted that the Virginia Department of Mines,  
26 Minerals, and Energy (VDMME) identified Augusta County, Virginia, as a high risk area for  
27 large scale development, including pipelines, due to karst.

28 See the response above regarding Atlantic's and DTI's karst assessment and field survey  
29 and *Karst Monitoring and Mitigation Plan*. Additionally, Atlantic is planning to consult with  
30 VDMME on the ACP.

31 *Comment:* One commenter said that Atlantic should be required to develop an  
32 earthquake mitigation plan for the ACP pipeline and compressor stations. Another commenter  
33 said that the ACP is located within the Virginia Seismic Zone and said that earthquakes in the  
34 eastern U.S. travel farther and potentially cause damage at greater distances than earthquakes  
35 in other parts of the United States due to the geology of the area.

36 As will be discussed in Section 6.4.1 of draft Resource Report 6, there is little risk of  
37 earthquake-related impacts on the proposed pipelines and aboveground facilities due to the  
38 limited potential for large, seismically induced ground movements in the ACP Project area.  
39 Moreover, maintained pipelines constructed using modern arc-welding techniques have

1 performed well in seismically active areas of the United States, such as California. Only large,  
2 abrupt ground displacements have caused significant impacts on pipeline facilities.

3 *Comment:* The HSWCD said that blasting should be prohibited within three quarters of  
4 a mile of flood control dams in Augusta County, Virginia.

5 As will be discussed in Section 8.9.2 of draft Resource Report 8 (and as noted above),  
6 two HSWCD dams are within 0.75 mile of the proposed AP-1 mainline route in Augusta County,  
7 Virginia: the Waynesboro Nursery Dam and the Tom's Branch Dam. Neither dam will be  
8 directly affected by pipeline construction. Based on review of shallow bedrock areas along the  
9 AP-1 mainline route, Atlantic does not anticipate blasting where the route comes within 0.75  
10 mile of the Waynesboro Nursery Dam. It is possible that hard bedrock could be encountered  
11 during pipeline trenching within 0.75 mile of the Tom's Branch Dam, however, and blasting in  
12 this area could be required. If blasting is necessary in the vicinity of the dam, Atlantic will work  
13 with the HSWDC to determine appropriate procedures and mitigation for the dam.

14 *Comment:* The HSWCD said that a monitoring plan should be required for blasting that  
15 occurs within three quarters of a mile of a HSWCD flood control dam.

16 *Response:* Blasting procedures will be discussed in Section 1.5.2 of draft Resource  
17 Report 1 and Section 6.6 of draft Resource Report 6. As noted above, Atlantic and DTI will  
18 prepare and implement a *Blasting Plan* for the Projects. Additionally, prior to blasting, the  
19 construction contractors will be required to conduct pre-blast evaluations of the rock and develop  
20 site-specific blasting operations and monitoring plans to be approved by Atlantic and DTI.  
21 Atlantic and DTI will consult with the HSWCD with regard to the monitoring plan if blasting is  
22 required within 0.75 mile of the Tom's Branch Dam.

23 *Comment:* One commenter said that the VDMME is developing a database of seismic  
24 activity in Virginia, which is expected to be completed in September 2016.

25 *Response:* Atlantic and DTI will review the database when it becomes available.  
26 Additionally, as noted above, there is little risk of earthquake-related impacts on the proposed  
27 pipelines and aboveground facilities due to the limited potential for large, seismically induced  
28 ground movements in the ACP Project area.

29 *Comment:* Several commenters observed that Dominion Resources has agreed to a  
30 Consent Order to address pollution violations along an existing pipeline in West Virginia due to  
31 slips.

32 *Response:* As will be discussed in Section 6.4.2 of draft Resource Report 6, DTI is in the  
33 process of completing corrective actions to resolve the WVDEP citation concerning its existing  
34 G-150 pipeline in West Virginia.

35 *Comment:* The Virginia Chapter of the Sierra Club commented that the earthquake  
36 hazard along the pipeline should be quantified for specific probabilities of exceedance, in terms  
37 of the ground motion parameters that correlate with the pipeline design. The Virginia Chapter  
38 said that this evaluation should include a probabilistic hazard assessment with deterministic

1 *studies at important fault crossings, and include an assessment of earthquake resistant design*  
2 *materials, which includes strength parameters of the pipeline (e.g., shear and tensile strength).*

3 Response: Section 6.4.1 of draft Resource Report 6 will provide a discussion of the  
4 seismic activity in the areas crossed by the Projects. The proposed facilities for both Projects  
5 will be designed and installed in accordance with USDOT standards. As noted above,  
6 maintained pipelines constructed using modern arc-welding techniques have performed well in  
7 seismically active areas of the United States, such as California. Only large, abrupt ground  
8 displacements have caused significant impacts on pipeline facilities. Due to the limited potential  
9 for large, seismically induced ground movements in the ACP Project area and SHP Project area,  
10 there is very little risk of earthquake-related impacts on the proposed ACP and SHP pipelines  
11 and aboveground facilities.

12 Comment: *The Virginia Chapter of the Sierra Club commented that a seismic hazard*  
13 *emergency management plan should be implemented and made public for review prior to the*  
14 *FERC approving a Certificate.*

15 Response: As discussed above, there is very little risk of earthquake-related impacts on  
16 the proposed ACP and SHP pipelines and aboveground facilities. DTI currently has an  
17 Emergency Response Plan for its existing pipeline system, in accordance with the USDOT  
18 regulations, that provides written procedures to minimize the hazards from a gas pipeline  
19 emergency (to be discussed in Section 11.2.4 of draft Resource Report 11). DTI will update its  
20 Emergency Response Plan, as necessary, to incorporate the proposed Projects.

21 Comment: *The VDCR recommended that the Virginia Speleological Survey, which is a*  
22 *private entity, be consulted regarding the locations of cave entrances near the pipeline route.*  
23 *They also commented that any cave entrances discovered during construction should be reported*  
24 *to the VDCR.*

25 Response: As noted above, Atlantic and DTI are currently conducting a detailed  
26 assessment and field survey to identify sinkholes and other karst features (e.g., cave entrances,  
27 closed depressions, and sinking streams) in areas crossed by the Projects. As karst features are  
28 identified along the route, they will be evaluated by geotechnical engineer and, if deemed  
29 necessary, route adjustments will be made on a feature-by-feature basis. The results of the  
30 assessment and field survey will be provided as Appendix 6D of the final Resource Report 6.

31 Comment: *The VDCR commented that the MNF 5 alternative is particularly disruptive*  
32 *to caves and karst geography, adding nearly 100 known sinkholes and a few dozen caves when*  
33 *compared to the proposed AP-1 route. In addition, one commenter said that the MNF 5*  
34 *alternative in Pocahontas County, West Virginia, crosses a large cave, over four and a half miles*  
35 *long, called Sharp's Cave, which runs along State Route 219 where MNF 5 is located.*

36 Response: Atlantic is continuing to refine and study alternative routes to the south (i.e.,  
37 MNF 5) as well as the proposed route (i.e. MNF 2). Field survey along the MNF 5 alternative  
38 will be conducted in the Spring/Summer of this year. The results of these surveys will be  
39 incorporated into the final Resource Report 10.

1            *Comment: The VDCR commented that the AP-1 mainline passes through an area with*  
2 *intense sinkhole development near Churchville, Virginia, and said that additional review of karst*  
3 *in this area should be conducted.*

4            *Response: As discussed above, Atlantic and DTI are currently conducting a detailed*  
5 *assessment and field survey to identify sinkholes and other karst features in areas crossed by the*  
6 *Projects.*

7            *Comment: The Augusta County Service Authority commented that blasting near the*  
8 *Augusta Regional Landfill property could damage their monitoring wells and cause offsite*  
9 *migration of gas or leachate that would put the landfill in regulatory non-compliance with*  
10 *Federal and State laws.*

11           *Response: Blasting procedures will be discussed in Section 1.5.2 of draft Resource*  
12 *Report 1 and Section 6.6 of draft Resource Report 6. As noted above, Atlantic and DTI will*  
13 *prepare and implement a *Blasting Plan* for the Projects. Additionally, prior to blasting, the*  
14 *construction contractors will be required to conduct pre-blast evaluations of the rock and develop*  
15 *site-specific blasting operations and monitoring plans to be approved by Atlantic and DTI.*  
16 *Atlantic will consult with the Augusta County Service Authority with regard to the monitoring*  
17 *plan if blasting is required near the Augusta Regional Landfill property.*

18           *Comment: The EPA commented that the potential for the disturbance/exposure of acid-*  
19 *producing rock should be discussed, as well as, any water quality impacts associated with the*  
20 *existing available treatment methodologies (e.g., impacts on waterbodies due to the application*  
21 *of lime).*

22           *Response: Atlantic and DTI are currently analyzing the potential to encounter acid-*  
23 *producing rocks and soils during construction; a preliminary discussion will be provided in*  
24 *Section 6.4.6 of draft Resource Report 6. Additional information about acid-producing rocks*  
25 *and soils will be provided in the final Resource Report 6, including an evaluation of potential*  
26 *mitigation measures.*

27           *Comment: The USFS commented on the possibility of encountering abandoned gas*  
28 *wells, coal mines, and other hazards associated with crossing reclaimed mine lands with*  
29 *construction equipment, and identifying those hazards to prevent accidents.*

30           *Response: Known abandoned gas wells and mining activity will be discussed in draft*  
31 *Resource Report 6. Atlantic and DTI are currently evaluating the identified underground mines*  
32 *crossed by the proposed Projects (to be discussed in the final Resource Report 6).*

33           *Comment: The USFS commented on geologic hazards including the need to identify*  
34 *potential impacts associated with acid producing rock (sulfide) hazards, such as barren acid cut*  
35 *slopes, acidic runoff, fill seepage, and deterioration.*

36           *Response: Atlantic and DTI are currently analyzing the potential to encounter acid-*  
37 *producing rocks and soils during construction; a preliminary discussion will be provided in*  
38 *Section 6.4.6 of draft Resource Report 6. Additional information about acid-producing rocks*  
39 *and soils will be provided in the final Resource Report 6.*

1            *Comment:* The USFS commented on the geology at the proposed crossings of Mauch  
2            Chunk in the MNF, and said that this geologic group is prone to erosion and may need special  
3            measures for successful reclamation.

4            *Response:* To minimize or avoid impacts associated with erosion and sedimentation,  
5            Atlantic and DTI will implement erosion and sediment controls and restoration procedures as  
6            outlined in the Plan and Procedures, as well as State/Commonwealth and local regulations or  
7            guidelines. Atlantic and DTI will evaluate site-specific conditions crossed by the Projects,  
8            including those underlain by the Mauch Chunk formation, and implement all necessary measures  
9            to ensure successful restoration of disturbed areas. Atlantic and DTI will consult with the USFS  
10           regarding appropriate measures.

11           *Comment:* Several commenters, including the Virginia Cave Board, said that Atlantic  
12           should maintain a minimum of a 100-foot buffer around all karst features when blasting,  
13           drilling, digging, or trenching.

14           *Response:* Atlantic and DTI will prepare and implement a *Karst Monitoring and*  
15           *Mitigation Plan* (to be provided in Appendix 1F of the final Resource Report 1), which will  
16           identify measures for avoiding or minimizing impacts on karst features during construction. See  
17           the previous responses regarding karst.

18           *Comment:* The Virginia Cave Board commented that two caves on the east side of  
19           Monterey Mountain have active air currents that inhale surface air from one entrance and  
20           exhale it from another. The Virginia Cave Board said that methane releases in this area should  
21           be prevented to avoid detrimental environmental or human health safety hazards.

22           *Response:* As discussed above, Atlantic and DTI are currently conducting a detailed  
23           assessment and field survey to identify sinkholes and other karst features. Atlantic and DTI will  
24           evaluate the location of these cave entrances relative to the ACP when the assessment and field  
25           surveys are complete.

26           *Comment:* The Virginia Cave Board recommended a comprehensive karst feature  
27           inventory along the right-of-way and within a minimum half mile buffer on either side of the  
28           pipeline route. The Virginia Cave Board said that the inventory should be completed by a  
29           licensed professional experienced in karst inventories, and should include a field inventory of all  
30           carbonate units. The Virginia Cave Board also said that an adaptive management approach  
31           should be taken to avoid the features identified along the proposed route.

32           *Response:* As discussed above, Atlantic and DTI are currently conducting a detailed  
33           assessment and field survey to identify sinkholes and other karst features in the areas crossed by  
34           the Projects.

35           *Comment:* The Virginia Cave Board commented that the HDD method should not be  
36           used in areas with karst due to a high risk of a drilling fluid release. This includes all areas with  
37           carbonate bedrock.

38           *Response:* Atlantic does not expect to use the HDD method in areas with the potential to  
39           contain karst features due to the potential for drilling fluid to enter aquifers through pre-existing

1 voids or conduits in limestone or dolomite bedrock. This will avoid the potential for drilling  
2 fluid to reach groundwater and contaminate wells in karst areas.

