FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 4
Atlantic Coast Pipeline, LLC
Atlantic Coast Pipeline
Dominion Transmission Inc.
Supply Header Project
Docket Nos. CP15-554-000
CP15-555-000

December 4, 2015

Matthew Bley
Director, Gas Transmission Certificates
701 E. Carey Street
Richmond, VA 23219

Re: Environmental Information Request for the Atlantic Coast Pipeline and Supply Header Project

Mr. Bley:

Please provide the information described in the enclosure to assist in our analysis of Atlantic Coast Pipeline, LLC's (Atlantic) and Dominion Transmission, Inc.'s (DTI) Certificate application for the Atlantic Coast Pipeline (ACP) and Supply Header Project (SHP). File your response in accordance with the provisions of the Federal Energy Regulatory Commission's (FERC or Commission) Rules of Practice and Procedure. In particular, 18 Code of Federal Regulations (CFR) 385.2010 (Rule 2010) requires that you serve a copy of the response to each person whose name appears on the official service list for this proceeding. The response must be filed with the Secretary of the Commission at:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

You should be aware that through our consultations with the U.S. Forest Service and our interpretation of the prescriptive-specific goals, objectives, standards, and guidelines listed in the respective Monongahela and George Washington National Forests' Land and Resource Management Plans, we have determined that alternative routes to the south of the currently proposed ACP route may offer environmental

advantages over the currently proposed route. To ensure that a complete and thorough evaluation of the ACP is presented in the draft environmental impact statement (EIS), we request that Atlantic identify and assess an alternative pipeline route across the National Forests. **The information requested in the enclosure is necessary for us to evaluate the SHP, ACP, and an alternative pipeline route across the National Forests and to continue preparation of the draft EIS for the project. Please note that we will not be able to establish a schedule for completing the EIS until we have received your response(s) and reviewed it for completeness.**

File all responses under oath (18 CFR 385.2005) by an authorized representative of Atlantic and DTI and include the name, position, and telephone number of the respondent to each item. In addition to the official filing, please provide one hard copy of the response, including all oversize materials, and an electronic copy of the response, to our third-party contractor, Merjent, Inc., and to the federal cooperating agency contacts listed below.

When filing documents and maps, prepare separate volumes as outlined on the Commission's website at http://www.ferc.gov/resources/guides/filing-guide/file-ceii.asp. Any plot plans showing equipment or piping details or other Critical Energy Infrastructure Information should be filed as non-public and labeled **"Contains Critical Energy Infrastructure Information – Do Not Release"** (18 CFR 388.112). Cultural resources material containing location, character, or ownership information should be marked **"Contains Privileged Information – Do Not Release"** and should be filed separately from the remaining information, which should be marked **"Public."**

Thank you for your cooperation. If you have any questions, please contact me at 202-502-6287.

Sincerely,

Kevin Bowman
Environmental Project Manager
Office of Energy Projects

Enclosure

cc: Public File, Docket Nos. CP15-554-000 and CP15-555-000

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ENCLOSURE

Federal Energy Regulatory Commission
Environmental Information Request

Atlantic Coast Pipeline (ACP) - Docket No. CP15-554-000
Supply Header Project (SHP) - Docket No. CP15-555-000

General Comments

1. For any route alternatives, route variations, or project design modifications that have been or may be adopted by Atlantic Coast Pipeline, LLC (Atlantic) or Dominion Transmission, Inc. (DTI) since the filing of its application, file updated resource impact information, tables, maps, alignment sheets, and other relevant project information that incorporates the adopted route into the project design and ensure mileposts, workspaces, impacts and naming conventions are consistent between data source.

Resource Report 1 – General Project Description

2. Update the compressor station site plans to include all necessary valve locations, interconnects, and other piping and facilities that is required to construct the sites.

3. Clarify the purpose and intended use of the debris site that is depicted on the Compressor Station 1 (Marts Compressor Station) Preliminary Site Plan.

4. Provide justification for Atlantic's proposal to maintain the 69.6-acre area at Compressor Station 1 and the 33.4-acre area at Compressor Station 3 (Northampton Compressor Station), or provide revised plot plans that minimize the permanent land use and habitat impacts.

5. Clarify the need to locate the proposed office at Compressor Station 3 approximately 800 feet west of the other project facilities, or provide a revised site plan for the facilities and offices that minimizes the amount of temporary and permanent land use impacts.

6. The Compressor Station 3 and Smithfield Metering and Regulating (M&R) site plans identify a "surveyed" or "current ACP AP-2 pipeline route" and a "proposed realignment pipeline." Clarify whether the proposed realignment pipelines are conceptual or are the intended design of the facilities. File updated resource impact information, tables, maps, alignment sheets, and other relevant project information that depict and present the final project design, as necessary.

7. Justify the size of the permanent footprint for valves along the AP-1 pipeline, noting that the valve footprints are nearly twice as large as the permanent footprint for valves along the other ACP pipeline facilities.

8. Clarify whether depth of cover requirements (as required or negotiated by landowners or land-managing agencies) would be included on the construction alignment sheets.

9. Provide a table identifying (by milepost) any existing residential structures or sheds that would be removed or relocated by construction of the ACP or SHP.

10. Identify and evaluate alternative locations for Contractor Yards Spread 6 and Spread 10 that avoid tree clearing and habitat impacts.

11. For the proposed (or any newly identified and subsequently incorporated alternate) pipeline route through the Monongahela National Forest (MNF) and George Washington National Forest (GWNF), identify where the width of the construction workspace has been reduced to minimize impacts on environmentally sensitive areas and identify or describe the sensitive areas (as discussed in Comment 31 from the U.S. Forest Service (USFS) of appendix 1Q). Provide updated impact information (impact acreage tables and alignment sheets) as necessary.

12. For the TL-636 and TL-635 pipelines, justify the need for an additional 10 feet of spoil-side workspace where the proposed pipeline facilities are not collocated with existing rights-of-way.

13. Describe how Dominion would modify and implement its easement acquisition process and operations and maintenance programs to accommodate a 50-foot-wide permanent easement along the AP-1 pipeline. File resource impact information (tables) for the AP-1 pipeline route that utilizes a 50-foot-wide permanent easement.

14. Provide a schedule for identifying and filing all modifications to the FERC's Upland Erosion Control, Revegetation, and Maintenance Plan (Plan) and Wetland and Waterbody Construction and Mitigation Procedures (Procedures).

15. Confirm that the number and location of access roads between AP-1 mileposts (MPs) 159 and 179 are accurate.

16. Clarify whether a temporary bridge would be installed over Hackers Creek along access road 02-096-A003-AR 1.

17. Update the Horizontal Direction Drill (HDD) Plan to identify agency-approved additives and include a condition that no other additives beyond those identified in the HDD Plan may be used during construction.

18. Update the site-specific HDD crossing plans to include all potential workspaces necessary to complete the HDD activities, including pipeline fabrication areas, access roads, water storage areas, water appropriation workspaces. Ensure that HDD pipe side operations and pull section staging workspaces are fully depicted and their size is limited to that needed to complete the HDD installation.

19. Update figures 1.11.1-4 and 1.11.1-5 to identify the entire length and location of the proposed electric transmission lines.

20. Table A-1 of appendix 1O identifies several planned Dominion projects in which a distance and direction to the ACP or SHP is not provided. Provide an updated table A-1 that includes this information.

Resource Report 2 – Water Use and Quality

21. Provide evaluations of environmental setting of and impacts on groundwater associated with all non-jurisdictional facilities.

22. Section 2.1.6 states Atlantic and DTI are evaluating the need to use groundwater during construction and operation of the aboveground facilities. In the event new and/or existing groundwater wells would be used, provide an analysis of potential water use impacts.

23. Clarify what water impoundment would be used to store source water for the HDD at MP 75.6 on the AP-3. Clarify if this is the VEPCO impoundment.

24. Confirm that no hydrostatic test water and dust control source waters are on the 303(d) list, are known to contain invasive species, or would contain sensitive species. If source waters are impaired, contain invasive species, or sensitive species, provide the applicable agency concurrence that use of the source water is approved and any additional mitigation or minimization measures that would be implemented.

25. Confirm whether hydrostatic test water would be discharged within the same source water watershed.

26. Identify any waterbody, wetland, or groundwater impacts associated with cathodic protection installations.

27. Identify whether waterbody impacts associated with access roads, as presented in Appendix 2A, would be temporary or permanent.

28. Provide the results of updated correspondence from the U.S. Army Corps of Engineers (USACE) districts documenting permitting status.

29. Footnote b in table 2.3.4-1 states temporary wetland impacts are associated with the construction right-of-way. Confirm that this impact acreage represents the entire right-of-way width of 75 feet.

30. Construction of the ACP aboveground facilities would result in 0.4 acre of permanent wetland impact, and expansion of the SHP aboveground facilities would result in 0.1 acre of permanent wetland impact. Earlier in section 2.3.4.2, it is stated that facilities have been sited to avoid and minimize impacts on wetlands to the maximum extent possible. Provide further detail as to how siting of these facilities avoids and minimizes wetland impacts to the extent possible, that no feasible alternatives exist that would avoid wetland impacts, and that siting within wetlands is required to comply with U.S. Department of Transportation regulations.

31. Provide a status update and estimated schedule for completing wetland and waterbody surveys along access roads and within all pipe storage and contractor yards.

32. Provide additional detail regarding anticipated restoration and monitoring requirements anticipated to be included in USACE permits. Identify if these requirements are anticipated to vary among the four USACE districts with regulatory authority over the projects.

Resource Report 3 – Fish, Wildlife, and Vegetation

33. Mileposts for waterbody crossing locations throughout Resource Report 3 are not always consistent with the mileposts provided in table 2A-1. Verify milepost numbering in future filings.

34. Table 2A-1 indicates that Atlantic and DTI would be requesting timing restriction waivers for certain waterbody crossings from the appropriate state and federal agencies. Provide results of agency correspondence with regard to requesting timing restriction waivers, by waterbody crossing if applicable. Identify waterbody crossings where Atlantic and DTI would <u>not</u> be adhering to a timing restriction. If Atlantic and DTI would not be adhering to timing restrictions during spawning seasons, describe potential impacts and the avoidance, mitigation, and/or conservation measures that Atlantic and DTI would adopt.

35. Identify locations of and potential construction and operations impacts on brook trout streams. Provide the results of correspondence with the West Virginia Division of Natural Resources (WVDNR) and MNF regarding any requested or recommended measures to minimize impacts on brook trout streams, and the avoidance, mitigation, and/or conservation measures that Atlantic would adopt.

