ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE
Docket Nos. CP15-___-000
CP15-___-000
CP15-___-000

and

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

Resource Report 2
Water Use and Quality

Final

Prepared by

NATURAL RESOURCE GROUP

an ERM Group company

September 2015

Summary of Required Federal Energy Regulatory Commission Report Information

Minimum Filing Requirements:	Report Section Reference
1. Identify all perennial surface waterbodies crossed by the proposed project and their water quality classification. (§ 380.12(d)(1)) • Identify by milepost • Indicate if potable water intakes are within 3 miles downstream of the crossing.	Sections 2.2.2 and 2.2.5; Appendix 2A
2. Identify all waterbody crossings that may have contaminated waters or sediments. (§ 380.12(d)(1)) • Identify by milepost. • Include offshore sediments.	Section 2.2.4; Appendix 2B
3. Identify watershed areas, designated surface water protection areas, and sensitive waterbodies crossed by the proposed project. (§ 380.12(d)(1)) • Identify by milepost.	Sections 2.2.1, 2.2.5, and 2.2.8; Tables 2.2.1-1; Appendix 2C
4. Provide a table (based on NWI maps if delineations have not been done) identifying all wetlands, by milepost and length, crossed by the proposed project (including abandoned pipeline), and the total acreage and acreage of each wetland type that would be affected by construction. (§ 380.12(d)(1&4))	Tables 2.3.4-1, 2.3.4-2 and 2.3.4-3; Appendix 2H
5. Discuss construction and restoration methods proposed for crossing wetlands, and compare them to staff's Wetland and Waterbody Construction and Mitigation Procedures. (§ 380.12(d)(2))	Sections 1.5.2.2, 2.3.5, and 2.3.6
6. Describe the proposed waterbody construction, impact mitigation, and restoration methods to be used to cross surface waters and compare to the staff s Wetland and Waterbody Construction and Mitigation Procedures. (§ 380.12(d)(2)) • Although the Procedures do not apply offshore, the first part of this requirement does apply. Be sure to include effects of sedimentation, etc. This information is needed on a mile-by-mile basis and will require completion of geophysical and other surveys before filing. (See also Resource Report 3.)	Sections 1.5.2.1, 2.2.9, and 2.2.10
7. Provide original National Wetlands Inventory (NWI) maps or the appropriate state wetland maps, if NWI maps are not available, that show all proposed facilities and include milepost locations for proposed pipeline routes. (§ 380.12(d)(4))	Appendix 2G
8. Identify all U.S. Environmental Protection Agency (EPA) – or state-designated aquifers crossed. (§ 380.12(d)(9)) • Identify the location of known public and private groundwater supply wells or springs within 150 feet of construction.	Sections 2.1.2, 2.1.2, 2.1.4 and 2.1.4; Tables 2.1.1-1, 2.1.3-1, 2.1.3-2, 2.1.3-3, and 2.1.4-1; Figure 2.1

Additional Information:	Report Section Reference
Identify proposed mitigation for impacts on groundwater resources.	Section 2.1.6
Discuss the potential for blasting to affect water wells, springs, and wetlands, and associated mitigation.	Sections 2.1.6, 2.2.10, and 2.3.5
Identify all sources of hydrostatic test water, the quantity of water required, methods for withdrawal, and treatment of discharge, and any waste products generated.	Section 2.2.6; Table 2.2.6-1
If underground storage of natural gas is proposed, identify how water produced from the storage field will be disposed.	Not applicable
If salt caverns are proposed for storage of natural gas, identify the source locations, the quantity required, the method and rate of water withdrawal, and disposal methods.	Not applicable
For each waterbody greater than 100 feet wide, provide site-specific construction, mitigation, and restoration plans.	Section 2.2.2; Table 2.2.2-2; Appendix 2F
Indicate mitigation measures to be undertaken to ensure that public or private water supplies are returned to their former capacity in the event of damage resulting from construction.	Section 2.1.6
Describe typical staging area requirements at waterbody and wetland crossings.	Sections 2.2.10 and 2.3.5
If wetlands would be filled or permanently lost, describe proposed measures to compensate for permanent wetland losses.	Section 2.3.6
If forested wetlands would be affected, describe proposed measures to restore forested wetlands following construction.	Section 2.3.6
Describe techniques to be used to minimize turbidity and sedimentation impacts associated with offshore trenching, if any.	Not applicable

TABLE OF CONTENTS

2.0 RESOURCE REPORT 2 – WATER USE AND QUALITY 2-1
2.1 GROUNDWATER RESOURCES 2-4
2.1.1 Principal Aquifers 2-4
2.1.2 Designated Sole or Principal Source Aquifers 2-9
2.1.3 Water Supply Wells 2-9
2.1.4 Springs 2-14
2.1.5 Contaminated Groundwater 2-14
2.1.6 Groundwater Construction Related Impacts and Mitigation 2-17
2.1.7 Facility Operations 2-21
2.2 SURFACE WATER RESOURCES 2-22
2.2.1 Existing Watersheds 2-22
2.2.2 Waterbodies Crossed 2-22
2.2.3 Surface Water Standards and Classifications 2-25
2.2.4 Contaminated Waters or Sediments 2-29
2.2.5 Public Surface Water Intakes and Surface Water Protection Areas 2-29
2.2.6 Horizontal Directional Drill Mud Water Use 2-32
2.2.7 Hydrostatic Test Water and Fugitive Dust Control Water 2-32
2.2.8 Sensitive Surface Waters 2-34
2.2.9 Waterbody Construction Procedures 2-36
2.2.10 Waterbody Construction-Related Impacts and Mitigation 2-36
2.2.11 Facility Operations 2-41
2.3 WETLANDS 2-42
2.3.1 Wetland Types 2-43
2.3.2 Existing Wetland Resources 2-43
2.3.3 Wetland Reserve Program 2-44
2.3.4 Wetland Crossings 2-45
2.3.5 Wetland Crossing Methods 2-49
2.3.6 Wetland Impacts and Mitigation 2-51
2.3.7 Compensatory Mitigation 2-56
2.4 REFERENCES 2-57

LIST OF TABLES

Table 2.1.1-1 Aquifers Crossed by the Atlantic Coast Pipeline and Supply Header Project..... 2-6
Table 2.1.3-1 Public Water Supply Wells Within 150 Feet of the Atlantic Coast Pipeline and Supply Header Project 2-10
Table 2.1.3-2 Private Water Wells Within 150 Feet of the Atlantic Coast Pipeline and Supply Header Project..... 2-12
Table 2.1.3-3 Wellhead Protection Areas Crossed by the Atlantic Coast Pipeline and Supply Header Project..... 2-13
Table 2.1.4-1 Springs Located Within 150 Feet of the Atlantic Coast Pipeline and Supply Header Project..... 2-14
Table 2.1.5-1 Contaminated Sites, Landfills, and Leaking Underground Storage Tanks Near the Atlantic Coast Pipeline and Supply Header Project 2-16
Table 2.2.1-1 Watersheds Crossed by the Atlantic Coast Pipeline and Supply Header Project2-23
Table 2.2.2-1 Waterbodies Affected by the Atlantic Coast Pipeline and Supply Header Project2-24
Table 2.2.2-2 Major Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project 2-25
Table 2.2.2-3 Waterbodies Crossed by the Atlantic Coast Pipeline on Federal Lands..... 2-25
Table 2.2.5-1 Surface Water Intake Facilities Within 3.0 Miles Downstream of and Water Protection or Assessment Watersheds Crossed by the Atlantic Coast Pipeline and Supply Header Project 2-31
Table 2.2.5-2 Water Source Watersheds Crossed by the Atlantic Coast Pipeline in North Carolina..... 2-32
Table 2.2.6-1 Water Requirements for Horizontal Directional Drills for the Atlantic Coast Pipeline 2-33
Table 2.2.7-1 Water Requirements for Hydrostatic Testing for the Atlantic Coast Pipeline and Supply Header Project 2-35
Table 2.3.2-1 Wetland and Waterbody Survey Status 2-44
Table 2.3.4-1 Summary of Wetland Types Affected by Construction and Operation of the Atlantic Coast Pipeline and Supply Header Project 2-46
Table 2.3.4-2 Summary of Wetland Types Affected by Construction and Operation of the Atlantic Coast Pipeline on Federal Lands..... 2-48
Table 2.3.4-3 Summary of Wetlands Affected by Aboveground Facilities for the Atlantic Coast Pipeline 2-48
Table 2.3.4-4 Summary of Wetlands Affected by Access Road Construction for the Atlantic Coast Pipeline and Supply Header Project 2-50

LIST OF FIGURES

Figure 2.1.1-1 Principal Aquifers 2-5

LIST OF APPENDICES

Appendix 2A Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline and Supply Header Project
Appendix 2B Impaired Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project
Appendix 2C Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project
Appendix 2D Wetland and Waterbody Delineation Reports – Atlantic Coast Pipeline
Appendix 2E Wetland and Waterbody Delineation Reports – Supply Header Project
Appendix 2F Site-Specific Drawings for Major Waterbodies Crossed by the Atlantic Coast Pipeline
Appendix 2G National Wetland Inventory Maps – Atlantic Coast Pipeline and Supply Header Project
Appendix 2H Wetlands Crossed and Crossing Methods for the Atlantic Coast Pipeline and Supply Header Project

LIST OF ACRONYMS AND ABBREVIATIONS

ACEP	Agricultural Conservation Easement Program
ACP	Atlantic Coastline Pipeline
ACRES	Assessment, Cleanup, and Redevelopment Exchange System
ACSA	Augusta County Service Authority
AGL	AGL Resources, Inc.
Atlantic	Atlantic Coast Pipeline, LLC
ATWS	Additional Temporary Workspace
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
Commission	Federal Energy Regulatory Commission
CSR	Code of State Regulation
CWF	Cold Water Fisheries
Dominion	Dominion Resources, Inc.
DTI	Dominion Transmission, Inc.
Duke Energy	Duke Energy Corporation
E2E	estuarine intertidal emergent
EPA	U.S. Environmental Protection Agency
ER	Environmental Report
FERC	Federal Energy Regulatory Commission
FOIA	Freedom of Information Act
FWS	U.S. Fish and Wildlife Service
GDS-NWR	Great Dismal Swamp National Wildlife Refuge
GIS	geographic information system
gpd	gallons per day
HDD	horizontal directional drill
HQ	high quality waters
HUC	hydrological unit code
LUST	leaking underground storage tank
M&R	metering and regulating
MMDth/d	million dekatherms feet per day
MP	milepost
MSW	municipal solid waste
NCAC	North Carolina Administrative Code
NCDENR-DWR	North Carolina Department of Environment and Natural Resources – Division of Water Resources
NGL	natural gas liquids
NHD	National Hydrography Dataset
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resources Conservation Service
NRI	Nationwide Rivers Inventory
NWI	National Wetlands Inventory
PAB	palustrine aquatic bed
PADEP	Pennsylvania Department of Environmental Protection

PEM	palustrine emergent wetland
PFO	palustrine forested wetland
Piedmont	Piedmont Natural Gas Co., Inc.
Plan	Upland Erosion Control, Revegetation, and Maintenance Plan
Procedures	Wetland and Waterbody Construction and Mitigation Procedures
Projects	Atlantic Coast Pipeline and Supply Header Project
PSS	palustrine scrub-shrub wetland
PUB	palustrine unconsolidated bottom
SHP	Supply Header Project
SPCC Plan	Spill, Prevention, Control, and Countermeasures Plan
SSURGO	Soil Survey Geographic Database
SWPO	Source Water Protection Overlay
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFS	U.S. Forest Service
USGS	U.S. Geological Survey
VAC	Virginia Administrative Code
VDEQ	Virginia Department of Environmental Quality
VDH-ODW	Virginia Department of Health – Office of Drinking Water
VEGIS	VDEQ's Environmental geographic information system
VLIS	Virginia's Legislative Information System
WPA	wellhead protection area
WVCSR	West Virginia Code of State Regulations
WVDEP	West Virginia Department of Environmental Protection
WVDHHR	West Virginia Department of Health and Human Resources
ZCC	Zone of Peripheral Concern
ZPC	Zone of Critical Concern

ATLANTIC COAST PIPELINE – Docket Nos. CP15-__-000, CP15-__-000, CP15-__-000
SUPPLY HEADER PROJECT – Docket No. CP15-__-000

2.0 RESOURCE REPORT 2 – WATER USE AND QUALITY

Atlantic Coast Pipeline

Atlantic Coast Pipeline, LLC (Atlantic) is a company formed by four major U.S. energy companies – Dominion Resources, Inc. (Dominion; NYSE: D), Duke Energy Corporation (Duke Energy; NYSE: DUK), Piedmont Natural Gas Co., Inc. (Piedmont; NYSE: PNY), and AGL Resources, Inc. (AGL; NYSE: GAS). [1] The company was created to develop, own, and operate the proposed Atlantic Coast Pipeline (ACP or Project), an approximately 564.1-mile-long, interstate natural gas transmission pipeline system designed to meet growing energy needs in Virginia and North Carolina (see Figure 1.1.1-1 in Resource Report 1). The ACP will be capable of delivering up to 1.5 million dekatherms per day (MMDth/d) of natural gas that will be used to generate electricity, heat homes, and run local businesses. The pipeline Project will facilitate cleaner air, increase the reliability and security of natural gas supplies, and provide a significant economic boost in West Virginia, Virginia, and North Carolina. More information is provided at the company's website at www.dom.com/acpipeline. Atlantic has contracted with Dominion Transmission, Inc. (DTI), a subsidiary of Dominion, to permit, build, and operate the ACP on behalf of Atlantic. [2]

Atlantic is seeking authorization from the Federal Energy Regulatory Commission (FERC or Commission) under Section 7(c) of the Natural Gas Act to construct, own, operate, and maintain the following proposed facilities for the ACP system: [3]

Mainline Pipeline Facilities:

- AP-1: approximately 300.1 miles of underground 42-inch outside diameter natural gas transmission pipeline in Harrison, Lewis, Upshur, Randolph, and Pocahontas Counties, West Virginia; Highland, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, and Greensville Counties, Virginia; and Northampton County, North Carolina.
- AP-2: approximately 183.0 miles of underground 36-inch outside diameter natural gas transmission pipeline in Northampton, Halifax, Nash, Wilson, Johnston, Sampson, Cumberland, and Robeson Counties, North Carolina.

[1] On August 24, 2015, Southern Company and AGL Resources announced that the boards of directors of both companies have approved a definitive merger agreement. Pursuant to the agreement, AGL Resources will become a new wholly owned subsidiary of Southern Company. The companies expect to complete the transaction in the second half of 2016.

[2] As described in this report, DTI actions associated with the ACP are on behalf of Atlantic.

[3] Atlantic is also requesting a Blanket Certificate of Public Convenience and Necessity pursuant to Part 284, Subpart G, of the Commission's regulations authorizing open-access transportation of natural gas for others with pre-granted abandonment authority, and a Blanket Certificate of Public Convenience and Necessity pursuant to Part 157, Subpart F, of the Commission's regulations authorizing certain facility construction and operation, certain certificate amendments and abandonments.

Lateral Pipeline Facilities:

- AP-3: approximately 79.3 miles of underground 20-inch outside diameter natural gas lateral pipeline in Northampton County, North Carolina; and Greensville and Southampton Counties and the Cities of Suffolk and Chesapeake, Virginia.
- AP-4: approximately 0.6 mile of underground 16-inch outside diameter natural gas lateral pipeline in Brunswick County, Virginia.
- AP-5: approximately 1.1 miles of underground 16-inch outside diameter natural gas lateral pipeline in Greensville County, Virginia.

Compressor Station Facilities:

- Compressor Station 1 (Marts Compressor Station): a new, natural gas-fired compressor station approximately at milepost [4] (MP) 7.6 of the AP-1 mainline in Lewis County, West Virginia.
- Compressor Station 2 (Buckingham Compressor Station): a new, natural gas-fired compressor station approximately at MP 191.5 of the AP-1 mainline in Buckingham County, Virginia.
- Compressor Station 3 (Northampton Compressor Station): a new natural gas-fired compressor station approximately at MP 300.1 of the AP-1 mainline and MP 0.0 of the AP-2 mainline and 0.0 of the AP-3 lateral in Northampton County, North Carolina.

Other Aboveground Facilities:

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

As required by 18 CFR 380.12, Atlantic is submitting this Environmental Report (ER) in support of its Application to the Commission for a Certificate of Public Convenience and Necessity (Certificate) to construct and operate the proposed ACP facilities.

[4] The mileposts used in this report are based on three-dimensional changes in topography (elevation) along the proposed pipeline routes. Therefore, the straight-line distance between two mileposts depicted on two-dimensional maps and figures of the routes may be less than 5,280 feet. The mileposts are reference points along the routes.

Supply Header Project

DTI proposes to construct and operate approximately 37.5 miles of pipeline loop and modify existing compression facilities in Pennsylvania and West Virginia (see Figure 1.1.1-1 in Resource Report 1). This Project, referred to as the Supply Header Project (SHP), will enable DTI to provide firm transportation service of up to 1.5 MMDth/d to various customers, including Atlantic. Atlantic will be a Foundation Shipper in the SHP, and will utilize the SHP capacity to allow its shippers access to natural gas supplies from various DTI receipt points for further delivery to points along the ACP. By providing its customers access to an affordable and stable source of natural gas, the SHP also satisfies the same purpose and need as the ACP by increasing the reliability and security of natural gas supplies in Virginia and North Carolina.

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

Pipeline Loops:

- TL-636: approximately 3.9 miles of underground 30-inch outside diameter natural gas pipeline looping DTI's existing LN-25 pipeline in Westmoreland County, Pennsylvania.
- TL-635: approximately 33.6 miles of underground 30-inch outside diameter natural gas pipeline looping DTI's existing TL-360 pipeline in Harrison, Doddridge, Tyler, and Wetzel Counties, West Virginia.

Compressor Station Modifications:

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

Other Aboveground Facilities:

- One new M&R station at a new delivery point within Atlantic's proposed Compressor Station 1 in Lewis County, West Virginia.
- Six valve sites at select points along the new pipeline loops at intervals specified by USDOT regulations at 49 CFR 192.
- Two sets of pig launcher and receiver sites at the ends of each of the new pipeline loops.

DTI is also requesting authorization from the FERC under Section 7(b) of the Natural Gas Act to abandon in place two existing gathering compressor units (Hasting Compressor Units 1 and 2) at its existing Hastings Compressor Station in Wetzel County, West Virginia.

As required by 18 CFR 380.12, DTI is submitting this ER in support of its Application to the Commission for a Certificate to construct and operate the proposed SHP facilities.

Scope of Resource Report 2

This Resource Report describes water quality and provides data sufficient to determine the expected impact of the ACP and SHP (collectively, the Projects) and the effectiveness of mitigative enhancement, or protective measures. Information provided in this Report is derived from field surveys, technical documents, publicly available data and maps, and consultation with Federal, State/Commonwealth, and local authorities. This Report also addresses comments received from the public during the FERC Pre-filing Process as well as comments received directly from the FERC and other Federal and State/Commonwealth agencies.

2.1 GROUNDWATER RESOURCES

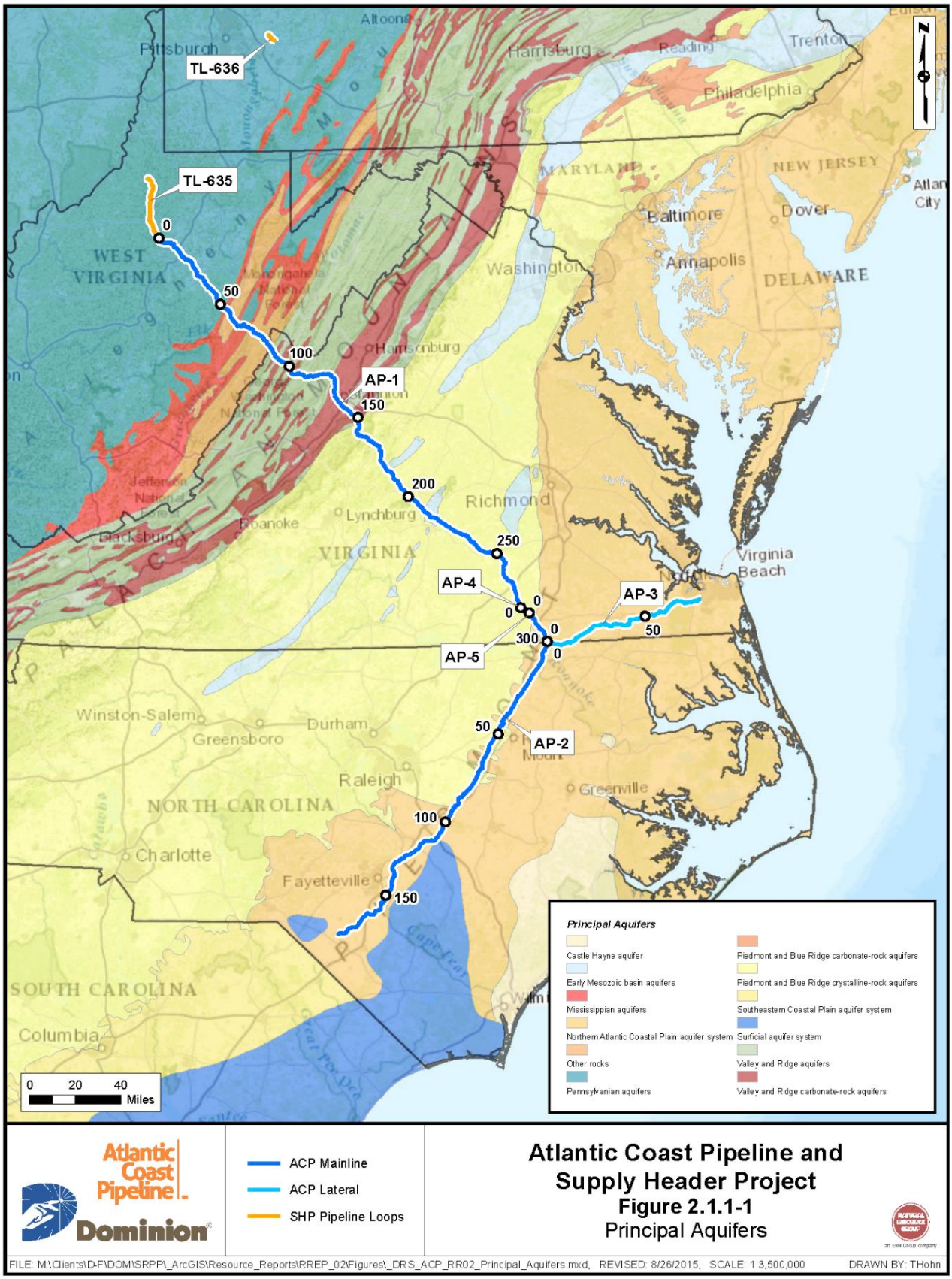
2.1.1 Principal Aquifers

A principal aquifer is defined as a regionally extensive aquifer or aquifer system with the potential to be used as a source of potable water (U.S. Geological Survey [USGS], 2014a). The principal aquifers crossed by the proposed ACP are the Pennsylvanian, Mississippian, Valley and Ridge, Piedmont and Blue Ridge Crystalline-rock, and Early Mesozoic Basin aquifers, as well as the Northern Atlantic Coastal Plain aquifer system (USGS, 2003). The proposed SHP crosses the Pennsylvanian principal aquifer (USGS, 2003). Figure 2.1.1-1 depicts the principal aquifers and aquifer systems crossed by the proposed Projects. Information on each aquifer is summarized in Table 2.1.1-1.

Principal aquifers are often multi-layered and may extend underground beyond the areas where they are mapped. The mapped boundaries typically represent the extent of the principal aquifer nearest to the surface (USGS, 1997). For example, the Mississippian aquifer is exposed as narrow bands along western West Virginia, but it underlies most of the Pennsylvanian aquifer. Because construction of the Projects will generally occur within the upper 10 feet of the soil surface, only the shallowest principal aquifers crossed by the Projects are described below.

In addition to principal aquifers, the ACP and SHP cross areas where minor surficial aquifers are associated with glacial outwash or unconsolidated alluvium in stream valleys (USGS, 1997). These localized surficial aquifers are a source of water for private wells across the region, with greater significance along the AP-3 lateral in the coastal plain of Virginia.

The ACP also crosses areas mapped as “other rocks.” These consist of areas underlain by crystalline rocks of minimal permeability. Areas mapped as other rocks are considered minor aquifers. Potential impacts on these minor aquifers are similar to the Principal Aquifers and addressed in Section 2.1.6.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AP-1
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AP-4
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AP-3
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AP-5
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50
AP-2
100
150
Pittsburgh
Altoona
Harrisburg
Reading
Trenton
Philadelphia
Baltimore
Dover
Annapolis
Washington
Atlantic City
WEST VIRGINIA
MARYLAND
NEW JERSEY
DELAWARE
Hamsonburg
Lynchburg
Richmond
Roanoke
Blacksburg
VIRGINIA
Virginia Beach
Winston-Salem
Greensboro
Durham
Raleigh
NORTH CAROLINA
Greenville
Charlotte
Fayetteville
SOUTH CAROLINA
Columbia
0 20 40 Miles
Principal Aquifers
Castle Hayne aquifer
Early Mesozoic basin aquifers
Mississippian aquifers
Northern Atlantic Coastal Plain aquifer system
Other rocks
Pennsylvanian aquifers
Piedmont and Blue Ridge carbonate-rock aquifers
Piedmont and Blue Ridge crystalline-rock aquifers
Southeastern Coastal Plain aquifer system
Surficial aquifer system
Valley and Ridge aquifers
Valley and Ridge carbonate-rock aquifers
Atlantic Coast Pipeline
Dominion
ACP Mainline
ACP Lateral
SHP Pipeline Loops
Atlantic Coast Pipeline and Supply Header Project
Figure 2.1.1-1
Principal Aquifers
FILE: M:\Clients\D-F\DOM\SRPP_ArcGIS\Resource_Reports\RREP_02\Figures_DRS_ACP_RR02_Principal_Aquifers.mxd, REVISED: 8/26/2015, SCALE: 1:3,500,000 DRAWN BY: THohn

TABLE 2.1.1-1

Aquifers Crossed by the Atlantic Coast Pipeline and Supply Header Project

State or Commonwealth/Pipeline Segment/ County or City	Mileposts	Aquifer [a]	Range of Depth to Aquifer (feet)	Well Yield (gallons per minute)
ATLANTIC COAST PIPELINE				
West Virginia				
AP-1				
Harrison, Lewis, Upshur, and Randolph Counties	0 to 52.1 63.5 to 65.9 66.6 to 68.8	Pennsylvanian Sandstone	80 to 400	20 to 430
Randolph and Pocahontas Counties	52.1 to 53.8 61.6 to 63.5 65.9 to 66.6 68.8 to 71.0	Mississippian Sandstone and Carbonate	50 to 200	20 to 180
Randolph and Pocahontas Counties	53.8 to 61.6 71.0 to 83.1	Other rocks	Unavailable [b]	Variable
Virginia				
AP-1				
Highland County	83.1 to 86.0	Other rocks	Unavailable [b]	Variable
Highland and Augusta Counties	86.0 to 151.6	Valley and Ridge Sandstone and Carbonate	50 to 400	Variable
Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, and Greensville Counties	151.6 to 210.3 216.6 to 286.8	Piedmont and Blue Ridge Crystalline-rock	3 to 300	15 to 30
Buckingham and Cumberland Counties	210.3 to 216.6	Early Mesozoic Basin Sandstone	200 to 900	5 to 80
Greensville County	286.8 to 300.1	Northern Atlantic Coastal Plain Semiconsolidated Sand	30 to 2100	At least 50
AP-3				
Greensville and Southampton Counties, City of Suffolk, and City of Chesapeake	12.1 to 78.1	Northern Atlantic Coastal Plain Semiconsolidated Sand	30 to 2100	At least 50
AP-4				
Brunswick County	0.0 to 0.6	Piedmont and Blue Ridge Crystalline-rock	3 to 300	15 to 30
AP-5				
Greensville County	0.0 to 1.1	Piedmont and Blue Ridge Crystalline-rock	3 to 300	15 to 30
North Carolina				
AP-2				
Northampton, Halifax, Nash, Wilson, Johnston, Sampson, Cumberland, and Robeson Counties	0.0 to 31.5 34.3 to 38.5 40.6 to 44.9 58..1 to 59.6 61.6 to 69.4 83.9 to 183.0	Northern Atlantic Coastal Plain Semiconsolidated Sand	30 to 2100	At least 50
Halifax, Nash, Wilson, and Johnston Counties	31.5 to 34.3 38.5 to 40.6 44.9 to 58.1 59.6 to 61.6 69.4 to 83.9	Piedmont and Blue Ridge Crystalline-rock	3 to 300	15 to 30
AP-3				
Northampton County	0.0 to 12.1	Northern Atlantic Coastal Plain Semiconsolidated Sand	30 to 2100	At least 50
SUPPLY HEADER PROJECT				
West Virginia				
TL-635				
Wetzel, Tyler, Doddridge, and Harrison Counties	0.0 to 33.6	Pennsylvanian Sandstone	80 to 400	20 to 430

TABLE 2.1.1-1 (cont'd)

Aquifers Crossed by the Atlantic Coast Pipeline and Supply Header Project

State or Commonwealth/Pipeline Segment/ County or City	Mileposts	Aquifer	Range of Depth to Aquifer (feet)	Well Yield (gallons per minute)
Pennsylvania				
TL-636				
Westmoreland County	0 to 3.9	Pennsylvanian Sandstone	80 to 400	20 to 430

[a] Figure 2.1.1-1 differentiates carbonate and sandstone components, identified in the legend, associated with the geographically expansive Mississippian and Valley and Ridge Aquifers, which are combined to align with the resource report text and table.

[b] Unavailable – reliable depth to aquifer data is unavailable in the Groundwater Atlas of the United States and other publicly available publications.

Sources: Kozar and Brown, 1995; LeGrand, 1988; Swistock, 2007

2.1.1.1 Pennsylvanian and Early Mesozoic Basin Aquifers

The Pennsylvanian and Early Mesozoic Basin aquifers consist of layers of consolidated sedimentary rock, of which sandstone formations are the primary water-producing units (USGS, 1997a). Sandstone retains only a small part of the intergranular pore space present before the rock was consolidated, and compaction and cementation have greatly reduced the primary pore space in the rock (USGS, 1999). Secondary openings in the rock, such as joints and fractures, along with bedding planes, contain and transmit most of the groundwater in the formation (USGS, 1999). The hydraulic conductivity of sandstone aquifers is low to moderate, but because they extend over large areas, these aquifers can provide large amounts of water (USGS, 1999).

As of 2005, water withdrawals from Early Mesozoic basins aquifers were 131 million gallons per day (gpd), including 41.9 million gpd in Pennsylvania and 2.1 million gpd in Virginia (Maupin and Barber, 2005). Water withdrawals from Pennsylvanian aquifers were 132 million gpd, including 43.6 million gpd in Pennsylvania and 18.3 million gpd in West Virginia (Maupin and Barber, 2005).

2.1.1.2 Mississippian and Valley and Ridge Aquifers

Mississippian aquifers mostly consist of water yielding carbonate rocks. They are considered principle aquifers in many regions of the United States, but in the ACP Project area, they are limited in geographic extent and only yield water in localized areas (USGS, 1997a). Valley and Ridge aquifers mostly consist of folded sandstone, shale, and limestone. In Virginia, these rock formations also contain coal and minor amounts of dolomite and conglomerate. In some cases, the rocks have been metamorphosed into quartzite, slate, and marble.

Carbonate rocks are the most productive rock units in the Valley and Ridge aquifers (USGS, 1997b), and they are the water producing rock units of the Mississippian aquifers (USGS, 1997a). As of 2005, water withdrawals from sandstone and carbonate rocks in Mississippian aquifers were 286 million gpd, including 0.9 million gpd in West Virginia and 0.1 million gpd in Virginia (Maupin and Barber, 2005). Water withdrawals from the Valley and Ridge aquifers were 95 million gpd, including 34.2 million gpd in Virginia (Maupin and Barber, 2005).

Most carbonate rocks originate as sedimentary deposits in marine environments (USGS, 1999b). Compaction, cementation, and dolomitization processes can substantially reduce the porosity and permeability of these deposits as they lithify (USGS, 1999b). The dissolution of carbonate rock by circulating, slightly acidic groundwater, however, can create solution openings ranging in size from small tubes to caverns that may be tens of meters wide and hundreds to thousands of meters long (USGS, 1999).

Where saturated, carbonate rocks with well-connected networks of solution openings yield large amounts of water to wells that penetrate the openings, although the undissolved rock between the large openings may be almost impermeable (USGS, 1999b). The dissolution of carbonate rock can result in the formation of sinkholes and other karst features (USGS, 1999b). Karst terrain is discussed in more detail in Section 6.4.4 of Resource Report 6.

2.1.1.3 Piedmont and Blue Ridge Crystalline-rock Aquifers

The Piedmont and Blue Ridge aquifers mostly consist of crystalline rocks (i.e., metamorphic and igneous rocks), but they also include some carbonate rocks (USGS, 1997c). Major bedrock units crossed by the ACP in the Piedmont Province include Proterozoic-aged gneiss, Tertiary-aged gravel, and Permian to Proterozoic-aged granite. Major bedrock units crossed by the ACP in the Blue Ridge Province include Cambrian-aged sedimentary dolostone (dolomite) and Proterozoic-aged granitic gneiss. Carbonate rocks provide the largest well yields in the Piedmont and Blue Ridge aquifers (USGS, 1997c). A description of carbonate rock aquifers is provided above (see Mississippian and Valley and Ridge Aquifers). Igneous and metamorphic rocks are only permeable where they are fractured, and they generally yield only small amounts of water to wells. Because these rocks extend over large areas, however, significant volumes of water are available from these formations.