3 *Comment: The Virginia Cave Board commented that a SPCC Plan should be specifically*  
4 *tailored to karst systems.*

5 Response: Atlantic and DTI will develop and implement a SPCC Plan (to be provided in  
6 Appendix 1F of the final Resource Report 1) to address preventive and mitigation measures for  
7 spills. The SPCC Plan and the *Karst Monitoring and Mitigation Plan* will identify measures  
8 specific to the protection of karst features.

9 *Comment: The Virginia Cave Board commented that a monitoring program of karst*  
10 *features potentially affected by pipeline construction and operation should be established.*

11 Atlantic and DTI will monitor clearing, grading, trenching, and blasting activities to  
12 identify karst features that could have been unidentifiable on the surface during the  
13 preconstruction survey. If features are uncovered, they will be evaluated by a geotechnical  
14 contractor to determine the need for mitigation measures, such as stabilization. The *Karst*  
15 *Monitoring and Mitigation Plan* will assess potential impacts on the karst environment and  
16 possible remedial actions.

## 17 **4.7 Resource Report 7 – Soils**

### 18 **4.7.1 General Comments**

19 *Comment: Several commenters said that agro-tourism and organic farming within*  
20 *Nelson County, Virginia, rely on chemical-free soils, which will be compromised by construction*  
21 *and operation of the ACP.*

22 Response: As will be discussed in Section 8.3 of draft Resource Report 8, Atlantic and  
23 DTI have worked (and continue to work) to identify certified organic farms which could be  
24 affected by the proposed Projects. Based on consultation with affected landowners to date, no  
25 certified organic farms are known to be crossed by the proposed ACP and SHP pipeline routes,  
26 nor have any farms been identified that are in active transition toward certification. In the event  
27 that certified organic farms or farms in active transition toward certification are identified,  
28 Atlantic and DTI will implement a number of mitigation measures for these farms, such as  
29 avoiding the application of prohibited substances onto organic agricultural land. The presence of  
30 a natural gas pipeline is not expected to have an impact on certification for organic farms now or  
31 in the future.

32 *Comment: Several commenters said that the pipeline will result in a loss of agricultural*  
33 *productivity due to soil degradation.*

34 Response: Atlantic and DTI will implement the construction and restoration measures to  
35 be described in Section 1.5.2 of draft Resource Report 1 and Section 8.3 of draft Resource  
36 Report 8, including full-width topsoil segregation and soil decompaction, to restore agricultural  
37 productivity. Following restoration, Atlantic and DTI will monitor croplands disturbed by  
38 construction of the Projects to identify additional restoration or mitigation measures which could

1 be necessary to restore agricultural productivity. Additionally, landowners will be compensated  
2 for crop losses during the construction and restoration phases of the Projects as well as for losses  
3 in crop productivity (if any).

4 *Comment: Several commenters said that Atlantic should not be allowed to have an open*  
5 *construction trench longer than 500 feet in accordance with Virginia regulations to prevent soil*  
6 *erosion within mountainous areas.*

7 *Response: Atlantic will coordinate with the VDEQ regarding required trench lengths and*  
8 *will request any necessary variances, in accordance with the Virginia Erosion and Sediment*  
9 *Control Law, for all areas where more than 500 feet of trench would be required to be open at*  
10 *one time.*

11 *Comment: TNC commented that potential impacts on waterbodies from sedimentation*  
12 *and erosion caused by high intensity rain events during construction be considered. TNC also*  
13 *commented that methods to minimize sedimentation and erosion impacts from pipeline*  
14 *construction in similar terrain should be demonstrated prior to construction.*

15 *Response: Atlantic and DTI will install erosion and sediment controls at waterbody*  
16 *crossings in accordance with the Plan and Procedures (to be discussed in Section 1.5.2 of draft*  
17 *Resource Report 1). During clearing, sediment barriers will be installed and maintained across*  
18 *the right-of-way adjacent to waterbodies and within ATWS to minimize the potential for*  
19 *sediment runoff. Following installation of the pipeline, stream banks will be restored as near as*  
20 *practicable to pre-existing conditions and stabilized. Stabilization measures could include*  
21 *seeding, tree planting, installation of erosion control blankets, or installation of riprap materials,*  
22 *as appropriate. Temporary erosion controls will be installed immediately following bank*  
23 *restoration. These measures will avoid or minimize erosion and sedimentation into waterbodies*  
24 *during construction and operation of the Projects.*

25 *Comment: The USFS commented on the need to follow USFS protocols when collecting*  
26 *soils data on national forest lands.*

27 *Response: DTI and Atlantic are currently coordinating with the USFS regarding survey*  
28 *requirements within the GWNF and MNF.*

#### 29 **4.7.2 Specific Comments**

30 *Comment: One commenter asked what impact the cathodic protection system will have*  
31 *on microbes in the soil.*

32 *Response: Cathodic protection systems have been used all over the United States for*  
33 *decades with no known substantive impacts on soil microbes. Most soil microbes are found*  
34 *within the upper 12 inches of soil. The pipeline and cathodic protection system will be buried*  
35 *much deeper in the soil (3 feet in non-agricultural uplands and wetlands, 4 feet in agricultural*  
36 *areas, and 5 feet or more at road, railroad, and waterbody crossings).*

37 *Comment: The Virginia Chapter of the Sierra Club commented that soil compaction*  
38 *prevention measures should be used extensively, and that testing should be done to determine if*

1 *soil compaction is occurring. If testing results indicate a need, subsoil decompaction should be*  
2 *required.*

3 Response: Atlantic and DTI will minimize compaction and rutting impacts by using  
4 measures outlined in the Plan and Procedures during construction in soft or saturated soils (to be  
5 discussed in Section 7.4.1 of draft Resource Report 7). In addition, Atlantic's and DTI's  
6 Environmental Inspectors could recommend restricted construction activities during unfavorable  
7 conditions (e.g., wet weather) to further reduce compaction and rutting. Compaction impacts  
8 will be mitigated through the use of deep tillage operations during restoration activities using a  
9 paraplow or similar implement. In areas where topsoil segregation occurs, plowing with a  
10 paraplow or other deep tillage implement to alleviate subsoil compaction will be conducted  
11 before replacement of the topsoil.

12 Comment: *The Virginia Chapter of the Sierra Club commented that a thorough slope*  
13 *analysis should be conducted on slopes over 20 percent, to identify areas with a high potential*  
14 *for slope failure during construction or restoration so additional erosion and sediment control*  
15 *measures can be implemented.*

16 Response: Atlantic and DTI will conduct site-specific geotechnical studies along the  
17 proposed pipeline routes in landslide prone areas to assess the potential for landslides to occur  
18 during construction and operation of the Projects (to be discussed in Sections 6.4.2 and 6.6 of  
19 draft Resource Report 6). Atlantic and DTI will implement mitigation measures to stabilize all  
20 areas identified in the site-specific geotechnical studies as having a high potential for slope  
21 failures. These measures could involve burial of the pipeline below the potential landslide depth,  
22 if feasible, and/or drainage control (e.g., slope and ditch breakers, subsurface gravel or cobble  
23 drains, and culverts and drainage ditches to divert water away from the right-of-way).  
24 Additionally, Atlantic and DTI will make every effort to promote the rapid, successful  
25 establishment of vegetation in areas disturbed by construction.

26 Comment: *One commenter said that DTI or Atlantic should reimburse FERC for*  
27 *expenses required to prepare a computer-based erosion prediction for each mountain crossed by*  
28 *the pipelines that are considered "rugged."*

29 Response: As noted above, Atlantic and DTI will conduct site-specific geotechnical  
30 studies along the proposed pipeline routes in landslide prone areas to assess the potential for  
31 landslides to occur during construction and operation of the Projects. To minimize or avoid  
32 impacts associated with erosion and sedimentation, Atlantic and DTI will implement erosion and  
33 sediment controls and restoration procedures as outlined in the Plan and Procedures, as well as  
34 State/Commonwealth and local regulations or guidelines.

35 Comment: *One commenter said that Atlantic should prepare site-specific erosion and*  
36 *sediment control plans.*

37 Response: Atlantic and DTI will prepare a set of construction alignment sheets or similar  
38 scale maps which depict the locations of erosion and sediment controls in construction work  
39 areas. The alignment sheets will be based on the Plan and Procedures as well as  
40 State/Commonwealth and local regulations or guidelines applying the strictest applicable

1 standards. The guidelines will include the WVDEP's *Erosion and Sediment Control Best*  
2 *Management Practice Manual*; the VDEQ's *Virginia Erosion and Sediment Control Handbook*;  
3 the NCDENR's *North Carolina Erosion and Sediment Control Planning and Design Manual*;  
4 and the Pennsylvania Department of Environmental Protection's *Erosion and Sediment Pollution*  
5 *Control Program Manual*. The alignment sheets will be filed prior to construction.

## 6 **4.8 Resource Report 8 – Land Use, Recreation and Aesthetics**

### 7 **4.8.1 General Comments**

8 *Comment: Several commenters said that Nelson County, Virginia relies on low-impact*  
9 *tourism, such as orchards and organic farms, which should be considered in the environmental*  
10 *analysis of the ACP.*

11 *Response:* As will be discussed in Section 8.3 of draft Resource Report 8, Atlantic and  
12 DTI have worked to identify certified organic farms and orchards which could be affected by the  
13 proposed Projects. Based on consultation with affected landowners to date, no certified organic  
14 farms are known to be crossed by the proposed ACP and SHP pipeline routes, nor have any  
15 farms been identified that are in active transition toward certification. Similarly, no orchards are  
16 known to be crossed by the pipeline routes. Atlantic and DTI will continue to work with  
17 landowners to identify certified organic farms and orchards. Certified farms and orchards also  
18 may be identified as a result of ongoing field surveys.

19 *Comment: Several commenters said that construction and operation of the ACP will*  
20 *result in adverse impacts on the Appalachian Trail and the Blue Ridge Parkway.*

21 *Response:* Atlantic is evaluating the feasibility of using the HDD construction method to  
22 install the proposed pipeline under the Appalachian Trail and Blue Ridge Parkway. As noted  
23 above, the HDD method would avoid direct impacts on the trail and parkway, including impacts  
24 on vegetation immediately adjacent to these features. Short-term impacts on visitors to the  
25 Appalachian Trail and Blue Ridge Parkway could result from construction noise, but these  
26 impacts will be temporary and limited to the period of construction. Atlantic will address noise  
27 mitigation at these sites in the design for the HDD.

28 While the HDD method would avoid direct visual impacts at the crossings of the  
29 Appalachian Trail and Blue Ridge Parkway, construction of the pipeline has the potential to  
30 affect outward views from these areas. Atlantic will conduct a visual impact analysis to assess  
31 potential impacts on these views.

32 *Comment: Several commenters said that the ACP will adversely affect viewsheds in*  
33 *Highland, Augusta, and/or Nelson Counties, Virginia, the MNF and GWNF, and along the*  
34 *Appalachian Trail and the Blue Ridge Parkway.*

35 *Response:* The ACP will result in short-term visual impacts during construction of the  
36 Project, as well as long-term visual impacts due to the maintained pipeline rights-of-way in  
37 forested areas. Visual impacts as a result of the Projects, including impacts on site-specific  
38 areas, will be discussed in Section 8.11 of draft Resource Report 8.

1            *Comment:* Several commenters said that the productivity of farm and forest land will be  
2            *compromised by the restricted uses of the pipeline right-of-way and that arable land will no*  
3            *longer be useable after the pipeline is constructed.*

4            *Response:* In most areas, including cropland and pasture, the land disturbed by  
5            construction will be restored to preconstruction conditions and uses following installation of the  
6            pipeline. As noted above, Atlantic and DTI will implement the construction and restoration  
7            measures described in Section 1.5.2 of draft Resource Report 1 and Section 8.3 of draft Resource  
8            Report 8, including full-width topsoil segregation and soil decompaction, to restore agricultural  
9            productivity. In forested areas, the permanent pipeline rights-of-way will be maintained to  
10           support herbaceous or low shrub-dominated communities.

11           *Comment:* Several commenters said that land restrictions will prevent landowners from  
12           *using their land after the ACP is built.*

13           *Response:* Lands within the permanent easements for the proposed ACP and SHP  
14           pipeline facilities will be subject to certain use restrictions, such as construction of new buildings  
15           or homes and tree plantings (to be discussed in Section 8.3 of draft Resource Report 8). In most  
16           areas, including cropland and pasture, however, the land will be restored to preconstruction  
17           conditions and uses following installation of the pipeline.

18           *Comment:* Several commenters said that construction of the ACP pipeline will impact  
19           *the locations and economic benefits of hunting in Nelson, Augusta, and Highland Counties,*  
20           *Virginia.*

21           *Response:* Construction of the pipeline may have temporary and localized impacts on  
22           hunting due to construction noise, but no long-term or permanent impacts on hunting are  
23           anticipated. The ACP will not restrict hunting in the permanent maintained easement; however,  
24           any restrictions from the landowner that were in place prior to the ACP would still be in place.