36. Correct any inconsistencies in the fishery type and associated timing restrictions identified in sections 3.1.3 and 3.1.4 versus tables 2A-1 and 2C, including the following identified inconsistencies:

    a. Add the Virginia Trout Water Classification (table 3.1.1-3) to the "Fishery Type" column in table 2A-1 to reflect that waterbodies identified in table 3.1.3-2 and following paragraphs are trout fisheries.

    b. South Fork Rockfish River, Back Creek, Folly Mills Creek, and Cowpasture River should also be identified as trout fisheries with associated timing restrictions in table 2A-1 per the discussion provided in section 3.1.3.2.

    c. Confirm that the August 15 through September 30 timing restriction for the South River (approximate AP-1 MP 148.4; note this milepost may have changed due to the adoption of the Augusta County Service Authority Route Variation) is correct. It is not identified as a timing restriction in Virginia in section 3.1.3.2.

    d. Confirm the timing restrictions for anadromous fish use areas in the Nottoway River (AP-1 MP 260.7 and AP-3 MP 32.6) are provided in table 2A-1. Section 3.1.3.2 identifies a timing restriction of February 15 through June 30.

    e. Confirm the timing restriction associated with Potential Anadromous Fish Use Area for the James River (AP-1 MP 184.7). Section 3.1.3.2 states that the restriction is March 15 through June 30; table 2A-1 states February 15 through June 30.

    f. Add the Anadromous Fish Spawning Area timing restriction of February 15 to September 30 for the Cape Fear River (AP-2 MP 149.3) to table 2A-1 and table 2C as identified in section 3.1.3.3.

    g. Identify Raft Swamp (AP-2 MP 173.1) as an Anadromous Fish Habitat Area with associated timing restriction in tables 2A-1 and 2C. Humphrey Branch (AP-2 MP 173.6) is missing from both tables 2A-1 and 2C (referenced in section 3.1.3.3).

    h. Add the Significant Aquatic Endangered Habitats (table 3.1.3-3) and Natural Heritage Program Natural Areas (table 3.1.3-4) crossed by ACP in table 2C with their associated crossing method. It appears the unnamed tributary crossings were not included in table 2C.

37. Per the U.S. Fish and Wildlife Service (FWS), North Carolina Ecological Regional Office correspondence dated June 5, 2015, federally listed mussel species habitat

should be presumed present at the following waterbodies, and therefore included in table 3.1.3-3 and table 2C: Roanoke River, Rocky Swamp, Fishing Creek, Swift Creek, Tar River, Contentnea Creek, Little River, and Buffalo Creek.

38. Confirm that Atlantic and DTI would implement the 2006 West Virginia Department of Environmental Protection (WVDEP) Erosion and Sediment Control Best Management Practice Manual for ACP.

39. Per the meeting minutes with the North Carolina Department of Environment and Natural Resources dated May 27, 2014, confirm that Atlantic and DTI would implement the riparian buffer rule for all intermittent waterbodies in North Carolina crossed by ACP.

40. As requested in WVDEP correspondence dated April 13, 20145, confirm that Atlantic and DTI would implement the "Recommendations for Entrainment and Impingement Prevention Best Management Practices" from WVDEP Water Use Section and the WVDEP Water Withdrawal Guidance Tool to prevent impacts on aquatic life.

41. Provide a list of waterbodies where blasting would occur in-stream or adjacent to the waterbody. Determining blasting needs during construction will not allow appropriate planning to mitigate for impacts on federally listed species and other wildlife.

42. Revise the Blasting Plan to identify the mitigation measures that would be implemented to minimize impacts on federally listed species and other wildlife from potential noise impacts.

43. Clarify if any waterbodies would be affected by aboveground facilities or pipe storage and contractor yards. Section 3.1.4.2 states that "no waterbodies will be affected by the construction or operation of the aboveground facilities." However, tables 2.2.2-1, 2A-1, and 2A-2 indicate that waterbodies would be affected by aboveground facilities and/or pipe storage and contractor yards on SHP and ACP and that some of these waterbodies contain fisheries. Describe the impacts and proposed mitigation measures associated with these facilities in section 3.1.4.2.

44. Describe the impacts and proposed mitigation measures associated with access road construction and use on fisheries, where applicable.

45. The text in section 3.1.5 indicates that site-specific impacts and mitigation have not been identified pending survey results and agency consultations. Provide an update on the nature and status of these surveys and agency consultations. Provide a description of project impacts on waterbodies containing Fisheries of Special Concern (identified in section 3.1.3) by state. Describe the avoidance, mitigation, and/or conservation measures that Atlantic and DTI would adopt, and provide

correspondence with applicable state and federal resource agencies regarding any requested or recommended measures for waterbodies with Fisheries of Special Concern.

46. File with the Commission the results of the Fisheries/Aquatic Ecology surveys or desktop analyses conducted on the MNF (including a potential new route across the MNF). Describe potential fisheries impacts on the MNF, provide any updated correspondence with the MNF regarding any requested or recommended measures for these fisheries, and describe the avoidance, mitigation, and/or conservation measures that Atlantic would adopt to minimize fisheries impacts.

47. Address potential hydrostatic test water withdrawal impacts on anadromous fish habitat associated with the Roanoke and Cape Fear Rivers. Refer to the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) Southeast Regional Office correspondence dated September 22, 2014 that specifically states "the timing of construction during the year, including any water removed for hydrostatic testing of the pipeline will be critical to avoid impacts to these species" at these rivers. Provide any updated correspondence with NMFS Southeast Region regarding any requested or recommended measures for these waterbodies.

48. For waterbodies crossed by SHP or ACP where federally listed species or suitable habitat are present, provide the following to address concerns raised by the FWS North Carolina and Virginia Ecological Field Offices:

    a. Describe alternative crossing techniques considered and why the preferred crossing method was chosen;

    b. Describe anticipated impacts on the waterbody;

    c. Identify the construction schedule; and

    d. Assess the potential for inadvertent surface release during HDD crossings.

49. Confirm that the Beaver Creek Headwaters (identified in the Virginia Department of Conservation and Recreation (VDCR) correspondence dated June 4, 2015), and the Miry Run and Radium Flatwoods East conservation sites and Nottoway River – Monroe Bridge Stream Conservation Unit (correspondence dated April 28, 2015) would not be affected by the ACP.

50. Provide a copy of the August 3, 2015 correspondence from S.R. Hypes (VDCR) to M. Voth (NRG) cited in section 3.2.1.2.

51. Provide missing (denoted by [ ]) or updated information in the table below or in your response regarding Virginia conservation sites and stream conservation units crossed by ACP, including:

a. Total acreage of conservation site and miles of stream conservation unit;

b. Current VDCR recommendations for the site or unit. Provide any updated correspondence with VDCR and other appropriate agencies regarding requested or recommended measures to minimize impacts on these conservation sites and stream conservation units;

c. Status and results of VDCR requested surveys at conservation sites and stream conservation units; and

d. Avoidance and/or mitigation measures that Atlantic would implement at each conservation sites and stream conservation units.

Virginia Conservation Units Crossed by the Atlantic Coast Pipeline

Project Segment / Conservation Site Name	Ecological Integrity Unit	Biodiversity Significance Unit	Acreage of Conservation Site/or Mileage of Stream Conservation Unit	Approximate Milepost Location	VDCR Recommendation [b]
AP-1 Mainline					
Back Creek Habitat Zone	C2	B5	[ ]	MP 86.9	Avoidance
Lantz Mountain Conservation Site	C5	B5	[ ]	MP 88.5	Avoidance
Sounding Knob Conservation Site	C2	B2	[ ]	MP 94.8	Avoidance / survey for variable sedge
Crab Run Stream Conservation Unit [a]	N/A	B5	[ ]	MP 96.6	Compliance with state and local erosion and sediment control / stormwater management laws and regulations
Shenandoah Mountain Trail Conservation Site	C3	B4	[ ]	MP 109.8	Avoidance / compliance with state and local erosion and sediment control / stormwater management laws and regulations / survey for Cow Knob salamander and Central Appalachian shale barrens from North of Liberty on both sides of Cowpasture River
Cochrans Conservation Site [a]	C5	B4	[ ]	MP 140.0	Avoidance / avoidance of hydrology alteration to cave site / survey for rare cave adapted species
Lyndhurst Conservation Site [a]	C5	B1	[ ]	MP 149.4	Avoidance / surveys for Valley doll's-daisy, Virginia sneezeweed, swamp pink, tiger salamander (in coordination with Virginia Department of Game and Inland Fisheries), and forested elfin
Nottoway Basin Conservation Site	C4	B2	[ ]	MP 260.4	Avoidance / surveys for Michaux's sumac / surveys for aquatic species at Nottoway River and Waqua Creek

Virginia Conservation Units Crossed by the Atlantic Coast Pipeline					
Project Segment / Conservation Site Name	Ecological Integrity Unit	Biodiversity Significance Unit	Acreage of Conservation Site/or Mileage of Stream Conservation Unit	Approximate Milepost Location	VDCR Recommendation [b]
Nottoway River – Fort Pickett Stream Conservation Unit [a]	C4	B2	[ ]	MP 260.7	Compliance with state and local erosion and sediment control / stormwater management laws and regulations / surveys for aquatic species at Nottoway River
Nottoway River – Sturgeon Creek / Hardwood Creek Stream Conservation Unit	N/A	[ ]	[ ]	MP 268.8	Compliance with state and local erosion and sediment control / stormwater management laws and regulations / surveys for aquatic species at Nottoway River
Emporia Powerline Bog Conservation Site	C3	B5	[ ]	MP 292.7	None
Upper Fontaine Creek Conservation Site	C2	B5	[ ]	MP 297.6	Avoidance
AP-3 Lateral					
Lower Fontaine Creek Conservation Site	C3	B3	[ ]	MP 12.4	Avoidance / surveys for aquatic and bat species and reclining bulrush
Branchville Powerline	[ ]	[ ]	[ ]	MP 15.6	Not evaluated.
Handsom-Gum Powerline Conservation Site [a]	C3	B4	[ ]	MP 27.6	Avoidance / avoid alteration to hydrology / surveys for Helicta Satyr
Lummis Flatwoods Conservation Site	C3, C5	B2	[ ]	MP 51.4	Avoidance / surveys for Raven's seedbox / surveys for eastern big-eared bat, southeastern myotis, fine-lined emerald, Robust baskettail in Quaker Swamp / survey for Dismal Swamp Southeastern shrew
Great Dismal Swamp	C1, C2, C5	B2	[ ]	MP 60.4	Avoidance / survey for Virginia least trillium
Great Dismal Swamp: Northwest Section Conservation Site	C5	B5	[ ]	MP 65.0	Avoidance / survey for Non-Riverine Wet Hardwood Forest

[a] Identified by the VDCR as areas of highest concern during the March 15, 2015 conference call with Atlantic.
[b] Based on April 28, 2015 correspondence provided in Appendix 1H.

