ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE
Docket Nos. CP15-554-000 &
CP15-554-001

and

DOMINION ENERGY
TRANSMISSION, INC.
SUPPLY HEADER PROJECT
Docket No. CP15-555-000

Supplemental Information
June 2, 2017

Prepared by

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1.0 RESPONSES TO STAFF RECOMMENDATIONS

1.1 Staff Recommendation 77 – Construction Footprint on U.S. Forest Service Lands

Staff Recommendations 77b and 77c of the Draft Environmental Impact Statement for the Projects directed Atlantic Coast Pipeline, LLC (Atlantic) to file locations where an additional 25 feet of workspace will be required for full width topsoil segregation on U.S. Forest Service (USFS) lands and provide updated construction impact information for environmental, biological, and cultural resources based on these changes. Atlantic continues to work with USFS staff through the Construction, Operations, and Maintenance Plan process to identify requirements for topsoil segregation in the Monongahela and George Washington National Forests. A letter identifying locations where Atlantic is committing to conducting topsoil segregation of the trenchline excavation and an additional 25 feet of workspace will be required to accommodate topsoil segregation on USFS lands was provided to the USFS and FERC on May 26, 2017 (FERC Accession Number 20170526-5257), fulfilling Staff Recommendation 77b.

No wetlands or waterbodies were identified within the new topsoil segregation workspaces during field surveys.

Six of the topsoil segregation areas would be near known locations of federally listed species, locally rare, and/or Regional Forester's Sensitive Species (TES), including TES plants and mammals (see Table 1). Several potential issues should be considered regarding the placement and management of the topsoil segregation areas where they occur near TES species. Where the topsoil segregation areas are up-gradient of TES populations and/or suitable habitat, erosion control measures would need to be applied to avoid the potential risk of stormwater runoff adversely affecting TES species. A small amount of potential forest habitat near known suitable habitat could be affected over the long term where additional trees would be removed to accommodate the additional 25-foot topsoil segregation area. Some TES species may be more tolerant of the subsequent changes in light regime and microclimate. Lastly, invasive species are prevalent in several areas (see Table 1); handling topsoil infested with invasive weeds, or placing clean topsoil into an area infested with invasive weeds, could result in the spread of invasive weeds into TES populations and/or suitable habitat and reduce the ability for TES and native plants to reestablish. Invasive weed control would need to be implemented prior to topsoil removal and following topsoil replacement, and the area may need to be immediately revegetated with a cover crop and native species to help prevent the reestablishment of invasive weeds. Herbicide applications near TES plants would need to be carefully applied in order to avoid damage to these plants.

In most cases, the benefit of preserving and replacing the topsoil, which would contain TES and other native plant seed banks along with the necessary soil conditions to facilitate habitat reestablishment, would likely outweigh the potential risks of storing topsoil close to TES populations and/or suitable habitat, the risk of invasive weed spread, and the loss of additional forest habitat.

Table 1, below, contains a summary of the topsoil segregation areas relative to TES species, and potential impacts to TES species from topsoil segregation.

Six of the seven new topsoil segregation workspaces are located in areas that have been studied for cultural resources and the USFS has concurred that no further study is required. The seventh workspace (MPs 80.4 to 80.6) extends outside of the current study corridor and will require additional surveys. Previous shovel testing conducted in areas adjacent to the seventh workspace did not identify any cultural resources.

Resource impact tables summarizing the incremental impacts of the additional 25 feet of workspace for topsoil segregation are provided in Appendix A. These tables, along with the discussions above, fulfill Staff Recommendation 77c.

Table 1

Potential Effects of Topsoil Segregation Areas on TES [1]