As of 2005, water withdrawals from the Piedmont and Blue Ridge carbonate-rock aquifers were 29.9 million gpd (Maupin and Barber, 2005). Water withdrawals from the Piedmont and Blue Ridge crystalline-rock aquifers were 146 million gpd, including 14.5 million gpd in Virginia and 62.6 million gpd in North Carolina (Maupin and Barber, 2005).

2.1.1.4 North Atlantic Coastal Plain Aquifer System

The Northern Atlantic Coastal Plain aquifer system mostly consists of semi-consolidated sand aquifers separated by clay confining units. Major geologic units crossed by the proposed ACP facilities in the Coastal Plain Province include Cretaceous to Quaternary-aged sedimentary deposits (e.g., clay or mud, sand, gravel, and alluvium) and Cretaceous-aged sandstone. Unconsolidated sands compose the surficial aquifer, which is the uppermost water-yielding part of the system. These surficial aquifers are susceptible to human activities due to the shallow depth to the aquifer in some areas (USGS, 1997d). Additionally, sediments in Coastal Plain aquifers are thin near their contact with rocks of the Piedmont Province, and in places do not yield as much water as the underlying igneous and metamorphic rocks associated with Piedmont aquifers (USGS, 1997). The Northern Atlantic Coastal Plain aquifer system also includes a productive carbonate rock (limestone) aquifer. A description of carbonate rock aquifers is provided above (see Mississippian and Valley and Ridge Aquifers).

As of 2015, water withdrawals from the Northern Atlantic Coastal Plain aquifer system were 1,040 million gpd, including 90.8 million gpd in Virginia and 142 million gpd in North Carolina (Maupin and Barber, 2005). The limestone aquifer is most productive in North Carolina, where yields reached 125 million gpd in 1985 (USGS, 1997d).

2.1.2 Designated Sole or Principal Source Aquifers

The U.S. Environmental Protection Agency (EPA) "defines a sole or principal source aquifer as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. These areas may have no alternative drinking water source(s) that could physically, legally and economically supply all those who depend on the aquifer for drinking water" (EPA, 2008). For convenience, the EPA refers to all designated sole or principal source aquifers as "sole source aquifers" (EPA, 2008).

There are currently no EPA-designated sole source aquifers in West Virginia (EPA, 2008). The West Virginia Department of Environmental Protection (WVDEP) and West Virginia Department of Health and Human Resources (WVDHHR) do not designate sole source aquifers on a State level (Paucer, 2015; Shaver 2015).

There are currently no EPA-designated sole source aquifers in North Carolina (EPA, 2008). The North Carolina Department of Environment and Natural Resources, Division of Water Resources (NCDENR-DWR) does not designate sole source aquifers on a State level (Johnson, 2015).

The only EPA-designated sole source aquifer in Virginia is the Columbia & Yorktown-Eastover Multiaquifer System, which is across the Chesapeake Bay and over 25 miles to the northeast of the nearest ACP facility (EPA, 2007 and 2013a). The Commonwealth of Virginia regulates groundwater withdrawal within two Ground Water Management Areas that are managed by the Virginia Department of Environmental Quality (VDEQ) in accordance with the Ground Water Management Act of 1992. These management areas are outlined under Title 9 of Virginia Administrative Code (VAC) Agency 25, Chapter 600, Section 20 (Virginia's Legislative Information System [VLIS], 2014a). The portions of the ACP within the Cities of Suffolk and Chesapeake and Southampton County occur within the Eastern Virginia Groundwater Management Area (VDEQ, 2014a). The other management area, the Eastern Shore Groundwater Management Area, is located in the Counties of Accomack and Northampton, over 25 miles to the northeast of the nearest ACP facility.

There are two sole source aquifers in Pennsylvania, but both are located far from the nearest proposed SHP facilities. The Seven Valleys Aquifer and New Jersey Coastal Plain Aquifer are located approximately 140 miles southeast and 300 miles east of the nearest SHP facilities, respectively (EPA, 2008). The Pennsylvania Department of Environmental Protection (PADEP) Bureau of Safe Drinking Water does not designate sole source aquifers on a Commonwealth level and defers to EPA-designated sole source aquifers in the region (Reisch, 2015).

2.1.3 Water Supply Wells

Atlantic and DTI are in the process of identifying public and private supply wells and springs within the Project area, as outlined below. Atlantic will continue to identify public and

private supply wells and springs within 150 feet of the construction workspace. In addition, wells and springs will be identified within 500 feet of the proposed pipelines in karst areas and within 0.25 mile of horizontal directional drill (HDD) activities.

2.1.3.1 Public Wells

Atlantic consulted with the WVDHHR Source Water Assessment and Wellhead Protection Program, Virginia Department of Health – Office of Drinking Water (VDH-ODW), and NCDENR-DWR to obtain location data for public water supply wells within 150 feet of the workspace for proposed ACP facilities. DTI similarly consulted with the WVDHHR and PADEP Bureau of Safe Drinking Water to obtain location data for public water supply wells within 150 feet of the proposed workspace for the SHP facilities. The results of these consultations are described below and summarized in Table 2.1.3-1.

TABLE 2.1.3-1

Public Water Supply Wells Within 150 Feet of the Atlantic Coast Pipeline and Supply Header Project

Facility/County or City/State or Commonwealth	Milepost(s)	Public Water Well Name	Distance and Direction from Workspace (feet)
ATLANTIC COAST PIPELINE			
AP-1			
None Identified			
AP-2			
Wilson County, NC	67.5	Town of Sims	Within Workspace
Cumberland County, NC	141.6	United Church of Christ Shiloh	121, NW
AP-3			
None Identified			
AP-4			
None identified			
AP-5			
None identified			
Aboveground Facilities			
None identified			
SUPPLY HEADER PROJECT			
TL-635			
None identified			
TL-636			
None identified			
Aboveground Facilities			
None identified			

Location data for water supply wells is not publicly available in West Virginia. However, the WVDHHR reviewed maps of the proposed ACP and SHP facilities to identify public water supply wells located along or near the proposed facilities in West Virginia. The WVDHHR (2015a) did not identify any public water wells within 150 feet of the proposed workspace for the ACP and SHP facilities in West Virginia.

The VDH-ODW provided Atlantic with digital location data for public water supply wells in Virginia (Soto, 2015). No public water supply wells were identified within 150 feet of the proposed workspace for the ACP facilities in Virginia.

Public water supply well data was acquired from the NCDENR-DWR (2014a). Review of these data identified two public wells within 150 feet of the proposed workspace for the AP-2 mainline in North Carolina.

The PADEP Bureau of Safe Drinking Water identified the eMapPA application as the best source of information on public water supply wells in the Commonwealth (McCaffrey, 2015). No public wells were identified within 150 feet of the TL- 636 loop and other SHP facilities in Pennsylvania through review of this application (PADEP, 2015a).

2.1.3.2 Private Wells

Location data for private wells are not readily available from the PADEP, WVDHHR, VDEQ, VDH-ODW, and NCDENR-DWR. Atlantic and DTI, respectively, are documenting locations of private wells within 150 feet of the proposed ACP and SHP facilities through discussions with landowners and field (civil) surveys. Private water supply wells identified to date within 150 feet of the proposed workspace for the ACP and SHP facilities are listed in Table 2.1.3-2. Atlantic will continue to identify private supply wells within 150 feet of the construction workspace. In addition, wells will be identified within 500 feet of the proposed pipelines in karst areas and within 0.25 mile of horizontal directional drill (HDD) activities. These additional survey efforts are scheduled to begin in the Fall of 2015. Results of the surveys will be provided in supplemental filing.

2.1.3.3 Wellhead Protection Areas

Amendments to the Safe Drinking Water Act in 1986 established requirements for States to implement wellhead protection programs designed to protect underground sources of drinking water. A wellhead protection area (WPA) is an area around a public water supply well that has been delineated to regulate and protect the water supply drawn by the well. The size of the WPA is based on an evaluation of geology and hydraulics or is mandated based on the type of public water supply well. Shallow wells, which are susceptible to impacts on near surface groundwater, generally have larger surface protection areas than deeper wells.

Atlantic and DTI, respectively, are consulting with the State/Commonwealth agencies responsible for overseeing wellhead protection programs to identify WPAs proximate to the proposed ACP and SHP facilities (i.e., the WVDHHR, VDEQ, VDH, NCDENR-DWR, and PADEP). Crossings of WPAs identified by these agencies along the proposed facilities are identified in Table 2.1.3-3.

In West Virginia, the Source Water Assessment and Wellhead Protection Program is administered by the WVDHHR. While locations of WPAs data are not publically available, the WVDHHR (2015a, 2015b) reviewed the proposed facilities. No WPAs were identified within 3 miles of the ACP or SHP facilities (WVDHHR, 2015b).

TABLE 2.1.3-2

Private Water Wells Within 150 Feet of the Atlantic Coast Pipeline and Supply Header Project

Facility/County or City/State or Commonwealth	Milepost	Distance (feet) and Direction From Workspace
ATLANTIC COAST PIPELINE		
AP-1		
Lewis County, WV	2.2	Within Workspace
Lewis County, WV	9.4	3, E
Upshur County, WV	39.5	31, NE
Augusta County, VA	120.9	39, SW
Nottoway County, VA	229.9	24, NE
Nottoway County, VA	240.8	4, S
AP-2		
Halifax County, NC	319.9	54, SE
Nash County, NC	332.2	17, W
Nash County, NC	338.1	18, SE
Nash County, NC	347.3	90, NW
Nash County, NC	347.5	65, NW
Nash County, NC	347.5	Within Workspace
Nash County, NC	347.6	Within Workspace
Nash County, NC	353.3	Within Workspace
Johnston County, NC	379.2	70, W
Johnston County, NC	385.1	Within Workspace
Johnston County, NC	401.2	Within Workspace
Cumberland County, NC	433.5	Within Workspace
Cumberland County, NC	433.6	Within Workspace
Cumberland County, NC	450.6	86, NW
Robeson County, NC	466.1	119, S
Robeson County, NC	474.1	77, S
AP-3		
Southampton County, VA	24.0	146, NW
City of Suffolk, VA	58.2	5, S
AP-4		
None identified to date		
AP-5		
None identified to date		
Aboveground Facilities		
None identified to date		
SUPPLY HEADER PROJECT		
TL-635		
Doddridge County, WV	15.2	117, E
TL-636		
Westmoreland County, PA	1.2	70, S

The Commonwealth of Virginia, under the oversight of VDEQ and VDH, has a Wellhead Protection Plan that was adopted in April 2005 (VDEQ, 2005). The plan provides a framework for establishing wellhead protection areas and a process for local agencies and various government units to apply for funding to implement wellhead protection plans for public water supplies. Atlantic consulted with the VDH-ODW to identify public water wells that may have associated wellhead protection areas. The VDH-ODW conducted Source Water Assessments and susceptibility evaluations in 2003, after which Zone 1 and Zone 2 Groundwater Assessment

Areas were defined as a 1,000-foot and 1-mile fixed radius surrounding a source, respectively (VDH, 1999).

Atlantic identified two Zone 1 Groundwater Assessment Areas crossed by the proposed route, and 10 Zone 2 Groundwater Assessment Areas. Of these Groundwater Assessment Areas crossed, Atlantic identified one wellhead protection area crossed between MP 145.5 and 147.0 in Augusta County, where groundwater protection measures have been implemented. Atlantic will evaluate these measures for use during construction. Augusta County has established Source Water Protection Overlay (SWPO) Districts, divided into Area 1 and Area 2 classification, to protect public groundwater supply sources. Lyndhurst Area 2 SWPO District, which is crossed by the proposed route, is defined as an area that contributes to recharge of a public groundwater supply source (Augusta County, 2011). The Augusta County Service Authority (ACSA) noted that the Lyndhurst Well is the largest in the county and provides water to various residential, commercial, and industrial consumers (Hoover, 2015). Atlantic is reviewing information to potentially further minimize the crossing of Lyndhurst Area 2 SWPO District.

TABLE 2.1.3-3

Wellhead Protection Areas Crossed by the Atlantic Coast Pipeline and Supply Header Project

Facility/County or City/State or Commonwealth	Milepost(s)	Wellhead Protection Area	Crossing Length (feet)
ATLANTIC COAST PIPELINE			
AP-1			
Lyndhurst/Augusta, VA	145.5 – 147.0	Lyndhurst Well	1.5 miles
AP-2			
None identified			
AP-3			
None identified			
AP-4			
None identified			
AP-5			
None identified			
Aboveground Facilities			
None identified			
SUPPLY HEADER PROJECT			
TL-635			
None identified			
TL-636			
None identified			
Aboveground Facilities			
None identified			

The NCDENR-DWR (NC OneMap, 2015a) provided Atlantic with statewide digital data for WPAs in North Carolina. Based on) provided Atlantic with statewide digital data for WPAs in North Carolina. Based on a review of this data, no WPAs are crossed by the proposed ACP facilities in North Carolina. The nearest WPA is located approximately 0.8 mile from MP 382.0 of the AP-2 mainline.

Based on a review of data from the Pennsylvania Groundwater Information System, no WPAs are crossed by the proposed SHP facilities in Pennsylvania (Pennsylvania Department of Conservation and Natural Resources, 2015).

2.1.4 Springs

Based on a review of USGS 7.5-minute series topographic maps and the results of discussions with landowners, civil field surveys, and biological field surveys conducted to date, four springs are located within 150 feet of the proposed workspace for the ACP AP-1 mainline (see Table 2.1.4-1). Atlantic will continue to identify springs within 150 feet of the construction workspace. In addition, springs will be identified within 500 feet of the proposed pipelines in karst areas and within 0.25 mile of HDD activities. These additional survey efforts are scheduled to begin in the Fall of 2015. Results of the surveys will be provided in supplemental filing.

TABLE 2.1.4-1

Springs Located Within 150 Feet of the Atlantic Coast Pipeline and Supply Header Project [a,b]

Pipeline Segment/County or City/ State or Commonwealth	Approximate Milepost	Distance and Direction from Workspace (feet)	Surface Drainage Direction of Spring from Project[c]
ATLANTIC COAST PIPELINE			
AP-1			
Highland County, VA	85.3	51, SW	Up Gradient
Augusta County, VA	115.2	140, N	Up Gradient
Buckingham County, VA	204.0	Within Workspace	Side Gradient
Buckingham County, VA	204.0	33, NE	Down Gradient

[a] No springs are located within 150 feet of the Atlantic Coast Pipeline in West Virginia or North Carolina, or within 150 feet of the Supply Header Project.

[b] Spring information is based on USGS 7.5-minute series topographic maps, discussions with landowners, civil field surveys, and biological field surveys.

[c] Surface drainage direction of a spring is evaluated from the pipeline right-of-way.

Atlantic reviewed comments regarding potential for the ACP to influence sinking points in the Cowpasture River valley that feed the Coursey Springs State Fish Hatchery.[5] Within the Cowpasture River watershed the ACP will remain over 1,500 feet from VDCR documented sinkholes. In addition, the ACP crosses the Cowpasture River approximately 11 miles to the northeast, upstream of the Coursey Springs State Fish Hatchery. The immediate watershed that feeds into the hatchery along the Pheasanty Run is not crossed by the ACP. Atlantic will construct across the Cowpasture River using the dam-and-pump method in accordance with the Plan and Procedures (see Section 1.5.2.1 of Resource Report 1 for a description of this method), and will restore the bed, banks, and water flow to the Cowpasture River once construction across the river is complete.

2.1.5 Contaminated Groundwater

Atlantic and DTI, respectively, searched Federal and State/Commonwealth databases to identify contaminated sites, including sites which may have contributed to contaminated groundwater, in the vicinity of the proposed ACP and SHP facilities. The EPA's Facility Registry System map service was used to locate sites within one mile of the Projects that are

[5] During the ACP and SHP Open Houses, and in comments filed with the FERC, a comment suggested that ACP crosses a recharge area that feeds the Coursey Springs State Fish Hatchery.

listed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and the Assessment, Cleanup and Redevelopment Exchange System (ACRES) (EPA, 2014).[6] In addition, various other map services and databases were reviewed for each State/Commonwealth as described below.

As shown in Table 2.1.5-1, the review of EPA records identified one Federal Brownfield site and six Federal Superfund sites mapped within one mile of the proposed ACP and SHP facilities. The majority of these federally-listed contaminated sites are located along the eastern extent of the proposed AP-3 lateral, where it crosses industrialized areas within the City of Chesapeake, Virginia. Based on the geospatial point data available on the EPA's Facility Registry System map service, Envirofacts online database, and additional site-specific information that was provided to Atlantic by EPA staff, none of the Federal Brownfield or Superfund sites are known to be crossed by the proposed route for the ACP facilities.

In order to verify the boundaries associated with each of the federally-listed sites located within one mile of the proposed ACP facilities, Atlantic submitted several site-specific information requests to the EPA asking for additional documentation to confirm the boundaries of each Federal Superfund and Brownfield site listed in Table 2.1.5-1. The boundaries have been verified for six of the seven Federal Superfund and Brownfield sites listed in Table 2.1.5-1, none of which are crossed by the proposed ACP facilities. However, verification of site boundaries for the Borden Smith Douglass Superfund Site is pending a response from the EPA to a Freedom of Information Act (FOIA) request that was submitted by Atlantic in August 2015. The response is anticipated to be provided by the EPA in September 2015.

In addition to the EPA resources, Atlantic and DTI reviewed the WVDEP web-based list of municipal solid waste landfills and online database of leaking underground storage tanks (LUST). No contaminated sites were found within one mile of the proposed ACP and SHP facilities in West Virginia (WVDEP, 2013, 2014b, 2014c).

The VDEQ's Environmental geographic information system (VEGIS) system was used to obtain geospatial databases of LUSTs and other solid or hazardous waste sites in Virginia (VDEQ, 2014b). Review of these sources identified one municipal solid waste (MSW) landfill complex, one industrial landfill, and one inert landfill mapped within 0.5 mile and 18 LUST sites mapped within 1,000 feet of the proposed ACP facilities in Virginia. Based on the geospatial point data and additional site-specific information provided by the VDEQ, a portion of the Augusta Regional Landfill may be crossed by the proposed route for the AP-1 mainline. Therefore, as discussed in Section 2.1.6, Atlantic has incorporated a route adjustment that increases the distance between the AP-1 mainline and the landfill in order to mitigate the potential impacts of blasting that is anticipated to take place near the Augusta Regional Landfill site boundary. The review of VDEQ records indicated that none of the other contaminated sites identified will be crossed by the proposed ACP facilities. In addition, eight of the sites are estimated to be hydraulically down gradient from the proposed ACP facilities and are therefore unlikely to contribute to groundwater contamination in the vicinity of the proposed ACP facilities.

[6] CERCLIS and ACRES sites are commonly known as Federal Superfund and Brownfield sites, respectively.

TABLE 2.1.5-1

Contaminated Sites, Landfills, and Leaking Underground Storage Tanks Near the Atlantic Coast Pipeline and Supply Header Project [a]

County/ City and State/ Commonwealth	Pipeline Segment	Nearest Milepost	Site Name	Distance and Direction from Centerline (ft)	Facility Type	Surface Drainage Direction from Project [b]
ATLANTIC COAST PIPELINE						
CERCLIS and ACRES Sites Identified within 1 mile of the Centerline and Aboveground Facilities						
Northampton, NC	AP-2	7.8	Garysburg Community Center	1,510 W	Brownfield	Up Gradient
Johnston, NC	AP-2	91.2	Hot-Z Selma Spill	1,124 W	Superfund Site	Up Gradient
Cumberland, NC	AP-2	142.8	Woody's Salvage Yard	252 SE	Superfund Site	Down Gradient
Chesapeake, VA	AP-3	77.3	Norfolk Intercoastal Steel	201 SE	Superfund Site	Side Gradient
Chesapeake, VA	AP-3	78.1	Money Point Creosite Site	124 N	Superfund Site	Down Gradient
Chesapeake, VA	AP-3	78.5	Eppinger & Russel Co Inc.	1,250 N	Superfund Site	Down Gradient
Chesapeake, VA	AP-3	79.0	Borden Smith Douglass	10 S	Superfund Site	Side Gradient
Landfill and Solid Waste Sites Identified within 0.5 mile of the Centerline and Aboveground Facilities						
Augusta, VA	AP-1	141.4	Jolivue Landfill/Augusta Regional Landfill	586 NE	Closed MSW Landfill and Active MSW Landfill Complex	Up Gradient
Chesapeake, VA	AP-3	155.1	Dominion Chesapeake Energy Center	247 E	Closed Industrial Landfill and Active Industrial Landfill	Side Gradient
Chesapeake, VA	AP-3	79.1	Atlantic Aggregate Recyclers	269N E	Inert Landfill	Up Gradient
Leaking Underground Petroleum Storage Tank (LUST) Sites within 1000 feet of the Centerline and Aboveground Facilities						
Augusta, VA	AP-1	143.9	Starkey Residence	148 SW	LUST	Side Gradient
Nelson, VA	AP-1	182.5	Woodson's Grocery	237 E	LUST	Side Gradient
Buckingham, VA	AP-1	209.3	Betty Brown Property	197 NE	LUST	Up Gradient
Nash, NC	AP-2	49.0	NCCU-Turner Law School	256 SE	LUST	Side Gradient
Nash, NC	AP-2	49.0	NCCU-Eagleson Hall	82 NW	LUST	Down Gradient
Johnston, NC	AP-2	90.7	Days Inn Motel	9 SE	LUST	Side Gradient
Johnston, NC	AP-2	108.1	Tippet Residential	188 SE	LUST	Down Gradient
Sampson, NC	AP-2	117.8	Plain View Grocery	294 SE	LUST	Up Gradient
Robeson, NC	AP-2	181.8	Rudy's Restaurant	233 SW	LUST	Down Gradient
Southampton, VA	AP-3	23.6	Cooke Residence	269 NW	LUST	Up Gradient
Suffolk, VA	AP-3	62.0	City of Suffolk Pump Station 11	244 NW	LUST	Side Gradient
Chesapeake, VA	AP-3	75.2	Deep Creek Pharmacy	70 SW	LUST	Down Gradient
Chesapeake, VA	AP-3	75.3	BOX USA Group, Inc.	284 N	LUST	Up Gradient
Chesapeake, VA	AP-3	75.4	Mid Atlantic Repair, Inc.	163 S	LUST	Down Gradient
Chesapeake, VA	AP-3	75.4	Watkins Motor Lines, Inc.	110 S	LUST	Down Gradient
Chesapeake, VA	AP-3	76.6	Deep Creek Pumping Station	235 N	LUST	Up or Side Gradient
Chesapeake, VA	AP-3	77.8	IMTT-Chesapeake Terminal	200 NW	LUST	Up or Side Gradient
Chesapeake, VA	AP-3	78.2	Chesapeake Energy Center	196 S	LUST	Up or Side Gradient
Chesapeake, VA	AP-3	78.2	Chesapeake Energy Center	205 S	LUST	Up or Side Gradient
Chesapeake, VA	AP-3	78.2	Chesapeake Energy Center	211 S	LUST	Up or Side Gradient

TABLE 2.1.5-1 (cont'd)

Contaminated Sites, Landfills, and Leaking Underground Storage Tanks Near the Atlantic Coast Pipeline and Supply Header Project [a]

County/ City and State/ Commonwealth	Pipeline Segment	Nearest Milepost	Site Name	Distance and Direction from Centerline (ft)	Facility Type	Surface Drainage Direction from Project [b]
Chesapeake, VA	AP-3	78.2	Chesapeake Energy Center	203 S	LUST	Up or Side Gradient
Chesapeake, VA	AP-3	78.2	Chesapeake Energy Center	243 S	LUST	Up or Side Gradient
Chesapeake, VA	AP-3	78.6	OneSteel Recycling, Inc.	266 N	LUST	Up or Side Gradient
Chesapeake, VA	AP-3	78.7	Former Smith Douglas Plant	135 S	LUST	Up or Side Gradient

[a] No contaminated sites, landfills, or LUST sites were found within the search distances identified above for SHP.

[b] USGS topographic maps were reviewed to evaluate the topographic disposition of each site in relation to the Projects.

The NCDENR OneMap Geospatial Portal was used to obtain geospatial databases of LUSTs, landfills, and other solid or hazardous waste sites in North Carolina (NCDENR, 2014a, 2014b, 2014c). Review of these sources identified six LUST sites mapped within 1,000 feet of the proposed ACP facilities in North Carolina. Based on the geospatial point data available on the OneMap Geospatial Portal, none of the contaminated sites located in North Carolina appear to be crossed by the proposed facilities. In addition, three of these sites are located hydraulically down gradient from the proposed ACP facilities and are therefore unlikely to have contributed to groundwater contamination in the vicinity of the proposed ACP facilities.

The PADEP's web-based list of Municipal Waste Landfills & Resource Recovery Facilities and an online database for Bureau of Environmental Cleanup and Brownfields Regulated Storage Tank Cleanup Incidents was reviewed to identify contaminated sites in Pennsylvania (PADEP, 2014). No contaminated sites were identified within one mile of the proposed SHP facilities in Pennsylvania in these or the EPA sources.

As discussed in Section 2.6.1, Atlantic and DTI are currently coordinating with Augusta County in order to minimize the impact of the proposed ACP facilities on the Augusta Regional Landfill. In addition, Atlantic and DTI are currently awaiting a response from the EPA in order to verify the site boundaries of the Borden Smith Douglass Superfund Site. Based on the geospatial data and other information provided by State/Commonwealth and Federal agencies, Atlantic and DTI have concluded that none of the other contaminated sites listed in Table 2.1.5-1 are crossed by the current route for the proposed ACP facilities. However, in the event that contaminated soil or groundwater is encountered during construction, Atlantic and DTI will implement the appropriate containment and mitigation measures described in the *Contaminated Media Plan* (see Appendix 1F of Resource Report 1).

2.1.6 Groundwater Construction Related Impacts and Mitigation

Standard procedures for construction of the pipeline and aboveground facilities could potentially affect groundwater in several ways. Clearing, grading, trenching, and soil stockpiling activities could temporarily alter overland flow and groundwater recharge or could result in minor fluctuations in groundwater levels and/or increased turbidity. Near-surface soil

compaction caused by the operation of heavy construction equipment could reduce the ability of soil to absorb water, which could increase surface runoff and the potential for ponding. These impacts will be minimized or avoided through implementation of the construction practices outlined in the 2013 versions of the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures).

Ground disturbance associated with construction of pipelines and aboveground facilities is generally within the upper 10 feet or less of the existing ground surface, which is above the typical minimum depth of the bedrock aquifers in the areas crossed by the Projects. A depth of 10 feet is also above most near-surface aquifers and most wells that might be completed in a localized shallow aquifer. Where near-surface aquifers are present or localized alluvial aquifers occur, they typically consist of unconsolidated alluvial sand and gravel exhibiting rapid recharge and groundwater movement. If disturbed, these aquifers quickly re-establish equilibrium and turbidity levels rapidly subside, such that impacts are localized and temporary. Upon completion of construction, Atlantic and DTI will restore the ground surface as closely as practicable to original contours and reestablish vegetation on the right-of-way to facilitate restoration of preconstruction overland flow and recharge patterns. To minimize the potential impact of hazardous material spills on surficial aquifers during construction and operation of the ACP and SHP, Atlantic and DTI have prepared and will implement a *Spill Prevention, Control, and Countermeasures Plan* (SPCC Plan) (see Appendix 1F of Resource Report 1). Hazardous or toxic materials used on the right-of-way would typically be limited to fuels, oils, lubricants, and in some cases blasting materials. These materials would be handled in accordance with the SPCC Plan and *Blasting Plan*. In addition, to minimize impacts associated with construction water discharges on surficial aquifers Atlantic and DTI will implement measures outlined in the Plan and Procedures during construction dewatering activities.

Karst features that have an opening into the subsurface bedrock have the potential to provide a conduit for impacts to groundwater.[7] Atlantic and DTI conducted a detailed desktop assessment and field survey along those portions of the Projects considered prone to the development of karst to identify sinkholes and other karst features. As warranted, Atlantic and DTI will make minor route adjustments to avoid areas containing dense concentrations of features, such as sinkholes, which are indicative of karst development. Atlantic and DTI have prepared and will implement a *Karst Monitoring and Mitigation Plan* (see Appendix 1F of Resource Report 1), which identifies construction and restoration practices in karst areas. During construction, erosion and sediment controls will be installed along the edge of the construction right-of-way and in other work areas upslope of known sinkholes or other karst features with a direct connection to the phreatic zone of the karst (i.e., groundwater). In addition, refueling, hazardous materials storage, and overnight equipment parking within 300 feet of karst features with direct connection to the phreatic zone will be prohibited. Results of the desktop assessment and field surveys as well as proposed construction and mitigation measures for karst areas are discussed in more detail in Resource Report 6.

[7] During the ACP and SHP Open Houses, and in comments filed with the FERC, several individuals commented about karst features and the potential to impact groundwater resources.

Potential project-related groundwater contamination sources may also include accidental spills and leaks of hazardous materials associated with construction; refueling or maintenance of vehicles; and storage of fuel, oil, and other fluids. Spills or leaks from equipment used during construction pose the greatest risk to groundwater resources. If not cleaned up, soils contaminated by spilled materials could leach and add pollutants to groundwater.

To avoid or minimize the potential impact of hazardous material spills during construction and operation of the ACP and SHP, Atlantic and DTI have prepared and will implement a SPCC Plan. The SPCC Plan will specify preventive measures such as regular inspection of storage areas for leaks, replacement of deteriorating containers, and construction of containment systems around hazardous liquids storage facilities. The SPCC Plan will restrict refueling or other liquid transfer areas within 100 feet of wetlands, waterbodies, and springs, and within 300 feet of karst features with a direct connection to the phreatic zone; prohibit refueling within 200 feet of private water supply wells and within 400 feet of municipal water supply wells; and require additional precautions (e.g., secondary containment) when specified setbacks cannot be maintained. In addition, Atlantic and DTI will evaluate recommended measures provided by local agencies where wellhead protection or groundwater protection areas are crossed. The SPCC Plan also will identify emergency response procedures, equipment, and cleanup measures to be implemented in the event of a spill, and require the construction contractor to complete an inventory of construction fuels, lubricants, and other hazardous materials that may be used or stored in designated areas, as well as the amount and type of containers that will be used to store these materials.

It is possible that previously undocumented sites with contaminated soils or groundwater could be discovered during construction of the Projects. Atlantic and DTI have prepared and will implement a *Contaminated Media Plan* to address these circumstances (see Appendix 1F of Resource Report 1). The *Contaminated Media Plan* describes measures to be implemented in the event that signs of contaminated soil and/or groundwater are encountered during construction. Signs of potential contamination could include discoloration of soil, chemical-like odors, or sheens on soils or water. Containment measures will be implemented to isolate and contain suspected soil or groundwater contamination, and collect and test samples of the soil or groundwater to identify the contaminants. Once the contaminants are identified, a response plan will be developed for crossing or avoiding the site.

Blasting may be necessary along portions of the proposed ACP and SHP facilities where bedrock is located at or near the ground surface (see Section 6.2 of Resource Report 6). Atlantic and DTI have prepared and will implement a *Blasting Plan* which identifies procedures for the use, storage, and transportation of explosives consistent with safety requirements as defined by Federal, State/Commonwealth, and local agency regulations. The *Blasting Plan* is provided in Appendix 1F of Resource Report 1. Where blasting is necessary, it will be conducted in a manner to minimize possible impacts on nearby public and private water supply wells, springs, or karst features with a direct connection to the phreatic zone.

Without proper planning, blasting could affect groundwater quality and bedrock-based water well systems located in close proximity to the construction right-of-way.[8] The use of controlled blasting techniques, where small, localized detonations are utilized, will avoid or minimize the impacts of blasting and limit rock fracture to the immediate vicinity of these activities. As noted in Sections 2.1.3.2 and 2.1.4, Atlantic and DTI will contact landowners to determine the location of private water wells and private water supply springs within 150 feet of approved construction workspaces. Atlantic and DTI will, with landowner permission, conduct preconstruction and post-construction well testing, and perform necessary repair or restoration to maintain well productivity and water quality, for wells located within 150 feet of the construction area.

Atlantic plans to monitor groundwater quality and yield for public and private supply wells and springs proximate to the Project area, as described in more detail below. Groundwater inventory and sample collection will be conducted before and after construction to determine whether water supplies have been affected by pipeline construction activities. Atlantic and DTI will establish baseline groundwater conditions prior to construction of the Projects through investigative field surveys and a sampling protocol. The surveys will include a groundwater inventory of all wells or springs within 500 feet of the proposed pipelines in karst areas and within 150 feet of the construction workspace along the remainder of the proposed pipelines. In order to conduct these inventories, land owner permission will need to be obtained first.

With landowner permission, water samples will be obtained prior to construction to establish water quality and yield baselines during the varying seasons. These samples will be tested for pH, total suspended solids, total dissolved solids, conductivity, alkalinity, acidity, sulfates, oil/grease, phenolic, iron, manganese, aluminum, fecal coliform, copper, lead, nickel, silver, thallium, zinc, chromium, arsenic, mercury, selenium, cyanide, calcium magnesium, hardness, chlorides, antimony, cadmium, and beryllium. Sampling methods will adhere to the prevailing EPA and State/Commonwealth sampling, analytical and data quality assurance and quality control procedures. The samples will be analyzed using EPA-approved methods and the analysis will be performed by a certified laboratory in each State/Commonwealth.

Any well damage claim will be investigated for cause; during this investigation a temporary potable water source will be supplied to the well owner. This temporary potable water source will be supplied by a potable water storage device and/or a temporary water treatment system to restore potable water.

In the event the damage claim investigation yields positive results that construction activities caused or contributed to well damage. Atlantic or DTI will provide a permanent potable water source. This will be supplied by a permanent water treatment system and/or a new well drilled to a deeper aquifer.

To respond to mitigation requested by the ACSA regarding potential blasting near the Augusta Regional Landfill, Atlantic has incorporated a route adjustment that increases the

[8] In comments filed with the FERC, several individuals commented about blasting during construction and potential impacts on water sources and water quality.

distance between the AP-1 mainline and the landfill.[9] The purpose of this adjustment was an added precaution to mitigate potential impacts of blasting near the landfill's monitoring wells. Atlantic will also develop a site-specific blasting and monitoring plan for this area in consultation with the ACSA.