25           *Comment:* Several commenters said that clearing the pipeline right-of-way will result in  
26           *a substantial loss of forested land along the pipeline route.*

27           *Response:* Impacts on forested land will be discussed in Section 8.3 of draft Resource  
28           Report 8. Impacts on forested land in the temporary construction corridor will be long term due  
29           to the time required for trees to grow to maturity. During operation of the Projects, the  
30           permanent easements for the pipelines will be maintained in herbaceous cover.

31           *Comment:* Several commenters said that the rural culture of central Virginia will be  
32           *impacted by the presence of the ACP.*

33           Once constructed, the ACP will be a buried utility which will have no impact on the rural  
34           culture of central Virginia. Atlantic and DTI note that there are several existing pipelines and  
35           other utilities which cross central Virginia and rural areas in Virginia generally.

36           *Comment:* One commenter said that the pipeline will be buried four feet underground,  
37           *which is too near the surface for farm tractors to work.*

1            Response: In agricultural lands, the pipelines will be buried at depths sufficient to  
2 provide a minimum of 4 feet of cover to avoid potential impacts associated with typical  
3 agricultural activities, such as plowing. In consultation with landowners, the pipeline may be  
4 buried deeper in certain locations to facilitate the passage of heavy equipment, such as logging  
5 equipment. Land use impacts in agricultural areas due to construction and operation of the  
6 Projects will be discussed in Section 8.3 of draft Resource Report 8.

7            Comment: *Several commenters said that the pipelines should be routed as far from*  
8 *residences as possible.*

9            Response: Atlantic and DTI considered residences in the routing process for the Projects  
10 and avoided residential areas to the extent practicable. Section 8.5 of draft Resource Report 8  
11 identifies residences within 50 feet of the proposed ACP and SHP construction workspace and  
12 describes construction and restoration measures for these areas.

13            Comment: *The Virginia Outdoors Foundation (VOF) commented that the AP-1 mainline*  
14 *crosses a VOF conservation easement in Nelson County, Virginia.*

15            Response: Atlantic is committed to avoiding conservation easements to the extent  
16 practicable. Atlantic is currently evaluating options for avoiding this easement.

#### 17 **4.8.2 Specific Comments**

18            Comment: *Several commenters said that the Dividing Waters Farm near Hightown in*  
19 *Highland County, Virginia, has a sugar maple mixed forest which creates a unique viewshed.*  
20 *The commenters said that the pipeline should avoid impacts on this viewshed.*

21            Response: As will be discussed in Section 8.11.2 of draft Resource Report 8, Atlantic is  
22 evaluating options for avoiding or minimizing visual impacts in this area. In addition, Atlantic is  
23 evaluating a potential route alternative at this location (to be discussed in Section 10.9.1 of draft  
24 Resource Report 10).

25            Comment: *Several commenters said that the proposed pipeline is located too close to the*  
26 *Yogaville area in Buckingham County, Virginia, and will adversely impact the recreational value*  
27 *of the Yogaville community.*

28            Response: As will be discussed in Section 10.9.1 of draft Resource Report 10, DTI is  
29 evaluating two potential routes in the Yogaville area. The potential impacts on the Yogaville  
30 community due to construction and operation of the proposed facilities are being evaluated.

31            Comment: *One commenter said that the ACP will ruin the recreational value of Naked*  
32 *Mountain, Allegheny Mountain, and High Peak Mountain in Virginia.*

33            Response: None of these mountains are crossed by the current route of the ACP (as will  
34 be shown in the draft Resource Reports).

35            Comment: *The Virginia Native Plant Society said that a two-mile wide study corridor*  
36 *along the pipeline crosses five VDCR dedicated Natural Area Preserves and 72 Natural*

1 *Heritage Conservation Sites and Stream Conservation Units, and that the proposed centerline*  
2 *crosses 18 of the Natural Heritage Conservation Sites.*

3 Response: As will be discussed in Section 3.2.1 of draft Resource Report 3 and Section  
4 8.7.4 of draft Resource Report 8, none of the area nature preserves are crossed by the proposed  
5 pipeline routes and none will be affected by the ACP. The proposed pipeline routes cross  
6 17 Natural Heritage Conservation Sites or Stream Conservation Units, which are sites identified  
7 by the VDCR's Natural Heritage Inventory as containing habitats for rare, threatened, or  
8 endangered plant and animal species, unique or exemplary natural communities, or significant  
9 geologic formations. Potential impacts on these sites will be addressed in Section 3.2.1 of draft  
10 Resource Report 3.

11 Comment: *One commenter said that the ACP will adversely impact the Appalachian*  
12 *Trail on the Blue Ridge Mountain and the Great Eastern Trail along the Shenandoah Mountain,*  
13 *which will affect local recreation and tourism. Other commenters said the Appalachian Trail*  
14 *will be impacted by the ACP.*

15 Response: As noted above, the HDD method is being evaluated for crossing the  
16 Appalachian Trail to avoid direct impacts on the trail. The Great Eastern Trail, which is located  
17 in the GWNF, will be crossed using the open-cut method, which temporarily will disrupt use of  
18 the trail (to be discussed in Section 8.8.6 of draft Resource Report 8). This impact will be short  
19 term and limited to the period of active construction. Atlantic and DTI will work with the  
20 GWNF to determine whether detours or some other method for minimizing impacts on  
21 recreational users would be appropriate for this trail. After construction, Atlantic and DTI will  
22 restore the trail to its preconstruction condition.

23 Comment: *One commenter said that the compressor station should be built within an*  
24 *aesthetically pleasing building to reduce the impacts of the viewshed on the surrounding area.*

25 Response: As will be discussed in Section 8.11.3 of draft Resource Report 8, Atlantic  
26 and DTI will consult with local jurisdictions regarding appropriate landscaping and/or other  
27 means of mitigating visual impacts of the proposed new compressor stations.

28 Comment: *One commenter said that amending the MNF's and GWNF's LRMPs to allow*  
29 *the pipeline to cross federal lands would circumvent the LRMP, and therefore would be*  
30 *inconsistent with the LRMP. Other commenters said that pipelines are in inappropriate use for*  
31 *national forests.*

32 Response: As will be discussed in Section 8.7.1 of draft Resource Report 8, before the  
33 MNF and GWNF decide whether to authorize use of USFS lands for the proposed pipeline, the  
34 ACP will be assessed for consistency with the LRMPs. Each Forest Supervisors could determine  
35 that the proposed use is not consistent with elements of the respective LRMP, but is nonetheless  
36 an appropriate use, in which case an amendment to the LRMP could be approved. The need for  
37 plan amendments will be assessed by the USFS in its review of the ACP. Additionally, Atlantic  
38 and DTI note that USFS lands are managed for multiple uses, including utility rights-of-way.

1            *Comment:* The Virginia Department of Aviation commented that any easements through  
2 the Hampton Roads Executive Airport must be coordinated through the Virginia Department of  
3 Aviation and the Federal Aviation Administration Washington Airports District Office.

4            *Response:* While an alternative route of AP-3 was proposed to cross the Hampton Roads  
5 Executive Airport property, the proposed route for the AP-3 mainline (as will be shown in the  
6 draft Resource Reports) does not cross it.

7            *Comment:* The Fenton Inn in Nelson County, Virginia commented that they will be  
8 unable to operate during construction of the HDD due to noise and other impacts from the  
9 proposed HDD at the Appalachian Trail/Blue Ridge Parkway crossing.

10           *Response:* Atlantic believes that the Fenton Inn will be able to operate during  
11 construction. In accordance with FERC regulations, noise from the HDD will be limited to 55  
12 decibels on the A-weighted scale (dBA) at nearby noise-sensitive areas (including the Inn).

13           *Comment:* Several commenters said that impacts on cattle production, such as reduced  
14 birth rates in cattle raised near natural gas pipelines, should be addressed in the EIS.

15           *Response:* The Projects will not affect cattle production. Pastures and hayfields  
16 disturbed during construction (including areas within the permanent pipeline easements) will be  
17 returned to their previous uses once construction and restoration is complete.

18           *Comment:* One commenter said that the current pipeline route in Highland County,  
19 Virginia will ruin maple syrup production by crossing a stand of existing sugar maples and  
20 disrupting the annual Maple Sugar Festival.

21           *Response:* With relatively high altitudes and a cool climate, Highland County, Virginia,  
22 is home to stands of sugar maple, which are tapped to harvest maple syrup. Atlantic and DTI are  
23 in the process of consulting with landowners to identify working sugar maple stands, if any,  
24 along the proposed AP-1 mainline route. No working sugar maple stands are known to occur  
25 along the proposed pipeline routes in the rest of Virginia or in West Virginia, North Carolina,  
26 and Pennsylvania. If working sugar maple stands are identified along the route, Atlantic and  
27 DTI will work with landowners to avoid or minimize impacts on sugar maple production in these  
28 areas.

29           *Comment:* The USFS commented that the EIS should identify and map any facility that  
30 would not be in compliance with the MNF 2006 LRMP and the GWNF 2014 Revised LRMP.

31           *Response:* Atlantic and DTI are coordinating with USFS staff at the MNF and GWNF  
32 regarding the scopes of the analyses required to assess conformance with the standards and  
33 guidelines in the LRMPs for each national forest. Additional information on conformance with  
34 the LRMPs will be provided in the final Resource Report 8.

35           *Comment:* The EPA commented that impacts on farmland should be addressed in the EIS  
36 and that impacts on land enrolled in U.S. Department of Agriculture's Conservation Reserve  
37 Program and Wetland Reserve Program should be identified.

1            Response: Potential impacts on agricultural lands due to construction and operation of  
2 the Projects will be discussed in Section 8.3 of draft Resource Report 8. Atlantic and DTI  
3 consulted with the Natural Resources Conservation Service to identify crossings of lands  
4 enrolled in the Conservation Reserve Program or Wetland Reserve Program. Based on digital  
5 data provided by the Natural Resources Conservation Service, there are no known crossings of  
6 lands enrolled in these programs along the proposed pipeline routes. Because digital data from  
7 these and other easement and tax incentive programs may be incomplete, crossings of lands  
8 enrolled in these programs will be verified during the land acquisition process.

9            Comment: *The EPA commented that impacts on recreational hunting should be*  
10 *addressed.*

11           Response: Construction of the pipeline may have temporary and localized impacts on  
12 hunting due to construction noise, but no long-term or permanent impacts on hunting are  
13 anticipated. The ACP will not restrict hunting in the permanent maintained easement; however,  
14 any restrictions from the landowner or land managing agency that were in place prior to the ACP  
15 or SHP would still be in place.

16           Comment: *The USFS commented that the analysis in the EIS should disclose the number*  
17 *of acres where prescribed fire and timber activities would be eliminated as management tools.*

18           Response: Atlantic and DTI will coordinate with the MNF and GWNF regarding the use  
19 of prescribed fire in the vicinity of the proposed facilities.

20           With respect to timber management, the permanent easement would be maintained in an  
21 herbaceous state which would eliminate future timbering activities in this area. Timbering  
22 activities in areas adjacent to the maintained easement would require coordination with Atlantic  
23 and DTI to ensure that these activities do not interfere with safe operation of the pipeline.  
24 Upland forested habitats crossed by the proposed pipeline on the MNF and GWNF (in miles)  
25 will be identified in Section 3.2.1 of draft Resource Report 3. The acres of affected upland forest  
26 in the MNF and GWNF will be provided in the final Resource Report 3.

27           Comment: *The USFS commented on the potential use of permanent or temporary roads*  
28 *for access to the pipeline during operations.*

29           Response: The identification of potential access roads for use during construction and  
30 operation of the Projects is ongoing. An analysis of permanent and temporary access roads on  
31 the MNF and GWNF will be provided in the final Resource Report 8.

32           Comment: *The USFS commented that impacts on existing features, land uses, projects,*  
33 *and special use permits should be analyzed in the EIS.*

34           Response: Atlantic and DTI have consulted and continue to consult with USFS staff to  
35 identify and assess potential impacts on existing features, land uses, projects, and special use  
36 permits in the MNF and GWNF. The information gathered to date will be discussed in Section  
37 8.7.1 and 8.8 of draft Resource Report 8. Additional information on potential impacts, and  
38 measures for avoiding, minimizing, and mitigating impacts, will be provided in the final  
39 Resource Report 8.

1            *Comment: The USFS commented on the potential for illegal use of off-highway vehicles*  
2 *(OHVs) on the permanent maintained easement across the MNF and GWNF.*

3            *Response:* Atlantic and DTI will coordinate with land managing agencies, including the  
4 MNF and GWNF, to identify locations where unauthorized access of OHVs to Federal lands via  
5 the pipeline right-of-way is most likely (to be discussed in Section 8.8.9 of draft Resource Report  
6 8). At these locations, site-specific OHV blocking measures will be developed in consultation  
7 with the USFS.