Topsoil Segregation Area (MP) | NFS	Nearest TES and/or TES Habitat to Topsoil Segregation Area (TSA) [2]	Invasive Weed Status	Survey Status (TES, Wetland, and Cultural)
73.4–73.6 MNF	Roan Mountain sedge (*Carex roanensis*) (RFSS) [3] in and adjacent to the right-of-way, approximately 250 feet NW and down-gradient of the TSA.	None found	T&E: Complete Wetland: Complete Cultural: Complete
80.4–80.6 MNF	Small whorled pogonia (*Isotria medeoloides*) (federally listed), approximately 100 feet from the right-of-way, and 250 feet SW and down-gradient of the TSA on the far side of the right-of-way.	None found	T&E: Complete Wetland: Complete Cultural: Pending in route adjustment area
82.6–83.0 MNF	White alumroot (*Heuchera alba*) (RFSS), in and adjacent to the right-of-way, approximately 200 feet W and down-gradient of the TSA. Eastern spotted skunk (*Spilogale putorius*) (RFSS) high quality forest habitat, in the right-of-way and within and adjacent to the TSA.	Prevalent (MPs 82.6 to 83.8); does not occur at <MP 82.5	T&E: Plant survey pending on PY 06A Wetland: Complete Cultural: Complete
83.2–83.4 MNF	Appalachian oak fern (*Gymnocarpium appalachianum*) (RFSS), adjacent to the right-of-way and approximately 250 feet east and side- to up-gradient of the TSA, same side of the right-of-way	Prevalent (MPs 82.6 to 83.8)	T&E: Plant survey pending on adjacent AR 05-001-E064.AR2 Wetland: Complete Cultural: Complete
83.6–83.9 MNF	Eastern small footed bat (*Myotis leibii*) (RFSS) rocky outcrop roosting habitat, outside of the right-of-way and approximately 500 feet S and down-gradient of the TSA. American ginseng (*Panax quinquefolius*) (locally rare), in and adjacent to the right-of-way and approximately 500 feet W and on the opposite slope of the TSA.	Prevalent (MPs 82.6 to 83.8)	T&E: Plant survey pending on adjacent AR 05-001-E064.AR2 Wetland: Complete Cultural: Complete
121.3–122.3 GWNF	American vetch (*Vicia americana* ssp. *americana*) (locally rare), previously found in the area containing the TSA, although plants can no longer be found.	Limited (along access road)	T&E: Complete Wetland: Complete Cultural: Complete
122.7–122.8 GWNF	None nearby	None found	T&E: Complete Wetland: Complete Cultural: Complete

[1] TES = Federally threatened or endangered and sensitive species (including locally rare species and Regional Forester's Sensitive Species)

[2] TES habitat considered includes moderate- and high-quality TES habitat (no low-quality TES habitats)

[3] RFSS = Regional Forester's Sensitive Species

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APPENDIX A

Resource Impact Tables for Topsoil Segregation Areas in the National Forests

TABLE 2.2-1

Land Requirements of the Atlantic Coast Pipeline [a]

Project/Component	Total Construction (acres)	Total Operations (acres)
Atlantic Coast Pipeline		
Additional Temporary Workspace		
AP-1	8.9	0.0

[a] Includes newly identified additional temporary workspace for topsoil segregation in the National Forests.

TABLE 2.2-2

Land Requirements of the Atlantic Coast Pipeline on National Forest System Lands [a]

National Forest/Facility/Component	Total (acres)	
	Construction	Operation
Monongahela National Forest		
Additional Temporary Workspace	5.6	0.0
George Washington National Forest		
Additional Temporary Workspace	3.3	0.0

[a] Includes newly identified additional temporary workspace for topsoil segregation in the National Forests.

TABLE 4.2.2-1

Summary of Soil Characteristics Affected by the Atlantic Coast Pipeline (in acres) [a, b]

	Highly Water Erodible [c]		Highly Wind Erodible [d]		Hydric [e]		Compaction Prone [f]		Stony/Rocky [g]		Shallow to Bedrock [h]		Poor Revegetation Potential [i]		Prime Farmland [j]		Farmland of Statewide Importance [k]	
Project	Const.	Op. [l]	Const.	Op. [l]	Const.	Op. [l]	Const.	Op. [l]	Const.	Op. [l]	Const.	Op. [l]	Const.	Op. [l]	Const.	Op. [l]	Const.	Op. [l]
ATLANTIC COAST PIPELINE																		
West Virginia																		
Pipeline Right-of-Way	4.1	--	0.0	--	0.0	--	0.0	--	5.6	--	5.6	--	5.6	--	0.0	--	0.0	--
Virginia																		
Pipeline Right-of-Way	3.3	--	0.0	--	0.0	--	0.0	--	3.3	--	3.3	--	3.3	--	0.0	--	0.0	--

[a] Includes newly identified additional temporary workspace for topsoil segregation in the National Forests. Soil may have more than one characteristic.

[b] Data from SSURGO Databases.

[c] Includes soils with a slope >15% or soils with a K value of >0.35 and slopes greater >5%.

[d] Includes soils in wind erodibility group designation of 1 or 2.