Atlantic and DTI are evaluating the need to use groundwater for the aboveground facilities. Groundwater may be used for hydrostatic testing of facility piping, dust control, operation and maintenance activities, and domestic uses.

2.1.7 Facility Operations

The Projects will transport pipeline quality natural gas that has been processed to remove natural gas liquids (NGL) prior to being received by the ACP and SHP. However, a small amount of residual NGLs may still exist in the gas transported by ACP and SHP. Several important considerations are incorporated into the design and operation of the Projects with regard to NGLs. These design elements will minimize the risk of release of residual NGLs that may accumulate in the pipeline as a result of normal natural gas pipeline operations. 49 CFR Parts 192.475, 192.476., 192.477, and 192.491 address operations of natural gas pipelines. Gas pressure and receipts along the pipelines will be monitored continuously to ensure gas quality parameters are met at the receipt points. In addition, construction design and operations procedures for the Projects will limit the potential for NGLs to occur in the pipelines. Filter separators will be installed at the receipt points and at the compressor stations. These filter separators will remove those trace amounts of liquids that may be in the gas stream. Additionally, pigging of the pipeline will be conducted to remove fluids from the pipeline in a controlled manner. When the ACP and SHP are pigged, the NGLs will be collected in vessels that are enclosed within secondary containment equipped with alarm systems to notify the operators if levels change. The fluids in the tanks will hauled to approved-disposal facilities.

Additionally, SPCC Plans which outline the training, procedures, processes and equipment to be utilized by Atlantic and DTI and/or contractors pertaining to spill response during operations will be established for the facilities. In the event of an inadvertent NGL release, Atlantic and DTI will have spill kits staged at work locations where trained employees and contractors are able to ensure compliance and that safety requirements are met during the spill cleanup process.

The new pipelines and aboveground facilities are not expected to result in impacts on groundwater use or quality under typical operating conditions. Impacts could occur if maintenance activities require excavation or repair in proximity to water supply wells or springs. In such a case, the impacts and mitigation would be similar to those described above for construction activities.

[9] In comments filed with the FERC the ACSA commented that blasting near the Augusta Regional Landfill could damage monitoring wells.

2.2 SURFACE WATER RESOURCES

2.2.1 Existing Watersheds

The USGS has organized watersheds of the United States into seven successively smaller levels of subdivisions using hydrologic unit codes (HUC). Regions (level one) are the largest watersheds (two-digit HUCs), followed by sub-regions (four-digit HUCs), basins (six-digit HUCs), and sub-basins (eight-digit HUCs), which are further divided into smaller watersheds. Information on the basins and watersheds crossed by the proposed ACP and SHP facilities is described below and summarized in Table 2.2.1-1.

The proposed ACP facilities will cross three regional watersheds (the Ohio, Mid-Atlantic, and South Atlantic-Gulf) and eight sub-regions (Monongahela, Kanawha, Lower Chesapeake, Potomac, Chowan-Roanoke, Neuse-Pamlico, Cape Fear, and Pee Dee). The sub-regions are further broken into 10 basins and 26 sub-basins.

The Ohio Regional Watershed covers approximately 161,250 square miles encompassing portions of nine States, including Illinois, Indiana, Kentucky, Maryland, New York, North Carolina, Ohio, Tennessee, West Virginia and the Commonwealths of Pennsylvania and Virginia (USGS, 1994). Major rivers within this regional watershed include the Ohio, Wabash, Allegheny, Monongahela, Kanawha, and New Rivers.

The Mid-Atlantic Regional Watershed covers approximately 95,360 square miles encompassing all or portions of eight States, including Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, Vermont, West Virginia, and the Commonwealths of Pennsylvania and Virginia (USGS, 1994). Major rivers in the southern portion of this regional watershed include the Potomac, James, and Shenandoah Rivers, as well as the beginning of the Ohio River at the confluence of the Allegheny and Monongahela Rivers. The Mid-Atlantic Regional Watershed also contains the nation's largest estuary, Chesapeake Bay.

The South Atlantic-Gulf Regional Watershed covers approximately 278,680 square miles encompassing all or portions of eight States including Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and the Commonwealth of Virginia (USGS, 1994). Major rivers in this regional watershed include the Roanoke, Cape Fear, Savannah, Ogeechee, and Chattahoochee Rivers. This South Atlantic-Gulf Regional Watershed also includes the Outer Banks of North Carolina and Florida Everglades.

The proposed SHP facilities are located within the Ohio Regional Watershed and portions of two sub-regions, Upper Ohio and Monongahela. The sub-regions are further broken into two basins and three sub-basins.

2.2.2 Waterbodies Crossed

Waterbodies are defined by the FERC as "any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as lakes and ponds." The flow regime for waterbodies may be characterized as perennial, intermittent, or ephemeral. Perennial waterbodies contain water for all or most of the year and have flow. Intermittent waterbodies flow seasonally or following rainfall events. Ephemeral waterbodies flow during or shortly after precipitation events or Spring snowmelt.

As used in this Resource Report, the term "waterbodies" follows the FERC definition noted above. Through the Clean Water Act permitting process, Atlantic and DTI will determine with the U.S. Army Corps of Engineers (USACE), EPA, and State/Commonwealth agencies whether given features are jurisdictional "waters of the U.S." The term "waterbodies," as used here, is best understood as those water features – excluding wetlands – that are potentially subject to jurisdiction under the Clean Water Act.

TABLE 2.2.1-1

Watersheds Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/Regional Watershed/ Sub-Region	Approximate Mileposts [b]	County/City and State/Commonwealth
ATLANTIC COAST PIPELINE		
AP-1		
Ohio Regional Watershed		
Monongahela	0.0 – 69.7	Harrison, Lewis, Upshur, and Randolph Counties, WV
Kanawha	69.7 – 83.1	Pocahontas County, WV
Mid-Atlantic Regional Watershed		
Potomac	83.1 – 85.9; 118.1 – 158.2	Highland and Augusta Counties, VA
Lower Chesapeake	85.9 – 118.1; 158.2 – 247.3	Highland, Augusta, Nelson, Buckingham, Cumberland, Prince Edward and Nottoway Counties, VA
Atlantic-Gulf Regional Watershed		
Chowan-Roanoke	247.3 – 300.1	Nottoway, Dinwiddie, Brunswick, and Greensville Counties, VA, and Northampton County, NC
AP-2		
Atlantic-Gulf Regional Watershed		
Chowan-Roanoke	0.0 – 18.0	Northampton and Halifax Counties, NC
Neuse-Pamlico	18.0 – 115.3	Halifax, Nash, Wilson, Johnston, and Sampson Counties, NC
Cape Fear	115.3 – 159.3	Sampson and Cumberland Counties, NC
Pee Dee	159.3 – 183.0	Cumberland and Robeson Counties, NC
AP-3		
Atlantic-Gulf Regional Watershed		
Chowan-Roanoke	0.0 – 52.0; and 68.0 – 68.4	Northampton County, NC, Southampton County, VA and City of Suffolk and City of Chesapeake, VA
Mid-Atlantic Regional Watershed		
Lower Chesapeake	52.0 – 68.0; and 68.4 – 79.3	City of Suffolk and City of Chesapeake, VA
AP-4		
Atlantic-Gulf Regional Watershed		
Chowan-Roanoke	0.0 – 0.6	Brunswick County, VA
AP-5		
Atlantic-Gulf Regional Watershed		
Chowan-Roanoke	0.0 – 1.1	Greensville County, VA
SUPPLY HEADER PROJECT		
TL-635		
Ohio Regional Watershed		
Monongahela	0.0– 0.7	Harrison County, WV
Upper Ohio	0.7 – 33.6	Wetzel, Tyler, and Doddridge Counties, WV
TL-636		
Ohio Regional Watershed		
Monongahela	0.0 – 3.9	Westmoreland County, PA

Source: USGS, 1994

The FERC categorizes surface waters as major, intermediate, or minor waterbodies based on the width of the water's edge at the time of crossing. Major waterbodies are greater than 100 feet wide, intermediate waterbodies are between 10 feet and 100 feet wide, and minor waterbodies are 10 feet wide or less.

Atlantic and DTI are completing waterbody surveys to document waterbody crossings along the proposed pipeline routes and in other work areas. Table 2A-1 and Table 2A-2 in Appendix 2A provide a list of the waterbodies crossed by the proposed ACP and SHP facilities, respectively. For each waterbody crossing, the tables include the field survey designation (Feature ID), waterbody name, approximate crossing width, flow regime (perennial, intermittent, ephemeral, or canal/ditch), proposed crossing method, and State/Commonwealth water classification, and indicates if there is a time of year restriction at the crossing. Waterbodies that were not surveyed in the field due to a lack of survey permission or recent changes to the proposed pipeline routes were identified based on the National Hydrography Dataset (NHD) (USGS, 2015) and/or recent aerial photography. These features are designated as "NHD" in the Feature ID column of each table. Table 2.2.2-1 below provides a summary of the waterbodies crossed by the Projects. Waterbody and wetland delineation reports for the ACP and SHP are provided in Appendices 2D and 2E, respectively.

Information on the major waterbodies crossed by the Projects is provided in Table 2.2.2-2. Site-specific drawings for each of the major waterbodies crossed are provided in Appendix 2F. Information for intermediate and minor waterbody crossings is provided in Appendices 2A-1 and 2A-2. Table 2.2.2-3 summarizes the waterbodies crossed by the ACP on Federal lands. Table 2A-3 and Table 2A-4 in Appendix 2A provide a listing of the proposed stream crossings location on U.S. Forest Service (USFS) lands in the MNF and GWNF.

TABLE 2.2.2-1

Waterbodies Affected by the Atlantic Coast Pipeline and Supply Header Project

	Waterbody Type					FERC Classification			
Project/Facility	Perennial	Intermittent	Ephemeral	Canal/ Ditch	Open Water Ponds	Major	Intermediate	Minor	Open Water Ponds
ATLANTIC COAST PIPELINE									
Pipeline Facilities	448	434	128	45	22	14	316	725	22
Aboveground Facilities	1	0	0	0	0	0	1	0	0
Access Roads	74	106	23	3	5	0	52	154	5
Pipe Storage and Contractor Yards	3	2	0	0	0	0	2	3	0
Project Total	**526**	**542**	**151**	**48**	**27**	**14**	**371**	**882**	**27**
SUPPLY HEADER PROJECT									
Pipeline Facilities	57	8	0	0	1	0	33	32	1
Aboveground Facilities	6	1	0	0	1	0	2	5	1
Access Roads	56	15	0	0	0	0	30	41	0
Pipe Storage and Contractor Yards	0	0	0	0	0	0	0	0	0
Project Total	**119**	**24**	**0**	**0**	**2**	**0**	**65**	**78**	**2**

TABLE 2.2.2-2

Major Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project [a]

Pipeline Segment/County or City/State or Commonwealth	Waterbody Name	Milepost	Flow Type [a]	Approximate Crossing Width (feet)	Crossing Method
AP-1					
Randolph County, WV	Shavers Fork	67.9	Perennial	103	Cofferdam
Nelson and Buckingham Counties, VA	James River	184.7	Perennial	387	HDD
Cumberland and Prince Edward Counties, VA	Appomattox River	220.8	Perennial	104	Cofferdam
Greensville County, VA	Meherrin River	286.3	Perennial	182	Open Cut
AP-2					
Northampton and Halifax Counties, NC	Roanoke River	9.8	Perennial	360	HDD
Halifax and Nash Counties, NC	Fishing Creek	33.9	Perennial	105	Dam and Pump/Flume
Nash County, NC	Swift Creek	40.6	Perennial	127	Dam and Pump/Flume
Nash County, NC	Tar River	59.4	Perennial	165	Open Cut
Johnston County, NC	Neuse River	98.4	Perennial	137	Open Cut
Cumberland County, NC	Cape Fear River	149.3	Perennial	325	HDD
AP-3					
Greensville and Southampton County, VA	Meherrin River	12.4	Perennial	116	Cofferdam
Southampton, VA	Nottoway River	32.6	Perennial	240	HDD
Southampton County and City of Suffolk, VA	Blackwater River	38.6	Perennial	205	HDD
City of Chesapeake, VA	South Elizabeth River	78.4	Perennial	851	HDD

[a] No major waterbodies are crossed by the Supply Header Project in Pennsylvania or West Virginia.

TABLE 2.2.2-3

Waterbodies Crossed by the Atlantic Coast Pipeline on Federal Lands

Federal Land Unit	Federal Land Crossed (miles)	Waterbody Type				
		Perennial	Intermittent	Ephemeral	Canal/ Ditch	Open Water Ponds
Monongahela National Forest	18.6	48	52	22	0	2
George Washington National Forest	12.2	16	10	4	0	0
Blue Ridge Parkway	0.1	0	0	0	0	0
Great Dismal Swamp National Wildlife Refuge	1.7	1	0	0	3	0

2.2.3 Surface Water Standards and Classifications

Each of the States/Commonwealths crossed by the proposed ACP and SHP facilities has developed its own regulatory system for evaluating, classifying, and monitoring the quality and uses of surface waters. Each system includes the assignment of "beneficial use designations" that describe the potential or realized capacity of a waterbody to provide defined ecological and human population benefits. A summary of the use designation system for each State/Commonwealth is provided below. The designations for the waterbodies crossed by the proposed ACP and SHP facilities, respectively, are listed in Tables 2A-1 and 2A-2 in Appendix 2A.

2.2.3.1 West Virginia Surface Water Classifications

West Virginia Code of State Regulations (CSR) §47-2-4 (West Virginia Code of State Regulations [WVCSR], 2014) outlines an antidegradation policy that establishes three classes for waters of the State. The classes are assigned to waters in an effort to maintain quality or existing uses (WVDEP, 2014a). The three tiers of protection are defined as follows (WVCSR, 2014):

- Tier 1 Protection: existing water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. Existing uses are those uses actually attained in a water on or after November 28, 1975, whether or not they are included as designated uses within the State code, water quality standards.
- Tier 2 Protection: existing high quality waters of the State must be maintained at their existing high quality. High quality waters are defined in the State code as those waters whose quality is equal or better than the minimum levels necessary to achieve the national water quality goal uses.
- Tier 3 Protection: outstanding national resource waters that have been placed on the highest tier of the State classification to provide greater protection. These include waters that are in federally designated Wilderness Areas and waters with naturally reproducing trout in State parks, national parks, and national forests.

West Virginia CSR §47-2-6 further outlines general Water Use Categories and Water Quality Standards for waters of the State. Under the CSR, waters of the State are designated for Propagation and Maintenance of Fish and Other Aquatic Life (Category B) and Water Contact Recreation (Category C) unless otherwise designated. Other use designations assigned under the CSR include: Public Water (Category A), Warm Water Fishery (Category B1), Trout Waters (Category B2), Wetlands (Category B4), Water Contact Recreation (Category C), Agricultural and Wildlife Uses (Category D), Irrigation (Category D1), Livestock (Category D2), Wildlife (Category D3), Water Supply Industrial, Water Transport, Cooling and Power (Category E), Water Transport (Category E1), Cooling Water (Category E2), Power Production (Category E3), and Industrial (Category E4) (West Virginia CSR, 2014).

The proposed ACP facilities will cross ten Tier 3 streams in West Virginia (Tygart Valley River, MP 56.5; Becky Creek at two locations, MP 60.3 and MP 60.6; Shavers Fork, MP 67.9; Unnamed Tributary to West Fork Greenbrier River, MP 70.5; West Fork Greenbrier River, MP 71.4; Mountain Lick Creek, MP 72.2; John's Run, MP 74.8; East Fork Greenbrier River, MP 77.1; and Little River, MP 79.2).[10] Construction and operation of the ACP will meet applicable requirements for Tier 3 outstanding national resource waters. The SHP will not cross Tier 3 streams in West Virginia. According to WVDEP staff Tier 1 and Tier 2 streams are determined on a case by case basis during permitting and determinations may vary based on the water quality parameters (Peterson, 2015). For example, a stream could be designated as a Tier 1 for one parameter and a Tier 2 for a different parameter. Therefore, streams are not able to be categorized as Tier 1 or Tier 2 at this time.

[10] In comments filed with the FERC the U.S Forest Service indicated additional Tier 3 streams are present within National Forest Boundaries based on presence of naturally reproducing trout. Based on additional research Atlantic has included three additional waterbodies.

2.2.3.2 Virginia Surface Water Classifications

Title 9 of VAC Agency 25, Chapter 260, Section 30 (9VAC25-260-30) outlines an antidegradation policy that establishes three classes for waters of the Commonwealth of Virginia (VLIS, 2014b). The three classes are defined as follows:

- Tier 1: waters where existing water quality and uses need to be maintained.
- Tier 2: waters that are exceeding water quality standards.
- Tier 3: exceptional waters where no new discharges of pollution are allowed; these waters are required to be listed in the VAC.

The proposed ACP facilities do not cross Tier 3 streams in Virginia (see Appendix 2A). According to VDEQ staff, Tier 1 and Tier 2 streams are determined on a case by case basis during permitting (Barron, 2015). Therefore, streams are not able to be categorized as Tier 1 or Tier 2 at this time.

Under 9VAC25-260-10, Commonwealth of Virginia waters, including wetlands, are designated for recreational uses; propagation and growth of a balanced, indigenous population of aquatic life; wildlife; and the production of edible and marketable natural resources. Subcategories have been established for the propagation and growth of a balanced indigenous population of aquatic life in Chesapeake Bay and its tidal tributaries. Other subcategories have not been defined in the VAC (VLIS, 2014c).

2.2.3.3 North Carolina Surface Water Classifications

Title 15A of North Carolina Administrative Code (NCAC), Chapter 2, Subchapter 02B outlines State surface water and wetland standards (15A NCAC 02B.0101). Within this subchapter, classifications for surface waters are defined as follows:

- Class C: freshwater protected for secondary recreation, fishing, and aquatic life; this category includes all freshwater in the State to protect these uses.
- Class B: freshwater protected for primary recreation, including swimming and all Class C uses.
- Classes WS-I, WS-II, WS-III, WS-IV, and WS-V: waters that are protected as water supplies within watersheds of increasing development, ranging from natural, undeveloped, and upstream watersheds to moderate or highly developed watersheds.
- Class WL: waters that meet the definition of wetlands, except coastal wetlands.
- Classes SC, SB, SA, and SWL: waters including various categories of tidal salt-waters.

In addition to these classifications, the NCAC defines a number of supplemental classes for State waters. These include designations for Trout Waters (Tr), Swamp Waters (Sw), Nutrient Sensitive Waters (NSW), Outstanding Resource Waters (ORW), High Quality Waters (HQ), Future Water Supply, and Unique Wetland.

The NCAC (15A NCAC 02B.0201 Antidegradation) under subsection 2B, Rule .0201, establishes an antidegradation policy for North Carolina. This policy requires the establishment

of classes protecting existing uses of State waters. It additionally states that projects affecting waters shall not be permitted unless existing uses can be protected (NCAC, 1996).

In North Carolina surface waters are assigned a minimum Class C designation. In addition, the proposed ACP pipeline facilities will cross three Class WS-III, 17 Class WS-IV, three Class WS-V, 29 Class Sw, and 46 Class NSW waterbodies (see Appendix 2A).

2.2.3.4 Pennsylvania Surface Water Classifications

Provisions of water quality standards in Pennsylvania are provided under Title 25, Subpart C, Article II, Chapter 93 of the Pennsylvania Code (Pennsylvania Code, 1971). The general provisions for protected water uses in Chapter 93.3 identifies several categories of water uses to be protected, including cold water fisheries (CWF), warm water fisheries (WWF), migratory fishes, trout stocking, potable water supply (PWS), industrial water supply (IWS), livestock water supply (LWS), wildlife water supply (AWS), irrigation (IRS), boating (B), fishing (F), water contact sport (WC), esthetics (E), high quality waters (HQ), exceptional value waters (EV), and navigation.

Pennsylvania Code chapter 93.4 outlines uses for waters of the Commonwealth. Under this chapter, the following uses apply to surface waters unless otherwise specified in law or regulation: WWF, PWS, IWS, LWS, AWS, IRS, B, F, WC, and E. These uses must be protected in accordance with Chapter 96 of the Pennsylvania Code with regard to water quality standards and other applicable Commonwealth or Federal laws and regulations.

Pennsylvania Code Chapter 93.4a outlines an antidegradation policy for surface waters of the Commonwealth. The policy states that existing in-stream water uses and the level of water quality necessary to protect existing uses shall be maintained and protected. The policy additionally states that the water quality of HQ and EV streams and lakes shall be maintained and protected, except as provided in § 93.4c(b)(1)(iii). HQ waters are defined as surface waters that have long-term water quality to support the propagation of fish, shellfish, and wildlife as well as recreation; that support high quality aquatic communities; and/or that meet Class A wild trout stream qualifications. Surface waters that qualify as EV must meet the requirements of HQ surface waters as well as one or more of the following:

- the water is located within a national wildlife refuge, national natural landmark, Federal wild river, Federal wilderness area, national recreation area, or areas designated by the Commonwealth as game propagation and protection areas, park natural areas, forest natural areas, or wild rivers;
- the water is an outstanding national, Commonwealth, regional or local resource water;
- the water is a surface water of exceptional recreational significance;
- the water achieves a score of at least 92 percent using the methods and procedures described in subsection (a)(2)(i)(A) or (B); or
- the water is designated as a ‘wilderness trout stream’ by the Pennsylvania Fish and Boat Commission.

In Pennsylvania, the SHP facilities will cross 12 streams with CWF and HQ designations, and two streams with trout stocking designations (see Appendix 2A; PADEP, 2013). Construction and operation of the SHP will meet applicable requirements for HQ waters. None of the waterbodies within the SHP Project area are classified as EV.

2.2.4 Contaminated Waters or Sediments

The EPA's List of Sediment Sites with Substantial Contamination identifies Superfund sites where remediation includes the dredging or excavation of more than 10,000 cubic yards of contaminated sediment. According to the EPA, these sites contain sediments associated with waterbodies that present an unacceptable risk to human health and/or the environment (EPA, 2013b). Based on a review of the EPA list, no such sites are located in Pennsylvania, West Virginia, or North Carolina (EPA, 2012a). One such site is listed in the City of Roanoke, Virginia, but it is located greater the 50 miles from the proposed ACP facilities.

Atlantic and DTI reviewed the list of 303(d) Impaired Waters for each State/Commonwealth to identify crossings of waterbodies that may contain contaminated sediments (WVDEP, 2012a, 2012b; VDEQ, 2015; NC OneMap, 2015a; PADEP, 2015c). Waterbodies crossed by the proposed ACP or SHP facilities that are included on the EPA approved 303(d) impaired waters list are identified in Table 2B in Appendix 2B. There are 16 303(d) impaired streams crossed by the ACP in West Virginia, 20 in Virginia, and one in North Carolina. There are nine 303(d) impaired streams crossed by the SHP pipeline facilities in West Virginia and nine in Pennsylvania. Atlantic and DTI are evaluating the contaminants listed within these waterbodies for the probability to encounter contaminated water or sediments during construction, or to exacerbate impairments during construction. In the event that contaminants are encountered during construction of the Projects, Atlantic and DTI will implement the measures identified in the *Contaminated Media Plan* (see Appendix 1F of Resource Report 1).

2.2.5 Public Surface Water Intakes and Surface Water Protection Areas

Atlantic and DTI are consulting with the WVDHHR, VDH-ODW, NCDENR-DWR, and PADEP in an effort to identify public surface water intakes within 3.0 miles and surface water protection areas within 250 feet of the proposed ACP and SHP facilities.

Similar to the public supply wells discussed in Section 2.1.3 above, surface water intake data are not publicly available from the WVDHHR. At Atlantic's and DTI's request, however, the WVDHHR (2015a) reviewed maps of the Projects and determined that there are four surface water intakes within 3.0 miles of the ACP and there is one surface water intake within 3.0 miles of the SHP. The WVDHHR also determined that there are four surface water protection areas within 250 feet of the ACP and none within 250 feet of the SHP (WVDHHR, 2015a). During a supplemental review, the WVDHHR (2015b) determined that the Projects do not intersect any drinking water sources; however, the Projects intersect multiple protection areas and zones associated with six public water systems. The WVDHHR (2015b) provided a shapefile for a three mile buffers around protection areas and zones associated with the ACP and SHP.

Atlantic and DTI reviewed Source Water Assessment Reports, prepared by the WVDHHR Office of Environmental Health Services Source Water Protection Unit, for each of the surface water intake facilities outlined in the WVDHHR (2015a) correspondence letter

(WVDHHR, 2003a-e). The Source Water Assessment Reports identify the Source Water Protection Watershed for each intake, which includes the entire watershed area upstream of the intake structure. The reports and shapefile provided by the WVDHHR (2015b) also identify Zones of Critical Concern (ZCC), which are considered surface water protection areas in corridors along waterbodies within Source Water Protection Watersheds. The ZCC is based on a protection zone of five hours above the water intake. The Zones of Peripheral Concern (ZPC) were provided in a shapefile from the WVDHHR (2015b) and are considered surface water protection areas in corridors along waterbodies Source Water Protection Watersheds. The ZPC is based on a protection zone of ten hours above the water intake. The ZCCs and ZPCs warrant a more detailed inventory and management due to their proximity to the source water and the susceptibility to potential contaminants. ZCCs, Wellhead Protection Areas, and Zones of Peripheral Concern within three miles of the Projects were included in the shapefile provided by the WVDHHR (WVDHHR, 2015b). Table 2.2.5-1 lists the surface water intake facilities within 3.0 miles of the Projects.

The VDH-ODW provided Atlantic with location data for public surface water intakes (Soto, 2015). Based on a review of these data, Atlantic identified four public surface water intakes located within 3.0 miles downstream of the proposed ACP facilities (see Table 2.2.5-1). The ACP will cross the Zone 1 assessment watershed associated with each of the four surface water intakes. The VDH-ODW identifies Zone 1 assessment watersheds as the area within a 5 mile radius of the raw water intake. Two additional Zone 1 assessment watersheds for a surface water intake are crossed by both the AP-1 mainline and AP-5 lateral, and the AP-1 mainline, but the ACP is further than 3.0 miles upstream from the intakes. The ACP also crosses a shoreline protection buffer of approximately 30 feet around Lake Kilby, a source waterbody owned and managed by the City of Portsmouth (Umphlette, 2015).

The NCDENR-DWR provided Atlantic with digital data on the locations of public surface water intakes in North Carolina. Based on a review of this data, Atlantic determined that there are no public surface water intakes within 3.0 miles downstream of waterbody crossings along the proposed ACP pipelines and other facilities in North Carolina. The nearest public surface water intake is approximately 3.5 miles from the Project.

In addition to maintaining data pertaining to surface water intakes, the NCDENR-DWR has established public water source watersheds for areas that drain to public surface water intakes. Atlantic evaluated these data and determined that seven of these watersheds are crossed by the proposed ACP facilities (see Table 2.2.5-2). Similar data are not available for West Virginia, Virginia, or Pennsylvania.

Based on a review of geographic information system (GIS) data available from the Pennsylvania Spatial Data Access website and the PADEP's eMapPA, there are no public surface water intakes within 3.0 miles of the SHP (PADEP, 2015a and 2015b). However, the SHP facilities are located within two public water systems service areas. Public water systems service areas are defined as a system that provides water to the public for human consumption, which has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year (PADEP, 2015a). The TL-636 loop and the JB Tonkin Compressor Station are located within the Westmoreland County Municipal Authority public water systems service area. The Crayne Compressor Station is located within the Southwestern Pennsylvania Municipal Authority public water systems service area.

TABLE 2.2.5-1

Surface Water Intake Facilities Within 3.0 Miles Downstream of and Water Protection or Assessment Watersheds Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/ County or City/State or Commonwealth	Surface Water Intake Facility	Waterbody Associated with Public Water Intake	Milepost of Project Crossing of Waterbody [a]	Length of Zones of Critical Concern/Length of Zone of Peripheral Concern Crossed (miles)	Length of Source Water Protection or Assessment Watershed Crossed (miles)
ATLANTIC COAST PIPELINE					
AP-1					
Upshur County, WV	Quality Inn	TBD	26.4	0.0/0.2	N/A
Upshur County, WV	Buckhannon Water Board	Buckhannon River	28.3	4.1/4.6	12.4
Upshur County, WV	Grand Badger Community Hawthorne	Buckhannon River	33.9	2.2/2.2	6.1
Randolph County, WV	Mill Creek Water Department	Mill Creek	53.4	0.8/0.8	2.0
Randolph County, WV	Town of Beverly	TBD	53.5	0.0/2.5	N/A
Randolph County, WV	Huttonsville Medium Security Prison	Tygart River Valley	55.2	2.8/3.8	6.4
Augusta County, VA	City of Staunton	Middle River	129.2	N/A	6.7
Greensville County, VA	City of Emporia	Meherrin River	286.3 [b]	N/A	3.2
Nelson County, VA	NCSA – Schuyler	Johnson's Branch	175.2 [b]	N/A	18.8
AP-2					
None Identified					
AP-3					
City of Suffolk, VA	Lake Kilby[c]	Lake Kilby and Pitchkettle Creek	56.9	N/A	5.6
City of Suffolk, VA	Lake Meade[c]	Lake Kilby and Pitchkettle Creek	56.9	N/A	5.5
City of Suffolk, VA	Pitchkettle Raw Water[c]	Lake Kilby and Pitchkettle Creek	56.9	N/A	4.3
AP-4					
None Identified					
AP-5					
Greensville County, VA	City of Emporia	Meherrin River	N/A[d]	N/A	0.2
SUPPLY HEADER PROJECT					
TL-635					
Wetzel County, WV	Pine Grove Water	North Fork Fishing Creek	N/A	N/A	N/A
TL-636					
None Identified					

Sources: WVDHHR, 2015a, 2015b, 2003 a-e; Soto, 2015; NCDENR, 2014a;

[a] Milepost of project crossing of waterbody or if associated with a Zone of Critical Concern or Zone of Peripheral Concern it is the milepost where the Project first enters the zone.

[b] Pipeline crossing is not within 3.0 miles upstream of the public surface water intake.

[c] The three water intake facilities within the City of Suffolk, Virginia, are operated by the City of Portsmouth.

[d] AP-5 crosses within the Assessment Watershed, but does not cross the Meherrin River.

N/A Zones of Critical Concern are identified in West Virginia and do not apply in Virginia.

TABLE 2.2.5-2

Water Source Watersheds Crossed by the Atlantic Coast Pipeline in North Carolina

Watershed Name	Approximate Mileposts (AP-2 Mainline)	County	Water Supply Classification [a]
Fishing Creek (Enfield)	30.1 to 39.5	Halifax and Nash Counties	WS-IV, NSW
Tar River (Tar River Res.)	51.0 to 60.4	Nash County	WS-IV, NSW
Toisnot Swamp	60.4 to 63.8	Nash County	WS-III, NSW
Cape Fear River (Fayetteville)	130.6 to 134.8	Cumberland County	WS-IV
Cape Fear River (Smithfield Packing Co)	155.9 to 159.3	Cumberland County	WS-IV
Lumber River (Lumberton)	173.1 to 180.4	Robeson County	WS-IV

[a] Water Supply Classifications in North Carolina (NCDENR-DWR, 2014):
WS-III = Waters used as sources of water supply for drinking, culinary, or food processing purposes; generally in low to moderately developed watersheds.
WS-IV = Waters used as sources of water supply for drinking, culinary, or food processing purposes; generally in moderately to highly developed watersheds.
NSW – Nutrient Sensitive Waters, supplemental classification where additional nutrient management is needed due to potential for excessive growth of microscopic or macroscopic vegetation.

2.2.6 Horizontal Directional Drill Mud Water Use

Atlantic and DTI are proposing to cross six waterbodies, one water impoundment, and two road rights-of-way using the HDD method. In addition, the HDD method is proposed to cross beneath both the Blue Ridge Parkway and the Appalachian National Scenic Trail at the same time. A detailed description of the HDD method is provided in Section 1.5.2.1 of Resource Report 1. Geotechnical studies will be conducted at each of the planned HDD crossings. To the extent possible, these studies will identify subsurface conditions along the proposed drill paths and at the entry and exit sides of each of the respective crossings.

Throughout the drilling process, a fluid mixture consisting of water and bentonite clay (a naturally occurring mineral) will be pumped into the drill hole to lubricate the bit, transport cuttings to the surface, and maintain the integrity of the hole. Small pits will be dug at or near the entry and exit points for the HDD to temporarily store the drilling fluid and cuttings, which will consist of a non-toxic slurry of water, bentonite, and native ground substrate (rock and soil). The fluid and cuttings will be pumped from the pits to an on-site recycling unit where the fluid will be processed for reuse. After completion of the HDD operations, the recovered drilling mud will be recycled or disposed of at an approved upland location or disposal facility in accordance with Federal and State/Commonwealth regulations. The estimated water requirements and withdrawal location for each of the proposed HDDs are summarized in Table 2.2.6-1. Withdrawals will be conducted in accordance with State/Commonwealth regulations and permit requirements.

2.2.7 Hydrostatic Test Water and Fugitive Dust Control Water

After backfilling and other construction activities that could affect the proposed ACP and SHP pipelines are complete, each pipeline will be hydrostatically tested, in accordance with 49 CFR 192 and applicable permit conditions, to verify that each pipeline is free from leaks and will provide the required margin of safety at operating pressures. Additional information about hydrostatic testing is provided in Section 1.5.1.6 of Resource Report 1.