8            *Comment: The USFS commented that a visual impacts analysis should be conducted to*  
9 *meet the standards and use definitions of the FS's Scenery Management Plan. Areas of special*  
10 *concern include the Appalachian Trail, Wilderness Areas, Blue Ridge Parkway overlooks, and*  
11 *Torry Ridge Trail.*

12           *Response:* Atlantic and DTI will work with the USFS and other land managing agencies,  
13 as appropriate, to identify the most visually sensitive locations along the proposed rights-of-way,  
14 scope visual impact analyses, and develop tailored visual mitigation approaches appropriate for  
15 each location. For example, screening techniques to eliminate long views down the right-of-way  
16 from key viewing areas could be employed. Selective clearing to retain screening trees at road  
17 crossings, transplantation of young tree specimens from other locations, strategic adjustment of  
18 the pipeline alignment or “feathering” the right-of-way edges are examples of techniques that  
19 could be appropriate at particular sites. Other measures could include leaving the right-of-way in  
20 a rough condition by selectively redistributing rock or woody debris along the right-of-way, and  
21 leaving stumps and root structures in place to facilitate re-growth in the construction right-of-  
22 way.

23           *Comment: The USFS commented that the EIS should include an analysis of potential*  
24 *effects on developed recreation sites and/or visitor experience.*

25           *Response:* Atlantic has and continues to coordinate with USFS staff to identify and  
26 assess potential impacts on recreational sites and visitor experience. Information gathered to  
27 date will be discussed in Section 8.8 of draft Resource Report 8. Short term impacts will include  
28 reduced access across the construction right-of-way; increased noise, dust, and heavy equipment  
29 emissions; and fewer opportunities to view wildlife. These impacts will be temporary and  
30 limited primarily to the construction phase of the ACP. No significant impacts during operation  
31 of the proposed facilities are anticipated. Additional information regarding potential impacts on  
32 recreational sites and visitor experience, including measures for avoiding, minimizing, or  
33 mitigating impacts, will be provided in the final Resource Report 8.

34           *Comment: The Shannon Farm Community commented that the ACP is in direct conflict*  
35 *with the agricultural and forestal production goals of Shannon Farm.*

36           *Response:* The proposed route (as will be shown in the draft Resource Reports) will not  
37 cross the Shannon Farm Community.

38           *Comment: The Appalachian Trail Conservancy commented that potential impacts on the*  
39 *Appalachian Trail's scenic, historic, natural, and cultural values should be evaluated.*  
40 *Additionally, the NPS commented that a visual analysis to assess potential impacts of pipeline*

1 *construction and operation on the Appalachian Trail and Blue Ridge Parkway should be*  
2 *conducted.*

3 Response: Atlantic is evaluating the feasibility of using the HDD construction method to  
4 install the proposed pipeline under the Appalachian Trail and Blue Ridge Parkway. The HDD  
5 method would avoid direct impacts on the trail and parkway, including impacts on vegetation  
6 immediately adjacent to these features. Short-term impacts on visitors to the Appalachian Trail  
7 and Blue Ridge Parkway could result from construction noise, but these impacts will be  
8 temporary and limited to the period of construction. Atlantic will address noise mitigation at  
9 these sites in the design for the HDD.

10 While the HDD method would avoid direct visual impacts at the crossings of the  
11 Appalachian Trail and Blue Ridge Parkway, construction of the pipeline has the potential to  
12 affect outward views from these areas. Atlantic will conduct a visual impact analysis to assess  
13 potential impacts on these views. Additionally, Atlantic and DTI are conducting archaeological  
14 and aboveground historic resources surveys throughout the entire APE for the Projects (to be  
15 discussed in Sections 4.3.1 and Section 4.4.1 of draft Resource Report 4).

16 Comment: *The Appalachian Trail Conservancy commented that safe and uninterrupted*  
17 *access to the Appalachian Trail must be provided year-round, including throughout*  
18 *construction.*

19 Response: Atlantic will not impede safe and uninterrupted year-round access to the  
20 Appalachian Trail, including during construction.

21 Comment: *The Appalachian Trail Conservancy commented that tree clearing should be*  
22 *minimized within the viewshed of the Appalachian Trail to the extent possible and that temporary*  
23 *clearing for workspaces within the viewshed of the trail should be avoided. The Appalachian*  
24 *Trail Conservancy additionally commented that no aboveground structures or access roads*  
25 *should be construction within the viewshed of the trail.*

26 Response: See the responses above regarding potential impacts, including visual  
27 impacts, on the Appalachian Trail.

28 Comment: *The Appalachian Trail Conservancy commented that the prevention of the use*  
29 *of motorized recreational vehicles (e.g., OHVs) needs to be assessed to ensure that the pipeline*  
30 *right-of-way is not a conduit for OHV use along the Appalachian Trail.*

31 Response: As noted above, Atlantic is evaluating the feasibility of using the HDD  
32 construction method to install the proposed pipeline under the Appalachian Trail. Clearing of  
33 the right-of-way between the entry and exit points for the HDD would not be required.  
34 Therefore, there would be no direct connection between the maintained right-of-way and the trail  
35 which could provide access for OHVs to the trail.

36 Comment: *The NPS commented that the Projects cross three designated National*  
37 *Natural Landmarks (Blister Run Swamp and the Gaudineer Scenic Area in the MNF and the*  
38 *GDS-NWR) and said that the manager of each of these areas should be consulted.*

1            Response: The proposed route for the AP-1 mainline is adjacent to, but avoids, the  
2 Blister Run Swamp Special Biological Area, and passes about 1 mile south of the Gaudineer  
3 Scenic Area in the MNF. The proposed route for the AP-3 lateral crosses the GDS-NWR, but  
4 does so along the northern boundary of the refuge in areas mostly adjacent to existing utilities.  
5 Atlantic and DTI have consulted and will continue to consult with the Forest Supervisor at the  
6 MNF and the Refuge Manager at the GDS-NWR regarding these crossings.

7            Comment: *One commenter said that Atlantic will restrict the movement of logging*  
8 *equipment across the pipeline right-of-way which will impact future logging operations.*

9            Response: Atlantic and DTI will work with timber owners to ensure that logging  
10 operations are not unreasonably impeded by the presence of the pipeline right-of-way. In  
11 agricultural lands, including tree plantations, the pipelines will be buried at depths sufficient to  
12 provide a minimum of 4 feet of cover over the pipeline to avoid potential impacts associated with  
13 typical agricultural activities. In consultation with landowners, the pipeline may be buried  
14 deeper in certain locations to facilitate the passage of heavy equipment, such as logging  
15 equipment. Section 1.5.2 of draft Resource Report 1 will discuss pipeline burial in more detail.

16            Comment: *Several commenters said that visits to Snowshoe Mountain Ski Resort in*  
17 *Pocahontas County, West Virginia will be affected by construction equipment on area roadways.*  
18 *The commenters said that construction equipment on two-lane mountain roads should be*  
19 *prohibited between October and April.*

20            Response: The movement of construction equipment, materials, and personnel will cause  
21 a slight, temporary increase in traffic volumes along area roadways, but these impacts are  
22 expected to be minor and short term because construction spreads and personnel will be  
23 geographically dispersed. Paved roads and highways will be crossed by conventional subsurface  
24 boring beneath the roadbed, which will avoid surface disturbance of the roads and minimize  
25 impacts on transportation systems. Brief traffic delays could occur when construction vehicles  
26 or equipment are brought onto or off of a construction work area from a public road, but Atlantic  
27 and DTI will use flaggers and traffic signs to slow or direct traffic as appropriate. Additionally,  
28 Atlantic and DTI are preparing a *Traffic and Transportation Management Plan* which will be  
29 included as Appendix 1F of the final Resource Report 1.

30            Comment: *The Augusta County Board of Supervisors commented that route alternatives*  
31 *should be considered to mitigate impacts on future and existing land uses in the County.*

32            Response: Atlantic and DTI identified and evaluated several route alternatives for the  
33 AP-1 mainline, including alternative routes based on feedback from Augusta County (to be  
34 discussed in draft Resource Report 10). Additionally, Atlantic consulted with the Augusta  
35 County Planning Commission to identify planned developments along and in the vicinity of the  
36 proposed route. Consultation with the Augusta County Planning Commission will be discussed  
37 in Section 8.6 of draft Resource Report 8.

38            Comment: *One commenter asked Atlantic to describe the size, color, and distance*  
39 *between aboveground pipeline signage.*

1            Response: Pipe line markers typically used are flat (six inches wide and a half inch thick)  
2 and white or yellow in color. These are normally located at fence lines, other utility line  
3 crossings, and are spaced within sight of one another. Round three-inch diameter white plastic  
4 posts are used primarily at road and railroad crossings.

5            Comment: *One commenter asked Atlantic to describe the size, color, and description of*  
6 *aboveground pipeline vents.*

7            Response: Casing vents are three-inch diameter steel pipe and approximately seven feet  
8 above grade with a 180 degree elbow on top and painted white or silver. These are typically  
9 used at the edge of the railroad rights-of-way.

10           Comment: *One commenter asked if Atlantic would acquire rights to install other*  
11 *facilities, such as roads or electric transmission lines, in the pipeline rights-of-way.*

12           Response: If the Commission issues Certificates to the Projects, the approvals would be  
13 limited to the proposed pipelines and pipeline-related aboveground facilities (including  
14 compressor stations and access roads). Neither Atlantic nor DTI would acquire rights for any  
15 other uses or facilities, such as non-pipeline-related roads or electric transmission lines, in the  
16 pipeline rights-of-way.

## 17    **4.9    Resource Report 9 – Air and Noise Quality**

### 18    **4.9.1    General Comments**

19           Comment: *Several commenters said that the ACP will lead to increased carbon*  
20 *emissions due to increased production of natural gas within the U.S. Some commenters said that*  
21 *the ACP will increase the impacts of global climate change due to increased carbon dioxide*  
22 *emissions into the atmosphere. Some commenters said that the heat trapping potential of natural*  
23 *gas [methane] is greater than an equivalent amount of carbon dioxide. Some commenters said*  
24 *that the ACP will lead to increased methane emissions due to pipeline, valve, and compressor*  
25 *station leaks.*

26           Response: Initial emissions estimates of carbon dioxide and other GHGs from the  
27 proposed ACP and SHP compressor stations are provided in draft Resource Report 9. As  
28 engineering design progresses, estimates of overall GHG emissions will be updated. The final  
29 Resource Report 9 will provide a summary of GHG emissions associated with the ACP and SHP  
30 accounting for all expected stack and fugitive emission sources. The Projects will not cause any  
31 specific upstream gas exploration and production activity, and no specific production activity is  
32 reasonably foreseeable as an effect of the Projects. Therefore, any increased carbon emissions  
33 related to production of natural gas are not a reasonably foreseeable effect of the Projects.  
34 Moreover, one of the key reasons necessitating construction of the ACP is ongoing transition in  
35 the region (and the United States generally) from coal to natural gas baseload generation, driven  
36 in part by the fact that natural gas generation has approximately half the carbon emissions, when  
37 compared to coal-fired generation.

38           Comment: *Several commenters said that pipeline construction will result in the release*  
39 *of radon into the environment from sinkholes.*

1           Response: Radon is a natural occurring gas that is present in areas that have the  
2 appropriate geology and is not generated as a result of pipeline construction.

3           Comment: *Several commenters said that the pipeline will result in increased air*  
4 *emissions and will negatively impact air quality.*

5           Response: One of the key reasons necessitating construction of the ACP is ongoing  
6 transition in the region (and the United States generally) from coal to natural gas baseload  
7 generation, driven in part by the fact that natural gas generation has approximately half the  
8 carbon emissions, when compared to coal-fired generation. The final Resource Report 9 will  
9 provide an estimate of the total air emissions for the primary pollutants associated with ACP and  
10 SHP emissions sources. As will be discussed in Section 9.1.3 of draft Resource Report 9, the  
11 EPA has established National Ambient Air Quality Standards (NAAQS) that are specifically  
12 designed to protect public health and welfare. The Projects will not cause or contribute to an  
13 exceedance of the NAAQS. Additionally, prior to construction each compressor station will  
14 apply for the applicable air permit required in each State/Commonwealth. The basis for these  
15 permits is the Clean Air Act (CAA), which each State/Commonwealth has adopted in their State  
16 Implementation Plan; the requirements of the CAA are protective of the public health and  
17 environment.

18           Comment: *Several commenters said that the use of clean-burning natural gas, rather*  
19 *than coal, will help maintain air quality.*

20           Response: Atlantic and DTI concur with these comments. Natural gas has  
21 approximately half the carbon emissions of coal and much lower emissions of other pollutants.

22           Comment: *Several commenters said that noise during construction will have an adverse*  
23 *impact on homes and wildlife near the pipeline rights-of-way. Additionally, one commenter said*  
24 *that construction noise echoing within mountainous areas should be evaluated.*

25           Response: Construction of the Projects will result in short-term, temporary acoustical  
26 impacts associated with installation of the proposed facilities (e.g., due to operating equipment  
27 and vehicles). An acoustic analysis of construction activities is ongoing. Information on  
28 construction noise impacts for the Projects will be provided in the final Resource Report 9.