52. Provide a description of the Natural Heritage Inventory (NHI) sensitive vegetation communities (e.g., Central Appalachian Shale Barrens, Central Appalachian Basic Ash-Hickory Woodland) affected by the ACP (without disclosing locations as requested by the VDCR). Provide acreage of impacts on these sensitive communities, any updated correspondence with the VDCR regarding any requested or recommended measures to minimize impacts on these communities,

and the avoidance and/or mitigation measures that Atlantic would implement to minimize impacts on these communities.

53. Provide the following information for the Virginia Natural Heritage Resources identified in the table potentially affected by the ACP, including:

    a. Status and results of VDCR requested surveys;

    b. Current VDCR (or other appropriate agencies) recommendations for the natural heritage resource identified. Provide any updated correspondence with VDCR and other appropriate agencies regarding requested or recommended measures to minimize impacts on these resources; and

    c. Avoidance and/or mitigation measures that Atlantic would implement for each resource or area.

Virginia Natural Heritage Resources Potentially Affected by the Atlantic Coast Pipeline

Project Segment / General Project Area	Natural Heritage Resource of Concern	VDCR Recommendation [a]
AP-1 Mainline		
West Augusta / Barn Lick Branch to Little North Mountain	Central Appalachian Shale Barrens	Surveys / coordinate with VDCR on protection recommendations
McDowell / North of Liberty / banks of Cowpasture River	Central Appalachian Shale Barrens	Surveys / coordinate with VDCR on protection recommendations
Shipman / uppermost slope of High Peak south of Rev. 6 proposed pipeline centerline	Central Appalachian Basic Ash-Hickory Woodland	Surveys / coordinate with VDCR on protection recommendations
Emporia / 0.5 to 1.0 miles north and northeast of Skipper along stream headwaters on both the Emporia and Skippers quads	Coastal Plain / Outer Piedmont Acidic Seepage Swamp	Surveys / coordinate with VDCR on protection recommendations
Skippers / Upper Fontaine Creek Conservation Site / Fontaine Creek	Coastal Plain / Piedmont Bottomland Forest; Bald Cypress-Tupelo Swamp (old-age stands)	Surveys / coordinate with VDCR on protection recommendations
AP-3 Mainline		
Franklin / Nottoway River – Monroe Bridge Stream Conservation Unit / Blackwater River	Coastal Plain / Piedmont Bottomland Forest, Bald Cypress-Tupelo Swamp (old-age stands)	Surveys / coordinate with VDCR on protection recommendations
Holland / Northeast of Rte. 613	Coastal Plain Depression Wetlands	Surveys / coordinate with VDCR on protection recommendations
Chuckatuck / Great Dismal Swamp: Northwest Section Conservation Site / between US13/58/460 and the North Ditch	Non-Riverine Wet Hardwood Forest (Embayed Region Type)	Surveys / coordinate with VDCR on protection recommendations
Bowers Hill / Great Dismal Swamp: Northwest Section Conservation Site / east of the East Ditch	Non-Riverine Wet Hardwood Forest (Embayed Region Type)	Surveys / coordinate with VDCR on protection recommendations

[a] Based on April 28, 2015 correspondence provided in Appendix 1H.

54. Confirm whether the following Natural Heritage Natural Areas would be affected by ACP. Provide impact acreage for each natural area, updated correspondence with the Natural Heritage Program regarding requested or recommended measures

to minimize impacts on these areas, and avoidance and/or mitigation measures that Atlantic would implement.

a. Big Marsh Swamp (private);

b. Cowbone Oxbows/Sage Pond Natural Area (private);

c. Hannah Creek Swamp (private);

d. Meherrin River Margarettsville Bottomlands (private);

e. Moss Neck Savanna (private);

f. Mush Island (private);

g. NEU/Contentnea Creek Aquatic Habitat (public water);

h. NEU/Little River (Franklin/Wake/Johnston/ Wayne) Aquatic Habitat (public water);

i. Rockfish Creek Corridor (private);

j. TAR/Fishing Creek Aquatic Habitat (public water);

k. TAR/Middle Tar River Aquatic Habitat (public water);

l. TAR/Rocky Swamp Aquatic Habitat (public water);

m. TAR/Stony Creek Aquatic Habitat (public water); and

n. TAR/Swift Creek Aquatic Habitat (public water).

55. Provide updated correspondence with the MNF regarding requested or recommended measures for the Lambert Spruce Restoration Area, and identify the avoidance and/or mitigation measures that Atlantic would adopt to minimize impacts on this area. We acknowledge that if a new or modified route through the National Forests is adopted, a response to this information request may not be required.

56. Provide the results of the botanical surveys and/or desktop analyses conducted on the MNF and GWNF (including for any newly identified and subsequently incorporated route alternative). Describe the impacts associated with vegetation, non-native invasive, threatened and endangered Regional Forester's Sensitive species, and red spruce (on MNF), any updated correspondence with the USFS regarding any requested or recommended measures for vegetation, and describe the avoidance, mitigation, and/or conservation measures that Atlantic would adopt.

57. Provide any updated correspondence with state or federal agencies regarding requested or recommended measures for invasive species and describe any additional avoidance, mitigation, and/or conservation measures that Atlantic would adopt.

58. Provide a copy of the MNF and GWNF Plan of Development or Construction, Operations, and Maintenance Plan. Include the following in the plan:

    a. Identify the high priority treatment areas in the MNF, including habitats where invasive species could cause resource damage based on survey results.

    b. Identify the high priority treatment areas on the GWNF, including locations of threatened, endangered, and sensitive species, Special Biological Areas, trails and trailheads, riparian areas, roadsides, and disturbed areas.

    c. Seed mixes, rates, and seed locations, including seed mixes to attract pollinators such as bees and butterflies;

    d. Identify which recommended avoidance, mitigation, and/or restoration measures provided in the U.S. Department of Agriculture July 30, 2015 correspondence to the FERC Atlantic would commit to implementing (e.g., planting shrub vegetation on the outer edges of permanently maintained pipeline corridor, planting oaks on GWNF).

59. Confirm that the West Virginia sensitive community for hairy-fruit sedge floodplain prairie would be affected by ACP (as indicated in section 3.2.1.2 and table 3.2.4-1). If this sensitive area would be affected, provide any updated correspondence with West Virginia Natural Heritage Program regarding any requested or recommended measures for this sensitive community; and identify the avoidance and/or mitigation measures that Atlantic would implement.

60. Confirm that the ACP would not affect the Blister Run Swamp Botanical Area. If ACP would cross this botanical area, describe impacts associated with crossing, provide any updated correspondence with the MNF regarding any requested or recommended measures for this botanical area; and identify the avoidance and/or mitigation measures that Atlantic would implement. We acknowledge that if a new or modified route through the National Forests is adopted, a response to this information request may not be required.

61. Address the following related to fragmentation:

    a. Provide a description of how habitat fragmentation analysis was conducted and what data was used to identify habitat blocks.

b. Provide, in table format, an estimate of fragmentation by land cover classes (as described in section 3.2) resulting from construction and operation of the proposed pipeline. This table should include by land cover class the total number of fragments, the total number of acres fragmented, average size of a fragment, and total length in miles of fragmentation.

c. Based on the mitigation and conservation measures recommended by federal and state agencies with regards to fragmentation, identify which measures Atlantic and DTI would implement to mitigate these impacts (e.g., road decommissioning, tree and riparian planting, brush pile corridors).

62. Based on agency input, clarify if Atlantic would prepare a marine mammal protection plan that addresses construction, prevention, remediation, and restoration measures that would be implemented in the event of a HDD inadvertent return within or adjacent to the South Branch Elizabeth River or if an alternative open-cut crossing method would be required in the event the initial HDD fails.

63. Describe impacts on the following species and their habitat (acreage of impacts), any updated correspondence with USFS regarding any requested or recommended measures to minimize impacts these species and/or habitat, and identify the avoidance and/or mitigation measures that Atlantic would implement. Also provide survey results for threatened and endangered plant species, green floater and elktoe mussels, and other USFS-requested biological surveys (received 2015 survey results for remaining species listed below):

a. Threatened and Endangered Bats;
b. Cheat Mountain Salamander;
c. Northern Goshawk;
d. West Virginia Northern Flying Squirrel;
e. Timber Rattlesnake;
f. Alleghany Woodrat;
g. Cow Knob Salamander;
h. Threatened and endangered plant species;
i. Green floater and Elktoe mussels; and
j. Others where suitable habitat identified.

64. Provide updated information regarding any reroutes that Atlantic adopts to avoid USFS species occupied and/or suitable habitat (e.g., Cheat Mountain salamander, Cow Knob Salamander, West Virginia Northern Flying Squirrel), including correspondence documenting USFS review and comments on these reroutes.

65. Provide an analysis of Management Indicator Species (MIS) impacts, including a summary of MIS that could be affected, potential habitat acreage impacts, updated

correspondence with USFS regarding requested or recommended measures to minimize impacts on MIS and/or MIS habitat, and the avoidance and/or mitigation measures that Atlantic would implement to avoid or minimize impacts on MIS and MIS habitat.

66. File a copy of the Biological Evaluation with the Commission once it is finalized.

67. Provide a table of federally threatened and endangered species (listed by both common and scientific names) by state with the potential to occur in the ACP and SHP areas based on agency input, identify the managing agency, species status, survey status update (where applicable), brief habitat description, Endangered Species Act (ESA) determination, and conservations measures to be implemented.