TABLE 2.2.6-1

Water Requirements for Horizontal Directional Drills for the Atlantic Coast Pipeline

Project/HDD	County or City / State or Commonwealth	Pipeline Segment / Milepost	Approximate Water Requirement (thousands of gallons) [a]	Locations of Water Withdrawals
ATLANTIC COAST PIPELINE				
Blue Ridge Parkway/ Appalachian National Scenic Trail	Augusta County, Virginia	AP-1 Mainline/ MP 158.2	336	Water will be Trucked In
James River	Nelson and Buckingham Counties, Virginia	AP-1Mainline/ MP 184.7	229	James River
Roanoke River	Northampton and Halifax Counties, North Carolina	AP-2 Mainline/ MP 9.9	73	Roanoke River
Cape Fear River	Cumberland County, North Carolina	AP-2 Mainline/ MP 149.3	146	Cape Fear River
Nottoway River	Southampton, Virginia	AP-3 Lateral/ MP 32.6	15	Nottoway River
Blackwater River	Southampton County and City of Suffolk, Virginia	AP-3 Lateral/ MP 38.6	17	Blackwater River
I-64 Crossing	City of Chesapeake, Virginia	AP-3 Lateral/ MP 74.4	28	Water will be Trucked In
US Route 17	City of Chesapeake, Virginia	AP-3 Lateral/ MP 75.3	27	Water will be Trucked In
VEPCO Impoundment	City of Chesapeake, Virginia	AP-3 Lateral/ MP 75.6	17	Water Impoundment
South Elizabeth River	City of Chesapeake, Virginia	AP-3 Lateral/ MP 78.5	37	Elizabeth River
SUPPLY HEADER PROJECT				
No HDDs proposed			N/A	N/A

[a] Atlantic and DTI continue to review waterbodies for supply capacity.

Water for hydrostatic testing will be withdrawn and discharged in accordance with State/Commonwealth regulations and required permits. To minimize impacts of the short duration of larger volume withdrawals of water from streams, Atlantic and DTI will construct water impoundment structures adjacent to several of the water withdrawal points. Use of the water holding areas will allow for a longer duration of withdrawal at lower rates to minimize impacts on stream flows. Extending the timeframe for withdrawal of water and complying with State/Commonwealth regulations and permit requirements will minimize impacts on the aquatic resources within streams used for water withdrawal.[11] Table 2.2.7-1 summarizes the water withdrawal and discharge locations for the proposed hydrostatic testing of ACP and SHP facilities.

During water withdrawal, surface water intakes will be set in areas of flowing water to avoid sedimentation. The rate of withdrawal will be controlled to assure a continued flow within the surface water source. Typically, water will be withdrawn at a rate of 1,500 to 3,000 gallons per minute at each withdrawal location, unless otherwise specified in applicable permits. To minimize impacts, water will be drawn out with a low-pressure pump. Screening on the intakes will be sized according to withdrawal permit requirements. Secondary containment will be used on all pumps.

[11] In comments filed with the FERC, the USFS commented that the effects of water withdrawals on aquatic resources on National Forest lands should be discussed.

Once hydrostatic testing is complete, the test water will be discharged to well-vegetated upland areas or back to the same source from which it was obtained, which will eliminate the translocation of invasive aquatic species that may be present. In addition, this practice will also prevent transporting water from impaired streams (i.e., 303d listed waters) to other waterbodies. Water discharged over land will be directed through containment structures such as hay bales and/or filter bags. The discharge rate will be regulated using valves and energy dissipation devices to prevent erosion. Water will be discharged at a rate commensurate with agency consultations and permit requirements, but will typically range from 1,500 to 2,500 gallon per minute.

No chemicals will be added to the test water during hydrostatic testing. Water will be tested prior to introducing it in the pipeline. The water will be tested again prior to discharge once the hydrostatic test is complete. The water will then be discharged in accordance with the Plan and Procedures and applicable permits through an approved discharge structure to remove turbidity or suspended sediments (i.e., dirt left in the pipe during construction) and to prevent scour and erosion. Alternatively, the water will be hauled offsite for disposal at an approved location (Resource Report 1, Section 1.5.1.6). Construction related water discharges in karst areas will be directed to well-vegetated upland areas with no karst features present or to approved discharge structures. Water will not be discharged directly into sinkholes, and discharged water will be directed away from known karst features with a direct connection to the phreatic zone of the karst. [12] Where required, Atlantic and DTI will verify coverage under each State's/Commonwealth's National Pollutant Discharge Elimination System (NPDES) or State/Commonwealth-equivalent general permit prior to discharge of hydrostatic test water.

In addition to the water required for hydrostatic testing, approximately 38.2 million and 3.4 million gallons of water will be required for dust control during construction of the ACP and SHP, respectively. The water needed for dust control will vary based on site and weather conditions and will be obtained in relatively small volumes throughout the construction and restoration phases of the Projects. The sources for this water are still being evaluated; the majority will be identified during construction. The withdrawals will be in accordance with State/Commonwealth regulations and required permits. Typically, water for dust control will be withdrawn at a rate of 1,500 to 3,000 gallons per minute.

Water for hydrostatic testing will generally be withdrawn from August through October; however, this schedule will be dependent on the timing of permit approvals and construction schedules for the Projects and may be subject to adjustment. Water for fugitive dust control will generally be withdrawn between the months of May and September.

2.2.8 Sensitive Surface Waters

Waterbodies can be considered sensitive to pipeline construction for several reasons, including the presence of critical aquatic habitat or special status species; high-quality recreational, visual resource, or historic value (e.g., waterbodies listed in the Nationwide Rivers Inventory [NRI]); sensitive State/Commonwealth use or high quality designations (e.g., coldwater fishery or trout water, Tier 3 waterbodies); or an important riparian area. NRI rivers

[12] In comments filed with the FERC, the Virginia Cave Board raised concerns about discharging hydrostatic test water within the Jackson River Valley. Atlantic is currently proposing one discharge location with the Jackson River Valley.

crossed are summarized in Resource Report 8. Additionally, waterbodies that have special fisheries designations and/or protected species are addressed in greater detail in Resource Report 3, and time of year restrictions associated with State/Commonwealth designated streams are included in Appendix 2A. Waterbodies can also be considered sensitive if they are of special interest to a land management agency, resource agency, or Native American Tribe.

TABLE 2.2.7-1

Water Requirements for Hydrostatic Testing for the Atlantic Coast Pipeline and Supply Header Project

State or Commonwealth/ Spread	Approximate Water Requirement (Millions of Gallons) [a]	Locations of Water Withdrawals (Milepost)	Locations of Discharges (Milepost)
ATLANTIC COAST PIPELINE			
West Virginia			
Spread 1	4.1	West Fork River (MP 8.2)	11.3; 21.7; 26.9; 29.79
Spread 2	3.0	Buckhannon River (MP 31.7)	38.7; 46.8; 54.1; 55.8; 57.2
Spread 3	2.8	Tygart Valley River (MP 56.5)	58.1; 63.1
Spread 3	2.5	Shaver's Fork River (MP 67.9) [b]	70.3 [b]; 77.3
Spread 3	1.3	West Fork Greenbrier River (MP 71.4) [b]	84.0; 90.7
Spread 3	1.3	East Fork Greenbrier River (MP 77.1)	93.2
Virginia			
Spread 4	3.2	Bullpasture Creek (MP 102.9)	103.9; 109.9 [b]; 115.7; 121.4 [b]; 125.5
Spread 5	3.2	Middle River (MP 130.4)	129.5; 132.1; 134.2; 141.1; 149.6; 159.9; 165.9
Spread 5	3.6	Rockfish Creek (MP 163.7)	168.8; 172.8; 178.9; 183.4
Spread 6	8.1	James River (MP 184.7)	183.4; 205.0
Spread 6	7.5	Appomattox River (MP 220.8)	222.9; 239.6
Spread 7	7.8	Nottoway River (MP 260.7)	239.6; 260.7; 280.1; 300.1
Spread 11	1.1	Meherrin River(MP 12.4)	0.0; 12.4
Spread 11	0.032	Nottoway River (MP 32.7)	24.3; 35.7; 37.8; 38.3
Spread 11	1.2	Blackwater River (MP 38.6)	38.6; 53.2; 55.9
Spread 11	0.5	South Branch Elizabeth River (MP 78.5)	76.1; 78.5
North Carolina			
Spread 8	8.1	Roanoke River (MP 9.9)	0.0; 9.85; 40.0; 47.6; 50.9; 52.7; 56.4
Spread 8	3.9	Tar River (MP 59.4)	59.7; 63.0; 64.2; 65.6
Spread 9	5.3	Neuse River (MP 98.5)	65.6; 67.1; 74.7; 79.1; 88.0; 93.3; 98.5; 100.9; 105.0; 107.6; 117.8; 124.0
Spread 10	6.2	Cape Fear River (MP 149.3)	126.7; 137.5; 144.1; 149.3; 160.7; 167.1; 177.8; 181.0; 182.3
SUPPLY HEADER PROJECT			
West Virginia			
Spread 13	0.9	South Fork Fishing Creek (MP 29.0)	29.0; 30.4; 33.6
Spread 13	2.1	McElroy Creek (MP 18.5)	0.0; 7.4; 10.4; 10.9; 18.5; 29.0
Pennsylvania			
Spread 14	0.7	Municipal Water Trucked In (MP 2.7)	0.0; 2.7; 3.9

[a] Atlantic and DTI continue to review waterbodies for supply and discharge capacity.
[b] Located on USFS lands.

The proposed ACP and SHP pipeline facilities will cross 129 and 17 waterbodies, respectively, which are considered sensitive based on the criteria described above. In addition, ACP will cross four drainages with rare fish species. A list of these waterbodies and drainages is

provided in Table 2C in Appendix 2C. Applicable timing restrictions, permit requirements and conditions, and best management practices will be utilized to minimize impacts on these waters.

The USFS stated in a comment letter to the FERC that between October 1 through June 1 potential sediment-producing ground disturbing activities within the Monongahela National Forest that are within 100 feet of a perennial trout streams require the use of additional erosion control measures and seeding or mulching, applied concurrently with the activity. Atlantic will implement these measures which are required by the USFS. Additional details are included in Resource Report 3.

2.2.9 Waterbody Construction Procedures

Atlantic and DTI will use the open-cut, flume, dam-and-pump, cofferdam, conventional bore, or HDD methods to construct the proposed ACP and SHP pipelines across waterbodies. Atlantic and DTI will utilize the least environmentally damaging approach in conjunction with available best management practices for each waterbody crossing to minimize impacts on the waterbody itself and any receiving waters. In each case and for each method, Atlantic and DTI will adhere to the measures specified in the Procedures; site-specific modifications to the Procedures requested by Atlantic and DTI and approved by the FERC; and additional requirements identified in Federal or State/Commonwealth waterbody crossing permits. Permits required for the ACP and SHP are provided in Table 1.12-1 in Resource Report 1. Atlantic and DTI will prepare a Plan of Development (POD) or Construction, Operation, and Maintenance Plan (COM Plan), which will identify construction procedures and mitigation measures to be implemented on federally managed lands. Atlantic and DTI will submit preliminary draft PODs or COM Plans to the Bureau of Land Management, USFS, and U.S. Fish and Wildlife Service (FWS) in September 2015.

The proposed construction method for each waterbody crossing along the proposed ACP and SHP pipelines are identified in Appendix 2A. Detailed descriptions of the proposed crossing methods are provided in Section 1.5.2.1 in Resource Report 1. Construction methods for waterbodies that isolate the pipeline trench from flowing water (e.g. flume, dam-and-pump, or cofferdam) will be utilized where these methods are proposed and perceptible flow is present at the time of the crossing.

2.2.10 Waterbody Construction-Related Impacts and Mitigation

Impacts on waterbodies crossed by the proposed ACP and SHP facilities could occur as a result of construction activities in stream channels and on adjacent banks. Clearing and grading of stream banks, blasting (if required), in-stream trenching, trench dewatering, and backfilling could each result in temporary, local modifications of aquatic habitat involving sedimentation, increased turbidity, and decreased dissolved oxygen concentrations. In almost all cases, these impacts will be limited to the period of in-stream construction, and conditions will return to normal shortly after stream restoration activities are completed. Agency recommended time of year restrictions are listed in Appendix 2A and discussed further in Resource Report 3. Additionally, Atlantic and DTI have reviewed the route and made adjustments to provide for additional avoidance and minimization of impacts on stream crossings, such as avoiding multiple crossings of the same stream, where feasible.

Site-specific questions pertaining to avoidance and minimization are common and often can be resolved by reviewing site-specific competing constraints. For example, a comment received by the West Virginia Department of Natural Resources recommended minimization of the number of crossings of Becky Creek near MP 58.7.[13] Close examination of this area indicates there is a nearby home site and many out buildings that require crossing of Becky Creek twice to avoid crossing thru this landowner home site. Similar evaluations have been completed across the Projects and details pertaining to the alternatives review are provided in Resource Report 10.

Vegetative clearing, grading for construction, and soil compaction by heavy equipment near stream banks could promote erosion of the banks and the transport of sediment into waterbodies by stormwater runoff. To minimize these potential impacts, Atlantic and DTI will install equipment bridges, mats, and pads, as necessary. Temporary bridges will be installed across waterbodies in accordance with the Procedures to allow construction equipment and personnel to cross. The bridges may include clean rock fill over culverts, timber mats supported by flumes, railcar flatbeds, flexi-float apparatuses, or other types of spans. Additionally, Atlantic and DTI will locate additional temporary workspace (ATWS) at least 50 feet from stream banks (with the exception of site-specific modifications requested by Atlantic and DTI and approved by the FERC).

To meet with the requirements within the Forest Plans for both the Monongahela National Forest and George Washington National Forest, ATWS will be setback 100 feet from in-stream waterbody crossings that occur on USFS lands. Temporary sediment barriers will be installed around disturbed areas as outlined in the Plan and Procedures. Upon completion of construction, Atlantic and DTI will install permanent erosion control measures at stream crossing locations to provide long-term protection of water quality according to the Plan and Procedures and permit requirements. Atlantic and DTI will require equipment used during construction to be cleaned prior to working on the ACP and SHP, as required by applicable permits and the Plan and Procedures.

Sedimentation and increased turbidity can occur as a result of in-stream construction activities, trench dewatering, or stormwater runoff from construction areas. In slow moving waters, increases in suspended sediments (turbidity) may increase the biochemical oxygen demand and reduce levels of dissolved oxygen in localized areas during construction. Suspended sediments also may alter the chemical and physical characteristics of the water column (e.g., color and clarity) on a temporary basis. Atlantic and DTI will use material excavated from the pipeline trench to backfill the trench once the pipe is installed to avoid introduction of foreign substances into waterbodies. Potential effects on fisheries due to increased turbidity and sedimentation resulting from in-stream construction activities are addressed in Resource Report 3.

As noted above, Atlantic and DTI will install temporary equipment bridges to reduce the potential for turbidity and sedimentation resulting from construction equipment and vehicular traffic crossing waterbodies. Temporary bridges will be installed across waterbodies in

[13] In comments filed with the FERC, the West Virginia Department of Natural Resources recommended avoiding multiple crossings of Becky Creek near MP 58.7.

accordance with the Procedures to allow construction equipment and personnel to cross. The bridges may include clean rock fill over culverts, timber mats supported by flumes, railcar flatbeds, flexi-float apparatuses, or other types of spans. Construction equipment will be required to use the bridges, except that the clearing and bridge installation crews will be allowed one pass through waterbodies before bridges are installed. The temporary bridges will be removed when construction and restoration activities are complete.

In-stream construction will typically be completed within 24 to 48 hours at each stream crossing where waterbodies are less than 100 feet in width. After the pipeline is installed across a waterbody using one of the methods described above, the trench will be backfilled with native material excavated from the trench. The streambed profile will be restored to pre-existing contours and grade conditions to prevent scouring. The stream banks will then be restored as near as practicable to pre-existing conditions and stabilized. Stabilization measures could include seeding, tree planting, installation of erosion control blankets, or installation of riprap materials, as appropriate. Temporary erosion controls will be installed immediately following bank restoration. The waterbody crossing area will be inspected and maintained until restoration of vegetation is complete.

In addition, according to the Plan and Procedures, Atlantic and DTI will install temporary erosion control devises in uplands adjacent to waterbody crossings subsequent to construction and until there is successful revegetation of the construction right-of-way. Permanent erosion controls will be installed, such as slope breakers, to aid long-term stabilization along with the restored vegetation. Within riparian corridors on lands managed by the GWNF, in-stream and terrestrial woody debris will be replaced during restoration of the pipeline right-of-way as practicable. Additional details regarding restoration of upland vegetation adjacent to waterbodies on USFS lands are provided in Resource Report 3.[14]

Construction methods for waterbodies are described in Section 1.5.2.1. The specific construction method proposed for each waterbody crossing is listed in Appendix 2A. The method proposed for each crossing is dependent on topography, soil conditions, subsurface geology, and the width and depth of the waterbody.

HDD is a proven method for minimizing impacts on surface resources, including waterbodies, given the appropriate conditions. [15] The radius of curvature, subsurface geology, and right-of-way configuration are all considered in assessing the feasibility of an HDD. Right-of-way configuration is an important consideration because HDD requires assembly of a drill string (i.e., the segment of pipeline to be installed beneath the waterbody) in line with the alignment of the HDD. This can require clearing a "false" right-of-way, which can affect riparian and/or wetland vegetation adjacent to the waterbody.

In routing the pipeline and selecting crossing methods for waterbodies, Atlantic and DTI attempted to minimize the number and lengths of crossings, as well as, potential impacts on wildlife, vegetation, and water quality. Many waterbodies, for example, are proposed to be

[14] In comments filed with the FERC, the USFS expressed concerns about sedimentation in streams due to exposed slopes subsequent to construction.

[15] In comments filed with the FERC, the EPA identified the HDD method as the least disruptive construction method in many situations.

crossed using a dry crossing method, such as flume, dam-and-pump, or cofferdam, to avoid or minimize impacts on water quality due to sedimentation and turbidity and impacts on fisheries by proving uninterrupted access for fish to swim across or around the construction area.

During construction, the open trench may accumulate water, either from a high water table and seepage of groundwater into the trench or from precipitation. In accordance with the Plan and Procedures, and when necessary, trench water will be removed and discharged into an energy dissipation/sediment filtration device, such as a geotextile filter bag and/or straw bale structure, to minimize the potential for erosion and sedimentation.

The application of concrete coating will generally occur in contractor yards identified for the Projects. In areas where concrete coating of pipe is required within the construction right-of-way, the concrete coating activities will occur in accordance with the SPCC Plan (see Appendix 1F of Resource Report 1). Concrete coating activities will occur a minimum of 100 feet from wetlands, waterbodies, and springs, and 300 feet from karst features.[16] Concrete-coated pipe will be installed after the concrete is dried and will not be dispersed when submerged in water. Concrete coating is used to create negative buoyancy along the pipeline when required for waterbody or wetland crossings and would only be required on USFS lands if necessitated by site-specific conditions.

Based on analysis of the Soil Survey Geographic Database, approximately 11 percent (67.8 miles) of the proposed ACP and SHP pipeline routes will cross areas with hard bedrock at depths of less than 60 inches (Soil Survey Staff, 2015). Construction in these areas may require blasting or other special construction techniques (see Section 6.2 of Resource Report 6). Individual stream crossing locations where blasting may be necessary will be identified during construction based on site-specific conditions.

Blasting in streams will only be used when traditional means of trenching (e.g., ripper shanks, excavators, rock hammers) have failed or are deemed impractical due to constraints imposed by stream crossing time limits. If required, blasting will primarily occur at dry crossings, after the work area has been isolated from stream flow. If blasting is necessary in a flowing waterbody, the use of controlled blasting techniques, where small, localized detonations are utilized, will avoid or minimize the impacts of blasting and limit rock fracture to the immediate vicinity of these activities. Immediately following blasting, Atlantic and DTI will remove shot rock that impedes stream flow. Blasting techniques will be in compliance with Federal, State/Commonwealth, and local regulations governing the use of explosives and in accordance with the *Blasting Plan* (see Appendix 1F of Resource Report 1) and the Plan and Procedures.

Preparation of the rock for blasting (e.g., drilling shot holes) is expected to cause enough disturbance in waterbodies to displace most aquatic organisms from the immediate vicinity of the blast. To further reduce the potential for impacts on aquatic organisms in flowing waterbodies, Atlantic and DTI will use techniques such as scare charges or banging on a submerged piece of pipe before the blast to disperse mobile aquatic organisms from the blast area before the blast is

[16] In comments filed with the Commission, the Virginia Department of Game and Inland Fisheries said that in-stream use of concrete should be done only in dry conditions, allowing concrete to harden prior to returning stream flow

conducted. These steps will avoid or minimize the impact of blasting, if necessary, on aquatic organisms; nonetheless, organisms that are not displaced by pre-blast measures could be impacted.

The SPCC Plan for the Projects (see Appendix 1F of Resource Report 1) will describe measures that personnel and contractors will implement to prevent and, if necessary control, inadvertent spill of fuels, lubricants, solvents, and other hazardous materials that could affect water quality. As required in the Procedures and the SPCC Plan, hazardous materials, chemicals, lubricating oils, and fuels used during construction will be stored in upland areas at least 100 feet from wetlands and waterbodies. Refueling of construction equipment will be conducted at least 100 feet from wetlands and waterbodies, whenever possible. However, there will be certain instances where equipment refueling and lubricating may be necessary in or near waterbodies. For example, stationary equipment, such as water pumps for withdrawing hydrostatic test water, may need to be operated continuously on the banks of waterbodies and may require refueling in place. The SPCC Plan will address the handling of fuel and other materials associated with the Projects. As required by the Procedures, the SPCC Plan will be available during construction on each construction spread.

As noted above, it is possible that previously undocumented sites with contaminated soils or groundwater could be discovered during construction of the Projects. Atlantic and DTI have prepared and will implement a *Contaminated Media Plan* (see Appendix 1F of Resource Report 1) to address these circumstances. The *Contaminated Media Plan* will describe measures to be implemented in the event that signs of contaminated soil and/or groundwater are encountered during construction. Signs of potential contamination could include discoloration of soil, chemical-like odors, or sheens on soils or water. Containment measures will be implemented to isolate and contain the suspected soil or groundwater contamination and collect and test samples of the soil or groundwater to identify the contaminants. Once the contaminants are identified, a response plan will be developed for crossing or avoiding the site.

Use of the HDD method may avoid impacts on waterbodies because it allows for the pipe to be installed underneath the ground surface without disturbance of the streambed or banks. However, a temporary, localized increase in turbidity could occur in the event of an inadvertent release of drilling fluid to the waterbody. Drilling fluid to be used on the ACP will be composed of water and bentonite clay (a naturally occurring mineral). The EPA does not list bentonite as a hazardous substance, and no long-term adverse environmental impacts are expected should an inadvertent release occur. Similarly, while native soils may mix with the drilling fluid as a result of the drilling process, no adverse environmental impacts from these materials are expected should an inadvertent return occur.

Due to the possibility of drilling fluid loss during HDD operations, Atlantic and DTI have prepared and will implement a *Horizontal Directional Drill Fluid Monitoring, Operations, and Contingency Plan* (see Appendix 1F of Resource Report 1). The plan will describe measures to prevent, detect, and respond to inadvertent returns, including but not limited to, monitoring during drilling operations, the types of equipment and materials that must be readily available to contain and clean up drilling mud, containment and mitigation measures, notification requirements, and guidelines for abandoning the directional drill, if necessary.

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

During operations, the proposed pipelines will transport natural gas, which primarily is methane. Methane is buoyant at atmospheric temperatures and pressure, and disperses rapidly in air. The proposed pipelines will not carry liquids. Therefore, in the unlikely event of a leak, impacts on surface waters or groundwater from methane are not anticipated. Moreover, Atlantic and DTI will utilize a rigorous Integrity Management Plan, as discussed in Section 11.2.3 of draft Resource Report 11, to prevent leaks on the system.[17]

2.2.11 Facility Operations

In some cases, construction of aboveground facilities and access roads will require permanent impacts on waterbodies. Where permanent access roads cross perennial streams within USFS lands, the access road and associated drainage structures (i.e., culverts) will be designed and constructed in accordance with USFS requirements. These permanent impacts could include the placement of a culvert or bridge across the waterbody to accommodate a permanent access road or the relocation of a watercourse to allow for the siting of an aboveground facility. Atlantic and DTI will continue to adjust the footprint and/or location of the aboveground facilities and access roads in order to reduce or eliminate impacts on waterbodies. Where permanent impacts are required, Atlantic and Dominion will comply with all Federal and State/Commonwealth permit requirements. To stabilize improved access roads, Atlantic and DTI will implement erosion and sediment controls according to the Plan and Procedures and allow stabilization of access road slopes adjacent to waterbodies.

Impacts during operation of the proposed facilities will be limited to instances where maintenance activities require excavation or repair in the vicinity of a waterbody. In such a case, the impacts and mitigation will be similar to those described above for construction activities.

As part of the POD and/or the COM Plan for a Right-of-Way Grant to cross Federal lands, Atlantic will consult with the USFS and applicable Federal agencies to develop a stream crossing monitoring plan and a water quality monitoring plan.

Under the FERC requirements for construction and operation of a new interstate natural gas transmission pipeline, Atlantic will be required to comply with the Procedures that provide strict requirements associated with natural gas pipeline construction and restoration of streams and rivers. The FERC staff has developed these Procedures over the past 27 years in conjunction

[17] In comments filed with the Commission, several individuals said that leaks in the pipeline could contaminate groundwater and surface water over time.

with numerous Federal and State/Commonwealth agencies, including the USFS, to ensure that interstate natural gas pipeline construction and mitigation, including restoration, in the United States is conducted while implementing the most environmentally protective and acceptable best management practices.

Atlantic will be required to utilize environmental inspectors during construction to ensure compliance with the environmental requirements of not only the FERC authorization, but also of all other Federal and State/Commonwealth permits, as well as the requirements of federal and state land managers.

During operations, line patrols will ensure that the integrity of the pipeline is maintained and leaks are rapidly detected and repaired. Atlantic will inspect the transmission pipeline and associated aboveground facilities monthly via aircraft. The aircraft patrols provide information on erosion, exposed pipe, possible encroachment, possible leaks, and other conditions that could affect the safety and operation of the pipeline systems. Atlantic and DTI will incorporate an aerial patrol-based mechanical leak detection system capable of measuring methane, total hydrocarbons, and carbon dioxide at sub-parts-per-million concentrations. The system uses a monitoring rate of 50 samples per second to immediately pinpoint gas leaks, which are then logged via Global Positioning System (GPS). Ground-based surveillance activities will also be conducted on an annual basis and additional periodic patrols will be conducted on an as needed basis.

Both the stream crossing and water quality monitoring plans will include monitoring requirements to be implemented in the MNF and GWNF. For the stream crossing monitoring plan, Atlantic will conduct an examination of the waterbody crossings on USFS lands annually as part of its ground-based surveillance program to ensure stream stability and maintenance of river banks. Atlantic will report the results of these inspections to the relevant Federal agencies.

Regarding water quality monitoring, as part of its aerial and ground-based surveillance activities, Atlantic will identify pipeline integrity issues (erosion, leaks, etc.) and institute immediate corrective action. As such, no long-term effects to water quality are anticipated as a result of pipeline operations. Atlantic will report the results of pipeline inspections to the relevant Federal agencies and will work with them as needed to implement the water quality monitoring plan.

2.3 WETLANDS

The USACE and EPA jointly define wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." The FERC defines wetlands as "any area that is not actively cultivated or rotated cropland and that satisfies the requirements of the current Federal methodology for identifying and delineating wetlands."

Wetland delineations for the ACP and SHP were conducted using a definition of "waters of the U.S." that is consistent with, and at least as stringent as, the final *Clean Water Rule: Definition of "Waters of the United States,"* 80 Federal Register 37054 (June 29, 2015). Atlantic

and DTI will obtain preliminary jurisdictional determinations from the USACE for these delineations.

The ACP will cross four USACE Districts: Pittsburgh, Huntington, Norfolk, and Wilmington. ACP facilities in Harrison, Lewis, Upshur, and Randolph Counties, West Virginia are in the Pittsburgh District. ACP facilities in Pocahontas County, West Virginia are in the Huntington District. ACP facilities in Virginia are in the Norfolk District. ACP facilities in North Carolina are in the Wilmington District.

The SHP will cross two USACE Districts: Pittsburgh and Huntington. SHP facilities in Pennsylvania and in Harrison and Marshall Counties, West Virginia are in the Pittsburg District. SHP facilities in Wetzel, Tyler, and Doddridge Counties, West Virginia are in the Huntington District.

2.3.1 Wetland Types

The proposed ACP Project area contains palustrine and estuarine wetlands, while the proposed SHP Project area only contains palustrine and riverine wetlands. Palustrine wetlands include all non-tidal wetlands dominated by lichens, emergent mosses, persistent emergents, shrubs, or trees. Salinity in these wetlands is below 0.5 percent. Estuarine wetlands are deepwater tidal habitats and adjacent tidal wetlands which are at least occasionally diluted by freshwater runoff. Salinity gradients can range from hyperhaline to oligohaline. Riverine wetlands include all wetlands and deepwater habitats contained within a channel, with the exception of wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens and habitats with water containing ocean-derived salts in excess of 0.5 percent (Cowardin et al., 1979).

Based on field survey data augmented by FWS National Wetland Inventory (NWI) data, the proposed ACP facilities will cross palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), palustrine aquatic bed (PAB), palustrine unconsolidated bottom (PUB), and estuarine intertidal emergent (E2E) wetland types. Based on the same data sources, the proposed SHP pipeline facilities will cross PEM, PSS, and PFO wetlands. NWI maps for the ACP and SHP are provided in Appendix 2G.

2.3.2 Existing Wetland Resources

During the routing phase of the Projects, NWI data was used to provide a preliminary analysis of wetland resources and to assess where wetland impacts could be avoided or minimized. NWI data was also used to estimate the number, size, and locations of wetlands along the proposed pipeline routes prior to conducting wetland delineations in the field.

Atlantic and DTI began conducting field surveys during the 2014 field season, on properties where survey permission was granted by the landowner, to identify and delineate wetlands within the ACP and SHP pipeline construction corridors and other work areas. The wetland delineation study area for the ACP and SHP consisted of a 300-foot-wide corridor centered on the proposed pipeline centerlines, a 50-foot-wide corridor centered over access roads, and the construction footprints at aboveground facility sites. The wetland delineation for the Projects encompassed all areas required for installation of the proposed pipelines (i.e., the construction right-of-way, additional temporary workspace, staging areas, and access roads) and

the aboveground facilities (i.e., compressor and M&R stations and other facilities). Table 2.3.2-1 summarizes the survey progress for the ACP and SHP pipeline and aboveground facilities. In addition, approximately 135 miles of access roads have been surveyed on ACP, and 33 miles of access roads have been surveyed on SHP.

TABLE 2.3.2-1

Wetland and Waterbody Survey Status – Percentage Complete

Project/Facility Type	West Virginia	Virginia	North Carolina	Pennsylvania	Total
ATLANTIC COAST PIPELINE					
Mainline Pipeline	94	62	98	N/A	79
Compressor Stations	100	100	100	N/A	100
M&R and Pig Launcher/Receiver Sites	50	50	100	N/A	78
Contractor Yards	0	0	0	N/A	0
SUPPLY HEADER PROJECT					
Mainline Pipeline	92	N/A	N/A	100	93
Compressor Stations	100	N/A	N/A	100	100
Pig Launcher/Receiver Sites	100	N/A	N/A	100	100
Contractor Yards	100	N/A	N/A	100	100

Wetlands were delineated in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) or the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0) (USACE, 1987, 2010, 2012), as appropriate. All wetlands within the survey corridors were delineated regardless of the delineator's opinion regarding its jurisdictional status. Observations of vegetation, hydrology, and soils were recorded, and photographs were taken at each wetland. A more detailed description of the methodology used for wetland delineations is included in the wetland and waterbody delineation reports for the Projects (see Appendices 2D and 2E). Where field surveys were not able to be completed due to lack of access to properties, a desktop assessment was completed to delineate wetlands and waterbodies using a combination of NWI data, USGS topographic maps, Soil Survey Geographic Database (SSURGO) data, and high resolution aerial photography. Field surveys in these areas will be completed as access to properties is obtained.

2.3.3 Wetland Reserve Program

The Wetland Reserve Program was a program in which the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) provided technical and financial support to private landowners who wanted to restore wetlands on their property. The program offered landowners a means to establish long-term conservation practices while achieving the greatest wetland functions and values for every acre enrolled in the program. Conservation easement options included 30-year easements and permanent easements (USDA NRCS, 2008). The WRP program was repealed in the Agricultural Act of 2014 with the establishment of a new program, the Agricultural Conservation Easement Program (ACEP). However, the change does not affect the validity or terms of the conservation easements established through the WRP (USDA NRCS, 2014a). Based on a review of NRCS conservation easement data, no WRP or ACEP conservation easements will be crossed by the proposed ACP or SHP facilities (USDA NRCS, 2014b).

2.3.4 Wetland Crossings

2.3.4.1 Pipeline Facilities

Based on field and NWI data, there will be a total of 1,068 wetland crossings by the proposed ACP pipeline routes. Where the route crosses a single wetland more than once, each separate crossing was counted. The proposed ACP mainline facilities will have 406 wetland crossings along AP-1 (125 wetland crossings in West Virginia and 281 wetland crossings in Virginia), and 421 wetland crossings along AP-2 in North Carolina. The proposed ACP lateral pipeline facilities will have 239 wetland crossings along AP-3 (44 in North Carolina and 195 in Virginia), no wetland crossings along AP-4 in Virginia, and two wetland crossings along AP-5 in Virginia.

The combined linear crossing distance of all wetlands is 69.9 miles, accounting for approximately 12.4 percent of the combined length of the pipeline routes. Approximately 9.6 percent (6.7 miles) of the wetlands crossed by the ACP pipeline facilities are characterized as PEM, 76.1 percent (53.2 miles) are characterized as PFO, and 14.2 percent (9.9 miles) are characterized as PSS. The remaining less than 0.1 percent (0.1 mile) of wetlands consists of estuarine, and unconsolidated bottom wetland types. Based on a combination of survey data and land use data for unsurveyed areas, 12 wetlands crossed by the ACP mainlines are characterized as farmed wetlands (two on AP-1 in West Virginia; nine on AP-1 in Virginia; and one on AP-2 in North Carolina). In total, approximately 656.7 acres of wetlands will be temporarily impacted by construction of the ACP pipeline facilities. Maintenance activities along the pipeline right-of-way will impact approximately 204.4 acres of wetlands due to the conversion of PFO and PSS wetlands to PEM wetland types. The proposed Project will result in the conversion of approximately 192.4 acres of PFO wetlands and 12.0 acres of PSS wetlands.