29           Comment: *Several commenters said that noise from the compressor stations will be*  
30 *detrimental to the environment. Other commenters asked if the compressor stations will cause*  
31 *or contribute to vibro-acoustic disease in people or wildlife living near compressor stations.*

32           Response: FERC sound guidelines/requirements and certificate conditions require that  
33 the sound attributable to a new or modified compressor station not exceed 55 dBA (or the current  
34 level at the existing station if it is above 55 dBA) at nearby noise-sensitive areas. In addition,  
35 FERC guidelines typically require that the operation of a new compressor station or operation of  
36 a station after modifications should not result in a perceptible increase in vibration at a nearby  
37 NSA. An acoustic analysis of operational activities at the proposed and modified compressor  
38 stations is ongoing. A detailed summary of operational noise impacts at the proposed ACP and  
39 SHP aboveground facilities will be provided in the final Resource Report 9. Additionally,

1 several noise control measures for the Projects are currently being evaluated. All applicable  
2 noise control measures will be identified in the final Resource Report 9.

3 *Comment: One commenter said that fugitive dust from construction should be*  
4 *controlled, and that shredding of cleared vegetation should be used instead of burning to control*  
5 *local emissions during construction.*

6 Response: Construction emissions will be discussed in Section 9.1.4 of draft Resource  
7 Report 9. The Projects will employ proven construction-related practices to control and limit  
8 releases of fugitive dust.

9 Atlantic and DTI have identified open burning as one of the possible methods for  
10 managing cleared vegetation on the right-of-way. The exact method used for managing cleared  
11 vegetation will be determined on a case-by-case basis. Any open burning would be conducted in  
12 accordance with required approvals received from State/Commonwealth and local authorities.  
13 Burning locations would be selected to avoid restricted areas, nearby residences, and weather  
14 conditions that could exacerbate the impact on local residences.

15 *Comment: One commenter said that the EIS should include the potential health effects to*  
16 *workers and members of the community who live nearby the construction site and may be at risk*  
17 *to exposure of harmful air pollutants from construction.*

18 Response: Construction emissions will be discussed in Section 9.1.4 of draft Resource  
19 Report 9. The Projects will employ proven construction-related practices to control and limit  
20 both emissions and the potential for exposure. Those practices, together with the temporary  
21 nature of construction emissions, will minimize the potential for any health effects.

22 *Comment: Several commenters said that best management practices for minimizing*  
23 *methane emissions should be evaluated.*

24 Response: Options to minimize methane emissions are being developed as part of the  
25 design of the Projects, which are currently in progress. An estimated conservative quantity of  
26 methane emissions resulting from piping leaks from fittings, valves, etc. and equipment  
27 blowdowns will be included in the final Resource Report 9 as design details are further  
28 developed.

29 *Comment: One commenter said that five trees should be planted for every one tree cut*  
30 *during pipeline construction to offset the construction emissions and pipeline methane leaks.*

31 Response: A comprehensive assessment of construction emissions and the potential for  
32 methane leaks during operations will be included in the final Resource Report 9.

#### 33 **4.9.2 Specific Comments**

34 *Comment: Several commenters expressed concern that the proposed compressor station*  
35 *in Buckingham County, Virginia, will have a negative impact on noise and air quality at the*  
36 *Yogaville property in Buckingham County, Virginia. These commenters requested the*  
37 *installation of noise, vibration, and emissions mitigation measures at the compressor station.*

1            Response: FERC sound guidelines/requirements and Certificate conditions require that  
2 the sound attributable to a new or modified compressor station not exceed 55 dBA (or the current  
3 level at the existing station if it is above 55 dBA) at nearby noise-sensitive areas. In addition,  
4 FERC guidelines typically require that the operation of a new compressor station or operation of  
5 a station after modifications should not result in a perceptible increase in vibration at a nearby  
6 NSA. An acoustic analysis of operational activities at the proposed new and modified  
7 compressor stations is ongoing. A detailed summary of operational noise impacts at the  
8 proposed ACP and SHP aboveground facilities will be provided in the final Resource Report 9.  
9 Additionally, several noise control measures for the Projects are currently being evaluated. All  
10 applicable noise control measures will be identified in the final Resource Report 9.

11            Prior to construction, Atlantic and DTI will apply for the applicable air permit required in  
12 each State/Commonwealth for each compressor station. The basis for these permits is the CAA  
13 which each State/Commonwealth has adopted in their State Implementation Plan; the  
14 requirements of the CAA are protective of public health and environment. Atlantic and DTI  
15 have committed to the installation of emissions control equipment to include selective catalytic  
16 reduction (for control of nitrogen oxide) and oxidation catalysts (for control of organics and  
17 carbon monoxide).

18            Comment: *One commenter said that blowdowns at the Buckingham County, Virginia,*  
19 *compressor station will cause localized releases of toxic chemicals at the Yogaville property.*

20            Response: The final Resource Report 9 will consider the potential for blowdown  
21 emissions from ACP and SHP compressor stations once the expected frequency of cycling of  
22 turbines is defined. Atlantic and DTI will comply with all EPA standards to protect public  
23 health, safety, and welfare. To minimize blowdown events, Atlantic and DTI will implement  
24 procedures such as effective maintenance planning and use of blowdown decision models to  
25 determine when blowdowns are necessary.

26            Comment: *One commenter said that Atlantic should implement technology to lower*  
27 *pressures at compressor stations without blowdowns, possibly by using valves, or they should*  
28 *capture blowdown gas so it is not released into the atmosphere.*

29            Response: To minimize blowdown events, Atlantic and DTI will implement procedures  
30 such as effective maintenance planning and use of blowdown decision models to determine when  
31 blowdowns are necessary.

32            Comment: *One commenter requested that the Virginia Board of Environmental Public*  
33 *Health and the Centers for Disease Control study the health hazards to communities living near*  
34 *natural gas compressor stations. The commenter said that the study should include wind*  
35 *patterns, types, concentrations, and levels of emissions, and affected animal and human*  
36 *populations, from chemical toxins, carcinogens, and radioactivity.*

37            Response: The agencies that oversee air quality in the Commonwealth are the VDEQ (on  
38 behalf of the Virginia Air Pollution Control Board) and EPA. The Commonwealth of Virginia  
39 has delegated authority from the EPA to administer the air permitting program under the CAA.  
40 Atlantic will apply for the applicable VDEQ permit which will be issued prior to construction.

1 The VDEQ air permitting regulations are based on the CAA requirements and Commonwealth-  
2 specific standards which are protective of public health and the environment.

3 *Comment: One commenter said that the cumulative impact of burning the natural gas  
4 transported by the pipeline over the life of the pipeline needs to be addressed.*

5 Response: An assessment of cumulative impacts for the Projects will be included as  
6 Appendix 1L of draft Resource Report 1 and in the EIS.

7 *Comment: The EPA recommended that GHG emissions associated with construction and  
8 operations should be addressed, including the best management practices that will be adopted to  
9 reduce methane leakage. The EPA also said that any adaptation in design for future climate  
10 conditions should be considered, as applicable.*

11 Response: All assumptions and detailed calculations for GHG associated with the  
12 Projects will be in the final Resource Report 9.

13 *Comment: The EPA recommended that potential construction and operation impacts on  
14 criteria pollutants under the NAAQS, any significant concentrations of hazardous air pollutants,  
15 and the protection of public health be addressed in the EIS. The EPA also encouraged the use of  
16 clean diesel equipment, vehicles, and fuels during construction.*

17 Response: Evaluations of criteria pollutants under the NAAQS, impacts from hazardous  
18 air pollutants, and impacts from construction activities will be included in the final Resource  
19 Report 9. Further, the compressor stations will meet the air quality requirements established in  
20 the air quality construction permits (including Prevention of Significant Deterioration permit, if  
21 applicable).

22 *Comment: The EPA commented that state agencies and relevant contact information  
23 related to the air permits required for the proposed facilities should be identified in the EIS.*

24 Response: The State/Commonwealth agencies and relevant contact information related  
25 to the air permits required for the proposed facilities will be identified.

26 *Comment: The NPS commented that potential impacts on air quality in Shenandoah  
27 National Park, which is a Class I area as designated by the CAA, be evaluated to ensure that  
28 park resources, such as air quality and visibility, are not impacted by the Project.*

29 Response: Class I areas will be addressed in the final Resource Report 9. Additionally,  
30 Federal Class I areas will be considered as part of the Prevention of Significant Deterioration  
31 permitting process for major New Source Review facilities, as required by applicable  
32 regulations.

33 *Comment: The Natural Resources Defense Council (NRDC) commented that indirect  
34 effects of climate change and the GHG emissions from upstream and downstream production  
35 and combustion should be evaluated, including emissions from pipeline leakage and venting.*

1            Response: All assumptions and detailed calculations for GHGs associated with the  
2 Projects will be included in the final Resource Report 9. Impacts from reasonably foreseeable,  
3 non-speculative activities will be included in the scope of the environmental analysis.

4            Comment: *The WVDNR Wildlife Resources Section commented that open burning should*  
5 *comply with the West Virginia Division of Forestry regulations and restrictions.*

6            Response: In the event that open burning activities occur onsite, the Projects will comply  
7 with the West Virginia Division of Forestry regulations and restrictions.

8            Comment: *The Appalachian Trail Conservancy commented that FERC should include*  
9 *climate change as a discussion item and that the EIS should also include an evaluation of the*  
10 *best practices for minimizing methane emissions that can contribute to climate change.*

11           Response: All assumptions and detailed calculations for GHGs associated with the  
12 Projects will be included in the final Resource Report 9. Options to minimize methane emissions  
13 are being developed as part of the design of the Projects, which are currently in progress. An  
14 estimated conservative quantity of methane emissions resulting from piping leaks from fittings,  
15 valves, etc. and equipment blowdowns will be included in the final Resource Report 9 as design  
16 details are further developed.

#### 17 **4.10 Resource Report 10 – Alternatives**

##### 18 **4.10.1 General Comments**

19           Comment: *Several commenters said that renewable energy (e.g., wind and solar) should*  
20 *be developed in lieu of the Projects.*

21           Response: As will be discussed in Section 10.4.2 of draft Resource Report 10, renewable  
22 energy cannot reasonably be used to meet the purpose and need of the Projects, which includes  
23 supplying necessary fuel to baseload electricity generation. To achieve an equivalent amount of  
24 energy from renewable energy sources, substantially larger investments in land, infrastructure,  
25 and cost would be required compared to the Projects, and this renewable generation would be  
26 neither dispatchable (able to run on demand) nor available baseload. In addition, renewable  
27 energy sources could not meet the purpose and need of delivering natural gas to existing  
28 customers from supply areas in West Virginia, Pennsylvania, and Ohio to demand areas in  
29 Virginia and North Carolina.

30           Comment: *Several commenters said that Atlantic should invest more in renewable*  
31 *energy instead of investing in the ACP.*

32           Response: While renewable energy is an important part of Dominion’s plan to meet the  
33 ever-growing need for electricity, intermittent resources like solar and wind energy do not  
34 eliminate the need for baseload generation such as advanced combined cycle natural gas. In  
35 addition to its investments in baseload, dispatchable traditional generation, Dominion is  
36 increasing investments in renewable energy to: 1) meet renewable goals and requirements in  
37 Virginia and North Carolina, 2) bring greater diversity to Dominion’s power supplies, and 3)  
38 reduce Dominion’s carbon intensity. Dominion supports and is pursuing renewable energy

1 options that are feasible and prudent investments for its customers and shareholders. As of April  
2 2015, Dominion’s renewable portfolio includes nearly 1,575 megawatts in operation, under  
3 construction, or in development. The need for both traditional and renewable generation is  
4 recognized in both State and Federal public policy, including the Virginia Energy Plan and the  
5 draft EPA Clean Power Plan.

6 A diverse energy portfolio is fundamental to providing reliable and affordable electricity  
7 for Duke Energy customers. The company has invested more than \$4 billion in cleaner,  
8 renewable energy projects – more than 1,800 megawatts nationwide – in the past eight years,  
9 which includes 17 solar power facilities in North Carolina. Duke Energy plans to add eight to  
10 ten more solar sites this year in the State of North Carolina. Solar cannot, however, provide fully  
11 for customers’ energy needs 24 hours a day. In the past few years, Duke Energy also has built  
12 five new natural gas plants in the State that will provide reliable service when renewable  
13 generation is not available. By providing access to low-cost natural gas supplies, the ACP is an  
14 important component of Duke Energy’s long-term strategy to serve its customers.

15 AGL’s Landfill Gas to Energy Project collects renewable methane at the Meadow Branch  
16 Landfill in Athens, TN. The project processes the gas to high British thermal unit form and is  
17 then distributed through AGL’s pipeline system for marketing. The project may supply enough  
18 natural gas (approximately 1.4 bcf) to supply energy to over 15,000 homes. In addition to this  
19 being an alternative energy source, AGL’s involvement in this project reduces pollution by  
20 reducing methane and other pollutants released to the atmosphere.

21 *Comment:* Several commenters said that the ACP should be collocated with existing  
22 utility rights-of-way or along existing road corridors.