68. Provide the following information with regard to West Virginia rare species:

    a. Provide a consolidated table of West Virginia rare species (listed by both common and scientific names), including the freshwater native (non-federally listed) mussel species, with the potential to occur in the ACP and SHP areas based on agency input and/or NHI information, identify the managing agency, species status, survey status update (where applicable), brief habitat description, impact determination, and mitigation measures to be implemented.

    b. Status and/or results of WVDNR requested surveys (i.e., mussel surveys). Clarify which waterbody crossings were surveyed for mussels and provide findings by waterbody crossing. The WVDNR April 9, 2015 letter identifies Kincheloe Creek and Becky Creek currently crossed by ACP as requiring mussel surveys.

    c. As requested by the WVDNR in its April 9, 2015 and April 13, 2015 correspondence, provide a desktop analysis of Species of Greatest Conservation Need identifying which of these species occur in the project area and discussion of the potential impacts on these species.

    d. Provide any updated correspondence with WVDNR regarding any requested or recommended measures to minimize impacts these resources.

    e. Identify the avoidance and/or mitigation measures that Atlantic would implement for these species.

    f. Per the WVDNR June 5, 2015 correspondence, no mussel relocations have been approved at this time and the WVDNR recommends avoidance of the Greenbrier River Watershed, including the West Fork River. Revisit Atlantic's avoidance and/or mitigation measures at these locations based on

agency input and provide documentation with the appropriate agencies concurrence with the identified measures.

69. Provide the following information with regard to Virginia state-listed species and species of concern:

a. Provide a consolidated table of Virginia state-listed species and species of concern (listed by both common and scientific names), including the freshwater native (non-federally listed) mussel species, with the potential to occur in the project area based on agency input and/or NHI information, identify the managing agency, species status, survey status update (where applicable), brief habitat description, impact determination, and mitigation measures to be implemented.

b. Provide a copy of the Virginia Department of Game and Inland Fisheries (VDGIF) or VDCR correspondence that indicates that Bachman's sparrow or loggerhead shrike surveys are no longer needed (requested in the April 28, 2015 VDCR correspondence; included as part of survey information in March 27, 2015 VDGIF correspondence). Describe the conservation measures (identified in table 3.7.3-1) that Atlantic would implement for the Bachman's sparrow, loggerhead shrike, and peregrine falcon.

c. Clarify if surveys were completed for the following species requested by the VDCR in correspondence dated April 28, 2015. Provide survey results if surveys have or would be competed. If surveys were not completed, provide justification and/or concurrence from the VDCR or other appropriate agency that surveys are no longer needed.

Birds		
Coppery emerald		
Amphibians		
Dwarf waterdog		
Invertebrates		
St. Croix snaketail	Helicta satyr	Robust baskettail
Riverine clubtail	Yellow lampmussel	Forested elfin
Laura's clubtail	Cinnamon shadowdragon	Yellow lance
Regal darner	Piedmont clubtail	Rare cave adapted species (apart from the Madison cave isopod)
Fine-lined emerald	Banner clubtail	
Plants		
Bradley's spleenwort		

d. Based on survey results and agency input, describe the conservation measures that would be implemented for Virginia state-listed species and species of concern. If species surveys will not be completed in 2015, identify the conservation measures that would be implemented if the

species is identified during field surveys or during construction with agency input.

70. Provide the following information with regard to North Carolina rare species:

    a. Provide a consolidated table of North Carolina state-listed species and species of concern (listed by both common and scientific names), including the freshwater native (non-federally listed) mussel species, with the potential to occur in the project area based on agency input and/or NHI information, identify the managing agency, species status, survey status update (where applicable), brief habitat description, impact determination, and mitigation measures to be implemented.

    b. Describe the conservation measures (identified in table 3.7.3-1) that Atlantic would implement for the Bachman's sparrow, Cerulean warbler, and Southern hog-nosed snake.

    c. Based on survey results and agency input, describe the conservation measures that would be implemented for North Carolina state-listed species and species of concern. If species surveys will not be completed in 2015, identify the conservation measures that would be implemented if the species is identified during field surveys or during construction with agency input.

71. Provide a consolidated table of Pennsylvania state-listed species and species of concern (listed by both common and scientific names), including the freshwater native (non-federally listed) mussel species, with the potential to occur in the project area based on agency input and/or NHI information, identify the managing agency, species status, survey status update (where applicable), brief habitat description, impact determination, and mitigation measures to be implemented.

72. Regarding the Invasive Plant Species Management Plan:

    a. Provide the locations where threatened and endangered species (federal and state) and their preferred or critical habitats overlap or are in close proximity to invasive species and describe the measures that would be implemented to ensure invasive species control measures would not impact these resources.

    b. Provide a table that identifies the primary and alternative treatment methods for each invasive species, including treatment methods that would be utilized to control different growing stages of invasive species and whether treatment methods would vary based on proximity to environmental feature (e.g., wetlands, open water, sensitive species locations, agriculture).

c. Identify the locations of new intermediate, additional wash stations in response to this data request. In addition, provide updated location information prior to construction.

d. Provide updated locations of invasive plant species along the project based on updated survey results.

73. Provide an updated version of the Restoration and Rehabilitation Plan that includes the following:

a. Seed mixes, rates, and seed locations by county, including seed mixes to attract pollinators such as bees and butterflies.

b. The specific restoration, seeding, and planting criteria for all areas that require site-specific restoration requirements per agency or permitting conditions.

c. The specific measures that would be used to restrict access along the pipeline right-of-way during operation of the facilities, including the type of devices that would be used and the locations where the devices would be installed.

d. Confirm whether Atlantic and DTI will commit to planting shrub vegetation on the outer edges of permanently maintained pipeline corridor adjacent to regenerating forest sections following construction to reduce forest fragmentation impacts.

e. The specific measures that would be implemented to monitor and actively restore the temporary and permanent rights-of-way.

f. Describe the monitoring programs that would be implemented on federal and state/commonwealth lands as determined through consultations with the appropriate agencies; provide any updated correspondence with federal and state/commonwealth agencies regarding any requested or recommended measures for this plan.

74. Regarding the Migratory Bird Plan (Appendix 1F):

a. Clarify based on agency input if additional aerial surveys for bald eagle nests are required during the years of construction. In particular, clarify if aerial surveys for bald eagle nests would be required in 2016 in North Carolina and in 2017 in Pennsylvania, West Virginia, and North Carolina.

b. Clarify if ACP would affect any great blue heron rookeries in North Carolina, and if so, identify the conservation measures that would be

implemented to mitigate these impacts (refer to North Carolina Wildlife Resource Commission correspondence dated April 1, 2015).

c. Identify the measures based on agency input that would be implemented if bald or golden eagle nests or occupied winter roosting habitat are identified during field surveys or at any time during construction of the ACP or SHP.

d. Provide a table of agency-recommended activity buffers by species.

e. Provide a table of the agency-recommended seasonal timing restrictions by state.

f. Provide updated correspondence from the Pennsylvania, West Virginia, Virginia, and North Carolina FWS Ecological Field Offices that demonstrates the FWS review and concurrence with this plan.

75. Develop and submit a revised draft Biological Assessment (BA) after the survey results are available that includes the following:

a. Project maps of suitable habitat, species presence, and designated critical habitat.

b. For ACP, provide survey results, final conservation measures, and proposed ESA determinations for the following species that ACP stated surveys would be completed in 2015. Surveys are expected to be completed in 2015 except surveys for the three bat species that would be completed in 2016.

i. Indiana bat (received 2015 survey results);
ii. Northern Long-eared bat (received 2015 survey results);
iii. Virginia big-eared bat (received 2015 survey results);
iv. Roanoke logperch;
v. Madison Cave isopod;
vi. Clubshell;
vii. Dwarf wedgemussel;
viii. James spinymussel;
ix. Snuffbox;
x. Tar River spinymussel;
xi. American chaffseed;
xii. Eastern prairie fringed orchid;
xiii. Michaux's sumac;
xiv. Northeastern bulrush;
xv. Pondberry;
xvi. Rough-leaved loosestrife;
xvii. Running buffalo clover;

xviii. Shale barren rock cress;
xix. Small whorled pogonia;
xx. Swamp pink;
xxi. Virginia sneezeweed; and
xxii. Virginia spiraea.

c. For ACP, provide final conservation measures and proposed ESA determinations for the Cheat Mountain salamander (received 2015 survey results).

d. For SHP, provide final conservation measures and proposed ESA determinations for the Indiana bat (received 2015 survey results) and Northern long-eared bat (received 2015 survey results) when these surveys are completed in 2016.

e. Clarify which Atlantic Sturgeon Distinct Population Segment (Carolina or Chesapeake Bay) is located in the ACP project area.

f. Provide more recent evidence that the shortnose sturgeon would not occur within Cape Fear, Tar River, and Neuse Rivers (North Carolina) where the ACP crosses these river systems or provide correspondence form the NOAA biologists that this species would not occur in these systems.

g. Confirm that location of remaining metapopulation of Saint Francis Satyr; text indicates that the metapopulation is located at Fort Bragg, which is 14 miles away, but states that there is an extant population 7 miles away.

h. Clarify if Madison Cave Isopod presence would be assumed in karst features are located along the route or if follow-up species-specific surveys would be conducted.

i. For each plant species, provide sufficient justification for dismissing surveys in the counties where species may occur. Throughout the sections on plants in the draft BA, counties are cited as having occurrences of federally listed plant species. Some of these counties are surveyed, and others are dismissed and not surveyed. For example, the draft BA states that the swamp pink may occur in Augusta and Nelson Counties along the ACP route, yet surveys were conducted in Augusta County but not in Nelson County without justification provided.

j. Include a discussion on potential noise impacts on federally listed species due to installation of HDDs, blasting, and other project activities. Include expected levels of noise from project activities, mitigation measures that would be employed, and the expected noise levels with mitigation.

Resource Report 4 – Cultural Resources

Note that all material filed with the Commission containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: **"CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE."**

76. File all correspondence with agencies and Indian tribes not previously filed with the Commission, and provide updated summary consultation tables.

77. Atlantic indicated that it consulted with the Shenandoah Valley Battlefields Foundation; file resulting correspondence.

78. Provide the West Virginia State Historic Preservation Office (SHPO) correspondence/agreement documenting that survey of the Burch Ridge and Hastings Compressor Stations is not necessary.

79. Consult with the West Virginia and Virginia SHPOs to identify measures Atlantic would use avoid the three cemeteries identified within the ACP pipeline corridor in West Virginia (46RD722, 467UP331, 46LE74), six cemeteries in Virginia (44BK0365, 44BK0366, 44NT0312, 44NT0313, 44SK0555, 44SK0556), and any other cemeteries within the project area of potential effects (APE). Identify local laws and guidelines regarding treatment of graves and cemeteries, as well as methods other than mechanical stripping during surveys for the discovery of unmarked graves. File the resulting correspondence.

80. Consult with the Pennsylvania, West Virginia, and North Carolina SHPOs regarding the need to survey for deeply buried archaeological sites for the ACP and SHP APE in each respective state.

81. Assess the effects to historic properties or potential historic properties at the location selected for crossing the James River in Nelson County, Virginia, including historic districts listed in or eligible for listing in the National Register of Historic Places (NRHP).