Based on field and NWI data, there will be a total of 24 wetland crossings by the proposed SHP pipeline loops. The TL-635 pipeline loop in West Virginia will have five PFO, six PEM, and one PSS wetland crossings. The TL-636 pipeline loop in Pennsylvania will have seven PEM and five PFO wetland crossings. The combined linear crossing distance of all wetlands is 0.3 mile, accounting for approximately 0.8 percent of the combined length of the pipeline loops. Approximately 2.6 acres of wetlands will be temporarily disturbed during construction of the SHP pipeline facilities. Maintenance activities along the pipeline right-of-way will impact approximately 0.3 acre of wetlands due to the conversion of PFO and PSS wetlands to PEM wetland types.

Table 2.3.4-1 provides a summary of wetland impacts by wetland type along the proposed ACP and SHP pipeline routes. Tables 2H-1 and 2H-2 in Appendix 2H provide a complete list of wetlands identified along the proposed pipeline routes with their MP locations, classification, crossing length, and area affected by construction and operation of the Projects.

TABLE 2.3.4-1

Summary of Wetland Types Affected by Construction and Operation of the Atlantic Coast Pipeline and Supply Header Project

Pipeline Facility/State or Commonwealth	Cowardin Classification [a]	Crossing Length (feet)	Temporary Construction Impact (acres) [b]	Permanent Easement (acres) [c]	Operational Impact (acres) [d]
ATLANTIC COAST PIPELINE					
AP-1					
West Virginia	PEM	6,091	11.8	10.2	0.0
	PFO	685	1.5	1.2	0.5
	PSS	80	0.2	0.2	<0.1
West Virginia Total		**6,856**	**13.4**	**11.6**	**0.5**
Virginia	PEM	6,029	12.6	9.3	0.0
	PFO	23,506	52.0	39.3	15.7
	PSS	8,077	17.0	13.7	1.8
	PUB	0.0	0.0	0.0	0.0
Virginia Total		**37,611**	**81.6**	**62.3**	**17.5**
AP-2					
North Carolina	PEM	5,572	9.8	6.9	0.0
	PFO	178,806	310.3	205.4	122.9
	PSS	33,015	57.1	37.7	7.6
	PUB	85	0.1	0.1	0.0
North Carolina Total		**217,477**	**377.4**	**250.0**	**130.5**
AP-3					
North Carolina	PEM	3,426	4.1	3.4	0.0
	PFO	5,746	12.0	7.1	4.1
	PSS	235	0.6	0.3	0.1
North Carolina Total		**9,406**	**16.7**	**10.8**	**4.2**
Virginia	E2E	48	0.2	0.1	0.0
	PEM	14,394	26.7	16.9	0.0
	PFO	72,073	121.7	81.8	49.0
	PSS	11,008	18.8	12.5	2.5
Virginia Total		**97,522**	**167.3**	**111.3**	**51.5**
AP-4					
No wetlands identified					
AP-5					
Virginia	PFO	171.	0.3	0.2	0.1
Virginia Total		171	0.3	0.2	0.1
ACP PROJECT TOTAL		**369,044**	**656.7**	**446.3**	**204.4**
SUPPLY HEADER PROJECT					
TL-635					
West Virginia	PEM	880.3	0.9	0.7	0.0
	PFO	299.6	0.5	0.3	0.2
	PSS	64.5	0.1	0.1	<0.1
West Virginia Subtotal		**1244.4**	**1.5**	**1.1**	**0.2**

TABLE 2.3.4-1
(cont'd)
Summary of Wetland Types Affected by Construction and Operation of the Atlantic Coast Pipeline and Supply Header Project

Pipeline Facility/State or Commonwealth	Cowardin Classification [a]	Crossing Length (feet)	Temporary Construction Impact (acres) [b]	Permanent Easement (acres) [c]	Operational Impact (acres) [d]
TL-636					
Pennsylvania	PEM	391.0	0.7	0.4	0.0
	PFO	198.3	0.4	0.2	0.1
Pennsylvania Subtotal		**589.3**	**1.1**	**0.6**	**0.1**
SHP PROJECT TOTAL		**1,833.7**	**2.6**	**1.7**	**0.3**

[a] Wetland types according to Cowardin et al. (1979):
PFO = palustrine forested
PSS = palustrine scrub-shrub
PEM = palustrine emergent
PUB = palustrine unconsolidated bottom
E = estuarine

[b] Temporary wetland impacts associated with the construction right-of-way.

[c] Includes acres of wetlands within the permanent pipeline easement.

[d] Operational impacts are associated with scrub-shrub and forested wetlands. Operational requirements allow a 10-foot-wide corridor centered over the pipeline to be maintained in an herbaceous state, and for the removal of trees within 15 feet on either side of the pipeline. To determine conversion impacts on scrub-shrub wetlands, a 10-foot-wide corridor centered over the pipeline was assessed. A 30-foot-wide corridor centered over the pipeline was assessed for forested wetlands. Because the easement will be maintained in an herbaceous state, there will be no operational impacts on emergent wetlands.

Note: The totals shown in this table may not equal the sum of addends due to rounding.

The data summarizing wetland crossings in Table 2.3.4-1 and the tables located in Appendix 2H are based on field surveys conducted to date. In areas where survey has not yet been completed, NWI data was used to estimate the size and location of wetlands along the proposed ACP and SHP pipeline routes. For these wetlands, the Wetland ID shown in the tables in Appendix 2H is identified as NWI. Maps showing the proposed ACP and SHP pipeline routes and field surveyed wetlands are provided in the ACP and SHP wetland delineation reports located in Appendix 2D and 2E, respectively. NWI wetlands are shown on maps provided in Appendix 2G.

Federal Lands

The ACP crosses four areas of federally managed land: the Monongahela National Forest; George Washington National Forest (which includes the Appalachian National Scenic Trail); Blue Ridge Parkway; and Great Dismal Swamp National Wildlife Refuge (GDS-NWR). Additional information about these lands is provided in Section 8.7.1 of Resource Report 8. Table 2.3.4-2 provides a summary of wetlands crossed within each of these Federal land units. The SHP does not cross Federal Lands.

2.3.4.2 Aboveground Facilities

Aboveground facilities (i.e., compressor stations, M&R stations, and valves) have been sited such that impacts on wetlands will be avoided and minimized to the maximum extent practicable.

TABLE 2.3.4-2

Summary of Wetland Types Affected by Construction and Operation of the Atlantic Coast Pipeline on Federal Lands

Federal Land Unit	Federal Land Crossed (miles)	Cowardin Classification [a]	Wetland Crossing Length (Feet)	Temporary Construction Impact (acres) [b]	Operational Impact (acres) [c]
Monongahela NF	18.6	PEM/PFO/PSS	2,919/365/56	5.2/0.7/0.1	0.0/0.1/<0.1
George Washington NF	12.2	PFO	12	<0.1	<0.1
Blue Ridge Parkway	0.1	None	0	0.0	0.0
Great Dismal Swamp NWR [d]	1.7	PEM/PFO	586/5,046	0.6/9.7	0.0/3.4
ACP Project Total			**8,984**	**16.4**	**3.5**

[a] Wetland types according to Cowardin et al. (1979):
PFO = palustrine forested
PEM = palustrine emergent

[b] Temporary wetland impacts associated with the construction right-of-way.

[c] Operational impacts are associated with scrub-shrub and forested wetlands. Operational requirements allow a 10-foot-wide corridor centered over the pipeline to be maintained in an herbaceous state, and for the removal of trees within 15 feet on either side of the pipeline. To determine conversion impacts on scrub-shrub wetlands, a 10-foot-wide corridor centered over the pipeline was assessed. A 30-foot-wide corridor centered over the pipeline was assessed for forested wetlands.

[d] Except for approximately 1,000 feet, the entire proposed line will be located within 300 feet of existing pipelines or electric transmission lines.

Note: The totals shown in this table may not equal the sum of addends due to rounding.

Construction of ACP Compressor Stations 1 and 2, two of the M&R stations, and one of the pig launcher sites will impact 3.0 acres of wetlands, of which 0.4 acre will be permanently filled for operation of the facility (see Table 2.3.4-3). The construction and operation of the remaining aboveground facilities will not impact wetlands. Modification and expansions at the existing SHP compressor stations and construction of one of the pig launchers will impact 0.2 acre of wetlands, of which 0.1 acre will be permanently filled for operation the facilities. The construction and operation of the remaining aboveground facilities for the ACP and SHP will not impact wetlands.

TABLE 2.3.4-3

Summary of Wetlands Affected by Aboveground Facilities for the Atlantic Coast Pipeline

Facility	County or City/ State or Commonwealth	Cowardin Classification [a]	Construction Impacts (acres)	Permanent Impacts (acres)
ATLANTIC COAST PIPELINE				
Compressor Station 1	Lewis County, WV	PEM	<0.1	0.0
Compressor Station 2	Buckingham County, VA	PFO/PSS/PEM/	0.5/1.3/0.8	0.0
Long Run M&R Station	Randolph County, WV	PEM	<0.1	<0.1
Elizabeth River M&R Station	City of Chesapeake, VA	PFO	0.3	0.3
Site 1 Pig Launcher	Harrison County, WV	PSS/PEM	<0.1/0.1	<0.1/0.1
ACP TOTAL			**3.0**	**0.4**
SUPPLY HEADER PROJECT				
JB Tonkin Compressor Station	Westmoreland County, PA	PEM	<0.1	<0.1
Mockingbird Hill Compressor Station	Wetzel County, WV	PFO/PEM	<0.1/<0.1	0.0
Marts Junction Pig Receiver	Harrison County, WV	PEM	0.1	0.1
SHP TOTAL			**0.2**	**0.1**

[a] Wetland types according to Cowardin et al. (1979):
PFO = palustrine forested
PEM = palustrine emergent

2.3.4.3 Access Roads

Atlantic and DTI have worked to identify existing roads to the maximum extent feasible for use as access roads during project construction and operation. Approximately 87 percent of the access roads identified at the time of filing are located on existing roads (private and/or public). Approximately 7 percent of access roads are extensions of existing roads and approximately 6 percent are new roads proposed where insufficient access is provided through existing roads.

Improvements for access roads will be identified during the refinement phase of the Projects. Improvements to roads will be identified based on the need; not all roads will require improvements for full size truck and trailers. Typical improvements will involve adding gravel and grading existing roads. Those roads identified for larger trucks and trailers will be evaluated on a case-by-case basis.

Based on NWI maps and field surveys, access roads for the ACP will cross a total of 20,648 feet of wetlands and will result in 14.2 acres of impacts. Access roads for the SHP Project will cross a total of 560 feet of wetlands and will result in 0.4 acre of impacts. A summary of impacts associated with access roads is included in Table 2.3.4-4. Additional information is provided in Appendix 2H.

2.3.4.4 Pipe Storage and Contractor Yards

The pipe storage and contractor yards identified for the ACP and SHP will not impact wetlands.

2.3.5 Wetland Crossing Methods

In general, Atlantic and DTI will minimize impacts on wetlands by following the Procedures, site-specific modifications to the Procedures requested by Atlantic and DTI and approved by the FERC, and additional requirements identified in Federal or State/Commonwealth wetland crossing permits. Atlantic and DTI will prepare a POD or COM Plan, which will identify construction procedures and mitigation measures to be implemented on federally managed lands. Atlantic and DTI will submit preliminary draft PODs or COM Plans to the Bureau of Land Management, USFS, and FWS in September 2015.

Both Projects will be constructed using a 75-foot wide construction right-of-way for pipelines where they cross wetlands, with ATWS on both sides of the upland border to stage construction equipment, fabricate the pipelines, and store materials and excavated spoil. ATWS will be located in upland areas a minimum of 50 feet from the wetland edge (with the exception of site-specific modifications requested by Atlantic and DTI and approved by the FERC; see Appendix 1E of Resource Report 1).

Detailed descriptions of wetland crossing methods (e.g., the open cut and push-pull methods) are provided in Section 1.5.2.2 of Resource Report 1. These crossing methods are consistent with the requirements of the Procedures.

The crossing method for each wetland during construction will depend on site-specific weather conditions, soil saturation, and soil stability. Tables 2H-1 and 2H-2 in Appendix 2H identify the proposed crossing method for each wetland along the proposed ACP and SHP pipeline routes and in other work areas.

TABLE 2.3.4-4

Summary of Wetlands Affected by Access Road Construction for the Atlantic Coast Pipeline

Facility/State or Commonwealth	County/City	Cowardin Classification [a]	Crossing Length (feet)	Permanent Impacts (acres)
ATLANTIC COAST PIPELINE				
AP-1				
West Virginia	Lewis County	PUB	184	0.1
		PEM	611	0.4
	Upshur County	PEM	234	0.2
	Randolph County	PEM	592	0.3
		PFO	67	<0.1
	Pocahontas County	PEM	331	0.2
		PSS	0	<0.1
		PFO	284	0.2
West Virginia Total			**2,303**	**1.5**
Virginia	Highland County	PEM	37	0.1
		PSS	0	<0.1
	Buckingham County	PEM	17	<0.1
		PSS	22	<0.1
		PFO	840	0.6
	Cumberland County	PFO	32	<0.1
	Brunswick County	PFO	126	0.1
	Greensville County	PEM	210	0.1
		PFO	661	0.5
Virginia Total			**1,944**	**1.4**
AP-2				
North Carolina	Halifax County	PFO	1,145	0.8
	Nash County	PFO	110	0.1
	Johnston County	PEM	176	0.1
		PFO	2,700	2.1
	Cumberland County	PFO	1,759	1.2
North Carolina Total			**5,890**	**4.3**
AP-3				
North Carolina	Northampton County	PEM	141	0.1
		PFO	20	<0.1
North Carolina Total			**161**	**0.1**
Virginia	Southampton County	PEM	0	<0.1
		PSS	172	0.1
		PFO	1,376	0.9
	City of Suffolk	PFO	1,790	1.2
	City of Chesapeake	PEM	2,776	1.8
		PSS	0	<0.1

TABLE 2.3.4-4 (cont'd)

Summary of Wetlands Affected by Access Road Construction for the Atlantic Coast Pipeline

Facility/State or Commonwealth	County/City	Cowardin Classification [a]	Crossing Length (feet)	Permanent Impacts (acres)
		PFO	4,184	2.8
Virginia Total			**10,298**	**6.9**
AP-5				
Virginia	Greensville County	PFO	52	<0.1
Virginia Total			**52**	**<0.1**
ACP PROJECT TOTAL			**20,648**	**14.2**
SUPPLY HEADER PROJECT				
TL-635 Access Roads				
West Virginia	Doddridge, County	PFO	76	<0.1
	Wetzel, County	PEM	372	0.3
West Virginia Total			**448**	**0.3**
TL-636 Access Roads				
Pennsylvania	Westmoreland, County	PFO	65	<0.1
		PEM	47	<0.1
SHP PROJECT TOTAL			**560**	**0.4**

[a] Wetland types according to Cowardin et al. (1979):
PFO = palustrine forested
PSS = palustrine scrub-shrub
PEM = palustrine emergent
PUB = palustrine unconsolidated bottom

Notes: The totals shown in this table may not equal the sum of addends due to rounding. The area of impact for wetlands along access roads was based on the crossing length of wetlands and an assumed width of 30 feet for each access road.

Horizontal Directional Drill

Several wetlands will be crossed as part of the proposed HDD river crossing discussed in Section 2.2.8 above. Utilization of the HDD method in these areas would avoid direct impacts on 3.9 acres of wetland, including 2.5 acres of PFO, 0.2 acre of PSS, and 1.2 acres of PEM wetlands.

Blasting

Blasting may be necessary along portions of the proposed ACP and SHP pipeline routes where bedrock is located at or near the ground surface (see Section 6.2 of Resource Report 6). As noted above, Atlantic and DTI have prepared and will implement a *Blasting Plan* which identifies procedures for the use, storage, and transportation of explosives consistent with safety requirements defined by Federal, State/Commonwealth, and local agency regulations. The *Blasting Plan* is provided in Appendix 1F of Resource Report 1.

2.3.6 Wetland Impacts and Mitigation

Construction activities can affect wetlands in several ways. Clearing and grading of wetlands, trenching, backfilling, and trench dewatering can affect wetlands through the alteration

of wetland vegetation and hydrology; loss or change to wildlife habitat (see Section 3.3.1.2 in Resource Report 3); erosion and sedimentation; and accidental spills of fuels and lubricants.

Atlantic and DTI will minimize impacts on wetlands by following the wetland construction and restoration guidelines contained in the Plan and Procedures. The proposed wetland mitigation measures are intended to avoid wetland impacts to the greatest extent practicable; minimize the area and duration of disturbance; reduce soil disturbance; and enhance wetland revegetation after construction. Some of the measures proposed include:

- limiting the construction right-of-way width to 75-feet through wetlands (unless alternative, site-specific measures are requested by Atlantic and DTI and approved by the FERC and other applicable agencies);
- locating ATWS at least 50 feet away from wetland boundaries (unless alternative, site-specific measures are requested by Atlantic and DTI and approved by the FERC and other applicable agencies);
- limiting the operation of construction equipment within wetlands to only equipment essential for clearing, excavation, pipe installation, backfilling, and restoration;
- preventing the compaction and rutting of wetland soils by operating equipment off of equipment mats or timber riprap in wetlands that are not excessively saturated;
- restricting grading in wetlands to the area directly over the trenchline, except where necessary to provide necessary safety;
- installing trench breakers or trench plugs at the boundaries of wetlands to prevent draining of wetlands;
- segregating topsoil from the trench in non-saturated wetlands and returning topsoil to its original location during backfilling to avoid changes in the subsurface hydrology and to promote re-establishment of the original plant community by replacing the seed bank found in the topsoil;
- installing temporary and permanent erosion and sediment control devices, and re-establishing vegetation on adjacent upland areas, to avoid erosion and sedimentation into wetlands;
- removing woody stumps only from areas directly above the trenchline, or where they will create a safety hazard, to facilitate the re-establishment of woody species by existing root structures;
- returning graded areas to their preconstruction contours to the greatest extent practicable, and returning excavated soil from the trench within the wetlands back to their original soil horizon to maintain hydrologic characteristics;
- prohibiting the storage of chemicals, fuels, hazardous materials, and lubricating oils within 100 feet of a wetland;

- prohibiting parking and/or fueling of equipment within 100 feet of a wetland; unless the Environmental Inspector determines there is no reasonable alternative, and appropriate steps (such as secondary containment structure) are taken;
- dewatering the trench at a controlled rate into an energy dissipation/sediment filtration device, such as a geotextile filter bag or properly installed straw bale structure, to minimize the potential for erosion and sedimentation;
- preventing the invasion or spread of undesirable exotic vegetation as described in the Invasive Plant Species Management Plan (see Appendix 1F of Resource Report 1);
- limiting post-construction maintenance of vegetation to removal of trees with roots that could compromise the integrity of the pipeline within 15 feet of the pipeline centerline, and the maintenance of a 10-foot wide corridor centered over the pipeline as herbaceous vegetation; and
- annual monitoring of the success of wetland revegetation following construction until wetland revegetation is successful.

Restoration/revegetation of wetlands will be considered successful when the affected wetland satisfies the Federal definition of a wetland (i.e., soils, hydrology, and vegetation); the vegetation is at least 80 percent of the cover documented for the wetland prior to construction, or at least 80 percent of the cover in adjacent, undisturbed areas of the wetland; or the plant species composition is consistent with early successional wetland plant communities in the affected ecoregion (if natural rather than active revegetation is used); and invasive plant species are absent, unless they are abundant in adjacent areas that were not disturbed by construction. Applicable regional conditions associate with USACE permitting will also be complied with as they pertain to revegetation and monitoring requirements.

Atlantic and DTI have evaluated numerous major route alternatives (greater than 5 miles in length), route variations (1 to 5 miles in length) and minor route adjustments to optimize the baseline route as a result of ongoing routing, biological, cultural resources, and civil field surveys. The primary criterion for comparing major route alternatives and route variations to the baseline route was cumulative impact avoidance relative to the objective of the route alternative or variation. The route adjustments were adopted without a formal alternatives analysis, but the need for the adjustment was intuitive and practical (e.g., a slight shift in the centerline to avoid a wetland). Individually, the adjustments to the routes are small, but collectively they reduce impacts on environmental resources. Resource Report 10 documents the results of these routing alternatives, variations, and adjustments. In addition to the route alternatives, variations, and adjustments, Atlantic and DTI continue to optimize the route at a localized scale to further minimize impacts on wetlands and waterbodies where feasible.

2.3.6.1 Wetland Vegetation

The alteration of wetland vegetation is the primary impact of pipeline construction and right-of-way maintenance activities on wetlands. Most impacts associated with construction activities are considered temporary, but long-term impacts on wetland vegetation may occur depending on the time required for reestablishment of wetland functions associated with

vegetation cover. Impacts on herbaceous wetlands (PEM) will be temporary as vegetation is expected to fully regenerate within one to three years. Impacts on PSS wetlands will take longer to reestablish to preconstruction conditions and may take five or more years depending on the age and complexity of the system. The impacts on PFO wetlands will be long-term due to the length of time required for a forest community to regenerate. However, many wetland functions such as surface water detention, nutrient recycling, particle retention, and some wildlife habitat will be restored prior to the full regeneration of the forest.

Where necessary, wetlands will be planted with native vegetation and/or seeded with predetermined seed mixes (approved by the appropriate agencies) to promote the reestablishment of wetland vegetation. Atlantic and DTI will also restore wetlands according the conditions of applicable permits, including the specific regional conditions specific to restoration and revegetation within each of the USACE Districts. An *Invasive Plant Species Management Plan* (see Appendix 1F of Resource Report 1) will be implemented to reduce and control the spread of invasive non-native species in the Project areas, including wetlands. Conversion of forested wetlands will be mitigated through compensatory mitigation as discussed in Section 2.3.7 below. Loss of forested cover and fragmentation concerns raised by the EPA are address in detail within Resource Report 3.

Following pipeline construction, Atlantic and DTI will periodically remove woody species from wetlands to facilitate post-construction monitoring and inspections of the maintained pipeline right-of-way. In accordance with the Plan and Procedures, Atlantic and DTI will maintain a 10-foot wide corridor centered over the pipeline in an herbaceous condition. Additionally, woody species within 15 feet of the pipeline with roots that could compromise the integrity of the pipeline will be removed. These maintenance activities will not allow PSS and PFO wetlands to fully reestablish within the maintained right-of-way, which will alter these wetlands by changing their structure and function. Based on a combination of field survey data and NWI data, approximately 204.4 acres of PFO and PSS wetlands will be converted to herbaceous wetlands by the ACP and less than approximately 0.3 acre of PFO and PSS wetlands will be converted to herbaceous wetlands by the SHP.

In order to reduce impacts on wetlands, Atlantic and DTI will make minor route adjustments, where practicable, based on the results of biological field surveys to minimize or avoid impacts on wetlands. Additionally, as discussed above, Atlantic and DTI will reduce the construction right-of-way to 75-feet in wetlands and will cross some wetlands using the HDD crossing method. Atlantic and DTI will allow the majority of wetlands impacted during construction to return to their preconstruction condition as described above. In addition, Atlantic and DTI will review vegetative control measures at all collocation areas and ensure that restored areas will not be impacted by spraying activity.

2.3.6.2 Compaction and Topsoil Mixing

During construction, heavy machinery used for construction and transport of pipe sections can cause compaction and rutting of soils. Soil compaction can inhibit seed germination and increase the potential for runoff and siltation. To reduce the risk of compaction and rutting, construction equipment will work off of equipment mats or timber riprap in wetlands that are not excessively saturated.

Topsoil mixing in non-saturated wetlands without construction mats can result in the mixing of topsoil with subsoil where topsoil is not segregated (topsoil is only segregated over the trenchline). This can result in changes to biological activities and chemical conditions in the wetland soils. Mixing of soil layers can also impede the reestablishment and natural recruitment of native vegetation following restoration. To reduce mixing in unsaturated wetlands, topsoil will be removed from the trench, segregated, and stored within the wetland adjacent to the trench. Upon completion of the work, subsoil will be returned to the trench, followed by topsoil.

2.3.6.3 Wetland Hydrology

The type and quality of a wetland may change if permanent surface and/or subsurface hydrology alterations occur due to construction activities. To minimize impacts on wetlands from changes in surface hydrology, disturbed areas will be returned to their preconstruction elevations and contours. To minimize impacts on subsurface hydrology in unsaturated wetlands, subsoil will be backfilled first, followed by topsoil. Where necessary, trench plugs will also be installed at the wetland/upland interface to maintain wetland hydrology.

2.3.6.4 Erosion and Sediment Control

The clearing of the construction right-of-way adjacent to and within a wetland, and grading in adjacent upland areas, can cause erosion of soil and the deposition of sediment into the wetland. Compaction of soil by construction equipment can affect runoff and may contribute to more erosion and sedimentation. To minimize impacts during clearing activities, Atlantic and DTI will cut the existing wetland vegetation to ground level, leaving existing root systems intact. Erosion and soil compaction will be minimized by the use of timber mats, timber riprap, or straw mats within a wetland, if wetland soils are not excessively saturated at the time of construction and can support construction equipment. Erosion will further be minimized by the installation of temporary erosion control devices, according to the Plan and Procedures and stormwater permitting requirements, between the upland construction areas and the wetland to limit the potential for soil to leave the right-of-way or enter a wetland. In addition, permanent erosion controls will be installed, such as slope breakers, to aid long-term stabilization along with the restored vegetation adjacent to wetlands. Additional details regarding restoration of upland vegetation adjacent to wetlands on USFS lands are provided in Resource Report 3.[18]

When excavating the trench, trench spoil will be placed a minimum of 50 feet away from wetland boundaries wherever possible. If dewatering of the trench is necessary, silt-laden trench water will be discharged into an energy dissipation/sedimentation filtration device, such as a geotextile filter bag or straw bale structure, to minimize the potential for erosion and sedimentation. Dewatering structures will be removed as soon as practicable after completion of dewatering activities.

[18] In comments filed with the FERC, the USFS expressed concerns about sedimentation in streams due to exposed slopes subsequent to construction.

2.3.6.5 Hazardous Material Spills

The use of heavy equipment to complete pipeline installation across wetlands increases the potential for accidental releases of fuels, lubricants, and coolants. The accidental release of these materials could contaminate wetland soils and vegetation. Atlantic and DTI will minimize the potential impact of spills of hazardous materials by adhering to the SPCC Plan (see Appendix 1F of Resource Report 1). Some examples of preventive measures include regular inspection of storage areas for leaks, replacement of deteriorating containers, and construction of containment systems around hazardous liquids storage facilities. The SPCC Plan also will restrict refueling or other liquid transfer areas within 100 feet of wetlands.

2.3.6.6 Blasting

Resource Report 6 identifies areas along the proposed pipeline routes where hard shallow bedrock is anticipated and blasting could be required. Where bedrock is encountered in wetland trenches, the type of bedrock will determine the method of excavation. Blasting could impact wetlands by causing a fissure in the rock that would drain the wetland. Blasting could also result in a wetland conversion through the introduction of a new water source. Wetlands will be monitored after blasting to determine that no fissures are created. Impacts on wetlands due to blasting will be addressed as part of the compensatory mitigation for the Projects.

2.3.6.7 Permanent Wetland Fill

In some cases, construction of aboveground facilities and access roads will require the permanent filling of wetlands. A total of 0.5 acres of wetlands will be filled for construction of aboveground facilities and 14.5 acres of impacts will be required for construction of access roads. Where permanent impacts are required, Atlantic and Dominion will comply with all applicable Federal and State/Commonwealth permit requirements.

2.3.7 Compensatory Mitigation

Atlantic and DTI will prepare a compensatory wetland mitigation plan for impacts on each single and complete crossing of Waters of the U.S. and Waters of the State for the Projects with assistance from each of the USACE District offices. Ratios for unavoidable impacts to Waters of the U.S. and Waters of the State will be determined by the USACE and applied as necessary to calculate the amount of compensatory mitigation credits needed to compensate for both forested and shrub wetlands conversions and permanent losses of Waters of the U.S. Where available, mitigation bank credits will be utilized to mitigate impacts as a preferred option. In the event that mitigation bank credits are unavailable for purchase, or to make up the balance of credits needed, participation in an In-lieu Fee Program will be used to satisfy remaining compensatory mitigation requirements.

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ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE

and

DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT

Resource Report 2
Water Use and Quality

APPENDIX 2A
Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline and Supply Header Project