23 *Response:* Atlantic and DTI routed the proposed pipeline facilities adjacent to existing  
24 utility rights-of-way or road corridors wherever practicable. Additionally, as will be discussed in  
25 Sections 10.7, 10.8, and 10.9 of draft Resource Report 10, Atlantic identified and evaluated (and  
26 continues to identify and evaluate) route alternatives adjacent to existing pipelines, electric  
27 transmission lines, and interstate highways. Several factors limit the feasibility of routing  
28 adjacent to existing infrastructure, including the orientation of existing facilities, terrain along  
29 existing facilities, and land uses along existing facilities. In many cases, routes adjacent to  
30 existing utilities or highways do not provide a direct path between the proposed receipt and  
31 delivery points for the Projects, cross terrain that is unsuitable for pipeline construction, and/or  
32 are constrained by land uses such as residential developments which have built up to the existing  
33 right-of-way.

34 *Comment:* Several commenters said that the ACP should be placed on lands used for  
35 timber harvesting.

36 *Response:* Approximately 59 miles (11 percent) of the proposed ACP pipeline routes  
37 cross areas mapped as tree plantation/harvested forests (to be discussed in Section 8.2.1 of draft  
38 Resource Report 8).

39 *Comment:* Several commenters said that Compressor Station 2 should be moved away  
40 from Yogaville in Buckingham County, Virginia.

1            Response: As noted above, the configuration of the proposed pipeline system, including  
2 the location and size of compressor stations, is based on flow dynamics relative to receipts and  
3 deliveries of natural gas into and out of the system. This takes into account factors such as  
4 terrain and topography, as well as friction between the natural gas and the pipe wall as the gas  
5 moves through the system.

6            As will be discussed in Section 10.11 of draft Resource Report 10, Atlantic is in the  
7 process of identifying, screening, and evaluating alternative sites for Compressor Stations 1, 2,  
8 and 3 for the ACP. A detailed analysis of alternative sites for the proposed compressor stations  
9 will be provided in the final Resource Report 10.

#### 10 **4.10.2 Specific Comments**

11            Comment: *The City of Nashville, North Carolina said that the pipeline should be routed*  
12 *to the east of the current route to avoid passing between two residential subdivisions.*

13            Response: Atlantic identified and evaluated a route variation in this area east of the  
14 residential subdivision (to be discussed in Section 10.9.1 of draft Resource Report 10). The  
15 route variation passes between two other subdivisions, is longer than the proposed route by 0.7  
16 mile, and crosses 0.8 more mile of forested land. For these reasons, Atlantic retained the  
17 proposed route in this area.

18            Comment: *The HSWCD asked that the pipeline avoid flood control embankments or*  
19 *emergency spillways in Augusta County, Virginia.*

20            Response: The proposed pipeline route through Augusta County, Virginia (as will be  
21 shown in the draft Resource Reports) does not cross flood control embankments or emergency  
22 spillways.

23            Comment: *Several commenters said that the ACP should be collocated along existing*  
24 *highways, including Interstate 77, Interstate 64, Interstate 81, and Interstate 95.*

25            Response: Conceptual alternative routes adjacent to Interstate highways are identified  
26 and evaluated in Section 10.7.3 of draft Resource Report 10. None of these conceptual route  
27 alternatives are feasible due to a significant increase in the length of the ACP, topographic  
28 constraints along the routes (e.g., steep side slope), and land use constraints along the routes  
29 (e.g., urban or developed lands).

30            Comment: *One commenter said that natural gas should be moved by rail from West*  
31 *Virginia to the delivery points in southeastern Virginia.*

32            Response: According to the U.S. Department of Transportation, underground pipelines  
33 are the safest mode to transport natural gas — safer than highway, rail, and water.

34            Comment: *Several commenters suggested that the ACP should follow the existing*  
35 *Transcontinental Gas Pipe Line Company, LLC (Transco) system in Virginia.*

1            Response: Collocation of the ACP with the existing Transco system is not feasible. The  
2 Transco system trends from southwest to northeast across Virginia while the ACP trends from  
3 northwest to the southeast across West Virginia and Virginia (to be shown on Figure 10.6-1 in  
4 draft Resource Report 10).

5            Comment: *One commenter said that route alternatives in Hightown, Highland County,*  
6 *Virginia, should be identified to avoid contamination of the Potomac River headwaters and other*  
7 *watersheds.*

8            Response: See the responses above regarding potential impacts on waterbodies and  
9 watersheds.

10           Comment: *Several commenters said that the Western Marcellus Pipeline Project should*  
11 *be considered as a system alternative to the ACP.*

12           Response: The Western Marcellus Pipeline Project, which is currently called the  
13 Appalachian Connector Pipeline, is evaluated as a system alternative in Section 10.6.2 of draft  
14 Resource Report 10. To meet the same purpose and need as the Projects, the Appalachian  
15 Connector Pipeline would need to be expanded to provide additional capacity of 1.0 to 1.5 bcf/d  
16 of natural gas, would require upgrades of the existing Transco system, and would require  
17 construction of new pipelines.

18           Comment: *Several individuals said that the ACP should follow Dominion Virginia*  
19 *Power's existing 500 kilovolt electric transmission line across the Appalachian Mountains.*

20           Response: This alternative is evaluated in Section 10.7.2 of draft Resource Report 10. A  
21 route adjacent to the existing Dominion Virginia Power 500 kilovolt transmission line is not  
22 feasible due to a significant increase in the length of the pipeline, crossings of terrain unsuitable  
23 for pipeline construction, a crossing of Shenandoah National Park, and various land use  
24 constraints, primarily developed areas, along the route. The NPS has indicated that obtaining a  
25 right-of-way for a natural gas transmission pipeline to cross NPS lands (other than the Blue  
26 Ridge Parkway) requires an authorization from the U.S. Congress. This authorization would be  
27 infeasible to obtain within the timeframe required by the purpose and need of the Projects.

28           Comment: *Several commenters said that the ACP should be routed away from Yogaville,*  
29 *Virginia.*

30           Response: As will be discussed in Section 10.9.1 of draft Resource Report 10, DTI is  
31 evaluating two potential routes in the Yogaville area. The potential impacts on the Yogaville  
32 community due to construction and operation of the proposed facilities are being evaluated

33           Comment: *Several commenters said that the pipeline should avoid the Sunray*  
34 *Community and the Sunray Agricultural Rural Historic District in the City of Chesapeake,*  
35 *Virginia.*

36           Response: As will be discussed in Section 10.8.1 of draft Resource Report 10, Atlantic  
37 identified and evaluated several route alternatives across and in the vicinity of the Sunray  
38 Community and the Sunray Agricultural Rural Historic District. The proposed route (as will be

1 shown in the draft Resource Reports) does not cross the Sunray Community or the historic  
2 district.

3 *Comment: One commenter said that maps from two reports by the Thomas Jefferson*  
4 *Planning District, “The Green Infrastructure 2009 Report” and “The Green Infrastructure*  
5 *Strategies in Nelson County” from 2010, should be evaluated for each route alternative in*  
6 *Nelson County, Virginia.*

7 Response: Various route alternatives in Nelson County, Virginia will be identified and  
8 evaluated in Sections 10.8 and 10.9 of draft Resource Report 10. The analysis for each  
9 alternative takes into account a variety of factors, including impacts on natural and cultural  
10 resources.

11 *Comment: One commenter from the City of Chesapeake, Virginia said that the pipeline*  
12 *centerline for the AP-3 lateral routes crosses their house and barn area.*

13 Response: Civil and routing surveys in the City of Chesapeake, Virginia are ongoing. If  
14 existing structures are identified during surveys that are crossed by the centerline, route  
15 adjustments may be identified.

16 *Comment: One commenter said the ACP should cross the GWNF through the designated*  
17 *utility corridor established for the Columbia Gas Transmission, LLC (Columbia) pipeline*  
18 *system. Other commenters said that the ACP should be constructed adjacent to the Columbia*  
19 *system.*

20 Response: A conceptual alternate route adjacent to the existing Columbia system is  
21 evaluated in Section 10.7 of draft Resource Report 10. This alternative is not feasible due to a  
22 significant increase in the length of the pipeline, space constraints on the ridges followed by the  
23 Columbia system, crossings of NPS lands in the Shenandoah National Park and Petersburg  
24 National Battlefield Park, and land use constraints along the route.

25 *Comment: One commenter said that the Mountain Valley Pipeline and Carolina Pipeline*  
26 *should be evaluated as alternatives to the ACP.*

27 Response: The proposed Carolina Pipeline and Mountain Valley Pipeline Projects are  
28 evaluated as system alternatives in Section 10.6 of draft Resource Report 10. Because these  
29 proposed systems would require significant expansion, including construction of additional  
30 pipelines, they are not viable alternatives to the ACP. Additionally, the route of the proposed  
31 Carolina Pipeline does not represent a viable alternative to the ACP. The route for the Carolina  
32 Pipeline begins about 130 miles to the east of the ACP, and is therefore unable to access the  
33 same supply area as the ACP. Atlantic and DTI also note that Spectra Energy placed the  
34 Carolina Pipeline Project on hold in August 2014.

35 Atlantic identified and evaluated three conceptual options for collocating the ACP and  
36 Mountain Valley pipelines in a common corridor (to be discussed in Section 10.7 of draft  
37 Resource Report 10). None of these options are viable alternatives due to terrain (insufficient  
38 space for two large diameter pipelines on the same ridgelines), length, and potential  
39 environmental and land use impacts.

1            *Comment:* The owner of the Dividing Waters Farm in Hightown, Highland County,  
2 Virginia said they are planning to sell the farm to create a new State park. Other commenters  
3 said this area should be avoided because it is visually sensitive and historic.

4            *Response:* As will be discussed in Section 10.9.1, Atlantic identified and evaluated a  
5 minor route variation in an effort to avoid this property, but the route variation provided no  
6 environmental or other advantages over the proposed route. A second route variation in this area  
7 is currently under review.

8            *Comment:* TNC commented that a constructible route alternative that avoids Cheat  
9 Mountain should be identified and evaluated.

10           *Response:* In addition to the proposed route, Atlantic continues to evaluate a route  
11 alternative, MNF 5, which avoids the Cheat Mountain area. Additional information on MNF 5  
12 will be provided in Section 10.8 of draft Resource Report 10.

13           *Comment:* TNC commented that the alternatives analysis should quantify the area,  
14 rather than the length, of resources that would be affected. TNC said the alternatives analysis  
15 should include length across ridgelines and steep side slopes, length and acres of interior forest  
16 (i.e., migratory bird habitat), number of patches of forest reduced to less than 5,000 acres, acres  
17 of karst areas, acres of red spruce crossing percent cover, and others.

18           *Response:* Route alternatives, variations, and minor adjustments have been and continue  
19 to be identified and evaluated based on review of desktop constraint data, consultations and  
20 discussions with agency staff and other stakeholders, and field review in an effort to optimize the  
21 proposed routes. The objective of this process is to identify the shortest routes between the  
22 proposed receipt and delivery points taking into account the purpose and need of the Projects,  
23 engineering constraints, crossings of public lands, issues identified by landowners and other  
24 stakeholders, and the potential for impacts on sensitive environmental resources.

25           Atlantic's and DTI's analysis of route alternatives and variations uses GIS data to  
26 characterize crossings of environmental features and other constraints along the routes. The  
27 analysis is designed to quantify and compare potential impacts and make reasonable decisions  
28 regarding alternative routes, particularly in instances where different types of resources would be  
29 impacted (e.g., when one route avoids conservation easements but crosses more forested  
30 wetlands relative to an alternative route). Different metrics may be used on a case-by-case basis  
31 to quantify impacts depending on the level of analysis required to make a reasonable decision  
32 when evaluating a route alternative.

33           *Comment:* The USFS commented on specific impacts on the MNF and that any route  
34 across Cheat/Black Allegheny Mountain and near Thorny Flat will have greater impacts relative  
35 to other route alternatives.

36           *Response:* Atlantic believes that its proposed route across Cheat/Back Allegheny  
37 Mountain minimizes impacts by following a previously disturbed or recently replanted  
38 abandoned strip mine. Additionally, based on review of digital desktop data and discussions  
39 with USFS staff, Atlantic believes that the proposed route has the potential to avoid or minimize  
40 impacts on sensitive resources within the MNF. Atlantic has applied for and received a planning

1 permit from the MNF to access MNF lands for the purposes of conducting environmental field  
2 surveys, including surveys for sensitive habitats and species and cultural resource surveys. Field  
3 surveys are planned for the route in the Spring of 2015 to verify constructability of the route and  
4 collect data on known and unrecorded resources along the route. Field surveys also are planned  
5 for an alternative route (MNF 5) which avoids Cheat/Back Allegheny Mountain.