82. Provide a table of estimated dates for filing outstanding cultural resources reports with the FERC, and submitting reports to the SHPOs.

83. We received numerous comments in the record about possible historic properties in the ACP project APE, including comments from individuals, county historical societies, and local interest groups. Assess potential project effects to the following (for properties that are outside the APE, indicate how far):

    a. Property owners along Gully Tavern Road in Rice, Virginia commented regarding the location of a family cemetery and unmarked graves on the

property in relation to the ACP project APE (see FERC accession number 20151007-5002).

b. Robert Carter of the Nelson County Historical Society commented on project effects to historic properties in Nelson County and the recommended NRHP-eligible Warminster Rural Historic District (see for example FERC accession number 20150427-5394)

c. Peter Brady and others, landowners of Nelson County Tax Parcel 5 A 1, at the border with Augusta County and the Blue Ridge Parkway, commented regarding the ruins of an 18th century mill, an 18th century cemetery, and historic buildings, and their proximity to the ACP project APE (see FERC accession number 20150427-0107).

d. The Virginia SHPO and Mary Louisa Urguhart Bryant commented regarding project effects to the NRHP-listed Jonathan Harper House (VADHR No. 007-0233), and the possibility that the boundaries of the historic property should be expanded to include the farm fields (see FERC accession number 20150817-0121). Consider potential project effects to the property, including effects from blasting.

e. Assess the adverse effects of the project on the architectural properties of the South Rockfish Rural Historic District in consultation with the Virginia SHPO, the Rockfish Valley Foundation, and other interested parties. Provide maps at a scale showing the relation between the project workspace and the architectural properties; include route identification (e.g., AP-1, AR) and mileposts on all maps.

f. The landowners of the Dutch Creek Community commented regarding the location of archaeological sites and historic standing structures and their proximity to the project APE (see FERC accession numbers 20150429-5033 and 20150423-5034).

g. Rebecca Daughtrey Smith commented that their house was historic and the property was part of a 1700s Kings Grant to the family (see FERC accession number 20150820-5007).

h. The Old Dominion Appalachian Trail Club commented regarding the location of the Lowe family cemetery and possible historic properties in proximity to the project APE (see FERC accession number 20150427-5085).

i. Landowner Arthur T. Goodloe commented regarding the location of Native American artifacts and his family mausoleum in proximity to the project APE. Assess the significance of any identified archaeological sites, and

address the possible effects to these and the family mausoleum, including effects from blasting (see FERC accession number 20150420-0043).

j. The Horizons Village Community commented regarding the Liza Marble site and its proximity to the project APE (see FERC accession number 20150421-5204).

k. The Shannon Farm Association commented regarding possible project effects to historic properties located on the Shannon Farm, including the historic Edward Cole's House, and any identified prehistoric sites (known from artifact collections on the Shannon Farm property) (see FERC accession number 20150428-5098).

l. An individual reported that that there was a cemetery on Tract 089 086 A046 in Virginia, located within 100 yards of the pipeline route (see FERC accession number 20150427-5433).

m. An individual commented that there was a cemetery with unmarked gravestones in Nelson County parcel 23A-19 (see FERC accession number 20150424-5297). Also from the same commenter, assess the historical significance of Routes 151 and 635, and possible project effects (see FERC accession number 20150424-5043).

n. A landowner reported stone fences on his property in Augusta County, Virginia. Determine the proximity of any stone fences and the project APE (see FERC accession number 20150428-0080).

o. Evaluate the historical significance of the excursion train that runs through the MNF, and possible project effects to it (see FERC accession number 209150413-0058).

p. Beverly McQuay commented regarding the location of unmarked slave cemeteries on her property and neighboring properties in the proximity of the project APE (see FERC accession number 20150316-0035).

q. Several individuals provided comments at public meetings and in letters filed on the docket regarding significant cultural resources in Yogaville, including six prehistoric villages and a Siouan burial ground. Assess project effects to the cultural resources in Yogaville (see for example FERC public meeting 20150521-4007; accession number 20150323-0054).

r. Karen Osborne commented regarding a slave graveyard on her property that she reports will be destroyed by the project (see FERC accession number 20150325-0033).

s. Individuals and The Norfolk County Historical Society of Chesapeake provided comments about the NRHP-listed historical community of Sunray in Chesapeake, Virginia and possible project impacts on it (see for example a letter from the Norfolk County Historical Society of Chesapeake, Virginia; FERC accession number 20150306-0015). Assess potential effects to the historic property (including, but not limited to, visual effects, impacts from access road use, water drainage impacts, etc.).

t. An individual commented about the historical significance and the presence of pioneer graves at Dividing Waters Farm, a property being considered for conversion to a state park by Virginia, as noted by Dominion in Resource Report 10 of its application. Assess the historical significance of the property and assess the potential project effects (see FERC accession number 20450427-5021).

u. K. Tucker commented that her property contains historic structures, a family cemetery, and Native American artifacts (see FERC accession number 20150429-5049).

v. Assess project effects to a small cemetery near the Paul Wolfe Shelter, as reported in comments filed with us (see FERC accession number 20150422-0012).

w. A landowner in North Carolina commented that Native American artifacts are present on her property, which is in the project route. Consider the historical significance of any sites identified in this property, and potential project effects to them (see FERC accession number 20150420-0082).

x. Landowners near Lindsay Road in Nash County, North Carolina commented that there are unmarked graves in the vicinity, including Native American, that may be impacted by the project (see FERC accession number 20150925-0022).

y. Dion Smith commented regarding the possible historical significance of his property which is located near other properties identified as significant (see FERC accession number 20151005-0034).

z. Karen Grecus commented that there was a fenced grave and other unmarked graves in the vicinity of MP 184 on the Warminster/Swift Island Route Variation (see FERC accession number 20151123-0119).

84. We received several comments about possible effects on historic linear resources in the ACP APE in Virginia, such as the Appalachian Trail, the Howardsville and Rockfish Gap Turnpike, the John Smith Trail, Native American trails, and a historic stagecoach road. Consult within the Virginia SHPO, the National Park

Service (NPS), other agencies, and local informants as appropriate regarding the location of linear historic resources in the project APE, and possible project effects to them.

Resource Report 5 – Socioeconomics

85. The "secondary socioeconomic impact area" in section 5.1 has been defined as the Counties and Cities within a 35-mile radius of the proposed ACP and SHP facilities. However, to provide a more meaningful analysis, evaluate potential impacts on communities that might be further than 35 miles from the project facilities. For instance, in rural areas, the 70-mile-wide corridor may not include larger cities where workers would be expected to find adequate lodging and services. In these areas, expand the potential impact area to include nearby communities, or provide rationale for using a 35-mile radius as the definition of the secondary socioeconomic impact area.

86. Section 5.2.2, footnote 6, defines commuting distance as a one-way commute of 90 minutes or less. Provide methodology used in developing the commuting distance boundary.

87. Provide the names and locations of the local union halls mentioned in section 5.2.2 within the defined commuting distance.

88. To address comments received, include the following information regarding hunting and fishing activities in the project area:

    a. Hunting and fishing seasons by state;

    b. A description of the economic impact of hunting and fishing activities in the project area; and

    c. Identify mitigations measures to minimize any impact on hunting and fishing activities in the project area.

89. Provide an estimate of <u>local</u> payroll spending during construction and operation of the SHP and ACP.

90. Section 8.2 of the Traffic and Transportation Management Plan states that the Blue Ridge Parkway would not be used to access the construction right-of-way or to deliver equipment and materials to and from contractor yards or the right-of-way during construction. Identify the measures that ACP would implement to prevent construction traffic from using the Blue Ridge Parkway during construction.

91. Identify and summarize road restrictions (e.g., frost or weight restrictions) that may hinder construction activities and the timeframes on which these restrictions would occur.

Resource Report 6 – Geological Resources

To be provided at a later date.

Resource Report 7 – Soils

92. Revise Appendix 7D to differentiate between construction and operational impact acres (temporary versus permanent impacts) for the proposed aboveground facilities.

93. Revise Appendix 7E to differentiate between construction and operational impact acres (temporary versus permanent impacts) for the proposed pipe storage and contractor yards.

94. Provide additional detail outlining soil characteristics for access roads identified in Appendix 7F. Include acreages by soil map unit and indicate whether each road is proposed as a temporary or permanent access road.

95. Provide additional details on the State/Commonwealth and local regulations or guidelines identified in section 7.4.1.4 that Atlantic and DTI would implement to minimize potential soil erosion and sedimentation.

96. Provide details on the additional temporary erosion control measures identified in section 7.4.1.4 that Atlantic and DTI will implement in the event that they are unable to complete final cleanup and installation of permanent erosion control measures within 20 days after backfilling the pipeline trench.

97. Provide details on any additional measures that may be taken to ensure successful revegetation of areas where liming or fertilizing may not be permitted.

Resource Report 8 – Land Use, Recreation, and Aesthetics

98. Continue to provide updates, as available, of consultations and negotiations with landowners or agencies identified by Atlantic and/or DTI in Resource Report 8, some examples of which are included in the requests below. These include, but are not limited to:

    a. planned developments (T.R. Lamm Subdivision, residential subdivision at the end of Davis Boulevard, Red Top Raw Water Transmission Main Project, etc.);

b. other special uses on USFS lands (Shenandoah Mountain Touring's Mountain Bike recreation events, Braley Pond Dam, Appalachian National Scenic Trail, etc.);

c. special interest areas identified in section 8.8; and

d. visual resources identified in section 8.11.

99. Clarify the specific aboveground facility locations where the microwave towers discussed in section 1.3.1.2 of Resource Report 1 would be installed. Provide a discussion of the dimensions of these facilities and any additional impacts they may have on land use, recreation, and/or the visual landscape of the area.

100. Provide FERC staff with a copy of any pending or supplemental responses to the USFS' letter dated July 30, 2015, as referenced in appendix 1Q of Resource Report 1. Examples include responses to comment numbers 65, 71, 92, 120, 128, 230, 235, 260, 273, etc., amongst others, where additional surveys or consultations are pending or ongoing.