TABLE 2A-1

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
WEST VIRGINIA								
AP-1								
0.0	shaa002	Tanner Fork	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	B1, C	Warmwater	April 1 through June 30
0.0	shaa001	UNT to Tanner Fork	Perennial	3	1) Dam and Pump	UNT to B1	Warmwater	
0.5	shaa003	UNT to Tanner Fork	Intermittent	4	1) Dam and Pump	UNT to B1	Warmwater	
1.1	slea001	Kincheloe Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	HQS, C	High Quality Stream	Spawning Season Waiver Needed
1.1	slea001	Kincheloe Creek	Perennial	14	1) Dam and Pump 2) Flume	HQS, C	High Quality Stream	Spawning Season Waiver Needed
1.5	slea002	Sand Fork	Perennial	12	1) Dam and Pump 2) Flume	HQS, C	High Quality Stream	Spawning Season Waiver Needed
2.4	slea003	UNT to Kincheloe Creek	Intermittent	21	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
4.0	sleb001	UNT to Hog Camp Run	Intermittent	5	1) Dam and Pump	UNT to B1	Warmwater	
4.0	sleb002	Hog Camp Run	Perennial	41	1) Flume 2) Dam and Pump	B1, C	Warmwater	April 1 through June 30
5.0	sleb004	Elk Lick	Intermittent	4	1) Dam and Pump	B1, C	Warmwater	April 1 through June 30
5.7	sleb005	Turkeypen Creek	Perennial	8	1) Dam and Pump 2) Flume	B1, C	Warmwater	April 1 through June 30
5.7	sleb006	UNT to Turkeypen Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
6.8	sleb106	UNT to Hollick Run	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
7.2	sleb105e	UNT to Hollick Run	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
7.5	oleb100	UNT to Kincheloe Creek	Pond	Not Crossed by Centerline	Not Crossed by Centerline	N/A	N/A	Spawning Season Waiver Needed
7.7	sleb008	UNT to Hollick Run	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
7.7	sleb104i	UNT to Hollick Run	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
7.7	sleb104	UNT to Hollick Run	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
7.7	slea004	Hollick Run	Perennial	9	1) Dam and Pump 2) Flume	B1, C	Warmwater	April 1 through June 30
7.7	slea004	Hollick Run	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	B1, C	Warmwater	April 1 through June 30
7.7	slea004	Hollick Run	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	B1, C	Warmwater	April 1 through June 30
7.8	slea004	Hollick Run	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	B1, C	Warmwater	April 1 through June 30
7.8	slea004	Hollick Run	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	B1, C	Warmwater	April 1 through June 30
8.2	sleb009	West Fork River	Perennial	93	1) Cofferdam	A, HQS, C	High Quality Stream	Spawning Season Waiver Needed
9.4	slea008	Broad Run	Perennial	10	1) Dam and Pump 2) Flume	B1, C	Warmwater	April 1 through June 30
10.2	slea009	UNT to Broad Run	Intermittent	4	1) Dam and Pump	UNT to B1	Warmwater	
10.7	slea010	UNT to Sycamore Lick	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
10.8	slea011	UNT to Sycamore Lick	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
11.8	slea012	UNT to Hackers Creek	Intermittent	4	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
11.8	slea013	UNT to Hackers Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
12.5	sleb012	UNT to West Run	Perennial	2	1) Dam and Pump	UNT to B1	Warmwater	
12.6	sleb011	West Run	Perennial	14	1) Dam and Pump	B1, C	Warmwater	April 1 through June 30
13.8	sleh001	UNT to Lifes Run	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
14.3	sleh002	Lifes Run	Perennial	20	1) Flume 2) Dam and Pump	B1, C	Warmwater	April 1 through June 30
14.5	sleh009	UNT to Lifes Run	Perennial	4	1) Dam and Pump	UNT to B1	Warmwater	
14.8	sleh008	UNT to Hackers Creek	Intermittent	14	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
15.0	sleb110	UNT to Hackers Creek	Ephemeral	3	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
15.0	sleb109	UNT to Hackers Creek	Intermittent	5	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
15.5	sleb111	UNT to Hackers Creek	Perennial	13	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
16.3	sleb113	UNT to Hackers Creek	Intermittent	2	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
16.4	sleb112	UNT to Hackers Creek	Perennial	4	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
17.2	sleb114	UNT to Hackers Creek	Perennial	7	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
18.1	sleb116	UNT to Laurel Lick	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
18.1	sleb115	Laurel Lick	Intermittent	5	1) Flume 2) Dam and Pump	B1, C	Warmwater	April 1 through June 30
19.9	slea023	UNT to Buckhannon Run	Intermittent	4	1) Dam and Pump	UNT to B1	Warmwater	
20.3	sleb018	Buckhannon Run	Perennial	6	1) Dam and Pump	B1, C	Warmwater	April 1 through June 30
20.6	sleb019	UNT to Buckhannon Run	Intermittent	3	1) Dam and Pump	UNT to B1	Warmwater	
23.3	supa001	Fink Run	Perennial	10	1) Dam and Pump 2) Flume	B1, C	Warmwater	April 1 through June 30
24.0	supa002	UNT to Fink Run	Intermittent	4	1) Dam and Pump	UNT to B1	Warmwater	
24.3	supa004	UNT to Brushy Fork	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	
24.6	supa003	UNT to Brushy Fork	Intermittent	4	1) Dam and Pump	UNT to B1	Warmwater	
24.7	supa005	UNT to Brushy Fork	Intermittent	3	1) Dam and Pump	UNT to B1	Warmwater	
25.4	supb001	UNT to Brushy Fork	Intermittent	1	1) Dam and Pump	UNT to B1	Warmwater	
25.8	supb003	UNT to Brushy Fork	Intermittent	2	1) Dam and Pump	UNT to B1	Warmwater	
26.0	supb004	Brushy Fork	Perennial	16	1) Flume 2) Dam and Pump	B1, C	Warmwater	April 1 through June 30
28.4	supb005	UNT to Lick Run	Intermittent	2	1) Dam and Pump	UNT to B1	Warmwater	
28.5	oupa001	UNP to Lick Run	Pond	Not Crossed by Centerline	Not Crossed by Centerline	N/A	N/A	
29.2	supb006	Cutright Run	Perennial	23	1) Dam and Pump 2) Flume	B1, C	Warmwater	April 1 through June 30
29.9	supb007	UNT to French Creek	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
30.6	supa006	UNT to French Creek	Perennial	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
30.9	supa007	UNT to French Creek	Intermittent	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
31.1	supa008	French Creek	Perennial	40	1) Cofferdam	B2, HQS, C	High Quality Stream	Spawning Season Waiver Needed
31.7	supa009	Buckhannon River	Perennial	91	1) Cofferdam	A, HQS, C	High Quality Stream	Spawning Season Waiver Needed
32.1	supa011	UNT to Trubie Run	Intermittent	6	1) Dam and Pump	UNT to B1	Warmwater	
33.0	supb009	UNT to Trubie Run	Perennial	5	1) Dam and Pump	UNT to B1	Warmwater	
34.1	supa012	UNT to Buckhannon Run	Ephemeral	3	1) Dam and Pump	UNT to B1	Warmwater	
34.4	supa013	Grassy Run	Perennial	25	1) Flume 2) Dam and Pump	B1, C	Warmwater	April 1 through June 30
36.1	supb010	Gravel Run	Perennial	21	1) Flume 2) Dam and Pump	B1, C	Warmwater	April 1 through June 30
36.1	supa014	UNT to Gravel Run	Intermittent	5	1) Dam and Pump 2) Flume	UNT to B1	Warmwater	
36.8	supb011	Laurel Run	Perennial	15	1) Dam and Pump 2) Flume	B1, C	Warmwater	April 1 through June 30
37.8	supa016	Tenmile Creek	Perennial	17	1) Dam and Pump 2) Flume	B2, HQS, C	High Quality Stream	Spawning Season Waiver Needed
37.9	supa017	UNT to Tenmile Creek	Intermittent	8	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
37.9	oupa003	Unnamed Pond	Pond	Not Crossed by Centerline	Not Crossed by Centerline	N/A	N/A	
39.6	supa019	Tenmile Creek	Intermittent	8	1) Dam and Pump	B2, HQS	High Quality Stream	Spawning Season Waiver Needed
40.5	supb013	UNT to Leonard Run	Intermittent	2	1) Dam and Pump	UNT to B1	Warmwater	
40.7	supb012	UNT to Leonard Run	Intermittent	5	1) Dam and Pump	UNT to B1	Warmwater	
41.3	supa015	Right Fork Middle Fork River	Perennial	45	1) Flume 2) Cofferdam	B2, HQS, C	High Quality Stream	Spawning Season Waiver Needed
45.4	srab101	UNT to Jenks Fork	Intermittent	4	1) Dam and Pump	UNT to B1	Warmwater	
47.0	srab103	UNT to Long Run	Intermittent	4	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
47.5	srab104	UNT to Sugar Run	Intermittent	5	1) Dam and Pump	UNT to B1	Warmwater	April 1 through June 30
47.8	srab105	UNT to Long Run	Perennial	18	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
49.2	srab107	UNT to Schoolcraft Run	Perennial	16	1) Dam and Pump 2) Flume	UNT to B2	Coldwater	
49.2	srab108	Schoolcraft Run	Perennial	16	1) Dam and Pump 2) Flume	B2, C	Coldwater	September 15 through March 31
50.2	srab111	UNT to Birch Fork	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
50.2	srab109	Birch Fork	Perennial	14	1) Flume 2) Dam and Pump	B2, HQS, C	High Quality Stream	Spawning Season Waiver Needed
51.1	srab112	Mitchell Lick Fork	Perennial	13	1) Dam and Pump	B2, HQS, C	High Quality Stream	Spawning Season Waiver Needed
52.0	srab113	Kittle Creek	Perennial	25	1) Flume 2) Dam and Pump	B2, C	Coldwater	September 15 through March 31
52.0	srab114	UNT to Kittle Creek	Intermittent	3	1) Dam and Pump	UNT to B2	Coldwater	
53.6	nhd_wv_005	Mill Creek	Perennial	10	1) Flume 2) Cofferdam	HQS, C	High Quality Stream	Spawning Season Waiver Needed
54.2	nhd_wv_006	UNT to Mill Creek	Intermittent	5	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
54.8	srab115	Buck Run	Intermittent	7	1) Dam and Pump	B1	Warmwater	April 1 through June 30
56.4	srab124	UNT to Tygart River	Perennial	31	1) Flume 2) Dam and Pump	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
56.4	srab128	UNT to Tygart River	Intermittent	5	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
56.4	srab125	UNT to Tygart River	Perennial	94	1) Flume 2) Dam and Pump	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
56.5	srab126	Tygart River	Perennial	88	1) Cofferdam 2)Flume	A, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
56.7	srab127	UNT to Tygart River	Perennial	4	1) Dam and Pump	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
57.5	nhd_wv_012	UNT to Tygart River	Intermittent	5	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
57.9	srab116	UNT to Becky Creek	Intermittent	5	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
58.5	srab117	UNT to Becky Creek	Intermittent	3	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
58.7	srab118	UNT to Becky Creek	Intermittent	2	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
59.0	srab119	Dry Run	Perennial	6	1) Dam and Pump	B1, C	Warmwater	April 1 through June 30
60.3	srab121	Big Branch	Perennial	16	1) Dam and Pump 2) Flume	B1, C	Warmwater	April 1 through June 30
60.3	srab120a	Becky Creek	Perennial	22	1) Flume 2) Dam and Pump	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
60.5	srab122	UNT to Becky Creek	Ephemeral	3	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
60.6	srab120c	Becky Creek	Perennial	32	1) Dam and Pump 2) Flume	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
60.6	srab123	UNT to Becky Creek	Perennial	3	1) Dam and Pump 2) Flume	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
62.7	srab050	UNT to Peters Run	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to B1	Warmwater	April 1 through June 30
63.8	sraa051	UNT to Lambert Run	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.2	srab052	UNT to Lambert Run	Intermittent	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
64.2	sraa054	UNT to Shavers Fork	Intermittent	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
64.5	sraa055	UNT to Lambert Run	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.5	srab053	UNT to Lambert Run	Intermittent	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
64.7	srab054	UNT to Lambert Run	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
64.7	srab055	UNT to Lambert Run	Perennial	4	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.8	sraa056	UNT to Lambert Run	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.9	sraa057	UNT to Lambert Run	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.9	srab057	UNT to Lambert Run	Perennial	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.4	srab058	UNT to Shavers Fork	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.4	srab059	UNT to Shavers Fork	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.5	srac051	UNT to Shavers Fork	Perennial	4	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.6	srab060	UNT to Shavers Fork	Perennial	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.7	srab063	UNT to Shavers Fork	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.7	srab062	UNT to Shavers Fork	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
65.7	srab064	UNT to Shavers Fork	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.8	srab065	UNT to Shavers Fork	Perennial	7	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
66.5	srab066	UNT to Shavers Fork	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
66.5	srab067	UNT to Shavers Fork	Intermittent	4	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
66.6	sraa057	UNT to Lambert Run	Perennial	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
66.7	srac053	UNT to Shavers Fork	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
67.5	srac055e	UNT to Shavers Fork	Ephemeral	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
67.8	srac057	UNT to Shavers Fork	Intermittent	4	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
67.9	srac059	Shavers Fork	Perennial	103	1) Cofferdam	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
68.0	orac002	Unnamed Pond	Pond	Not Crossed by Centerline	Not Crossed by Centerline	N/A	N/A	
69.5	srac064	UNT to Blister Run	Intermittent	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
69.5	srac063	UNT to Blister Run	Intermittent	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
69.6	srac062	UNT to Blister Run	Ephemeral	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
69.6	srac061	UNT to Blister Run	Ephemeral	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
69.6	srac060	UNT to Blister Run	Intermittent	6	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
70.2	spoa019	UNT to West Fork Greenbrier	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
70.4	spoa018	UNT to West Fork Greenbrier River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
70.5	spoc030	UNT to West Fork Greenbrier River	Perennial	10	1) Dam and Pump 2) Flume	UNT to HQS, Tier 3	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
71.4	spob005	West Fork Greenbrier River	Perennial	54	1) Cofferdam	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
72.2	spoc004	UNT to Mountain Lick	Intermittent	4	1) Dam and Pump 2) Flume	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
72.2	spoc003	Mountain Lick Creek	Perennial	22	1) Flume 2) Dam and Pump	HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
73.2	spoc010	UNT to Mountain Lick Creek	Perennial	17	1) Flume 2) Dam and Pump	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
74.8	spob010	John's Run	Perennial	53	1) Flume 2) Dam and Pump	B2, C, HQS, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
75.2	spob008	UNT to John's Run	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
75.2	spoc007	UNT to John's Run	Perennial	22	1) Dam and Pump 2) Flume	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
75.5	spob007	UNT to John's Run	Intermittent	7	1) Dam and Pump 2) Flume	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
76.6	spoc009	UNT to East Fork Greenbriar River	Perennial	14	1) Dam and Pump 2) Flume	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
76.6	spoc009	UNT to East Fork Greenbriar River	Perennial	12	1) Dam and Pump 2) Flume	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
77.1	spob001	East Fork Greenbrier	Perennial	60	1) Cofferdam	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
79.2	spoc006	Little River	Perennial	20	1) Dam and Pump 2) Flume	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
80.4	spob006	Old House Run	Perennial	18	1) Dam and Pump 2) Flume	B2, C	Coldwater	September 15 through March 31/October 1 to June 1
82.4	spoa001	UNT to Little River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
82.8	spoc011	UNT to Little River	Intermittent	7	1) Dam and Pump	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed
82.8	spoc012	UNT to Little River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed
VIRGINIA								
AP-1								
83.5	nhd_va_a_005	Collins Run	Intermittent	5	1) Dam and Pump	Aquatic Life I-IV	Coldwater	October 1 through March 31
84.7	shia001	Laurel Fork	Perennial	27	1) Dam and Pump 2) Flume	Aquatic Life, II	Coldwater	October 1 through March 31
85.3	shib001	UNT to Laurel Fork	Intermittent	6	1) Dam and Pump	UNT to Aquatic Life, II	Coldwater	
87.2	shib003	Back Creek	Perennial	15	1) Dam and Pump 2) Flume	Aquatic Life, VI		
87.6	shia002	UNT to Back Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
89.2	shia052	UNT to Jackson River	Intermittent	8	1) Dam and Pump	UNT to Aquatic Life, VI		
89.6	nhd_va_005	Jackson River	Intermittent	6	1) Dam and Pump	Aquatic Life, VI		
90.3	nhd_va_006	UNT to Jackson River	Intermittent	8	1) Dam and Pump	UNT to Aquatic Life, VI		
90.3	nhd_va_007	UNT to Jackson River	Intermittent	6	1) Dam and Pump	UNT to Aquatic Life, VI		
91.1	shia050	UNT to Jackson River	Perennial	7	1) Dam and Pump	UNT to Aquatic Life, VI		
93.3	nhd_va_011	UNT to Jackson River	Perennial	10	1) Dam and Pump	UNT to Aquatic Life, VI		
96.5	shib115	UNT to Crab Run	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
96.7	shib110	Crab Run	Perennial	28	1) Dam and Pump 2) Flume	Aquatic Life, II	Coldwater	October 1 through May 15

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
99.6	nhd_va_a_017	UNT to Bullpasture River	Intermittent	6	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
100.8	shib100	Crab Run	Perennial	26	1) Dam and Pump 2) Flume	Aquatic Life, II	Coldwater	October 1 through May 15
101.0	shib102	UNT to Crab Run	Intermittent	11	1) Dam and Pump	UNT to Aquatic Life, II	Coldwater	
101.8	shib104	UNT to Bullpasture River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
101.9	shib103	UNT to Bullpasture River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
102.4	shib122	UNT to Bullpasture River	Perennial	7	1) Dam and Pump	UNT to Aquatic Life		
102.6	shib123	UNT to Bullpasture River	Perennial	6	1) Dam and Pump	UNT to Aquatic Life		
102.9	shib124	Bullpasture River	Perennial	55	1) Cofferdam 2) Dam & Pump	Aquatic Life		May 15 through July 31
106.4	shib111	UNT to Cowpasture River	Ephemeral	1	1) Dam and Pump	UNT to Aquatic Life, VI		
106.4	shib116	UNT to Cowpasture River	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life, VI		
106.7	shib112	Cowpasture River	Perennial	20	1) Dam and Pump	Aquatic Life, VI		March 15 through June 30
107.4	shib114	Shaw's Fork	Perennial	34	1) Dam and Pump	Aquatic Life, V-VI		
108.1	nhd_va_a_041	UNT to Shaws Fork	Perennial	10	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
108.6	shic002	UNT to Shaws Fork	Perennial	11	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
108.7	shic001	UNT to Shaws Fork	Perennial	18	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
111.2	sauc001	Hodges Draft	Perennial	10	1) Flume 2) Dam and Pump	Aquatic Life, I-IV	Coldwater	October 1 through March 31

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
114.0	nhd_va_018	Ramseys Draft	Perennial	10	1) Dam and Pump 2) Flume	Aquatic Life, IV	Coldwater	October 1 through March 31
114.1	nhd_va_019	UNT to Ramseys Draft	Perennial	13	1) Dam and Pump 2) Flume	UNT to Aquatic Life, IV	Coldwater	
114.5	saub100	UNT to Ramsey's Draft	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life, IV	Coldwater	
114.8	saub101	UNT to Ramsey's Draft	Perennial	6	1) Dam and Pump	UNT to Aquatic Life, IV	Coldwater	
114.8	saub102	UNT to Ramsey's Draft	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, IV	Coldwater	
115.2	saub104	Ramsey's Draft	Perennial	11	1) Flume 2) Dam and Pump	Aquatic Life, IV	Coldwater	
115.4	saub105	UNT to Calfpasture River	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
115.7	saub106	UNT to Barn Lick Branch	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
115.7	saub107	UNT to Barn Lick Branch	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
115.8	saub108	Barn Lick Branch	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
115.8	saub108	Barn Lick Branch	Perennial	9	1) Flume 2) Dam and Pump	Unclassified		
116.3	saub109	UNT to Calfpasture River	Perennial	12	1) Dam and Pump	UNT to Aquatic Life		
116.5	nhd_va_025	Braley Branch	Perennial	11	1) Dam and Pump 2) Flume	Unclassified		
116.7	nhd_va_026	Calfpasture River	Perennial	10	1) Dam and Pump 2) Flume	Aquatic Life		
117.1	sauc002	Dowell's Draft	Perennial	10	1) Flume 2) Dam and Pump	Unclassified		
117.2	sauc004	UNT to Dowell's Draft	Perennial	9	1) Dam and Pump	Unclassified		
117.7	sauc005	UNT to Dowell's Draft	Intermittent	7	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
120.2	sauc007	UNT to White Oak Draft	Ephemeral	2	1) Dam and Pump 2) Flume	UNT to Aquatic Life, I-IV	Coldwater	
120.2	sauc006	White Oak Draft	Perennial	25	1) Dam and Pump	Aquatic Life, I-IV	Coldwater	October 1 through March 31
120.4	sauc008	UNT to White Oak Draft	Perennial	29	1) Flume 2) Dam and Pump	UNT to Aquatic Life, I-IV	Coldwater	
120.6	sauc009	UNT to White Oak Draft	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, I-IV	Coldwater	
120.7	saub013	UNT to Stoutameyer Branch	Intermittent	3	Dam and Pump	UNT to Aquatic Life	Coldwater	
120.9	saub012	UNT to Stoutameyer Branch	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life	Coldwater	
121.1	nhd_va_030	Stoutameyer Branch	Perennial	9	1) Dam and Pump 2) Flume	Aquatic Life I-IV	Coldwater	October 1 through March 31
122.5	sauc010	UNT to Jennings Branch	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life	Coldwater	
122.8	sauc011	UNT to Jennings Branch	Perennial	6	1) Dam and Pump 2) Flume	UNT to Aquatic Life	Coldwater	
123.0	sauc012	UNT to Jennings Branch	Intermittent	3	1) Dam and Pump 2) Flume	UNT to Aquatic Life	Coldwater	
123.9	nhd_va_032	UNT to Elk Run	Intermittent	7	1) Dam and Pump	Unclassified		
124.1	saub004	UNT to Elk Run	Intermittent	5	1) Dam and Pump	Unclassified		
124.4	saub003	UNT to Elk Run	Intermittent	2	1) Dam and Pump	Unclassified		
125.1	saub002	UNT to Elk Run	Intermittent	5	1) Dam and Pump	Unclassified		
125.8	saub001	UNT to Elk Run	Intermittent	2	1) Dam and Pump	Unclassified		
129.2	nhd_va_033	Jennings Branch	Intermittent	54	1) Cofferdam 2) Dam and Pump	Aquatic Life, Public Water Supply, I-IV		October 1 through March 31
130.1	nhd_va_034	UNT to Middle River	Intermittent	6	1) Dam and Pump	Unclassified		
130.4	saua070	Middle River	Perennial	80	1) Cofferdam 2) Dam and Pump	Aquatic Life		
134.2	nhd_va_037	UNT to Eidson Creek	Intermittent	5	1) Dam and Pump	Unclassified		
134.4	nhd_va_038	UNT to Eidson Creek	Intermittent	5	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
134.6	nhd_va_039	UNT to Eidson Creek	Intermittent	47	1) Dam and Pump	Unclassified		
135.9	nhd_va_040	UNT to Buttermilk Spring Run	Intermittent	5	1) Dam and Pump	Unclassified		
136.0	nhd_va_041	UNT to Buttermilk Spring Run	Intermittent	6	1) Dam and Pump	Unclassified		
137.0	nhd_va_042	Lewis Creek	Perennial	11	1) Dam and Pump 2) Flume	Unclassified		
138.7	nhd_va_043	UNT to Folly Mills Creek	Intermittent	13	1) Dam and Pump	UNT to Aquatic Life		
139.2	nhd_va_045	Folly Mills Creek	Perennial	12	1) Dam and Pump 2) Flume	Aquatic Life, VI		
139.6	nhd_va_473	Folly Mills Creek	Perennial	11	1) Dam and Pump	Aquatic Life, VI		
140.0	nhd_va_481	UNT Folly Mills Creek	Intermittent	6	1) Dam and Pump	UNT to Aquatic Life		
142.3	nhd_va_a_009	UNT to Christian`s Creek	Intermittent	7	1) Dam and Pump 2) Flume	Unclassified		
142.5	nhd_va_a_021	Christians Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
142.5	saub007	Christians Creek	Perennial	25	1) Dam and Pump 2) Flume	Unclassified		
143.9	saub011	UNT to Barterbrook Branch	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
144.0	saub010	Barterbrook Branch	Intermittent	2	1) Dam and Pump	Aquatic Life, V		
145.6	nhd_va_430	UNT to Barterbrook Branch	Intermittent	6	1) Dam and Pump	UNT to Aquatic Life		
146.3	nhd_va_431	UNT to South River	Intermittent	8	1) Dam and Pump	UNT to Aquatic Life		
146.4	nhd_va_432	UNT to South River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life		
148.2	saub114	UNT to South River	Perennial	3	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
148.4	saub116	South River	Perennial	43	1) Dam and Pump 2) Flume	Aquatic Life		April 15 through June 15 & August 15 through September 30

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
152.3	oaub100	UNP to Back Creek	Pond	Pond	1) Dam and Pump 2) Flume	Unclassified	N/A	
152.4	saub115	UNT to Back Creek	Intermittent	4	1) Dam and Pump	UNP to Aquatic Life		
152.9	saua053	Mills Creek	Perennial	14	1) Flume 2) Dam and Pump	Aquatic Life, I-VI	Coldwater	October 1 through March 31
152.9	saua052	Mills Creek	Perennial	33	1) Flume 2) Dam and Pump	Aquatic Life, I-VI	Coldwater	October 1 through March 31
152.9	saua051	UNT to Mills Creek	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life		
153.2	nhd_va_332	UNT to Back Creek	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life		
153.4	saua067	Orebank Creek	Perennial	16	1) Flume 2) Dam and Pump	Aquatic Life, I-IV	Coldwater	October 1 through March 31
153.6	saua069	UNT to Back Creek	Intermittent	3	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
153.6	saua068	UNT to Back Creek	Perennial	7	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
153.7	nhd_va_a_014	UNT to Back Creek	Perennial	14	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
153.8	nhd_va_a_001	Back Creek	Perennial	20	1) Flume 2) Dam and Pump	Aquatic Life, V-VI		
154.4	nhd_va_333	UNT to Back Creek	Intermittent	8	1) Dam and Pump	UNT to Aquatic Life, V-VI		
154.8	nhd_va_388	UNT to Back Creek	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, V-VI		
155.2	saua064	UNT to Back Creek	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, V-VI		
155.3	saua065	UNT to Back Creek	Intermittent	5	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
155.3	saua066	UNT to Back Creek	Intermittent	6	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
155.8	saua062	UNT to Back Creek	Perennial	11	1) Dam and Pump	UNT to Aquatic Life, V-VI		
155.9	saua061	UNT to Back Creek	Intermittent	7	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
155.9	saua060	UNT to Back Creek	Intermittent	8	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
155.9	saua059	UNT to Back Creek	Intermittent	7	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
156.0	saua058	UNT to Back Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, V-VI		
156.0	saua057	UNT to Back Creek	Intermittent	4	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
156.2	saua056	UNT to Back Creek	Perennial	5	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
156.4	saua054	UNT to Back Creek	Intermittent	3	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
156.7	nhd_va_370	UNT to Back Creek	Intermittent	5	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
157.3	nhd_va_353	UNT to Back Creek	Intermittent	6	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
157.4	nhd_va_375	UNT to Back Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, V-VI		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
157.5	nhd_va_329	UNT to Back Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, V-VI		
157.5	nhd_va_344	UNT to Back Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, V-VI		
157.5	nhd_va_344	UNT to Back Creek	Intermittent	6	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
157.6	nhd_va_329	UNT to Back Creek	Intermittent	12	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
157.8	nhd_va_380	UNT to Back Creek	Intermittent	10	HDD	UNT to Aquatic Life, V-VI		
158.6	nhd_va_337	UNT to Rockfish River	Intermittent	10	HDD	UNT to Aquatic Life, V-VI	Coldwater	
158.9	nhd_va_a_013	South Fork Rockfish River	Intermittent	7	1) Flume 2) Dam and Pump	Aquatic Life, V-VI		
162.4	nhd_va_387	Spruce Creek	Perennial	11	1) Flume 2) Dam and Pump	Aquatic Life, I-VI	Coldwater	October 1 through March 31
163.2	nhd_va_a_004	Spruce Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Aquatic Life, I-VI	Coldwater	October 1 through March 31
163.7	nhd_va_379	South Fork Rockfish River	Perennial	11	1) Flume 2) Dam and Pump	Aquatic Life, V-VI		
163.9	nhd_va_362	UNT to South Fork Rockfish River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, V-VI		
164.4	nhd_va_348	UNT to South Fork Rockfish River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, V-VI		
165.3	nhd_va_354	UNT to South Fork Rockfish River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, V-VI		
165.4	nhd_va_376	UNT to South Fork Rockfish River	Intermittent	5	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
165.5	nhd_va_384	UNT to South Fork Rockfish River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, V-VI		
165.9	nhd_va_336	UNT to South Fork Rockfish River	Perennial	12	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
166.2	snea051	UNT to South Fork Rockfish River	Perennial	5	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
166.3	snea050	UNT to South Fork Rockfish River	Perennial	9	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
166.7	snea052	UNT to South Fork Rockfish River	Perennial	9	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
167.2	nhd_va_383	UNT to South Fork Rockfish River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, V-VI		
167.6	nhd_va_366	UNT to South Fork Rockfish River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, V-VI		
168.4	nhd_va_347	UNT to Davis Creek	Intermittent	8	1) Dam and Pump	Unclassified		
168.8	nhd_va_371	Davis Creek	Perennial	10	1) Flume 2) Dam and Pump	Aquatic Life		
168.8	nhd_va_361	Muddy Creek	Perennial	12	1) Flume 2) Dam and Pump	Unclassified		
169.7	nhd_va_342	UNT to Rockfish River	Perennial	11	1) Flume 2) Dam and Pump	Unclassified		
169.9	nhd_va_385	UNT to Rockfish River	Intermittent	9	1) Dam and Pump	Unclassified		
170.7	nhd_va_357	UNT to Rockfish River	Intermittent	5	1) Dam and Pump	Unclassified		
171.3	nhd_va_350	UNT to Wheeler Cove	Intermittent	5	1) Dam and Pump	Unclassified		
171.8	nhd_va_378	Wheeler Cove	Perennial	14	1) Flume 2) Dam and Pump	Unclassified		
172.8	nhd_va_a_003	UNT to Dutch Creek	Intermittent	10	1) Flume 2) Dam and Pump	Unclassified		
173.2	nhd_va_a_002	UNT to Dutch Creek	Intermittent	11	1) Flume 2) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

	Waterbody			Crossing		Special Designations		
State/ Facility/ Milepost	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
175.2	nhd_va_343	Falls Run	Perennial	20	1) Flume 2) Dam and Pump	Unclassified		
175.6	nhd_va_360	Dutch Creek	Perennial	11	1) Flume 2) Dam and Pump	Unclassified		
175.7	nhd_va_a_028	Dutch Creek	Intermittent	5	1) Dam and Pump	Unclassified		
178.9	nhd_va_335	UNT to Buffalo Creek	Intermittent	6	1) Dam and Pump	Unclassified		
180.2	snea001	UNT to Buffalo Creek	Perennial	22	1) Flume 2) Dam and Pump	Unclassified		
180.5	snec002	UNT to Buffalo Creek	Intermittent	8	1) Dam and Pump	Unclassified		
180.9	snec003	UNT to Buffalo Creek	Intermittent	1	1) Dam and Pump	Unclassified		
181.5	snec004	UNT to Mayo Creek	Intermittent	4	1) Dam and Pump	Unclassified		
181.9	snec005	Mayo Creek	Perennial	13	1) Dam and Pump	Unclassified		
182.6	snec006	UNT to Mayo Creek	Intermittent	10	1) Dam and Pump	Unclassified		
182.9	snep002	UNT to Mayo Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
182.9	snep001	UNT to Mayo Creek	Perennial	3	1) Dam and Pump	Unclassified		
182.9	snep003	UNT to Mayo Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
183.3	snep005	UNT to Mayo Creek	Perennial	3	1) Dam and Pump	Unclassified		
183.4	snep006	UNT to Mayo Creek	Intermittent	2	1) Dam and Pump	Unclassified		
184.5	nhd_va_a_023	Mayo Creek	Perennial	10	1) Dam and Pump	Unclassified		
184.6	nhd_va_a_011	Mayo Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
184.7	nhd_va_a_030, sbup015	James River	Perennial	387	HDD	Aquatic Life, Migratory Fish Spawning and Nursery		February 15 through June 30
185.9	sbup014	UNT to James River	Perennial	3	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
185.9	sbup012	UNT to James River	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
						Spawning and Nursery		
186.1	sbup011	UNT to James River	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
186.1	sbup010	UNT to James River	Perennial	7	1) Dam and Pump 2) Flume	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
186.4	sbup007	UNT to James River	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
186.7	nhd_va_a_008	UNT to James River	Intermittent	6	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
186.8	nhd_va_a_022	UNT to Sycamore Creek	Intermittent	5	1) Dam and Pump	Unclassified		
187.6	sbup005	Sycamore Creek	Perennial	3	1) Dam and Pump	Unclassified		
187.9	sbup004	UNT to Sycamore Creek	Perennial	2	1) Dam and Pump	Unclassified		
190.1	nhd_va_132	Walton Fork	Perennial	11	1) Dam and Pump 2) Flume	Unclassified		
191.0	sbua002	UNT to Ripley Creek	Perennial	18	1) Dam and Pump	Unclassified		
191.4	sbuc050	UNT to Ripley Creek	Intermittent	4	1) Dam and Pump	Unclassified		
193.1	sbuc004	UNT to Matthews Creek	Perennial	5	1) Dam and Pump	Unclassified		
194.1	sbuc005	North River	Perennial	34	1) Dam and Pump 2) Flume	Aquatic Life		
194.9	sbuc007	UNT to North River	Intermittent	14	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
195.1	sbuk005	UNT to North River	Perennial	7	1) Dam and Pump 2) Flume	UNT to Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
195.5	sbuk004	UNT to North River	Ephemeral	3	1) Dam and Pump	UNT to Aquatic Life		
196.1	sbuk003	UNT to North River	Intermittent	1	1) Dam and Pump	UNT to Aquatic Life		
196.3	sbuk001	UNT to North River	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
196.9	sbuk006	UNT to Slate River	Ephemeral	1	1) Dam and Pump	UNT to Aquatic Life		
197.4	sbuk009	UNT to Slate River	Perennial	9	1) Dam and Pump	UNT to Aquatic Life		
197.4	sbuk010	UNT to Slate River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
197.9	sbuk012	Slate River	Perennial	36	1) Dam and Pump 2) Flume	Aquatic Life		
198.1	sbuk013	UNT to Slate River	Ephemeral	1	1) Dam and Pump	UNT to Aquatic Life		
198.1	sbuk014	UNT to Slate River	Perennial	4	1) Dam and Pump	UNT to Aquatic Life		
198.1	sbuk015	UNT to Slate River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
198.3	sbua200	UNT to Licky Branch	Intermittent	12	1) Dam and Pump	Unclassified		
198.5	sbua202	UNT to Licky Branch	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
198.5	sbua201	Licky Branch	Perennial	19	1) Flume 2) Dam and Pump	Unclassified		
199.4	sbul012	UNT to Licky Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
200.3	sbul013	UNT to Pitman Creek	Intermittent	4	1) Dam and Pump	Unclassified		
201.2	sbup002	Horsepen Creek	Perennial	6	1) Dam and Pump	Unclassified		
201.3	sbup001	UNT to Horsepen Creek	Intermittent	3	1) Dam and Pump	Unclassified		
201.8	sbul014	UNT to Horsepen Creek	Intermittent	4	1) Dam and Pump	Unclassified		
201.8	sbul015	UNT to Horsepen Creek	Perennial	8	1) Dam and Pump	Unclassified		
202.7	sbul004	UNT to Willis River	Ephemeral	3	1) Dam and Pump	UNT to Aquatic Life		
203.6	sbul003	UNT to Willis River	Perennial	8	1) Dam and Pump	UNT to Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
204.4	nhd_va_a_006	UNT to Willis River	Intermittent	15	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
204.5	sbul005	UNT to Willis River	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
204.5	sbul006	UNT to Willis River	Ephemeral	1	1) Dam and Pump	UNT to Aquatic Life		
204.7	sbul007	UNT to Willis River	Perennial	13	1) Dam and Pump	UNT to Aquatic Life		
204.8	sbul008	UNT to Willis River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life		
205.1	sbul009	Willis River	Perennial	25	1) Dam and Pump 2) Flume	Aquatic Life		
205.2	sbul010	UNT to Willis River	Intermittent	7	1) Dam and Pump	UNT to Aquatic Life		
205.6	sbuk041	UNT to Little Willis River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
205.7	sbuk042	UNT to Little Willis River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
205.7	sbuk043	UNT to Little Willis River	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
205.7	sbuk042	UNT to Little Willis River	Intermittent	4	Dam and Pump	UNT to Aquatic Life		
205.7	sbuk043	UNT to Little Willis River	Perennial	10	Dam and Pump	UNT to Aquatic Life		
205.7	sbuk044	UNT to Little Willis River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
205.9	sbuk045	UNT to Little Willis River	Perennial	5	1) Dam and Pump	UNT to Aquatic Life		
205.9	sbuk046	UNT to Little Willis River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
206.1	nhd_va_142	UNT to Willis River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life		
206.5	sbul022	UNT to Willis River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
206.9	sbul021	UNT to Willis River	Perennial	9	1) Dam and Pump	UNT to Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