6 *Comment: The Appalachian Trail Conservancy commented on the ability of*  
7 *States/Commonwealths to meet their renewable portfolio standards as a result of the Projects.*

8 *Response: Natural gas provides baseload generation, which can run all the time,*  
9 *regardless of weather conditions. In the ACP and SHP region, wind resources are available*  
10 *approximately one-third of the time and solar resources are available one-fifth of the time or less.*  
11 *Wind and solar are valuable resources, but they cannot run on demand and do not run around the*  
12 *clock. Virginia has a voluntary renewable portfolio standard that Dominion is meeting and is*  
13 *committed to meeting.*

14 *Comment: The Appalachian Trail Conservancy commented that any new impacts on the*  
15 *Appalachian Trail should coincide with existing major impacts on the Appalachian Trail (i.e.,*  
16 *share existing utility corridors).*

17 *Response: As noted above, Atlantic is evaluating the use of the HDD method to install*  
18 *the proposed AP-1 mainline beneath the Appalachian Trail. The HDD method would avoid*  
19 *direct impacts on the trail, including impacts on vegetation immediately adjacent to this feature.*  
20 *The potential for collocation, including the potential use of existing utility corridors, will be*  
21 *addressed in Section 10.7 of draft Resource Report 10.*

22 *Comment: The NPS commented that they cannot grant a crossing of the Appalachian*  
23 *National Scenic Trail on NPS lands without an act of Congress, in accordance with Title 30*  
24 *United States Code Section 185. Therefore, the NPS said that alternatives which avoid the*  
25 *Appalachian Trail crossing on NPS lands must be considered.*

26 *Response: Based on information from the NPS, Atlantic is evaluating a major route*  
27 *alternative, the Appalachian Trail South Major Route Alternative, which crosses the Appalachian*  
28 *Trail on USFS lands in the GWNF. Information on this route alternative will be provided in*  
29 *Section 10.8 of draft Resource Report 10.*

30 *Comment: The NCWRC commented that the AP-3 alignment could avoid impacts on*  
31 *Cypress Creek in Northampton County, North Carolina, and potential impacts on the rare*  
32 *banded sunfish (*Enneacanthus obesus*), by moving the route further north and minimizing the*  
33 *crossings of Cypress Creek.*

34 *Response: The proposed AP-3 alignment (as will be shown in the draft Resource*  
35 *Reports) was identified to avoid floodplain forests within the Meherrin River and Fountain Creek*  
36 *watersheds. An additional route variation at the beginning of the AP-3 lateral, based on*  
37 *information provided by FERC staff, is currently under review. Information on this route*  
38 *alternative will be provided in Section 10.8 of draft Resource Report 10.*

1            *Comment:* The NCWRC commented that the proposed AP-2 mainline could be routed to  
2 minimize crossings of the following waterbodies: Trouble Creek in Northampton County;  
3 Contentnea Creek in Wilson County; Buffalo Creek in Johnston County; and Reece Creek in  
4 Johnston County.

5            Response: Atlantic will review this area based on the comment provided by the  
6 NCWRC. New route alternatives or variations may be identified as a result of this review. If  
7 new alternative routes are identified, they will be discussed in a supplemental filing or in the  
8 final Resource Report 10.

9            *Comment:* Several commenters said that the pipeline route should not cross TNC's  
10 Upper Shavers Fork Preserve in Randolph County, West Virginia.

11           Response: Although an initial route (MNF 1) crossed Upper Shavers Fork Preserve, the  
12 proposed route (MNF 2) no longer crosses it, as was shown in preliminary draft Resource Report  
13 10 (December 2014).

14           *Comment:* Several commenters said that a site-specific analysis of collocation  
15 opportunities for the new pipelines with existing roads and electric transmission lines should be  
16 completed.

17           Response: Atlantic and DTI have identified and evaluated several route alternatives and  
18 variations adjacent to existing pipelines, electric transmission lines, and highways. These  
19 alternatives will be discussed in Sections 10.7, 10.8, and 10.9 of draft Resource Report 10.

20           *Comment:* One commenter said that the preferred pipeline route in Highland County,  
21 Virginia should be relocated to avoid the Bear Mountain and Seldom Seen faults.

22           Response: Atlantic is evaluating this comment. New route alternatives or variations may  
23 be identified as a result of this review. If new alternative routes are identified, they will be  
24 discussed in a supplemental filing or in the final Resource Report 10.

25           *Comment:* The Virginia Cave Board commented that extra time, money, and oversight  
26 should be invested to prevent impacts on karst features within the "Sinking Creek Valley," which  
27 is located near Monterey, Virginia, or the pipeline should be routed to avoid Sinking Creek  
28 Valley and Mackey Spring. The Virginia Cave Board additionally commented that the pipeline  
29 should be routed to avoid the Cochran's Cave Number 2 area near MPs 135 and 136.

30           Response: As discussed above, Atlantic is conducting a karst assessment and survey to  
31 identify karst features along the proposed pipeline route. Based on the results of the karst  
32 assessment and survey, new route alternatives or variations which avoid karst features may be  
33 identified and evaluated. If new alternative routes are identified, they will be discussed in a  
34 supplemental filing or in the final Resource Report 10.

## 4.11 Resource Report 11 – Reliability and Safety

### 4.11.1 General Comments

*Comment:* Several commenters said that rural Counties do not have adequate emergency response personnel or resources, and that Atlantic should supplement the rural emergency response capabilities in these Counties if the pipeline is constructed.

*Response:* As will be discussed in Section 4.11.1 of draft Resource Report 11, the USDOT requires that pipeline operators establish and maintain liaison with local fire, police, and other emergency responders to plan for and coordinate emergency response efforts in the event of an incident during construction or operation of the proposed facilities. Each operator must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and report it to the appropriate public officials. Accordingly, DTI (as operator of the Projects) will establish and maintain liaison with local public officials and emergency responders, and provide appropriate training to responders before the proposed ACP and SHP pipelines are placed in service. Additionally, regular meetings will be held with emergency response agencies (including local fire departments) where the role of the agencies with regard to potential pipeline fires will be discussed, along with issues related to potential compressor station incidents.

*Comment:* Several commenters questioned the safety of natural gas transmission pipelines citing incident statistics from the USDOT's PHMSA.

*Response:* As will be discussed in Section 11.2 of draft Resource Report 11, the pipeline facilities associated with the Projects will be designed, constructed, operated, and maintained in accordance with or to exceed the USDOT Minimum Federal Safety Standards in Title 49 CFR Part 192. These regulations, which are designed to protect the public and to prevent natural gas facility accidents and failures, include specifications for material selection and qualification, minimum design requirements, and protection of the pipeline from internal, external, and atmospheric corrosion.

*Comment:* Several commenters said that the ACP cannot be safely operated because of the length of the pipeline, the diameter of the pipe, and the terrain crossed.

*Response:* There are several large diameter natural gas transmission pipelines (up to 36-inch-diameter) operating safely in Virginia. Additionally, there are many long haul, 42-inch-diameter natural gas transmission pipelines operating safely throughout the United States (for example, the Ruby Pipeline, which is a 680-mile-long, 42-inch-diameter pipeline). As noted above, the pipeline facilities associated with the Projects will be designed, constructed, operated, and maintained in accordance with or to exceed the USDOT Minimum Federal Safety Standards in Title 49 CFR Part 192. Additionally, according to the U.S. Department of Transportation, underground pipelines are the safest mode to transport natural gas — safer than highway, rail, and water.

*Comment:* Several commenters said that the highest cause of pipeline incidents is corrosion of the pipeline.

1 The most frequent causes of significant pipeline incidents between 1995 and 2014 were  
 2 corrosion and pipeline material, weld, or equipment failure, which combined accounted for  
 3 49.4 percent of all significant incidents (to be shown in Table 11.5-1 of draft Resource Report  
 4 11). It should be noted, however, that these incidents occurred on pipelines which vary widely in  
 5 terms of age, pipeline diameter, and level of corrosion control. Each of these variables  
 6 influences the incident frequency that may be expected for a specific segment of pipeline. The  
 7 frequency of significant incidents is strongly dependent on pipeline age. Older pipelines have a  
 8 higher frequency of corrosion incidents because corrosion is a time-dependent process.

9 Since the late 1990s, anti-corrosion coatings have improved and are tested before being  
 10 placed in service to confirm they are not damaged during transport and construction.  
 11 Additionally, the use of both external protective coatings and cathodic protection systems,  
 12 required on all pipelines installed after July 1971, significantly reduces the corrosion rate  
 13 compared to unprotected or partially protected pipe.

14 As will be discussed in Section 11.4.3, DTI (which will construct and operate the  
 15 Projects) will install cathodic protection systems along the pipelines to inhibit external corrosion  
 16 of the underground facilities (as required by PHMSA). The outside of the steel pipe will also be  
 17 coated with fusion-bonded epoxy that protects the surface of the pipe against corrosion. DTI will  
 18 conduct routine inspections and cathodic protection surveys along the pipelines to confirm  
 19 proper operating conditions consistent with PHMSA requirements for corrosion mitigation.

20 *Comment:* Several commenters said that Atlantic will be “safety first” while others said  
 21 that Atlantic does not care about safety.

22 Safety and preventive measures are core values supported by Atlantic’s and DTI’s  
 23 extensive programs related to integrity management and damage prevention. There are a variety  
 24 of programs and methods to assess the integrity of natural gas transmission pipelines, such as  
 25 aerial and foot-patrol inspections, pigging (internal computerized pipeline inspection), pipeline  
 26 coating, corrosion control, an emergency shutdown system, and around-the-clock monitoring by  
 27 a staffed and fully automated gas control center. Natural gas transmission pipelines are regulated  
 28 by PHMSA to ensure that all facilities under its jurisdiction are constructed and maintained with  
 29 public safety first and foremost in mind.

30 Information on safety standards, facility design, and operation and maintenance measures  
 31 for the Projects is discussed throughout draft Resource Report 11. Additionally, fact sheets on  
 32 pipeline safety are available on the websites for the ACP ([www.dom.com/ACpipeline](http://www.dom.com/ACpipeline)) and SHP  
 33 ([www.dom.com/supplyheader](http://www.dom.com/supplyheader)).

34 *Comment:* Several commenters said that the pipeline will leak and cause groundwater  
 35 and soil contamination.

36 *Response:* Atlantic and DTI will utilize a rigorous Integrity Management Plan, detailed  
 37 in Section 11.2.3 of draft Resource Report 11. The proposed pipelines will transport natural gas,  
 38 which primarily is methane. Methane is buoyant at atmospheric temperatures and disperses  
 39 rapidly in air. Therefore, in the unlikely event of a leak, impacts on soil and groundwater from  
 40 methane are not anticipated. The proposed pipelines will not carry liquids.

1            *Comment:* One commenter said that Duke Energy has a poor safety record as shown by  
2 a recent coal ash spill in North Carolina.

3            Duke Energy is developing a comprehensive long-term ash basin strategy to close basins  
4 and safely manage coal ash. The company is using a fact-based and scientific approach to  
5 identify options that protect groundwater and the environment, are good for the communities  
6 around the sites, and meet regulatory requirements. For more details about Duke Energy’s coal  
7 ash management efforts, which are some of the most extensive in the nation and involve a team  
8 of more than 200 dedicated engineers, scientists, and environmental specialists, visit the  
9 company’s ash management website at <http://www.duke-energy.com/ash-management>.

10           Furthermore, as will be discussed in Section 1.2 of draft Resource Report 1, one factor  
11 contributing to increased demand for natural gas is displacement of coal-fired electric power  
12 generation by natural gas-fired electric power generation. While coal-based energy creates large  
13 quantities of coal combustion byproducts (e.g., coal ash), which require environmental  
14 management and disposition, no similar solid waste byproducts are produced by natural gas-fired  
15 electric power generation. This is an advantage of natural gas-based energy over coal-based  
16 energy.

17           *Comment:* Several commenters said that pipelines, compressor stations, and valves  
18 located near populated areas create a public safety risk. Other commenters said that the  
19 pipelines are located too close to schools, businesses, homes, farms, or water supplies.

20           As will be discussed in Section 11.2.1 of draft Resource Report 11, the Projects will  
21 comply with USDOT requirements for class location units. In accordance with Federal  
22 standards, class locations representing more populated areas require very stringent safety factors  
23 in pipeline design, testing, and operation. Pipe wall thickness and pipeline design pressures,  
24 hydrostatic test pressures, maximum allowable operating pressure, inspection and testing of  
25 welds, and the frequency of pipeline patrols and leak surveys must conform to these standards in  
26 more populated areas.

27           *Comment:* Several commenters said that the pipeline will be located within floodplain  
28 and flood-prone areas and that due to erosion within these areas, the pipeline will become  
29 exposed and Atlantic will be unable to safely operate the pipeline. The commenters said that  
30 Atlantic should be required to install automatic shutoff valves at all floodplain areas.

31           Response: The pipeline facilities associated with the Projects will be designed,  
32 constructed, operated, and maintained in accordance with or to exceed the USDOT Minimum  
33 Federal Safety Standards in Title 49 CFR Part 192, including placement of sectionalized block  
34 valves along the pipeline (to be discussed in Section 11.2 of draft Resource Report 11). Atlantic  
35 and DTI will implement design criteria and local permit requirements, where applicable, at all  
36 aboveground facilities located with designated floodplains. Mitigation measures could include  
37 building the site elevation up above the 100-year floodplain, installing equipment and structures  
38 on elevated piers, and/or factoring in design measures to prevent erosion and facilitate proper site  
39 drainage if a flooding event occurs. Site plans depicting floodplains and proposed fill at  
40 aboveground facilities will be included with the final Resource Report 6.

1            *Comment:* Several commenters expressed concern with their ability to safely evacuate  
2 from their property in the event of an accident.