101. Regarding the MNF and GWNF, address the following:

a. As stated in 16 United States Code (USC) 1604(i), "Resource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans." Further, as stated in the MNF's Land and Resource Management Plan (LRMP), "MP direction is designed to tier to Forest-wide direction" and as stated in the GWNF's LRMP, "Forestwide standards apply to the entire Forest unless superseded by specific management prescription area direction." Therefore, provide an analysis of the project's conformity with the forest-wide and prescriptive-specific goals, objectives, standards, and guidelines listed in each of the National Forests' respective LRMPs. This includes:

i. Forest-wide goals, objectives, and standards for resources listed in Chapter II (Management Direction and Integration) of the MNF's LRMP (2011);

ii. Management prescriptive-specific goals, objectives, and standards for resources listed in Chapter III of the MNF's LRMP (2011) for the management prescriptive areas affected by the project, including:

1. 13 – Mosaics of Wildlife Habitat;
2. 7E1 – Dispersed Recreation Areas; and
3. 4A – Appalachian National Scenic Trail;

iii. Forest-wide objectives and standards for resources listed in Chapters 3 and 4 (Forestwide Standards), respectively, of the GWNF's Revised LRMP (2014); and

iv. Management prescriptive-specific objectives and standards for resources listed in Chapter 4 (Management Prescriptive Areas) of the GWNF's revised LRMP (2014) for the management prescriptive areas affected by the project, including:

1. 3.0 – Vegetation Diversity Emphasis;

2. 4.1 – Spruce and Spruce-Hardwood Ecosystem Management; and

3. 6.1 – Wildlife Habitat Emphasis.

b. Provide evidence that the MNF and GWNF concur with Atlantic's conformity determinations for all applicable goals, objectives, standards, and guidelines.

c. Verify, based on MNF and GWNF consultation:

i. if the project would require an amendment to each respective National Forest's existing LRMP;

ii. if so, identify the specific goals, objectives, standards, and/or guidelines that require amending; and

iii. if not, provide copies of correspondence from the appropriate MNF and GWNF representative(s) that the project does not require an amendment and/or has been determined in conformance with the forests' respective LRMPs.

102. Provide sufficient information to analyze the potential impacts that a new route across the MNF and GWNF could have on land use, recreation, and visual resources. Ensure that the analysis includes:

a. revised land use, recreation, and visual construction and operation impacts (i.e., acres) information associated with the new route, including, but not limited to:

i. temporary and permanent rights-of-way;
ii. additional temporary workspace;
iii. access roads; and
iv. contractor and pipe yards;

b. copies of consultations with the National Forests regarding potential resources that could be affected by the new route;

c. the construction procedures that would be used along the new route;

d. the measures that Atlantic would implement to avoid or minimize land use, recreational, and visual impacts along the new route; and

e. as appropriate, provide equivalent information as other forest-specific data requests included within (e.g., data request nos. 101, 115, 124) for new areas affected the new route.

103. Regarding the Blue Ridge National Parkway, address the following:

a. As stated in 16 USC 460a-3, "In the administration of the Blue Ridge Parkway, the Secretary of the Interior may issue revocable licenses or permits for rights-of-way over, across, and upon parkway lands, or for the use of parkway lands by the owners or lessees of adjacent lands…as he may determine to be not inconsistent with the use of such lands for parkway purposes." Rights-of-way must be issued under legislative authority and are discretionary based on a finding that the proposed use is not incompatible with natural, cultural, or visual resources, the public interest, or park policies.

i. Verify if the project would be compatible with natural, cultural, or visual resources, the public interest, or park policies specific to the Blue Ridge Parkway.

ii. Provide copies of consultation with the NPS, Blue Ridge Parkway, representatives as appropriate concurring that the project would not be incompatible. If not compatible, identify the standards and/or policies identified by the NPS, Blue Ridge Parkway, affected by the project and not compatible.

iii. Provide copies of Atlantic's "Application Procedure for Right-of Way Permits" to the NPS, Blue Ridge Parkway.

b. Section 8.7.1.2 states that the AP-1 mainline would be located within the Scenic Character Management Zone and does not identify additional Management Zones affected. However, based upon a review of maps presented in the Blue Ridge Parkway Final General Management Plan/ Environmental Impact Statement (2013), the project would affect a Management Zone designated as Historic Parkway (page 68). The Historic Parkway Management Zone represents areas that emphasize protection and interpretation of the historic parkway corridor, which includes the road

prism and its original supporting structures and constructed landforms. The typical width of the parkway right-of-way averages 800 feet, but can be as narrow as 200 feet (page 65). Based on the varying width of the parkway right-of-way, verify if the project would also be located with the Historic Parkway Management Zone.

104. Regarding the Appalachian National Scenic Trail, address the following:

    a. Provide an update of Atlantic's consultation and coordination with the Appalachian Trail management partners.

    b. Identify any construction, restoration, or mitigation measures requested by the USFS, NPS, or the Appalachian Trail management partners, and clarify which measures Atlantic would adopt.

    c. Identify the status of Atlantic's proposal to cross the trail and conformance with the eight criteria listed in the Appalachian Trail Conservancy's Policy on Pipeline Crossings of the Appalachian Trail (2015).

105. Provide a copy of Atlantic's draft Plan of Development and/or draft Construction, Operations, and Maintenance Plan for federal land crossings. Ensure the plans clearly identify what measures apply to each federal land area. Note that for any construction measures requested by the land managing agency that conflict with the FERC staff's Plan or Procedures, describe how each proposed modification would provide equal or better environmental protection than the FERC staff's Plan and Procedures, or explain why the FERC staff's Plan or Procedures would be infeasible or unworkable based on project-specific conditions.

106. Section 8.2.3 states that appendix 8D includes the milepost location for each proposed access road; however, this information is missing. Provide a revised appendix 8D that lists the milepost associated with each proposed access road.

107. Update appendix 8D to include a brief statement of the proposed improvement(s) or modification(s) to each applicable road.

108. Identify from water appropriation sources and the estimated water needs required to accommodate wash stations and equipment cleaning measures discussed in Atlantic's and DTI's Invasive Plant Species Management Plan.

109. Provide an update of Atlantic's consultations with the MNF, GWNF, and state agencies, as referenced in sections 8.7.1.1 and 8.8.9, regarding:

    a. prevention of off-highway vehicle use and any additional locations where prevention measures are recommended;

    b. decreasing risks associated with increased fuel loading;

c. beneficial use of woody material; and

d. operational roads that may be used for USFS use following construction.

110. Regarding the USACE conservation easements crossed by the project as discussed in section 8.7.4.1:

a. identify for what purpose the conservation easements exist;

b. verify that the terms and conditions of the easement agreement do not restrict utility rights-of-way;

c. if restrictions exist, describe how Atlantic would secure an easement given these restrictions; and

d. while a permit requirement has been identified, clarify that the project would not remove the easements from any applicable programs.

111. Identify if Atlantic would avoid the FWS conservation easement along the AP-1 mainline discussed in section 8.7.4.1. If not:

a. identify for what purpose the conservation easement exists;

b. verify that the terms and conditions of the easement agreement do not restrict utility rights-of-way;

c. if restrictions exist, describe how Atlantic would secure an easement given these restrictions; and

d. clarify that the project would not remove the easement from any applicable programs.

112. Provide an update of the conservation easements crossed in Virginia as discussed in sections 8.7.4.2 and 8.7.4.3 that addresses the following:

a. Identify for what specific purpose each conservation easement exists.

b. Identify which easements prohibit pipeline and other utility easements, and describe how Atlantic would secure an easement given these restrictions.

c. Describe how Atlantic would avoid or minimize impacts on the resources affected by the project at each conservation easement.

d. Describe how Atlantic would compensate the landowner for any lost incentives under the conservation easement agreements from impacts of the project.

e. Regarding the Tobacco Heritage Trail Conservation Easement, describe how Atlantic would avoid or mitigate for impacts on the trail, including a discussion considering crossing the feature using the bore or HDD method.

113. Regarding the Fort Pickett Military Reservation, address the following:

a. Section 8.7.4.3 states that the U.S. Army has been acquiring easements surrounding the Fort Pickett Military Reservation under the Army Compatible Use Buffer Program and in collaboration with the Virginia Army National Guard and Ward Burton Wildlife Foundation. While table 8.7.4-2 lists properties crossed and owned by the Ward Burton Wildlife Foundation, clarify if any easements are crossed or affected that are owned by:

i. the U.S. Army; and
ii. the Virginia Army National Guard.

b. Clarify if the proposed project facilities would be compatible with:

i. Fort Pickett's military mission within the 3- to 4-mile buffer zone surrounding the area that limits certain types of development (e.g., cell phone towers, urban sprawl, or light pollution); and

ii. properties and/or easements owned by the Ward Burton Wildlife Foundation, U.S. Army, and/or the Virginia Army National Guard.

c. If incompatible, describe the reasons why and how Atlantic would secure an easement given these restrictions.

114. Provide an update regarding the Spruce Creek Resort and Market with details regarding the status of its special use permit submitted in August 2015, as discussed in section 8.6, and the project schedule described by the developer Richard Averritt in a comment letter dated September 22, 2015.

115. Provide a discussion of the Recreation Opportunity Spectrum (ROS) classes affected by the project on the MNF and GWNF. Include a table that lists by milepost the specific ROS classes crossed and construction and operation impacts (acres) resulting from the project. Identify any construction, restoration, or mitigation measures identified by the MNF or GWNF specific to ROS area impacts and clarify if Atlantic would adopt these measures.

116. Provide a discussion of direct and indirect impacts on recreation resulting from project-related construction and operation impacts on USFS "demand species," which are defined as animal species commonly associated with recreation (e.g., hunting, fishing, viewing).

117. Section 8.8 states that one road along AP-1 associated with Wintergreen Resort, Fortunes Ridge Road, would be crossed. However, the road and crossing method is not listed in table 5G of Resource Report 5. Resolve this discrepancy. If the road would be open cut, identify the mitigation measures that would be implemented to maintain visitor access to Wintergreen Resort.

118. Provide an evaluation of the feasibility of using the bore or HDD crossing method for all trail (land and waterbody) crossings that are proposed to be crossed using the open-cut method.

119. It is acknowledged that Atlantic's response to Comment No. 172.d on Draft Resource Report 8 notes that no specific detour or portage plans for special interest areas have been identified to date; however, the possibility of such mitigation is noted several times throughout Resource Report 8 based on on-going consultations with the land-managing agency or steward. Examples include Trail GWJ-112, Trail GWJ-447, Trail GWJ-650, Allegheny Trail, West Fork Rail-Trail, Shenandoah Mountain Trail, James River Loop, Rockfish Valley Trail, Roanoke River Paddle Trail, etc., where the open-cut method would be used to cross these features. Therefore, for any special interest areas that would be closed for construction, commit to providing a site-specific crossing plan. At a minimum, provide the following on each plan:

    a. feature identification;

    b. milepost location;

    c. the construction and permanent workspace;

    d. locations of the detour or portage;

    e. where signage would be placed;

    f. the approximate timeframe in which the detour or portage would be established; and

    g. an agency and Atlantic or DTI contact number.