	Waterbody			Crossing		Special Designations		
State/ Facility/ Milepost	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
207.1	sbuk024	UNT to Bishop Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
207.2	sbuk026	UNT to Bishop Creek	Intermittent	3	1) Dam and Pump	Unclassified		
207.3	sbuk027	UNT to Bishop Creek	Ephemeral	2	1) Dam and Pump	Unclassified		
207.3	sbuk028	UNT to Bishop Creek	Intermittent	10	1) Dam and Pump	Unclassified		
207.4	sbuk029	UNT to Bishop Creek	Ephemeral	2	1) Dam and Pump	Unclassified		
207.8	sbuk030	Bishop Creek	Perennial	8	1) Dam and Pump	Unclassified		
208.2	sbuk031	UNT to Little Willis River	Perennial	5	1) Dam and Pump	UNT to Aquatic Life		
208.3	sbuk032	UNT to Little Willis River	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
208.3	sbuk033	UNT to Little Willis River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
208.6	sbuk035	UNT to Little Willis River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
208.9	sbuk020	UNT to Little Willis River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
209.5	sbuk037	Little Willis River	Perennial	16	1) Dam and Pump 2) Flume	Aquatic Life		
209.9	sbuk040	UNT to Gillis Creek	Intermittent	16	Dam and Pump	Unclassified		
210.1	sbuk019	Gills Creek	Perennial	6	1) Dam and Pump	Unclassified		
211.0	sbuk018	UNT to Little Willis River	Ephemeral	1	1) Dam and Pump	Unclassified		
211.4	sbuk017	Perkins Creek	Perennial	27	1) Dam and Pump 2) Flume	Unclassified		
211.7	sbuk016	UNT to Perkins Creek	Ephemeral	3	1) Dam and Pump	Unclassified		
212.0	scuk029	UNT to Perkins Creek	Ephemeral	3	1) Dam and Pump	Unclassified		
212.2	scuk027	UNT to Perkins Creek	Intermittent	9	1) Dam and Pump 2) Flume	Unclassified		
212.4	scuk026	UNT to Perkins Creek	Intermittent	14	1) Dam and Pump	Unclassified		
212.9	scuk001	UNT to Little Willis River	Ephemeral	4	1) Dam and Pump	Unclassified		
213.0	scuk002	UNT to Little Willis River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
213.7	scuk004	UNT to Dry Creek	Ephemeral	6	1) Dam and Pump	Unclassified		
213.9	scuk005	UNT to Dry Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
214.0	scuk007	UNT to Dry Creek	Ephemeral	2	1) Dam and Pump	Unclassified		
214.0	scuk008	UNT to Dry Creek	Ephemeral	2	1) Dam and Pump	Unclassified		
214.0	scuk009	UNT to Dry Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
214.0	scuk006	UNT to Dry Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
214.2	scuk010	UNT to Dry Creek	Intermittent	5	1) Dam and Pump	Unclassified		
214.3	scuc001	UNT to Dry Creek	Intermittent	4	1) Dam and Pump	Unclassified		
214.5	scuc002	UNT to Dry Creek	Ephemeral	6	1) Dam and Pump	Unclassified		
214.6	scuc003	UNT to Dry Creek	Intermittent	18	1) Dam and Pump	Unclassified		
214.8	nhd_va_145	Dry Creek	Perennial	14	1) Dam and Pump 2) Flume	Unclassified		
215.0	scuk030	UNT to Dry Creek	Ephemeral	3	1) Dam and Pump	Unclassified		
215.1	scuk032B	UNT to Dry Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
215.1	scuk032A	UNT to Dry Creek	Ephemeral	4	1) Dam and Pump	Unclassified		
215.2	scuk033	Dry Creek	Perennial	10	1) Dam and Pump	Unclassified		
215.2	scuk035	UNT to Dry Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
215.4	scuk037	UNT to Dry Creek	Ephemeral	4	1) Dam and Pump	Unclassified		
215.9	scuk039b	UNT to Green Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
215.9	scuk039a	UNT to Green Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
215.9	scuk039b	UNT to Green Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
215.9	scuk039a	UNT to Green Creek	Ephemeral	3	Dam and Pump	UNT to Aquatic Life		
215.9	scuk041	UNT to Green Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
216.2	scuk042	UNT to Green Creek	Perennial	10	1) Dam and Pump	UNT to Aquatic Life		
216.8	scua006	UNT to Green Creek	Perennial	7	1) Dam and Pump	UNT to Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

	Waterbody			Crossing		Special Designations		
State/ Facility/ Milepost	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
217.0	scuc004	UNT to Green Creek	Intermittent	7	1) Dam and Pump	UNT to Aquatic Life		
217.4	scua001	UNT to Green Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
217.6	scua003	UNT to Green Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
217.6	scua004	UNT to Green Creek	Perennial	9	1) Dam and Pump	UNT to Aquatic Life		
217.6	scua005	UNT to Green Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
218.1	scuk025	UNT to Green Creek	Ephemeral	1	1) Dam and Pump	UNT to Aquatic Life		
218.1	scuk024	UNT to Green Creek	Perennial	20	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
218.2	scuk023	UNT to Green Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
218.4	scuk022	UNT to Green Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
218.6	scuk021	UNT to Green Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
218.7	scuk020	UNT to Green Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
219.2	scuk015	UNT to Green Creek	Perennial	39	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
219.4	scuk016	UNT to Green Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
219.4	scuk017	Green Creek	Perennial	43	1) Dam and Pump 2) Flume	Aquatic Life		
219.5	scuk018	UNT to Green Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
219.6	scuk019	UNT to Green Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
219.8	scuk014	UNT to Green Creek	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
219.8	scuk013	UNT to Green Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
220.3	scuk012	UNT to Green Creek	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
220.8	scuk011	Appomattox River	Perennial	104	1) Cofferdam	Aquatic Life		May 15 through July 31
220.8	spek003	UNT to Appomattox River	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
221.0	spek002	UNT to Appomattox River	Ephemeral	3	1) Dam and Pump	UNT to Aquatic Life		
221.1	spek001	UNT to Appomattox River	Ephemeral	1	1) Dam and Pump	UNT to Aquatic Life		
221.6	spek004	UNT to Appomattox River	Perennial	8	1) Dam and Pump	UNT to Aquatic Life		
221.7	spek005	UNT to Appomattox River	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
221.8	spek006	UNT to Appomattox River	Perennial	14	1) Dam and Pump	UNT to Aquatic Life		
222.0	spek007	UNT to Appomattox River	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
222.1	spek008	UNT to Appomattox River	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
222.2	spek009	UNT to Appomattox River	Perennial	4	1) Dam and Pump	UNT to Aquatic Life		
222.4	spek010	UNT to Appomattox River	Perennial	11	1) Dam and Pump	UNT to Aquatic Life		
222.5	spek011	UNT to Appomattox River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
222.6	spek012	UNT to Appomattox River	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
223.2	nhd_va_150	Little Saylers Creek	Perennial	17	1) Dam and Pump 2) Flume	Aquatic Life		
223.4	spea006	UNT to Little Saylers Creek	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
223.8	spea002	UNT to Little Saylers Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
223.9	spea003	UNT to Little Saylers Creek	Perennial	6	1) Dam and Pump	UNT to Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
223.9	spea004	UNT to Little Saylers Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
224.1	spea005	UNT to Little Saylers Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
225.2	spec001	UNT to Little Saylers Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
225.5	spea007	UNT to Little Saylers Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
226.6	snok001	Saylers Creek	Perennial	12	1) Dam and Pump 2) Flume	Unclassified		
227.2	snok002	UNT to Ellis Creek	Intermittent	4	Dam and Pump	UNT to Aquatic Life		
227.6	snok003	UNT to Ellis Creek	Intermittent	4	Dam and Pump	UNT to Aquatic Life		
227.8	snom011	UNT to Ellis Creek	Ephemeral	4	Dam and Pump	UNT to Aquatic Life		
228.2	snok005	Ellis Creek	Perennial	5	1) Dam and Pump 2) Flume	Aquatic Life		
228.6	snok004	UNT to Ellis Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
228.8	snok006	UNT to Flat Creek	Intermittent	5	Dam and Pump	UNT to Aquatic Life		
229.0	snok007	UNT to Flat Creek	Perennial	5	Dam and Pump	UNT to Aquatic Life		
229.2	snok008	Flat Creek	Perennial	38	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
229.9	snok009	UNT to Flat Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
230.7	snom007	UNT to Little Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
230.7	snom006	Little Creek	Perennial	10	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
230.9	snom005	UNT to Little Creek	Ephemeral	1	1) Dam and Pump	UNT to Aquatic Life		
231.8	snol002	UNT to West Creek	Ephemeral	3	1) Dam and Pump	Unclassified		
231.8	snol001	UNT to West Creek	Perennial	4	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
231.9	snol003	UNT to West Creek	Intermittent	7	1) Dam and Pump	Unclassified		
232.0	snol005	UNT to West Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
232.0	snol004	West Creek	Perennial	7	1) Dam and Pump	Unclassified		
232.2	snol006	UNT to West Creek	Ephemeral	2	1) Dam and Pump	Unclassified		
232.4	snol007	UNT to West Creek	Perennial	2	1) Dam and Pump	Unclassified		
232.4	snol008	UNT to West Creek	Perennial	4	1) Dam and Pump	Unclassified		
232.7	snok021	UNT to West Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
232.7	snok020	West Creek	Perennial	11	1) Dam and Pump 2) Flume	Unclassified		
232.8	snok022	UNT to West Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
233.0	snok024	UNT to West Creek	Ephemeral	2	1) Dam and Pump	Unclassified		
233.0	snok023	UNT to West Creek	Intermittent	3	1) Dam and Pump	Unclassified		
233.1	snok025	UNT to West Creek	Ephemeral	5	1) Dam and Pump	Unclassified		
233.1	snok026a	UNT to West Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
233.4	snok027	UNT to Little West Creek	Perennial	8	1) Dam and Pump	Unclassified		
234.2	snok028	Little West Creek	Perennial	21	1) Dam and Pump 2) Flume	Unclassified		
234.3	snok029b	UNT to Little West Creek	Intermittent	14	Dam and Pump	Unclassified		
235.1	snom008	UNT to Deep Creek	Ephemeral	2	Dam and Pump	UNT to Aquatic Life		
235.2	snom009	UNT to Deep Creek	Ephemeral	2	Dam and Pump	UNT to Aquatic Life		
235.5	snom010	UNT to Deep Creek	Intermittent	3	Dam and Pump	UNT to Aquatic Life		
235.7	snok103	UNT to Deep Creek	Ephemeral	6	Dam and Pump	UNT to Aquatic Life		
235.7	snok102	UNT to Deep Creek	Perennial	6	Dam and Pump	UNT to Aquatic Life		
236.0	snok100	Deep Creek	Perennial	25	1) Dam and Pump 2) Flume	Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
236.1	snok101	UNT to Deep Creek	Intermittent	5	Dam and Pump	UNT to Aquatic Life		
236.2	snoc001	UNT to Deep Creek	Perennial	8	Dam and Pump	UNT to Aquatic Life		
236.5	snol021	UNT to Deep Creek	Intermittent	35	Dam and Pump	UNT to Aquatic Life		
236.9	snol020	UNT to Deep Creek	Intermittent	4	Dam and Pump	UNT to Aquatic Life		
237.0	snol019	UNT to Deep Creek	Perennial	5	Dam and Pump	UNT to Aquatic Life		
237.4	nhd_va_153	UNT to Deep Creek	Intermittent	9	Dam and Pump	UNT to Aquatic Life		
238.3	snok010	UNT to Winningham Creek	Ephemeral	3	Dam and Pump	Unclassified		
238.6	snok011	Winningham Creek	Perennial	60	1) Cofferdam 2) Dam and Pump	Unclassified		
238.8	snok012	UNT to Winningham Creek	Intermittent	3	Dam and Pump	Unclassified		
239.1	snok014	UNT to Winningham Creek	Perennial	6	Dam and Pump	Unclassified		
239.9	snok016	UNT to Woody Creek	Perennial	6	Dam and Pump	Unclassified		
239.9	snok018	UNT to Woody Creek	Ephemeral	2	Dam and Pump	Unclassified		
240.0	onok001	UNP to Woody Creek	Pond	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified	N/A	
240.6	snok019	Woody Creek	Perennial	13	1) Flume 2) Dam and Pump	Unclassified		
241.6	nhd_va_155	Watson Creek	Perennial	11	1) Dam and Pump 2) Flume	Unclassified		
241.6	nhd_va_155	Watson Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
241.6	nhd_va_156	UNT to Watson Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
241.6	nhd_va_156	UNT to Watson Creek	Intermittent	68	1) Dam and Pump 2) Flume	Unclassified		
242.6	snoc004	UNT to Cellar Creek	Perennial	6	Dam and Pump	Unclassified		
242.9	snoc003	Cellar Creek	Perennial	14	1) Dam and Pump 2) Flume	Unclassified		
242.9	snoc002	UNT to Cellar Creek	Intermittent	3	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

	Waterbody			Crossing		Special Designations		
State/ Facility/ Milepost	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
243.3	snoa001	UNT to Cellar Creek	Intermittent	8	1) Dam and Pump	Unclassified		
243.3	snoa002	UNT to Cellar Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
244.2	snol009	Less Creek	Perennial	5	1) Dam and Pump	Unclassified		
244.6	snol010	UNT to Less Creek	Perennial	7	1) Dam and Pump	Unclassified		
244.9	snol011	UNT to Less Creek	Ephemeral	2	1) Dam and Pump	Unclassified		
245.1	snol012	UNT to Less Creek	Intermittent	5	1) Dam and Pump	Unclassified		
245.4	snol013	UNT to Bland Creek	Intermittent	4	1) Dam and Pump	Unclassified		
245.4	snol014	UNT to Bland Creek	Ephemeral	2	1) Dam and Pump	Unclassified		
245.5	snol015	UNT to Bland Creek	Perennial	5	1) Dam and Pump	Unclassified		
245.6	snol016	UNT to Bland Creek	Perennial	15	1) Dam and Pump	Unclassified		
245.6	snol017	UNT to Bland Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
246.0	snol018	UNT to Bland Creek	Perennial	6	1) Dam and Pump	Unclassified		
247.2	snok030b	UNT to Bland Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
247.2	snok030b	UNT to Bland Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
247.2	snok031	UNT to Bland Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
247.2	snok031	UNT to Bland Creek	Ephemeral	2	Dam and Pump	Unclassified		
247.2	snok030a	UNT to Bland Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
247.8	snom001	UNT to Butterwood Creek	Ephemeral	3	1) Dam and Pump	Unclassified		
248.2	snom002	UNT to Twin Lakes	Intermittent	8	1) Dam and Pump	Unclassified		
248.4	snom003	UNT to Twin Lakes	Ephemeral	3	1) Dam and Pump	Unclassified		
248.6	snom004	UNT to Twin Lakes	Ephemeral	3	1) Dam and Pump	Unclassified		
249.1	sdim002	UNT to Butterwood Creek	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
249.1	sdim001	Butterwood Creek	Perennial	4	1) Dam and Pump	Aquatic Life		March 15 through June 30
249.6	sdim003	UNT to Butterwood Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
249.7	sdim004	UNT to Butterwood Creek	Intermittent	1	1) Dam and Pump	UNT to Aquatic Life		
249.9	sdim005	UNT to Butterwood Creek	Intermittent	10	1) Dam and Pump	UNT to Aquatic Life		
250.2	sdim008	UNT to Butterwood Creek	Ephemeral	5	Dam and Pump	UNT to Aquatic Life		
250.5	sdim011	UNT to Butterwood Creek	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
250.7	sdim014	UNT to Butterwood Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
251.2	sdim013	UNT to Butterwood Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
251.5	sdim012	UNT to Butterwood Creek	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
251.6	sdim015	UNT to Butterwood Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
251.7	sdim016	UNT to Butterwood Creek	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
251.8	sdim017	UNT to Butterwood Creek	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
252.0	sdim018	UNT to Butterwood Creek	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
252.1	sdim019	UNT to Butterwood Creek	Ephemeral	4	1) Dam and Pump	UNT to Aquatic Life		
252.6	sdim020	UNT to Butterwood Creek	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
252.7	sdim021	UNT to Butterwood Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
253.7	nhd_va_159	Butterwood Creek	Perennial	10	1) Dam and Pump 2) Flume	Aquatic Life		March 15 through June 30
254.9	sdib003	UNT to Butterwood Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
255.0	sdib002	UNT to Butterwood Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
255.9	sdib001	UNT to Beaver Pond Creek	Intermittent	3	1) Dam and Pump	Unclassified		
256.2	nhd_va_165	Beaver Pond Creek	Intermittent	31	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
256.7	sdil001	Beaver Pond Creek	Perennial	8	1) Dam and Pump	Unclassified		
256.7	sdil002	UNT to Beaver Pond Creek	Perennial	3	1) Dam and Pump	Unclassified		
256.9	sdil003	UNT to Beaver Pond Creek	Intermittent	4	1) Dam and Pump	Unclassified		
257.3	sdil005	UNT to Beaver Pond Creek	Intermittent	4	1) Dam and Pump	Unclassified		
257.5	sdil007	UNT to Beaver Pond Creek	Perennial	5	1) Dam and Pump	Unclassified		
257.5	sdil006	UNT to Beaver Pond Creek	Intermittent	3	1) Dam and Pump	Unclassified		
257.6	sdil009	UNT to Beaver Pond Creek	Intermittent	5	1) Dam and Pump	Unclassified		
257.8	sdil008	Beaver Pond Creek	Perennial	16	1) Dam and Pump	Unclassified		
258.2	sdic003	UNT to Beaver Pond Creek	Ephemeral	5	1) Dam and Pump	Unclassified		
258.3	sdic005	Beaver Pond Creek	Perennial	37	1) Dam and Pump or 2) Flume	Unclassified		
258.4	sdic004	UNT to Beaver Pond Creek	Perennial	6	1) Dam and Pump	Unclassified		
258.5	sdic002	UNT to Beaver Pond Creek	Intermittent	8	1) Dam and Pump	Unclassified		
258.6	sdic006	UNT to Beaver Pond Creek	Intermittent	9	1) Dam and Pump	Unclassified		
259.3	sdic001	Beaver Pond Creek	Perennial	4	1) Dam and Pump	Unclassified		
260.3	sdic008	UNT to Tommeheton Creek	Intermittent	18	1) Dam and Pump	UNT to Aquatic Life		
260.7	sdic007	Nottoway River	Perennial	96	1) Cofferdam	Aquatic Life		March15 through October 15
260.8	sbra201	UNT to Nottoway River	Ephemeral	7	1) Dam and Pump	UNT to Aquatic Life		
261.3	sbrc001	UNT to Nottoway River	Ephemeral	1	1) Dam and Pump	UNT to Aquatic Life		
261.5	sbra202	UNT to Nottoway River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life		
261.8	sbra212	Miry Run	Perennial	7	1) Dam and Pump	Unclassified		
262.5	sbra203	Hickory Run	Perennial	10	1) Dam and Pump	Unclassified		
262.6	sbra204	UNT to Hickory Run	Intermittent	4	1) Dam and Pump	Unclassified		
262.9	sbra205	UNT to Hickory Run	Perennial	3	1) Dam and Pump	Unclassified		
263.8	sbra206	UNT to Hickory Run	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
264.6	sbra207	UNT to Great Branch	Perennial	7	1) Dam and Pump	Unclassified		
264.7	sbra208	UNT to Great Branch	Perennial	4	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
265.1	nhd_va_447	UNT to Great Branch	Perennial	11	1) Dam and Pump or 2) Flume	Unclassified		
265.2	nhd_va_448	UNT to Great Branch	Perennial	11	1) Dam and Pump or 2) Flume	Unclassified		
265.6	nhd_va_495	UNT to Great Branch	Perennial	10	1) Dam and Pump or 2) Flume	Unclassified		
265.8	nhd_va_482	UNT to Great Branch	Perennial	10	1) Dam and Pump or 2) Flume	Unclassified		
266.2	nhd_va_486	UNT to Waqua Creek	Perennial	10	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
266.6	nhd_va_b_002	Unnamed Pond	Pond	Pond	Dam and Pump	Unclassified	N/A	
266.9	nhd_va_488	UNT to Waqua Creek	Perennial	12	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
267.4	nhd_va_451	Waqua Creek	Perennial	10	1) Dam and Pump or 2) Flume	Aquatic Life		March 15 through June 30
267.9	nhd_va_484	Big Branch	Perennial	10	1) Dam and Pump or 2) Flume	Unclassified		
268.9	nhd_va_437	UNT to Waqua Creek	Perennial	11	1) Dam and Pump or 2) Flume	Unclassified		
269.6	nhd_va_b_001	Unnamed Pond	Pond	Pond	Dam and Pump	Unclassified	N/A	
270.5	nhd_va_501	Beaver Branch	Perennial	10	1) Dam and Pump or 2) Flume	Unclassified		
272.0	nhd_va_465	Sturgeon Creek	Perennial	10	1) Dam and Pump or 2) Flume	Aquatic Life		May 15 through July 31
272.9	nhd_va_472	UNT to Spring Branch	Intermittent	7	1) Dam and Pump or 2) Flume	Unclassified		
273.0	nhd_va_456	Spring Branch	Perennial	13	1) Dam and Pump or 2) Flume	Unclassified		
274.3	nhd_va_457	Spring Branch	Intermittent	8	1) Dam and Pump or 2) Flume	Unclassified		
274.7	nhd_va_510	Reedy Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Aquatic Life		March 15 through July 15
274.9	nhd_va_509	Reedy Creek	Intermittent	33	1) Flume 2) Dam and Pump	Aquatic Life		March 15 through July 15
275.0	nhd_va_439	Reedy Creek	Intermittent	5	1) Dam and Pump or 2) Flume	Aquatic Life		March 15 through July 15

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
275.0	nhd_va_439	Reedy Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Aquatic Life		March 15 through July 15
257.0	nhd_va_509	Reedy Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Aquatic Life		March 15 through July 15
276.2	nhd_va_458	UNT to Reedy Creek	Intermittent	6	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
276.7	nhd_va_453	UNT to Reedy Creek	Intermittent	5	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
277.6	nhd_va_504	UNT to Reedy Creek	Intermittent	7	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
277.9	nhd_va_500	UNT to Reedy Creek	Intermittent	5	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
278.3	nhd_va_441	UNT to Reedy Creek	Intermittent	7	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
278.6	nhd_va_455	UNT to Reedy Creek	Intermittent	6	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
278.9	nhd_va_470	UNT to Reedy Creek	Intermittent	5	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
279.3	nhd_va_471	UNT to Reedy Creek	Intermittent	5	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
279.7	nhd_va_177	UNT to Reedy Creek	Intermittent	5	1) Dam and Pump or 2) Flume	UNT to Aquatic Life		
280.1	sbra221	UNT to Reedy Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
280.2	sbra220	UNT to Reedy Creek	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life		
280.4	sbra219	UNT to Reedy Creek	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life		
280.5	sbra218	UNT to Reedy Creek	Intermittent	6	1) Dam and Pump	UNT to Aquatic Life		
282.9	sbra001	UNT to Greensville Creek	Intermittent	4	1) Dam and Pump	Unclassified		
283.0	sgra017	UNT to Greensville Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
283.0	sgra016	Greensville Creek	Perennial	23	1) Flume 2) Dam and Pump	Unclassified		
283.2	sgra018	UNT to Greensville Creek	Intermittent	3	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
284.2	sgra015	UNT to Greensville Creek	Intermittent	5	1) Dam and Pump	Unclassified		
285.7	sgra011	UNT to Meadows Branch	Intermittent	5	1) Dam and Pump	Unclassified		
285.9	sgra012	UNT to Meherrin River	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
286.2	sgra013	UNT to Meherrin River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
286.2	sgra014	UNT to Meherrin River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
286.3	sgra007	Meherrin River	Perennial	182	1) Open Cut	Aquatic Life, Migratory Fish Spawning and Nursery		February 15 through June 30, May 15 through July 31, August 15 through September 30
286.8	sgra008	UNT to Meherrin River	Intermittent	11	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
287.1	sgra009	UNT to Meherrin River	Intermittent	44	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
287.1	sgra010	UNT to Meherrin River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
288.5	sgra001	UNT to Falling Run	Ephemeral	11	1) Dam and Pump	Unclassified		
288.5	sgra002	Falling Run	Intermittent	8	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
288.8	sgra003	UNT to Falling Run	Intermittent	3	1) Dam and Pump	Unclassified		
290.0	sgra004	UNT to Fountains Creek	Intermittent	3	1) Dam and Pump	UNT to Migratory Fish Spawning and Nursery		
290.4	sgra005	UNT to Fountains Creek	Ephemeral	2	1) Dam and Pump	UNT to Migratory Fish Spawning and Nursery		
294.2	sgra006	UNT to Mill Swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
295.7	sgrp002	UNT to Camey Swamp	Intermittent	6	1) Dam and Pump	Unclassified		
296.9	sgrb001	UNT to Fountains Creek	Perennial	11	1) Dam and Pump	UNT to Migratory Fish Spawning and Nursery		
299.4	sgrp004	Fountains Creek	Perennial	19	1) Dam and Pump 2) Flume	Aquatic Life, Migratory Fish Spawning and Nursery		February 15 through June 30
299.4	sgrp005	Fountains Creek	Perennial	14	1) Dam and Pump 2) Flume	Aquatic Life, Migratory Fish Spawning and Nursery		February 15 through June 30
299.6	sgro001	Fountains Creek	Intermittent	31	1) Dam and Pump 2) Flume	Aquatic Life, Migratory Fish Spawning and Nursery		February 15 through June 30
299.6	sgro002	Fountains Creek	Perennial	30	1) Dam and Pump 2) Flume	Aquatic Life, Migratory Fish Spawning and Nursery		February 15 through June 30
AP-3								
12.4	sgrp001	Meherrin River	Perennial	116	Cofferdam	Aquatic Life, Migratory Fish Spawning and Nursery		February 15 through June 30

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
13.4	ssop002	UNT to Meherrin River	Perennial	6	1) Dam and Pump 2) Flume	UNT to Migratory Fish Spawning and Nursery		
13.6	ssop001	UNT to Meherrin River	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Migratory Fish Spawning and Nursery		
14.4	ssop003	UNT to Meherrin River	Perennial	7	1) Dam and Pump	UNT to Migratory Fish Spawning and Nursery		
15.9	nhd_va_479	Buckhorn Swamp	Perennial	12	1) Dam and Pump 2) Flume	Unclassified		
16.5	nhd_va_454	Buckhorn Swamp	Perennial	10	1) Dam and Pump 2) Flume	Unclassified		
17.8	nhd_va_b_005	Tarrara Creek	Perennial	14	1) Dam and Pump 2) Flume	Unclassified		
17.9	nhd_va_b_004	Tarrara Creek	Perennial	13	1) Dam and Pump 2) Flume	Unclassified		
18.0	nhd_va_b_007	Tarrara Creek	Perennial	10	1) Dam and Pump 2) Flume	Unclassified		
18.0	nhd_va_b_006	Tarrara Creek	Perennial	12	1) Dam and Pump 2) Flume	Unclassified		
18.7	nhd_va_462	UNT to Tarrara Creek	Intermittent	6	1) Dam and Pump 2) Flume	Unclassified		
19.0	nhd_va_449	UNT to Tarrara Creek	Intermittent	5	1) Dam and Pump 2) Flume	Unclassified		
19.2	nhd_va_445	Tarrara Creek	Perennial	10	1) Dam and Pump 2) Flume	Unclassified		
20.0	nhd_va_446	UNT to Tarrara Creek	Intermittent	7	1) Dam and Pump 2) Flume	Unclassified		
20.1	nhd_va_450	UNT to Tarrara Creek	Intermittent	6	1) Dam and Pump 2) Flume	Unclassified		
20.7	nhd_va_a_016	UNT to Tarrara Creek	Intermittent	5	1) Dam and Pump 2) Flume	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

	Waterbody			Crossing		Special Designations		
State/ Facility/ Milepost	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
21.0	nhd_va_a_010	UNT to Tarrara Creek	Perennial	13	1) Dam and Pump 2) Flume	Unclassified		
21.3	nhd_va_a_020	UNT to Tarrara Creek	Intermittent	5	1) Dam and Pump 2) Flume	Unclassified		
23.7	ssoa001	UNT to Darden Pond	Perennial	6	Dam and Pump	Unclassified		
24.3	nhd_va_480	UNT to Mill Swamp	Intermittent	5	1) Dam and Pump 2) Flume	UNT to Roanoke Logperch, Roanoke Bass, Blackbanded Sunfish		
24.5	nhd_va_492	UNT to Mill Swamp	Intermittent	6	1) Dam and Pump 2) Flume	UNT to Roanoke Logperch, Roanoke Bass, Blackbanded Sunfish		
25.7	nhd_va_487	UNT to Mill Swamp	Intermittent	7	1) Dam and Pump 2) Flume	UNT to Roanoke Logperch, Roanoke Bass, Blackbanded Sunfish		
26.0	nhd_va_489	UNT to Mill Swamp	Intermittent	7	1) Dam and Pump 2) Flume	UNT to Roanoke Logperch, Roanoke Bass, Blackbanded Sunfish		
26.6	nhd_va_491	UNT to Mill Swamp	Intermittent	5	1) Dam and Pump 2) Flume	UNT to Roanoke Logperch, Roanoke Bass, Blackbanded Sunfish		
27.4	ssol006	UNT to Nottoway River	Ephemeral	4	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
						Spawning and Nursery, EFH		
27.8	ssol007	UNT to Nottoway River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
28.8	nhd_va_435	UNT to Nottoway River	Perennial	10	1) Dam and Pump 2) Flume	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
31.3	ssoa006	UNT to Nottoway River	Intermittent	2	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
32.6	ssol015	Nottoway River	Perennial	240	HDD	Aquatic Life, Migratory Fish Spawning and Nursery, EFH		March 15 through July 31 and August 15 through October 15
33.0	ssol009	UNT to Nottoway River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
33.1	ssol010	UNT to Nottoway River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
33.2	ssol011	UNT to Nottoway River	Intermittent	11	1) Dam and Pump 2) Flume	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
33.9	ssoc006	UNT to Nottoway River	Perennial	27	1) Dam and Pump 2) Flume	UNT to Aquatic Life, Migratory Fish		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
						Spawning and Nursery, EFH		
33.9	ssoc008	UNT to Nottoway River	Intermittent	12	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
34.4	ssoc009	UNT to Nottoway River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
34.6	nhd_va_468	Canal/Ditch	Canal/Ditch	8	1) Dam and Pump	Unclassified		
34.6	nhd_va_485	Canal/Ditch	Canal/Ditch	8	1) Dam and Pump 2) Flume	Unclassified		
34.7	nhd_va_493	Canal/Ditch	Canal/Ditch	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
34.7	nhd_va_477	Canal/Ditch	Canal/Ditch	6	1) Dam and Pump	Unclassified		
35.7	ssol012	UNT to Nottoway River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
36.3	ssol013	UNT to Blackwater River	Perennial	16	1) Flume	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
36.6	ssol014	UNT to Blackwater River	Intermittent	4	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
38.6	ssoa010	Blackwater River	Perennial	205	HDD	Aquatic Life, Migratory Fish Spawning and Nursery, EFH		February 15 through June 30
39.4	ssua004	UNT to Blackwater River	Perennial	5	1) Dam and Pump	UNT to Aquatic Life,		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
						Migratory Fish Spawning and Nursery, EFH		
39.7	ssua005	UNT to Blackwater River	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
40.1	ssua007	UNT to Blackwater River	Perennial	8	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
40.2	ssua008	UNT to Blackwater River	Perennial	7	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
41.2	nhd_va_496	UNT to Blackwater River	Perennial	11	1) Dam and Pump 2) Flume	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
41.4	nhd_va_497	UNT to Blackwater River	Intermittent	7	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
42.3	nhd_va_508	UNT to Blackwater River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
42.3	nhd_va_452	UNT to Blackwater River	Perennial	19	1) Dam and Pump 2) Flume	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
42.6	nhd_va_505	UNT to Blackwater River	Intermittent	7	1) Dam and Pump 2) Flume	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
43.7	nhd_va_507	UNT to Blackwater River	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
44.0	nhd_va_494	UNT to Kingsale swamp	Intermittent	9	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
44.2	nhd_va_478	UNT to Kingsale swamp	Perennial	17	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
44.7	nhd_va_443	UNT to Kingsale swamp	Intermittent	20	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
44.7	nhd_va_442	UNT to Kingsale swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
44.7	nhd_va_443	UNT to Kingsale swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
44.7	nhd_va_442	UNT to Kingsale swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
45.6	nhd_va_461	UNT to Kingsale swamp	Intermittent	13	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
46.0	nhd_va_490	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump 2) Flume	Unclassified		
46.1	nhd_va_467	Canal/Ditch	Canal/Ditch	7	1) Dam and Pump 2) Flume	Unclassified		
51.0	nhd_va_438	UNT to Speights Run	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
53.2	nhd_va_498	Speights Run	Perennial	10	1) Dam and Pump 2) Flume	Aquatic Life		
55.0	ssup007	UNT to Pitchkettle Creek	Ephemeral	6	1) Dam and Pump	UNT to wildlife		
55.2	ssup005	UNT to Pitch kettle Creek	Ephemeral	5	1) Dam and Pump	UNT to wildlife		
56.6	ssup004	UNT to Lake Kilby	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
56.9	ssup006	Pitchkettle Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Wildlife		
58.3	ssup001	UNT to Shingle Creek	Ephemeral	2	1) Dam and Pump	UNT to Aquatic Life		
58.3	osup001	Unnamed Pond	Pond	Pond	1) Dam and Pump	Unclassified		
58.6	ssup003	UNT to Shingle Creek	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	UNT to Aquatic Life		
58.7	ssup002	UNT to Shingle Creek	Ephemeral	3	1) Dam and Pump	UNT to Aquatic Life		
59.1	ssuo001	UNT to Shingle Creek	Perennial	7	1) Dam and Pump	UNT to Aquatic Life		
61.7	nhd_va_247	UNT to Shingle Creek	Perennial	12	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
62.3	nhd_va_248	UNT to Shingle Creek	Perennial	10	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
62.3	nhd_va_249	UNT to North Ditch	Canal/Ditch	8	1) Dam and Pump	Unclassified		
62.5	nhd_va_250	UNT to North Ditch	Canal/Ditch	9	1) Dam and Pump	Unclassified		
63.8	nhd_va_251	UNT to North Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
64.5	ssur001	UNT to Bernetts Mill Creek	Perennial	14	1) Dam and Pump 2) Flume	Aquatic Life		
64.6	ssur002	UNT to Bernetts Mill Creek	Perennial	20	1) Dam and Pump 2) Flume	UNT to Aquatic Life		
64.6	ssur003	UNT to Dismal Swamp	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
64.8	nhd_va_420	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
64.9	nhd_va_413	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
64.9	nhd_va_410	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
64.9	ssuo002	UNT to Bernetts Mill	Perennial	20	Open Cut	UNT to Aquatic Life		
67.6	ssuo005	UNT to East Ditch	Perennial	15	1) Dam and Pump 2) Flume	Unclassified		
67.9	nhd_va_412	East Ditch	Canal/Ditch	5	1) Dam and Pump 2) Flume	Unclassified		
67.9	nhd_va_418	East Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
68.0	nhd_va_416	East Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
68.1	nhd_va_409	East Ditch	Canal/Ditch	9	1) Dam and Pump	Unclassified		
68.3	nhd_va_409	East Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
69.8	nhd_va_423	East Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
70.2	schr006	UNT to Dismal Swamp	Perennial	12	1) Dam and Pump 2) Flume	Wildlife		
70.2	schr005	UNT to Dismal Swamp	Intermittent	9	1) Dam and Pump 2) Flume	Wildlife		
70.5	schr004	UNT to Dismal Swamp	Perennial	17	1) Dam and Pump 2) Flume	Wildlife		
70.7	nhd_va_425	UNT to Dismal Swamp	Canal/Ditch	5	1) Dam and Pump	Wildlife		
70.9	schr003	UNT to Dismal Swamp	Perennial	14	1) Dam and Pump 2) Flume	Wildlife		
71.6	schr001	UNT to Dismal Swamp	Perennial	43	1) Dam and Pump 2) Flume	Wildlife		
72.4	nhd_va_411	UNT to Dismal Swamp	Canal/Ditch	Not Crossed by Centerline	Not Crossed by Centerline	Wildlife		
72.4	schr001	UNT to Dismal Swamp	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Wildlife		
72.5	nhd_va_405	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
73.3	nhd_va_405	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
73.6	nhd_va_428	UNT to Deep Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
73.8	nhd_va_427	UNT to Deep Creek	Intermittent	5	1) Dam and Pump	Unclassified		
73.9	nhd_va_404	Deep Creek	Canal/Ditch	5	1) Dam and Pump	Unclassified		
73.9	nhd_va_403	Deep Creek	Canal/Ditch	8	1) Dam and Pump	Unclassified		
74.1	nhd_va_408	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
74.3	nhd_va_417	Canal/Ditch	Canal/Ditch	6	1) Dam and Pump	Unclassified		
74.3	nhd_va_406	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
74.4	nhd_va_419	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
74.6	nhd_va_424	Canal/Ditch	Canal/Ditch	5	1) Dam and Pump	Unclassified		
74.7	nhd_va_426	Canal/Ditch	Canal/Ditch	6	1) Dam and Pump	Unclassified		
74.9	nhd_va_286	UNT to Deep Creek	Canal/Ditch	8	1) Dam and Pump	Unclassified		
75.0	nhd_va_287	UNT to Deep Creek	Canal/Ditch	7	1) Dam and Pump 2) Flume	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
75.0	nhd_va_289	UNT to Deep Creek	Canal/Ditch	7	1) Dam and Pump 2) Flume	Unclassified		
75.1	nhd_va_291	UNT to Deep Creek	Canal/Ditch	32	1) Dam and Pump	Unclassified		
75.2	nhd_va_293	UNT to Deep Creek	Canal/Ditch	9	1) Dam and Pump 2) Flume	Unclassified		
75.4	nhd_va_295	UNT to Deep Creek	Canal/Ditch	14	HDD	Unclassified		
75.6	nhd_va_297	UNT to Deep Creek	Canal/Ditch	6	HDD	Unclassified		
75.6	nhd_va_298	UNT to Deep Creek	Canal/Ditch	6	HDD	Unclassified		
75.7	nhd_va_299	UNT to Deep Creek	Canal/Ditch	5	HDD	Unclassified		
75.8	nhd_va_300	UNT to Deep Creek	Canal/Ditch	5	1) Dam and Pump	Unclassified		
76.0	nhd_va_301	UNT to Deep Creek	Canal/Ditch	5	1) Dam and Pump	Unclassified		
76.5	nhd_va_303	Gilmerton Deep Creek Canal	Canal/Ditch	38	1) Dam and Pump	Unclassified		
76.9	nhd_va_398	UNT to Deep Creek Canal	Canal/Ditch	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
77.0	nhd_va_306	UNT to Deep Creek	Intermittent	6	1) Dam and Pump 2) Flume	Unclassified		
78.0	nhd_va_399	Unnamed Pond	Pond	Not Crossed by Centerline	Not Crossed by Centerline	Unclassified		
78.1	nhd_va_400	Unnamed Pond	Pond	Pond	Cofferdam	Unclassified		
78.4	nhd_va_401	Southern Branch Elizabeth River	Perennial	851	HDD	Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
AP-4								
0.1	nhd_va_a_031	UNT to Greensville Creek	Intermittent	5	1) Dam and Pump 2) Flume	Unclassified		
AP-5								
0.4	sgrc102	UNT to Greensville Creek	Perennial	8	1) Dam and Pump 2) Flume	Unclassified		
0.7	sgrc101	UNT to Greensville Creek	Ephemeral	2	1) Dam and Pump 2) Flume	Unclassified		
0.8	sgrc100	UNT to Greensville Creek	Perennial	8	1) Dam and Pump	Unclassified		
NORTH CAROLINA								
AP-2								