[e] Includes soils that are classified as hydric by SSURGO.

[f] Includes soils in somewhat poor to very poor drainage classes with surface textures of clay loam and finer.

[g] Includes soils with a cobbley, stony, bouldery, shaly, very gravelly, or extremely gravelly modifier to the textural class of the surface layer and/or that have a surface layer that contains greater than 5 percent by weight rock fragments larger than 3 inches.

[h] Includes soils identified with bedrock at a depth of 5 feet or less from the surface.

[i] Includes soils with a non-irrigated land capability classification of 3 or greater.

[j] Includes soils that meet the prime farmland or prime farmland if a limiting factor is mitigated.

[k] Includes soils classified as farmland of statewide importance by SSURGO.

[l] Construction-related impacts on soils in the pipeline right-of-way would be temporary and localized to the construction workspace and would be minimized through the use of the construction and restoration plans summarized above and discussed throughout this EIS. Therefore, operational impacts to soils within the pipeline right-of-way are not presented in this table.

TABLE 4.2.2-2

Summary of Topsoil Depths and Slope Classes within the Atlantic Coast Pipeline (in acres) [a]

Project, State or Commonwealth, Component	Topsoil Depth (inches) [b]					Slope Class (percent) [c]					
	0-6 inches	>6-12 inches	>12-18 inches	>18 inches	Not Rated	0-5	>5-8	>8-15	>15-30	>30	Not Rated
ATLANTIC COAST PIPELINE											
West Virginia											
Pipeline Right-of-Way	5.3	0.3	0.0	0.0	0.0	0.0	0.0	1.5	3.2	0.9	0.0
Virginia											
Pipeline Right-of-Way	1.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.9	0.0

[a] Includes newly identified additional temporary workspace for topsoil segregation in the National Forests.

[b] Topsoil depths were calculated using the depth of the uppermost soil horizon of the dominant soil within each map unit as outlined in the SSURGO databases. Not all soil map units in the SSURGO databases have been designated a depth to the upper and lower boundaries of each soil horizon; in these cases, soils were classified as "Not Rated."

[c] Slope classes were assigned using the representative slope value of the dominant soil within each map unit as outlined in the SSURGO databases. Not all soil map units in the SSURGO databases have been designated a representative slope value; in these cases, soils were classified as "Not Rated."

TABLE 4.2.7-1

Summary of Soil Characteristics Affected by the Atlantic Coast Pipeline (in acres) [a]

	Highly Water Erodible [b]		Highly Wind Erodible [c]		Hydric [d]		Compaction Prone [e]		Stony/Rocky [f]		Shallow to Bedrock [g]		Poor Revegetation Potential [h]		Prime Farmland [i]		Farmland of Statewide Importance [j]	
Project	Const.	Op.	Const.	Op.	Const.	Op.	Const.	Op.	Const.	Op.	Const.	Op.	Const.	Op.	Const.	Op.	Const.	Op.
MONONGAHELA NATIONAL FOREST																		
Pipeline Right-of-Way	4.1	0.0	--	--	--	--	--	--	5.6	0.0	5.6	0.0	5.6	0.0	--	--	--	--
GEORGE WASHINGTON NATIONAL FOREST																		
Pipeline Right-of-Way	3.3	0.0	--	--	--	--	--	--	3.3	0.0	3.3	0.0	3.3	0.0	--	--	--	--

[a] Includes newly identified additional temporary workspace for topsoil segregation in the National Forests. Soil may have more than one characteristic. SSURGO data used throughout. "--" values in the table denote that no SSURGO map units meeting the outlined criteria for a given soil characteristic were found on Federal Lands.

[b] Includes soils with a slope >15% or soils with a K value of >0.35 and slopes greater >5%.

[c] Includes soils in wind erodibility group designation of 1 or 2.

[d] Includes soils that are classified as hydric by SSURGO.

[e] Includes soils in somewhat poor to very poor drainage classes with surface textures of clay loam and finer.

[f] Includes soils with a cobbley, stony, bouldery, shaly, very gravelly, or extremely gravelly modifier to the textural class of the surface layer and/or that have a surface layer that contains greater than 5 percent by weight rock fragments larger than 3 inches.

[g] Includes soils identified with bedrock at a depth of 5 feet or less from the surface.

[h] Includes soils with a non-irrigated land capability classification of 3 or greater.