    Provide evidence that each plan was developed in consultation with and approved by the appropriate land-managing agency or steward.

120. In consultation with the NPS, identify the specific mitigation measures that would be implemented at crossings of waterbodies listed on the Nationwide Rivers Inventory to promote retention of the waterbody's outstandingly remarkable values, as discussed in section 8.8.11. Provide copies of agency correspondence as appropriate.

121. Provide a site-specific Blasting and Monitoring Plan in coordination with the Augusta County Service Authority for the area near the regional landfill, as referenced in section 8.9.2, Augusta County, Virginia.

122. Clarify if Atlantic and DTI would be consistent with, and not require a modification to, the local comprehensive plans and zoning or planning ordinances discussed in section 8.9. If not, describe why and the proposed change(s) to the plans or ordinances.

123. Appendix 8J lists three crossings of the U.S. Highway 250 National Scenic Byway (Staunton-Parkersburg Turnpike National Scenic Byway); however, table 8.11.2-2 identifies six crossings. Also, section 8.8.1 references a crossing of the byway at MP 79.1, which does not appear in appendix 8J or table 8.11.2-2. Resolve these discrepancies.

124. Provide a copy of Atlantic's visual assessment(s) and/or visual impact analysis(es) that, at a minimum, includes:

    a. identification of those viewsheds (as observed from key observation points, sensitive viewing platforms, etc.) potentially affected by the project as determined in consultation with the appropriate land-managing agency and in response to scoping comments;

    b. a description of the existing condition of the view from those locations;

    c. a visual simulation of the changes in view from the key observation points, sensitive viewing platforms, etc., that are highly sensitive public viewing locations;

    d. an estimation of the degree to which the existing visual condition would change due to constructing and operating the project (visual impact intensity);

    e. an evaluation of the significance of the possible impact at each location;

    f. a description of the mitigation measures that would be implemented at each location to avoid or reduce impacts, as determined in consultation with the appropriate land-managing agency and to promote maintenance of the existing visual quality; and

    g. other information required by the land-managing agency.

125. Section 8.11.2.1 (Monongahela National Forest) states that medium visual integrity equates to "slightly-to-heavily altered." However, moderate visual integrity according to the Handbook for Scenery Management Systems (Agricultural/Forest Service Handbook 701, 1995, page 2-4) is defined as

"landscapes where the valued landscape character appears slightly altered. Noticeable deviations must remain visually subordinate to the landscape character being viewed." Explain or rectify the use of "heavily altered" in Atlantic's definition.

126. Provide a discussion and justification explaining why other Scenery Management System directions as listed in each LRMP do not apply to the project. For example, SM01 associated with the MNF.

127. Identify what treatments, as listed in section 8.11.2.1 (George Washington National Forest) and section 8.11.2.1 (Monongahela National Forest), Atlantic would adopt when crossing areas designated with a Scenic Integrity Objective of Low, Moderate, and High. Identify the specific locations of where these treatments would be applied.

128. Identify the visual mitigation measures that would be adopted for the following features, as discussed in sections 8.11.2 and 8.11.3:

    a. scenic byways, backways, and bikeways;

    b. designated scenic rivers such as the Laurel Fork (AP-1), Appomattox River (AP-1), Nottoway River (AP-1), and Meherrin River (AP-1 and AP-3) crossings, as identified in consultation with the VDCR; and

    c. aboveground facilities, as identified in consultation with local jurisdictions.

129. Regarding appendix 8J:

    a. include the following features:

        i. the Shenandoah Mountain Trail; and
        ii. the Rockfish Valley Trail;
        iii. Spruce Creek Park; and
        iv. any additional special interest areas discussed in section 8.8.

    b. update the table to identify:

        i. the crossing method proposed at each feature; and

        ii. the distance the pipeline would be collocated with another right-of-way through the feature.

    c. Footnote "c" in appendix 8J states that "N/A" equates to a feature not being crossed but instead within 0.25 mile of the project. However, some features list "N/A" for a crossing length but have acreages listed for construction and operation. For example, it appears that a few North

Carolina Ecosystem Enhancement Program easements would be impacted by construction and operation, but are not crossed by the pipeline.

i. Explain the impacts listed.

ii. For features that are not crossed by the pipeline but would be affected by construction and operation, and are not already addressed in the text, provide a discussion equivalent to other special interest areas.

130. Provide a map with the locations of the 5 scenic byways and one scenic bikeway crossed by the AP-1 mainline in West Virginia and the 12 scenic byways crossed by the AP-1 mainline in Virginia, as discussed in sections 8.11.2.2 and 8.11.2.3, respectively.

131. Several discrepancies exist between the site-specific residential plans in appendix 8G and table 8.5-1. These examples include, but are not limited, to the following. Resolve or explain these discrepancies and provide revised site-specific residential plans.

a. Starting with drawing no. LL-07-001-A008 (page 8G-11), include the milepost location and address on each site-specific plan consistent with the plans on previous pages.

b. The milepost locations on the site-specific plans do not match the milepost locations listed in table 8.5-1. Resolve this discrepancy.

c. Multiple plans do not appear to be listed on table 8.5-1, such as drawing nos. LL-07-001-A079 (page 8G-13), LL-08-001-0007 (page 8G-18), LL-14-120 (page 8G-25), LL-18-080 (page 8G-30), LL-18-196 (page 8G-31), LL-19-021 (page 8G-32), LL-26-135 (page 8G-48), etc.

d. Residences/commercial structures appear on table 8.5-1 that are not included in appendix 8G, such as that at MP 250 along AP-1.

e. Note #2 on each site-specific plan states that safety fence would be installed a minimum of 15 feet from a residence. Clarify if this requirement also applies to other structures such as buildings.

f. Clarify if, within the indicated temporary topsoil segregation areas, existing trees would remain or be removed.

g. Verify if sheds and other residential structures within the permanent construction easement would be removed and relocated/replaced, such as that shown on drawing nos. LL-27-142-A022 (page 8G-63), LL-27-142-A026 (page 8G-65), LL-27-142-A028 (page 8G-66), etc.

h. Based on a review of table 2.1.3-2 of Resource Report 2, at least one water well is associated with a residence within 50 feet of the construction workspace at about MP 15.2 along TL-635. It appears the well may be indicated on the site-specific drawing but to add clarity, add a water well symbol to the legend.

Resource Report 9 – Air and Noise Quality

132. The amount of contemporaneous nitrogen oxides decrease reported in table 9.1.5-2 does not agree with that reported in the Mockingbird Hill Compressor Station Air Permit Application submitted to WVDEP on September 16, 2015. Resolve this discrepancy.

133. For each regulation in sections 9.1.5.2 to 9.1.5.7, clearly identify the applicable requirements and describe the proposed method of compliance for each applicable term. The analysis must include project-related activities at each new and modified compressor station, each new and modified M&R station, and each pipeline segment as applicable. For example, for New Source Performance Standards Subpart JJJJ, engines not certified by the manufacturer have specific testing and recordkeeping requirements. Clarify whether the engines would be certified, or, if the engines would not be certified, identify the testing and recordkeeping requirements that Dominion would employ to fulfill the requirements of this subpart.

134. Regarding New Source Performance Standards KKKK, describe how each turbine and associated equipment would be operated and maintained to be consistent with good air pollution control practices for meeting the emission limits of this subpart during startup, shutdown, malfunction, and temperatures below 0 degrees Fahrenheit.

135. Clarify whether 25 Pennsylvania Code §129.63 applies to any of the units that would be installed as part of the ACP or SHP. If applicable, describe how DTI and/or Atlantic would comply with the applicable requirements.

136. Provide a summary of the ongoing negotiations with WVDEP regarding the Rule 13 permit application for Compressor Station 1. Include changes to engineering, assumptions, etc.

137. Provide a summary of the ongoing negotiations with WVDEP regarding the Rule 14 permit application as submitted to WVDEP for the Mockingbird Hill Compressor Station. File the issued air permit with the Commission when available.

138. Provide dates for when the air permit applications for the two Dominion Virginia Power plants were/will be filed and confirm whether the ACP Brunswick and ACP

Greensville M&R stations are/were included in the applications. Also, provide the total facility potential to emit for each of the power plants.

139. For each new turbine identified in table 9.1.5-9, the carbon monoxide emission factors used to perform screening level modeling are lower than the emission factors used to calculate potential to emit. Resolve this discrepancy.

140. The estimated 2018 project emissions currently exceed the general conformity de minimus threshold for nitrogen oxides in the Eastern Piedmont Intrastate Air Quality Control Region. If any of emission estimates in a designated nonattainment or maintenance area exceeds the General Conformity applicability thresholds for a calendar year, provide the following information necessary for FERC staff to prepare a draft General Conformity determination to include as an appendix to the draft environmental impact statement for the Project:

    a. re-evaluate the accuracy of the construction emission estimates, if necessary; the emission estimates must be consistent 40 CFR 93.159(b); if emission estimates are revised, include all detailed supporting calculations, assumptions, and references;

    b. if general conformity is applicable, identify which method under 40 CFR 93.158(a) Atlantic would follow to demonstrate conformity. Provide all supporting documentation and detailed calculations as necessary (i.e., if purchasing offsets, provide documentation that such offsets are available within the nonattainment/maintenance region for the time period of the project; or if an emissions budget exists within the State Implementation Plan, provide documentation of the emissions budget and documentation of the state or local agency's concurrence that the project can be accommodated through this budget); and

    c. provide documentation of consultation with the local and/or state air quality agencies and the U.S. Environmental Protection regarding the method selected for demonstrating conformity, including any comments they provide.

141. The permit applications for the Mockingbird Hill Compressor Station, Compressor Station 1, and Compressor Station 2 (Buckingham Compressor Station) indicate a loading rack would be used to remove liquids from storage tanks. Identify the proposed method for emptying the Accumulator Tank (TK-1) and the Hydrocarbon Waste Tank (TK-2) at Compressor Station 3 and the Crayne and JB Tonkin Compressor Stations. For each compressor station, describe tank emptying emission potential and provide detailed supporting calculations for tank emptying emission.

142. For each compressor station, provide detailed emission calculations of fugitive dust generated from onsite truck traffic, including emissions from trucks engaged in chemical delivery and on-site AST unloading. Assume maximum annual throughput and provide both maximum annual emissions and maximum short-term emission rate. Identify and justify all equations and assumptions used.