3            Response: DTI currently has an Emergency Response Plan for its existing pipeline  
4 system, in accordance with the USDOT regulations, that provides written procedures to  
5 minimize the hazards from a gas pipeline emergency (to be discussed in Section 11.2.4 of draft  
6 Resource Report 11). DTI, as operator of the Projects, will update its Emergency Response Plan,  
7 as necessary, to incorporate the proposed Projects. The USDOT requires that pipeline operators  
8 establish and maintain liaison with local fire, police, and other emergency responders to plan for  
9 and coordinate emergency response efforts in the event of an incident during construction or  
10 operation of the proposed facilities. Each operator must also establish a continuing education  
11 program to enable customers, the public, government officials, and those engaged in excavation  
12 activities to recognize a gas pipeline emergency and report it to the appropriate public officials.  
13 Accordingly, DTI will establish and maintain liaison with local public officials and emergency  
14 responders, and provide appropriate training to responders before the proposed ACP and SHP  
15 pipelines are placed in service.

#### 16 **4.11.2 Specific Comments**

17            *Comment:* Several commenters asked Atlantic to place emergency shutdown valves close  
18 together to minimize the impact and pressure of a rupture in any one place.

19            Response: As will be discussed in Section 11.2 of draft Resource Report 11, the pipeline  
20 facilities associated with the Projects will be designed, constructed, operated, and maintained in  
21 accordance with or to exceed the USDOT Minimum Federal Safety Standards in Title 49 CFR  
22 Part 192, including the maximum distance from any point on the pipeline to a sectionalized block  
23 valve.

24            *Comment:* Several members of the Yogaville community in Buckingham County,  
25 Virginia, asked to receive 72 hour advance prior notice of blowdowns at Compressor Station 2.

26            Response: Compressor facilities will be equipped with an emergency shutdown system  
27 to protect the public and operating personnel during an emergency, such as a fire or ruptured  
28 station piping. The emergency shutdown system will be designed to shut down the compressor  
29 units, close the station isolation valves, and vent gas from the station piping to reduce the  
30 possibility of gas ignition and fire. The emergency shutdown system could be activated  
31 automatically by sensors that continuously monitor for the presence of fire and explosive  
32 mixtures in the compressor building. They could also be activated manually by station personnel  
33 in emergency events or remotely by the gas control center. While noisy, unscheduled gas  
34 venting during an emergency shut down typically only lasts several minutes and does not occur  
35 often. For planned blowdowns, DTI (as operator of the Projects) will notify nearby residents and  
36 emergency responders prior to the blowdown.

37            *Comment:* Several members of the Yogaville community in Buckingham County,  
38 Virginia, asked that Atlantic notify the public in the area surrounding Compressor Station 2 of  
39 any malfunction of the pipeline or compressor station, including air quality violations, within 24  
40 hours of the incident.

1            Response: Atlantic will comply with all applicable agency notification requirements.

2            Comment: *One commenter suggested that Atlantic establish a bond to pay for leaks or*  
3 *explosions should these occur.*

4            Response: Atlantic will take the necessary actions to repair damage directly attributable  
5 to the construction and operation of the ACP. Atlantic maintains a comprehensive liability  
6 insurance program that will remain in place during the construction and operation of the ACP.

7            Comment: *One commenter said that the EIS should consider the number of properties*  
8 *impacted by a 1,100-foot “blast radius” and 3,300-foot “evacuation zone” along each pipeline*  
9 *alternative considered.*

10           Response: The proposed pipeline and aboveground facilities associated with the Projects  
11 will be designed, constructed, operated, and maintained in accordance with or to exceed the  
12 USDOT Minimum Federal Safety Standards in Title 49 CFR Part 192. These regulations, which  
13 are intended to protect the public and to prevent natural gas facility accidents and failures,  
14 include specifications for material selection and qualification; minimum design requirements;  
15 and protection of the pipeline from internal, external, and atmospheric corrosion.

16           Comment: *Various commenters suggested that the EIS address potential harm to*  
17 *properties, structures, ecosystems, and human lives within a 1,100-foot “blast radius” and a*  
18 *recommended 3,300-foot “evacuation zone” for the entire pipeline route.*

19           Response: The pipeline facilities associated with the Projects will be designed,  
20 constructed, operated, and maintained in accordance with or to exceed the USDOT Minimum  
21 Federal Safety Standards in Title 49 CFR Part 192 (to be discussed in Section 11.2 of draft  
22 Resource Report 11). These regulations, which are designed to protect the public and to prevent  
23 natural gas facility accidents and failures, include specifications for material selection and  
24 qualification, minimum design requirements, and protection of the pipeline from internal,  
25 external, and atmospheric corrosion.

26           Comment: *The Shannon Farm Community said that if the pipeline is approved,*  
27 *emergency evacuation plans would be necessary for the farm and other parts of Nelson County,*  
28 *Virginia.*

29           Response: The proposed route (as will be shown in the draft Resource Reports) will not  
30 cross the Shannon Farm Community. DTI currently has an Emergency Response Plan for its  
31 existing pipeline system, in accordance with the USDOT regulations, that provides written  
32 procedures to minimize the hazards from a gas pipeline emergency (to be discussed in Section  
33 11.2.4 of draft Resource Report 11). DTI (as operator of the Projects) will update its Emergency  
34 Response Plan, as necessary, to incorporate the proposed Projects.

35           Comment: *The Shannon Farm Community commented that Atlantic should not be able to*  
36 *self-inspect and that a plan is needed for Federal enforcement of required safety standards.*

37           Response: Natural gas transmission pipelines are regulated by PHMSA to ensure that all  
38 facilities under its jurisdiction are constructed and maintained with public safety first and

1 foremost in mind. PHMSA conducts on-site audits during construction and operation of the  
2 pipeline.

3 Additionally, safety and preventive measures are core values supported by Atlantic's and  
4 DTI's extensive programs related to integrity management and damage prevention. There are a  
5 variety of programs and methods to assess the integrity of natural gas transmission pipelines,  
6 such as aerial and foot-patrol inspections, pigging (internal computerized pipeline inspection),  
7 pipeline coating, corrosion control, an emergency shutdown system, and around-the-clock  
8 monitoring by a staffed and fully automated gas control center.

9 *Comment: The Appalachian Trail Conservancy commented on protection against fire,  
10 explosion, and the release of toxic chemicals.*

11 Response: The pipeline facilities associated with the Projects will be designed,  
12 constructed, operated, and maintained in accordance with or to exceed the USDOT Minimum  
13 Federal Safety Standards in Title 49 CFR Part 192 (to be discussed in Section 11.2 of draft  
14 Resource Report 11). These regulations, which are designed to protect the public and to prevent  
15 natural gas facility accidents and failures, include specifications for material selection and  
16 qualification, minimum design requirements, and protection of the pipeline from internal,  
17 external, and atmospheric corrosion.

18 *Comment: One individual commented that Level 4 pipeline design should be used along  
19 the entire pipeline route. Another individual commented that Level 4 pipeline design should be  
20 used at the Roanoke River crossing because accidents at river crossings are more common than  
21 other pipeline locations.*

22 Response: The Projects will comply with USDOT requirements for class location units.  
23 In accordance with Federal standards, class locations representing more populated areas require  
24 very stringent safety factors in pipeline design, testing, and operation (to be discussed in Section  
25 11.2.1 of draft Resource Report 11). Pipe wall thickness and pipeline design pressures,  
26 hydrostatic test pressures, maximum allowable operating pressure, inspection and testing of  
27 welds, and the frequency of pipeline patrols and leak surveys must conform to these standards in  
28 more populated areas.

29 *Comment: One commenter said the EIS should include an analysis of potential  
30 malfunctions of the pipelines or compressor stations that could lead to unintended emissions of  
31 various pollutants.*

32 Response: Safety and reliability will be addressed in draft Resource Report 11.

33 *Comment: The EPA recommended that unconsolidated tracts or block groups data for  
34 children under 17 along the proposed corridor should be provided and that receptors within the  
35 industry-accepted blast radius should be identified. The EPA also recommended that potential  
36 direct, indirect, and cumulative impacts on children and efforts to avoid, minimize, and mitigate  
37 impacts should be discussed.*

38 Response: Atlantic and DTI will comply with USDOT PHMSA standards that address  
39 safety for all age groups, including children under the age of 17. These standards will be

1 discussed in Section 11.2 of draft Resource Report 11. Data on public services and facilities  
 2 such as housing, hospitals, police, fire, and schools will be discussed in Section 5.6 of draft  
 3 Resource Report 5.

4 **4.12 Cumulative Impacts**

5 **4.12.1 General Comments**

6 *Comment: Several commenters expressed concern regarding the use of natural gas  
 7 produced by hydraulic fracturing in West Virginia, impacts on local resources due to hydraulic  
 8 fracturing, and global climate change. These and other commenters said that the environmental  
 9 analysis for the Projects should take into account emissions from upstream activities as well as  
 10 downstream uses of the natural gas supplied by the Projects.*

11 Response: Impacts from reasonably foreseeable, non-speculative activities will be  
 12 included in the scope of the environmental analysis.

13 *Comment: TNC commented that the ACP should be evaluated in a Programmatic EIS  
 14 along with the Mountain Valley Pipeline, Columbia WB Xpress Pipeline, and the Appalachian  
 15 Connector Pipeline projects. The NRDC similarly commented that a Programmatic EIS should  
 16 be used to evaluate the cumulative impacts of the ACP along with other currently proposed  
 17 pipeline projects in the Appalachian and Marcellus regions. The NRDC said that a  
 18 Programmatic EIS would allow for a better comparison of total GHG emissions and impacts on  
 19 climate change, as well as a better comparison for the public need and demand for new natural  
 20 gas pipeline infrastructure projects.*

21 Response: ACP and other natural gas pipeline projects planned to transport natural gas  
 22 from the Marcellus and Utica Shale regions to downstream markets are not “connected actions”  
 23 within the meaning of NEPA. The ACP is in no way connected with, or dependent upon, any  
 24 other pipeline transportation project except the SHP, which is being considered in the same EIS.  
 25 If approved, ACP and SHP can go forward regardless of whether any other pipeline project is  
 26 authorized by the Commission. Minimal cumulative effects are anticipated when the impacts of  
 27 the ACP and SHP are added to the identified ongoing projects in the immediate area (as will be  
 28 shown in Appendix 1L of draft Resource Report 1). Instead of reviewing non-connected projects  
 29 in a programmatic analysis, each proposed project must be considered on its own merits, based  
 30 on the facts and circumstances specific to each proposal.

31 *Comment: The EPA commented that because there are a multitude of environmental  
 32 effects, and portions of the Projects will affect different natural and human communities, a  
 33 thorough secondary impacts review is important. The EPA also commented that landscape  
 34 analysis of impacts should be robust.*

35 Response: A comprehensive EIS will be prepared for the Projects.

36 *Comment: The Appalachian Trail Conservancy commented that cumulative impacts on  
 37 the Appalachian Trail, which already includes 63 pipeline crossings, as well as 10 currently  
 38 proposed crossings, needs to be evaluated.*

1            Response: While some other pipeline projects are proposing to cross the Appalachian  
2 Trail, including the proposed Mountain Valley Pipeline, there are no known proposed crossings  
3 within 100 miles of the ACP. Moreover, as noted above, Atlantic is currently evaluating use of  
4 the HDD method to install the proposed pipeline beneath the Appalachian Trail (and adjacent  
5 Blue Ridge Parkway). The HDD method would avoid direct impacts on the trail, including  
6 impacts on vegetation immediately adjacent to the trail. Short-term impacts on visitors to the  
7 Appalachian Trail could result from construction noise, but these impacts will be temporary,  
8 localized, and limited to the period of construction. Additionally, Atlantic will address noise  
9 mitigation in its design of the HDD. For these reasons, cumulative impacts on the Appalachian  
10 Trail system due to construction and operation of the ACP are not anticipated.

11            Comment: *The NRDC commented that the cumulative impacts of increased natural gas*  
12 *development should be included with the evaluation of the Projects, particularly increased*  
13 *development along the proposed pipeline corridor.*

14            Response: An assessment of cumulative impacts for the Projects will be included as  
15 Appendix 1L of draft Resource Report 1 and in the EIS.

16            Comment: *The EPA commented that the cumulative impacts analysis should focus on*  
17 *resources or communities of concern, or resources “at risk” that could be cumulatively*  
18 *impacted. The EPA also recommended that the analysis should include, but not be limited to,*  
19 *FERC jurisdictional projects, intrastate pipelines and compression, gathering pipelines, gas*  
20 *processing facilities, and projects such as industrial or commercial facilities and other*  
21 *developments regardless of whether these actions are energy related or under FERC*  
22 *jurisdiction. The EPA referred to the Council on Environmental Quality guidance on*  
23 *“Considering Cumulative Effect under the National Environmental Policy Act” and EPA’s*  
24 *“Consideration of Cumulative Impacts in EPA Review of NEPA Documents” for assistance in*  
25 *identifying appropriate spatial and temporal boundaries for the analysis.*

26            Response: An assessment of cumulative impacts for the Projects will be included as  
27 Appendix 1L of draft Resource Report 1 and in the EIS.