[i] Includes soils that meet the prime farmland or prime farmland if a limiting factor is mitigated.

[j] Includes soils classified as farmland of statewide importance by SSURGO.

TABLE 4.4.3-1

NLCD Cover Types Affected by Construction and Operation of the Atlantic Coast Pipeline [a]

	Deciduous Forest		Coniferous Forest		Mixed Forest		Scrub-Shrub		Grassland / Herbaceous		Barren Land		Woody Wetlands		Emergent Wetlands		Total	
Project/State/Component	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
ATLANTIC COAST PIPELINE																		
West Virginia																		
ATWS	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0
Virginia																		
ATWS	2.6	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0

[a] Includes newly identified additional temporary workspace for topsoil segregation in the National Forests.

TABLE 4.4.6-1

Terrestrial Vegetation Communities Crossed by the Atlantic Coast Pipeline on the Monongahela National Forest

NLCD Cover Type	Construction (acres)	Operation (acres)
Deciduous Forest	5.4	0.0

[a] Includes newly identified additional temporary workspace for topsoil segregation in the Monongahela National Forest.

TABLE 4.4.6-2

Terrestrial Vegetation Communities Crossed by the Atlantic Coast Pipeline on the George Washington National Forest [a]

NLCD Cover Type	Construction (acres)	Operation (acres)
Coniferous (Evergreen) Forest	0.5	0.0
Deciduous Forest	2.6	0.0

[a] Includes newly identified additional temporary workspace for topsoil segregation in the George Washington National Forest.

TABLE 4.8.1-1

Summary of Land Use Types Affected by Construction and Operation of the Atlantic Coast Pipeline (in acres) [a]

	Agriculture – Crops and Pasture		Agriculture – Tree Plantation/ Harvest Forest		Forest		Developed		Open		Wetland		Open Water		Total	
Project/State/Component	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.	Con.	Op.
ATLANTIC COAST PIPELINE																
West Virginia																
ATWS	0.0	0.0	0.0	0.0	5.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0
Virginia																
ATWS	0.0	0.0	0.5	0.0	2.6	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0

[a] Includes newly identified additional temporary workspace for topsoil segregation in the National Forests.

TABLE 4.8.9-6

Monongahela and George Washington National Forests Management Prescriptions Crossed by the Atlantic Coast Pipeline [a]

Management Prescription Area Name	Begin Milepost [b, c]	End Milepost [b, c]	Miles Crossed [b, c]	Impacts (acres) [d]	
				Construction	Operation
Monongahela National Forest					
3.0 – Vegetation Diversity	73.1	73.6	0.8	1.0	0.0
6.1 – Wildlife Habitat Emphasis	80.5	80.7	0.3	0.7	0.0
6.1 – Wildlife Habitat Emphasis	81.2	83.9	3.9	3.9	0.0
George Washington National Forest					
13 – Mosaics of Wildlife Habitat	121.1	123.2	2.1	3.3	0.0

[a] Impacts includes newly identified additional temporary workspace for topsoil segregation in the National Forests.

[b] Due to a route alternative adopted in April 2016, mileposts were adjusted such that the distance between them may not be 5,280 feet. As such, distances crossed cannot always be calculated by subtracting the end milepost from the begin milepost.

[c] The Begin and End Mileposts and Miles Crossed represent the entire Management Prescription Area segment where the new additional temporary workspaces are located.

[d] The impact from construction is of the newly identified additional temporary workspaces for topsoil segregation is confined to the area of the workspace, and does not extend for the entire miles crossed.

Sources: FS, 2011; 2014

APPENDIX D

Additional Temporary Workspace Associated with the Atlantic Coast Pipeline [a]

Facility/County, State/Commonwealth	Milepost	Additional Temporary Workspace ID	Total Impact (acres)	Justification
AP-1				
Pocahontas County, West Virginia				
	73.5	T-AP-1-073.470	0.9	Topsoil
	80.5	T-AP-1-080.458	0.9	Topsoil
	82.8	T-AP-1-082.777	1.7	Topsoil
	83.3	T-AP-1-083.330	0.9	Topsoil
	83.7	T-AP-1-083.735	1.2	Topsoil
Augusta County, Virginia				
	121.9	T-AP-1-121.916	3.0	Topsoil
	122.7	T-AP-1-122.735	0.3	Topsoil

[a] Includes newly identified additional temporary workspace for topsoil segregation in the National Forests.