143. The calculations for particulate emissions from unpaved road fugitives assume nine vehicles per day, 0.5 mile per vehicle, driven continuously for 10 hours per day for all construction sites. However, potential construction emissions from off-road engine combustion shows a wide variance in the number of vehicles to be used at each construction location. Resolve this discrepancy and justify why nine vehicles per day is an accurate representation of the worst case unpaved road fugitive emissions at each site.

144. Estimate the emissions of in tons per year from open burning. In addition, identify any state or local regulations or permits applicable for open burning.

145. Provide additional information about the Virginia counties and cities with ordinances prohibiting audible noise. If these ordinance requirements could infer an acceptable noise level (for example, no audible noise at residential property line), demonstrate how DTI would comply.

146. Confirm that construction activities would occur only during daytime hours. If nighttime construction activities would occur, provide a detailed discussion of the construction activities that would be conducted during nighttime hours.

147. Quantify noise increase attributable to construction activities in Nelson County, Virginia; Halifax County, North Carolina; and Cumberland County, North Carolina, and demonstrate that the noise impacts would be below the applicable local noise regulation. Identify the specific mitigation measures assumed for the analyses.

148. For the pending HDD noise studies, consolidate the results of these studies in a table identifying the project component, distance and direction to the nearest noise-sensitive areas (NSA) located within 0.5 mile of an HDD entry and exit site, existing ambient noise level at the NSAs, the estimated day-night noise level attributable to the HDD activities, the combined ambient noise level and HDD noise level at the NSA, and the potential noise increase. Specify which noise reduction measures would be implemented and the schedule for implementing the mitigation measures.

149. Provide noise level estimates, typical durations, and typical frequency (times per year) for the silenced (scheduled) and unsilenced (unplanned) blowdown events that may occur at each compressor station and other locations (e.g., valve sites)

that would potentially have blowdowns. Provide details of the "adequate mobile blowdown silencers" to be employed during each blowdown event.

150. The noise analyses performed for each compressor station identifies noise control measures required to ensure that continuous sound from each compressor station does not exceed day-night noise level of 55 decibels on the A-weighted scale at the nearest NSA. Section 9.2.4.3 specifies that air mufflers would be located between air handling units and compressor building walls. As identified in items 14.D of the Compressor Stations 1 and 2 noise analyses; item 12.D of the Compressor Station 3 noise analysis; 8.D of the Mockingbird and JB Tonkin Compressor Stations noise analyses; and item 7.D of the Crayne Compressor Station noise analysis, ventilation air inlet mufflers are required to be located in the walls of each of the proposed compressor buildings directly outside the air inlet fans. Specify whether these mufflers would be installed and utilized at each air inlet fan of each compressor station or provide an alternate method to ensure compliance with the 55 decibels on the A-weighted scale limit.

151. The noise analysis for Compressor Station 1 states that ultrasonic meters would be located in a building 200 feet northeast of the compressor buildings; however, the plot plan shows the meter building southwest of the compressor buildings. Resolve this discrepancy and adjust the noise analysis, as applicable.

Resource Report 10 – Alternatives

152. The single pipe scenario analysis indicates the (Mountain Valley Pipeline) MVP Project would include 217,200 horsepower (hp) at four compressor stations. In its application filed with the FERC, MVP states it would require 171,600 hp at three compressor stations. Revise the single pipe scenario analysis using MVP's current horsepower and compression requirements and ensure the number of compressor stations and approximate distance between compressor stations is accurate.

153. Clarify whether the single pipe option scenario 3 analysis includes a 48-inch-diameter internally coated pipeline and a maximum allowable operating pressure of 2,075 pounds per square inch. If the analysis does not include these criteria, provide an analysis using these criteria. To further assess this option, provide the following:

    a. identify the number of compressor units and stations that would be required;

    b. indicate if compressor stations could be placed outside USFS lands to meet this option's needs;

c. evaluate whether a 48-inch-diameter pipeline could be installed using the HDD method under the Appalachian National Scenic Trail and Blue Ridge Parkway; and

d. indicate if additional capacity would be available within the 48-inch-diameter pipeline.

154. Evaluate and optimize a pipeline route that utilizes MNF 5 and the conceptual southern route alternative that would avoid the Cheat and Back Alleghany Mountains, Shenandoah Mountain, designated and potential Wilderness Areas, National Recreation Areas, recommended wilderness study areas, and other sensitive public or resource areas within the MNF and GWNF, and optimizes the use of existing utility right-of-way to the extent practicable. Ensure that the comparative analysis utilizes current and defensible criteria and data to evaluate resource impacts. Criteria to analyze should include resources that are managed under each National Forest's LRMP. **Please note that we will not be able to consider construction and operation of any proposed action or alternative unless it complies with the National Forest's LRMP or Atlantic has documented that the USFS would amend a respective LRMP for activities deemed inconsistent with the LRMP.**

155. FERC acknowledges that Atlantic proposes to file its contingency plan for the Appalachian National Scenic Trail and Blue Ridge Parkway HDD crossing in December 2015. We request that any pipeline installation contingency(ies) include the following:

a. a full analysis of how the contingency action(s) would impact resources on private, USFS, or Blue Ridge Parkway lands;

b. an analysis on whether the contingency action(s) are consistent or appropriate with the relevant management prescriptions of the National Forest's LRMP, NPS management guidelines, and Appalachian Trail management guidelines; and

c. if the contingency action(s) are found inconsistent or not appropriate with the LRMP or management guidelines, identify the measures or mitigation that would be implemented to remain consistent or appropriate with the LRMP or management guidelines, or provide confirmation that the land managing agency(ies) would amend the LRMP or land management plans to allow the contingency action(s) to be constructed.

156. Evaluate a route variation and provide a table comparing the relevant environmental factors from approximate AP-1 MPs 159 to 165 that maximizes the use of pasture and agricultural land in the Rockfish Valley, minimizes ridgetop and forest impacts, and avoids or minimizes impacts on cultural and historic

properties, nature trails, waterbodies, the Spruce Creek Tributary Conservation Site, and planned developments (i.e., Wintergreen Resort Expansion and Spruce Creek Resort).

157. Evaluate an alternative route and provide a table comparing the relevant environmental factors that crosses the Appalachian National Scenic Trail and Blue Ridge Parkway near Interstate 64 that also avoids the Lyndhurst Source Water Protection Area.

158. Evaluate an alternative route and provide a table comparing the relevant environmental factors that crosses the Appalachian National Scenic Trail and Blue Ridge Parkway along Highway 56.

159. Evaluate a route variation and provide a table comparing the relevant environmental factors between AP-1 MPs 106.5 and 109 that sites the pipeline a greater distance from the residences and cabins in Wilson Hollow and along State Route 616.

160. Evaluate a route variation and provide a table comparing the relevant environmental factors between AP-1 MPs 170 and 172 that optimizes the use of pasture, agricultural, or open lands and minimizes impacts on forest land.

161. Evaluate a route variation and provide a table comparing the relevant environmental factors between AP-1 MPs 196 and 201 that utilizes existing electric transmission rights-of-way to the greatest extent practicable. FERC staff acknowledges that portions of variation may require deviation from the existing utility corridors to minimize impacts on existing residences.

162. Evaluate a route variation and provide a table comparing the relevant environmental factors between AP-1 MPs 255.8 and 259.3 that minimizes the number of Beaver Pond Creek crossings.

163. South of U.S. Highway 58, Brunswick Route Alternative 1 may hold an environmental advantage if collocation with existing rights-of-way were optimized.

    a. Evaluate an alternative to Brunswick Route Alternative 1 that would collocate with the north-south trending electric transmission right-of-way south of U.S. Highway 58.

    b. Provide a table comparing the relevant environmental factors of the new route alternative to Route Alternative 2 and the baseline route. Include the number of landowners that would be affected by each route in the comparatives analysis.

c. Based on the new comparatives analysis, provide rationale for Atlantic's selection of the new route alternative, Route Alternative 2, or the baseline route.

164. For data requests 156 to 163 above, ensure that the comparatives analysis includes assessment of the following criteria:

a. total length of corresponding segments;
b. length adjacent to existing utilities or roadways;
c. number of roadways crossed;
d. number of property owners affected;
e. number of residences within 50 and 125 feet of the proposed pipeline;
f. length of emergent, shrub, and forested wetlands crossed;
g. number of intermittent, perennial and major waterbodies crossed;
h. forest land, interior forest land, and agricultural land crossed;
i. number of eligible or potentially eligible cultural resource sites crossed;
j. number of battlefields crossed;
k. federal and state lands crossed, special interest lands crossed;
l. number of public trails crossed;
m. length of karst geology crossed;
n. shallow depth to bedrock crossed;
o. length of steep slope (30 degrees or greater) crossed;
p. length of side slope (30 degrees or greater) crossed;
q. length of moderate to high landslide susceptible land crossed; and
r. any other relevant criteria that would factor into route selection.

165. Atlantic's assessment of the Progress Energy Carolinas Collocation Major Route Alternative identified impact reductions on eight resources in comparison to the baseline route and an increase in impacts on two resources, forested and emergent wetlands. Additionally, based on aerial photography, the alternative appears to reduce the number of affected landowners and a significant amount of forested wetland appears to be managed for timber production. Provide rationale for how the impacts on forested wetland outweighed those of the other resources in Atlantic's selection of the baseline route or adopt the alternative.

166. When paralleling existing utility rights-of-way, the route and workspace configuration for the AP-3 pipeline is frequently offset from existing utility rights-of-way, or is designed to overlap entirely with the existing utility (i.e., the centerline of the pipeline would be placed under existing transmission towers). Clarify if the design of the AP-3 pipeline route and workspace has been finalized. If additional design has been completed or is anticipated, file updated resource impact information, tables, maps, alignment sheets, and other relevant project information that depict and present the final project design.

167. The WVDNR has indicated that the SHP route through the Lewis Wetzel Wildlife Management Area requires further planning and design. Provide documentation of consultation with the WVDNR identifying appropriate mitigation or minimization measures for the Lewis Wetzel Wildlife Management Area if avoidance is not practicable.

Resource Report 11 – Reliability and Safety

168. Title 49 CFR Part 192 requires a pipeline operator to establish a written emergency plan that includes procedures to minimize the hazards in a natural gas pipeline emergency. Detail the measures that Atlantic would include in its emergency plan to account for ingress and egress at the Wintergreen Resort in the case of a natural gas pipeline emergency.

Document Content(s)