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
0.4	snrh005	UNT to Roanoke River	Intermittent	6	1) Dam and Pump	C	Warmwater	
1.1	snrh007	UNT to Jack's Swamp	Intermittent	4	1) Dam and Pump	C	Warmwater	
1.9	snrh006	Jacks Swamp	Perennial	29	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
8.5	snrg002	UNT to Trouble Field Creek	Perennial	5	1) Dam and Pump	C	Warmwater	
8.8	snrg003	UNT to Trouble Field Creek	Intermittent	5	1) Dam and Pump	C	Warmwater	
9.6	snrh004	UNT to Roanoke River	Perennial	4	1) Dam and Pump	C	Warmwater	February 15 to September 30
9.8	shlh001	Roanoke River	Perennial	360	1) HDD	C	Warmwater	February 15 to September 30
11.6	ncwq_005	Mush Island Gut	Perennial	38	1) Dam and Pump 2) Flume	C	Warmwater	
11.8	ohlc001	Mush Island Gut	Pond	Pond	1) Cofferdam	C	N/A	
11.9	shlc003	UNT to Mush Island Gut	Intermittent	5	1) Dam and Pump	C	Warmwater	
11.9	shlc004i	UNT to Mush Island Gut	Intermittent	9	1) Dam and Pump	C	Warmwater	
12.0	shlc004e	UNT to Mush Island Gut	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
12.4	shlc002	UNT to Mush Island Gut	Intermittent	5	1) Dam and Pump	C	Warmwater	
12.4	shlc001	UNT to Mush Island Gut	Intermittent	7	1) Dam and Pump	C	Warmwater	
13.5	shlh002	UNT to Roanoke River	Perennial	6	1) Dam and Pump	C	Warmwater	February 15 to September 30
14.1	shlh003	UNT to Roanoke River	Perennial	10	1) Dam and Pump 2) Flume	C	Warmwater	February 15 to September 30
14.1	shlh004	UNT to Roanoke River	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	February 15 to September 30
14.5	shlh006	UNT to Roanoke River	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	February 15 to September 30
14.5	shlh005	UNT to Roanoke River	Perennial	8	1) Dam and Pump	C	Warmwater	February 15 to September 30
15.0	ohlg001	Unnamed Pond	Pond	Not Crossed by Centerline	Not Crossed by Centerline	C	N/A	
15.6	shlg003	Little Quankey Creek	Perennial	10	1) Dam and Pump	C	Warmwater	
16.9	nhd_nc_a_004	Quankey Creek	Perennial	53	1) Flume 2) Dam and Pump	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		Time Restrictions [e]
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	
17.3	shlg005	UNT to Quankey Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
17.4	shlg005	UNT to Quankey Creek	Intermittent	3	1) Dam and Pump	C	Warmwater	
18.1	shlg007	UNT to Marsh Swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
18.2	shlg008	UNT to Marsh Swamp	Ephemeral	3	1) Dam and Pump	C	Warmwater	
18.2	shlg008	UNT to Marsh Swamp	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
18.2	shlg007	UNT to Marsh Swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
18.5	shlg009	UNT to Marsh Swamp	Perennial	12	1) Dam and Pump	C	Warmwater	
20.1	shlh008	Marsh Swamp	Perennial	15	1) Dam and Pump 2) Flume	C, Sw, NSW	Warmwater	
20.5	shlh007	UNT to Marsh Swamp	Intermittent	6	1) Dam and Pump	C	Warmwater	
21.0	shlh019	UNT to Marsh Swamp	Intermittent	4	1) Dam and Pump	C	Warmwater	
22.8	shlh016	UNT to Beaverdam Swamp	Intermittent	5	1) Dam and Pump	C	Warmwater	
23.1	shlh017	Beaverdam Swamp	Perennial	63	1) Dam and Pump 2) Flume	C, Sw, NSW	Warmwater	
23.3	shlh018	UNT to Beaverdam Swamp	Intermittent	4	1) Dam and Pump	C	Warmwater	
23.6	shla002	UNT to Beaverdam Swamp	Intermittent	4	1) Dam and Pump	C	Warmwater	
24.0	shlg012	UNT to Beaverdam Swamp	Perennial	5	1) Dam and Pump	C	Warmwater	
25.0	shlb100	UNT to Beaverdam Creek	Intermittent	3	1) Dam and Pump	C	Warmwater	
26.6	shlh009	UNT to Burnt Coat Swamp	Perennial	9	1) Dam and Pump	C, Sw, NSW	Warmwater	
26.9	shlh010	UNT to Burnt Coat Swamp	Intermittent	2	1) Dam and Pump	C	Warmwater	
27.4	shlh011	Jacket Swamp	Perennial	28	1) Dam and Pump 2) Flume	C, Sw, NSW	Warmwater	
27.7	shlh012	UNT to Jacket Swamp	Intermittent	5	1) Dam and Pump	C	Warmwater	
29.8	shla001	Breeches Swamp	Perennial	16	1) Dam and Pump 2) Flume	C, Sw, NSW	Warmwater	
30.6	shlh015	UNT to Rocky Swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
31.0	shlh020	UNT to Rocky Swamp	Intermittent	4	1) Dam and Pump	C	Warmwater	
31.2	shlo001	UNT to Swans Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
31.2	shlo002	UNT to Rocky Swamp	Intermittent	3	1) Dam and Pump	C	Warmwater	
32.0	ncwq_007	Rocky Swamp	Perennial	33	1) Open Cut	WS-IV, NSW	Warmwater	
32.7	shlh013	UNT to Rocky Swamp	Intermittent	7	1) Dam and Pump	C	Warmwater	
32.8	shlh014	UNT to Rocky Swamp	Intermittent	9	1) Dam and Pump	C	Warmwater	
33.8	shlg011	UNT to Fishing Creek	Perennial	8	1) Dam and Pump	C	Warmwater	February 15 to September 30
33.9	snag001	Fishing Creek	Perennial	105	1) Dam and Pump 2) Flume	WS-IV, NSW	Warmwater	February 15 to September 30
34.8	snag003	UNT to Fishing Creek	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
34.8	snag002	UNT to Fishing Creek	Intermittent	5	1) Dam and Pump	C	Warmwater	
35.1	snag004	UNT to Fishing Creek	Intermittent	4	1) Dam and Pump	C	Warmwater	
36.6	ncwq_008	UNT to Beaverdam Swamp	Perennial	43	1) Dam and Pump 2) Flume	WS-IV, NSW	Warmwater	
37.0	ncwq_009	Black Swamp	Perennial	36	1) Dam and Pump 2) Flume	WS-IV, NSW	Warmwater	
39.7	snab100	UNT to Swift Creek	Intermittent	2	1) Dam and Pump	C	Warmwater	
39.9	snah001	UNT to Swift Creek	Intermittent	5	1) Dam and Pump	C	Warmwater	
40.3	snah002	UNT to Swift Creek	Perennial	6	1) Dam and Pump	C	Warmwater	
40.6	snah003	Swift Creek	Perennial	127	1) Dam and Pump 2) Flume	C, NSW	Warmwater	February 15 to September 30
40.9	snah006	UNT to Flat Rock Branch	Perennial	9	1) Dam and Pump	C	Warmwater	
41.6	snah005	UNT to Flat Rock Branch	Perennial	7	1) Dam and Pump	C	Warmwater	
41.7	snah004	UNT to Flat Rock Branch	Perennial	4	1) Dam and Pump	C	Warmwater	
42.0	snah029	UNT to Flat Rock Branch	Intermittent	4	1) Dam and Pump	C	Warmwater	
42.1	snah025	UNT to Flat Rock Branch	Perennial	68	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
42.2	snah026	UNT to Flat Rock Branch	Perennial	9	1) Dam and Pump	C	Warmwater	
42.8	snab103	UNT to Flat Rock Branch	Intermittent	3	1) Dam and Pump	C	Warmwater	
44.0	snab104	UNT to Flat Rock Branch	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
44.4	snab105	UNT to Flat Rock Branch	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
44.4	snac001	Flat Rock Branch	Perennial	6	1) Dam and Pump	C, NSW	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
47.2	snah008	UNT to Pig Basket Creek	Perennial	5	1) Dam and Pump	C	Warmwater	
47.6	snah009	Pig Basket Creek	Perennial	30	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
47.6	snah010	UNT to Pig Basket Creek	Intermittent	9	1) Dam and Pump	C	Warmwater	
48.3	ncwq_010	UNT to Stony Creek	Intermittent	18	1) Dam and Pump	C, NSW	Warmwater	
48.7	snah014	UNT to Stony Creek	Perennial	24	1) Dam and Pump 2) Flume	C	Warmwater	
48.8	snah015	Stony Creek	Perennial	19	1) Dam and Pump 2) Flume	C, NSW	Warmwater	February 15 to September 30
49.2	snah016	UNT to Stony Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
49.5	snah017	UNT to Stony Creek	Perennial	8	1) Dam and Pump	C	Warmwater	
50.2	snag008	UNT to Stony Creek	Perennial	19	Dam and Pump	C	Warmwater	
50.2	snag007	UNT to Stony Creek	Perennial	6	1) Dam and Pump	C	Warmwater	
50.2	snag008	UNT to Stony Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
50.7	snag005	UNT to Stony Creek	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
50.8	snag005	UNT to Stony Creek	Perennial	4	1) Dam and Pump	C	Warmwater	
51.5	snag009	UNT to Stony Creek	Perennial	17	Dam and Pump	WS-IV, NSW	Warmwater	
51.6	snag010	UNT to Stony Creek	Perennial	6	1) Dam and Pump	C	Warmwater	
53.3	snah021	UNT to Sapony Creek	Perennial	24	1) Dam and Pump 2) Flume	C	Warmwater	
54.0	ncwq_011	Little Sapony Creek	Perennial	33	1) Dam and Pump 2) Flume	WS-IV, NSW	Warmwater	
54.9	snah020	UNT to Sapony Creek	Perennial	8	1) Dam and Pump	C	Warmwater	
56.1	snah023	UNT to Sapony Creek	Perennial	14	1) Dam and Pump	C	Warmwater	
56.3	snah024	Sapony Creek	Perennial	38	1) Dam and Pump 2) Flume	WS-IV, NSW	Warmwater	
56.6	snah022	UNT to Sapony Creek	Perennial	24	1) Dam and Pump	C	Warmwater	
57.0	snah019	UNT to Sapony Creek	Intermittent	10	1) Dam and Pump	C	Warmwater	
58.8	snap004	UNT to Tar River	Perennial	3	1) Dam and Pump	C	Warmwater	
59.1	snap003	UNT to Tar River	Intermittent	8	1) Dam and Pump	C	Warmwater	
59.1	snap002	UNT to Tar River	Intermittent	3	1) Dam and Pump	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
59.4	snao011	Tar River	Perennial	165	1) Open Cut	WS-IV, NSW	Warmwater	February 15 to September 30
60.4	snao009	UNT to Tar River	Ephemeral	3	1) Dam and Pump	C	Warmwater	
60.8	ncwq_012	Little Swamp	Perennial	33	1) Dam and Pump 2) Flume	WS-III, NSW	Warmwater	
61.9	snao008	UNT to Toisnot Swamp	Ephemeral	3	Dam and Pump	C	Warmwater	
62.7	snao007	UNT to Toisnot Swamp	Intermittent	2	1) Dam and Pump	C	Warmwater	
62.8	onao003	Toisnot Swamp	Pond	Not Crossed by Centerline	Not Crossed by Centerline	WS-III, NSW	N/A	
62.9	onao002	Toisnot Swamp	Pond	Not Crossed by Centerline	Not Crossed by Centerline	WS-III, NSW	N/A	
63.0	snao006	UNT to Toisnot Swamp	Ephemeral	4	1) Dam and Pump	C	Warmwater	
63.3	snao005	UNT to Beaverdam Creek	Ephemeral	2	1) Dam and Pump	C	Warmwater	
63.3	snao004	UNT to Beaverdam Creek	Intermittent	5	1) Dam and Pump	C	Warmwater	
63.5	snao003	UNT to Beaverdam Creek	Ephemeral	6	1) Dam and Pump	C	Warmwater	
64.5	snao002	UNT to Bloomers Swamp	Ephemeral	2	1) Dam and Pump	C	Warmwater	
64.6	onao001	Unnamed Pond	Pond	Not Crossed by Centerline	Not Crossed by Centerline	C	N/A	
65.1	snah030	UNT to Bloomery Swamp	Perennial	8	1) Dam and Pump	C	Warmwater	
65.2	snah031	UNT to Bloomery Swamp	Perennial	6	1) Dam and Pump	C	Warmwater	
65.6	snao001	UNT to Juniper Creek	Ephemeral	2	1) Dam and Pump	C	Warmwater	
66.1	swio015	UNT to Juniper Creek	Perennial	9	1) Dam and Pump	C	Warmwater	
66.3	swio016	UNT to Juniper Creek	Intermittent	8	1) Dam and Pump	C	Warmwater	
66.9	swio014	Millstone Creek	Perennial	24	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
66.9	owio003	Unnamed Pond	Pond	Not Crossed by Centerline	Not Crossed by Centerline	C	N/A	
67.7	swio001	UNT to Millstone Creek	Intermittent	8	1) Dam and Pump	C	Warmwater	
67.8	swio002	UNT to Millstone Creek	Perennial	2	1) Dam and Pump	C	Warmwater	
68.3	swio003	UNT to Marsh Swamp	Intermittent	5	1) Dam and Pump	C	Warmwater	
69.1	swio004	UNT to Marsh Swamp	Perennial	22	1) Dam and Pump	C	Warmwater	
69.3	swio005	UNT to Marsh Swamp	Perennial	9	1) Dam and Pump	C	Warmwater	
69.5	swio006	UNT to Marsh Swamp	Intermittent	5	1) Dam and Pump	C	Warmwater	
69.7	swio007	Marsh Swamp	Perennial	9	1) Dam and Pump	C, NSW	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
70.4	swio009	UNT to Marsh Swamp	Perennial	4	1) Dam and Pump	C	Warmwater	
70.5	swio008	UNT to Marsh Swamp	Perennial	14	1) Dam and Pump	C	Warmwater	
70.9	swio013	UNT to Marsh Swamp	Perennial	19	1) Dam and Pump	C	Warmwater	
71.0	swio011	UNT to Marsh Swamp	Perennial	16	1) Dam and Pump 2) Flume	C	Warmwater	
71.0	swio012	UNT to Marsh Swamp	Intermittent	10	1) Dam and Pump	C	Warmwater	
71.8	swip016	UNT to Contentnea Creek	Intermittent	4	1) Dam and Pump	C	Warmwater	
72.2	swip001	UNT to Contentnea Creek	Ephemeral	10	1) Dam and Pump	C	Warmwater	
72.3	swic001	UNT to Contentnea Creek	Intermittent	5	1) Dam and Pump	C	Warmwater	
73.1	swib100	UNT to Contentnea Creek	Perennial	4	1) Dam and Pump	C	Warmwater	
73.3	swib100	UNT to Contentnea Creek	Perennial	6	1) Dam and Pump	C	Warmwater	
73.4	swib100	UNT to Contentnea Creek	Perennial	5	1) Dam and Pump	C	Warmwater	
73.6	swic002	Contentnea Creek	Perennial	53	1) Dam and Pump 2) Flume	WS-V, NSW	Warmwater	February 15 to September 30
73.9	swip008	UNT to Contentnea Creek	Intermittent	3	1) Dam and Pump 2) Flume	C	Warmwater	
74.1	swip006	UNT to Contentnea Creek	Intermittent	7	1) Dam and Pump	C	Warmwater	
74.6	swip002	UNT to Buckhorn Branch	Ephemeral	3	1) Dam and Pump	C	Warmwater	
74.9	swip003	UNT to Buckhorn Branch	Ephemeral	5	1) Dam and Pump	C	Warmwater	
75.8	swip017	UNT to Buckhorn Branch	Perennial	5	1) Dam and Pump	C	Warmwater	
75.8	swip009	UNT to Buckhorn Branch	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
78.9	sjob101	UNT to Little Buffalo Creek	Ephemeral	2	1) Dam and Pump	C	Warmwater	
78.9	sjob102	UNT to Little Buffalo Creek	Ephemeral	2	1) Dam and Pump	C	Warmwater	
79.2	sjob103	UNT to Little Buffalo Creek	Perennial	9	1) Dam and Pump	C	Warmwater	
79.3	sjob103	UNT to Little Buffalo Creek	Perennial	18	1) Dam and Pump	C	Warmwater	
79.5	sjob104	Little Buffalo Creek	Perennial	30	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
81.0	sjop013	UNT to Little River	Intermittent	3	1) Dam and Pump	C	Warmwater	
82.0	sjop003	UNT to Little River	Intermittent	5	1) Dam and Pump	C	Warmwater	
82.5	sjop011	Little River	Perennial	88	Cofferdam or Flume	WS-V, NSW	Warmwater	February 15 to September 30
83.5	sjop012	Buffalo Creek	Perennial	48	1) Dam and Pump 2) Flume	C, NSW	Warmwater	February 15 to September 30

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
84.5	sjop001	Big Branch	Intermittent	6	1) Dam and Pump	C, NSW	Warmwater	
84.5	sjop002	UNT to Big Branch	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
85.9	sjoo003	UNT to Little Creek	Perennial	8	1) Dam and Pump	C	Warmwater	
86.5	sjoo004	Little Creek	Perennial	5	1) Dam and Pump	C, NSW	Warmwater	
87.3	sjoo005	UNT to Moccasin Creek	Intermittent	3	1) Dam and Pump	C	Warmwater	
88.9	sjop005	UNT to Moccasin Creek	Intermittent	3	1) Dam and Pump	C	Warmwater	
89.7	sjop007	Moccasin Creek	Perennial	17	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
91.2	sjop008	UNT to Bawdy Swamp	Intermittent	2	Dam and Pump	C	Warmwater	
92.1	sjop010	Bawdy Swamp	Perennial	8	Conventional Bore (with US70 Business crossing)	C, NSW	Warmwater	
93.6	sjop015	UNT to Mill Branch	Intermittent	14	1) Dam and Pump	C	Warmwater	
95.1	sjob011	UNT to Neuse River	Intermittent	8	1) Dam and Pump	C	Warmwater	
95.8	sjob010	UNT to Polecat Branch	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
96.3	sjob009	UNT to Polecat Branch	Perennial	4	Dam and Pump	C	Warmwater	
97.3	ncwq_013	Polecat Branch	Perennial	53	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
98.0	sjoc001	UNT to Neuse River	Intermittent	7	1) Dam and Pump	C	Warmwater	
98.1	sjob106	UNT to Neuse River	Perennial	33	1) Dam and Pump 2) Flume	C	Warmwater	February 15 to September 30
98.4	sjob105	Neuse River	Perennial	137	1) Open Cut	WS-V, NSW	Warmwater	February 15 to September 30
98.8	sjob007	UNT to Neuse River	Intermittent	5	1) Dam and Pump	C	Warmwater	
101.3	ncwq_014	Hannah Creek	Perennial	34	1) Dam and Pump	C, NSW	Warmwater	
102.4	sjob006	UNT to Hannah Creek	Intermittent	1	1) Dam and Pump	C	Warmwater	
102.8	sjob005	UNT to Hannah Creek	Intermittent	4	1) Dam and Pump	C	Warmwater	
102.8	sjob004	UNT to Hannah Creek	Perennial	4	1) Dam and Pump	C	Warmwater	
103.9	sjob003	UNT to Hannah Creek	Perennial	4	1) Dam and Pump	C	Warmwater	
104.4	ojoa004	Unnamed Pond	Pond	Not Crossed by Centerline	Not Crossed by Centerline	C	N/A	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
105.1	ncwq_015	White Oak Branch	Perennial	33	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
106.7	ncwq_016	Stone Creek	Perennial	10	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
107.6	ncwq_017	Johnson Swamp	Perennial	36	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
108.1	ojob100	UNP to Johnson Swamp	Pond	Not Crossed by Centerline	Not Crossed by Centerline	C	N/A	
110.5	sjop016	UNT to John K Swamp	Ephemeral	3	1) Dam and Pump	C	Warmwater	
113.1	sjoo007	Mill Branch	Intermittent	8	1) Dam and Pump	C	Warmwater	
114.2	sjoo006	UNT to Jumping Run	Perennial	7	1) Dam and Pump	C	Warmwater	
114.6	ncwq_018	Jumping Run	Perennial	33	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
115.4	ssao003	UNT to Juniper Run	Ephemeral	5	1) Dam and Pump	C	Warmwater	
116.9	ssao001	Little Juniper Run	Perennial	8	1) Dam and Pump	C, Sw	Warmwater	
117.2	ssap003	Juniper Run	Perennial	17	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
118.9	ssao007	Beaverdam Swamp	Perennial	35	1) Dam and Pump	C, Sw	Warmwater	
119.3	ncwq_019	Beaverdam Swamp	Perennial	33	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
119.7	ssaa001	Beaverdam Swamp	Perennial	217[f]	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
121.9	ssao004	UNT to Starlins Swamp	Intermittent	8	1) Dam and Pump	C	Warmwater	
121.9	osao002	Unnamed Pond	Pond	Pond	1) Dam and Pump	C	N/A	
122.2	ssao006	Starlins Swamp	Perennial	25	1) Dam and Pump	C, Sw	Warmwater	
122.3	ssao005	Starlins Swamp	Perennial	20	1) Dam and Pump	C, Sw	Warmwater	
124.5	ncwq_020	Black River	Perennial	33	1) Dam and Pump 2) Flume	C, Sw	Warmwater	February 15 to September 30
125.2	scmc004	UNT to Black River	Intermittent	6	1) Dam and Pump	C	Warmwater	
125.8	scmp007e	UNT to South River	Ephemeral	8	1) Dam and Pump 2) Flume	C	Warmwater	
125.8	scmp007i	UNT to South River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
126.7	scmp008	UNT to Cape Fear River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		Time Restrictions [e]
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	
126.8	nhd_nc_a_003	UNT to Black River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
126.8	scmp009	UNT to Cape Fear River	Perennial	17	1) Dam and Pump	C	Warmwater	
127.3	scmp010	UNT to Cape Fear River	Perennial	25	1) Dam and Pump	C	Warmwater	
129.0	scmp022	UNT to Cape Fear Rive	Intermittent	3	1) Dam and Pump	C	Warmwater	
129.4	scmc001	UNT to Cape Fear River	Perennial	7	1) Dam and Pump	C	Warmwater	
129.6	scmc002	UNT to Cape Fear River	Perennial	40	1) Dam and Pump 2) Flume	C	Warmwater	
130.1	scmc005	UNT to Cape Fear River	Intermittent	3	1) Dam and Pump	C	Warmwater	
131.5	scmp005	UNT to Cape Fear River	Perennial	6	1) Dam and Pump	C	Warmwater	
131.5	scmp005	UNT to Cape Fear River	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
131.6	scmb102	UNT to Cape Fear River	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
131.6	scmp002	UNT to Cape Fear River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
131.7	scmp003	UNT to Cape Fear River	Intermittent	3	1) Dam and Pump	C	Warmwater	
131.7	scmp004	UNT to Cape Fear River	Intermittent	5	1) Dam and Pump	C	Warmwater	
131.8	scmp002	UNT to Cape Fear River	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
132.8	nhd_nc_a_001	UNT to Cape Fear River	Perennial	29	1) Dam and Pump	C	Warmwater	
132.8	nhd_nc_a_002	UNT to Gum Log Canal	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
133.4	scmo007	UNT to Flat Swamp Ditch	Ephemeral	4	Dam and Pump	C	Warmwater	
133.7	scmo006	UNT to Flat Swamp Ditch	Ephemeral	21	1) Dam and Pump 2) Flume	C	Warmwater	
134.1	scmo005	UNT to Flat Swamp Ditch	Ephemeral	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
134.2	scmo004	UNT to Flat Swamp Ditch	Intermittent	8	Dam and Pump	C	Warmwater	
134.5	scmb100	UNT to Flat Swamp Ditch	Intermittent	18	1) Dam and Pump 2) Flume	C	Warmwater	
134.7	scmo011	UNT to Flat Swamp Ditch	Intermittent	11	1) Dam and Pump 2) Flume	C	Warmwater	
135.0	scmo003	UNT to Gum Log Canal	Intermittent	7	1) Dam and Pump 2) Flume	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

	Waterbody			Crossing		Special Designations		
State/ Facility/ Milepost	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
135.7	scmo002	Gum Log Canal	Perennial	44	1) Dam and Pump 2) Flume	C	Warmwater	
137.1	scmo001	Bakers Swamp	Intermittent	10	1) Dam and Pump	C	Warmwater	
138.1	nhd_nc_037	UNT to Reese Creek	Perennial	26	1) Dam and Pump 2) Flume	C	Warmwater	
138.3	nhd_nc_038	UNT to Reese Creek	Perennial	11	1) Dam and Pump 2) Flume	C	Warmwater	
139.4	ncwq_021	UNT to Reese Creek	Perennial	35	1) Dam and Pump 2) Flume	C	Warmwater	
140.3	scmp026	UNT to Reese Creek	Intermittent	3	1) Dam and Pump	C	Warmwater	
141.6	nhd_nc_042	UNT to Locks Creek	Canal/Ditch	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
141.8	nhd_nc_043	UNT to Locks Creek	Perennial	12	1) Dam and Pump	C	Warmwater	
142.2	scmo012	UNT to Locks Creek	Intermittent	11	1) Dam and Pump	C	Warmwater	
143.1	scmh002	UNT to Locks Creek	Intermittent	5	1) Dam and Pump	C	Warmwater	
144.4	scmo013	UNT to Pasture Branch Swamp	Intermittent	5	1) Dam and Pump	C	Warmwater	
144.5	scmp023	UNT to Pasture Branch	Intermittent	4	1) Dam and Pump	C	Warmwater	
144.7	scmp024	Pasture Branch Swamp	Perennial	12	1) Dam and Pump	C	Warmwater	
145.2	scmp025	UNT to Pasture Branch Swamp	Ephemeral	4	1) Dam and Pump	C	Warmwater	
145.3	scmp028	UNT to Reese Creek	Intermittent	7	1) Dam and Pump	C	Warmwater	
147.9	scmp034	UNT to Locks Creek	Perennial	6	1) Dam and Pump	C	Warmwater	
148.3	scmp033	Locks Creek	Perennial	39	1) Dam and Pump 2) Flume	C	Warmwater	
148.8	scmp030	UNT to Locks Creek	Intermittent	3	1) Dam and Pump	C	Warmwater	
149.3	scmp029	Cape Fear River	Perennial	325	HDD	C	Warmwater	
149.4	scmo018	Rockfish Creek	Perennial	35	1) Flume 2) Dam and Pump	C	Warmwater	
151.1	scmc006	UNT to Murphy Swamp	Perennial	8	1) Dam and Pump 2) Flume	C	Warmwater	
151.9	scmo019	UNT to Murphy Swamp	Intermittent	11	1) Dam and Pump 2) Flume	C	Warmwater	
152.1	scmp013	UNT to Grays Creek	Ephemeral	6	1) Dam and Pump	C	Warmwater	
152.2	scmp012	UNT to Grays Creek	Ephemeral	6	1) Dam and Pump	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
152.5	scmp020	Grays Creek	Perennial	8	1) Dam and Pump	C	Warmwater	February 15 to September 30
153.3	scmp019	UNT to Grays Creek	Intermittent	13	1) Dam and Pump	C	Warmwater	
155.1	nhd_nc_055	Longs Branch	Intermittent	22	1) Dam and Pump	C	Warmwater	
155.7	nhd_nc_056	UNT to Grays Creek	Canal/Ditch	5	1) Dam and Pump	C	Warmwater	
156.7	nhd_nc_057	Swans Creek	Perennial	10	1) Dam and Pump 2) Flume	WS-IV	Warmwater	February 15 to September 30
158.3	scmg002	UNT to Kirks Mill Creek	Intermittent	4	1) Dam and Pump	C	Warmwater	
158.3	scmg001	UNT to Kirks Mill Creek	Intermittent	9	1) Dam and Pump	C	Warmwater	
158.9	ncwq_022	Kirks Mill Creek	Perennial	44	1) Dam and Pump	WS-IV	Warmwater	
159.1	scmh001	UNT to Kirks Mill Creek	Intermittent	6	1) Dam and Pump	C	Warmwater	
160.5	ncwq_023	Gallberry Swamp	Perennial	38	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
160.8	orog002	Unnamed Pond	Pond	Not Crossed by Centerline	Not Crossed by Centerline	C	N/A	
161.8	oroh003	UNT to Little Marsh	Pond	Not Crossed by Centerline	Not Crossed by Centerline	C	N/A	
161.9	sroh011	UNT to Little Marsh Swamp	Intermittent	10	Dam and Pump	C	Warmwater	
162.4	ncwq_024	Little Marsh Swamp	Perennial	49	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
164.2	srog006	UNT Little Marsh Swamp	Intermittent	8	Dam and Pump	C	Warmwater	
166.1	ncwq_025	Mercer Branch	Perennial	40	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
167.0	ncwq_026	Black Branch	Perennial	33	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
167.8	ncwq_027	Gum Branch	Perennial	54	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
167.9	ncwq_028	Big Marsh Swamp	Perennial	33	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
170.2	srog005	UNT to Tenmile Swamp	Ephemeral	3	Dam and Pump	C	Warmwater	
170.7	ncwq_029	Tenmile Swamp	Perennial	33	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
171.4	srog004	UNT to Little Tenmile Swamp	Intermittent	6	1) Dam and Pump	C	Warmwater	
171.8	sroh015	UNT to Saddletree Swamp	Intermittent	5	1) Dam and Pump	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
172.0	srog003	UNT to Little Tenmile Swamp	Intermittent	6	1) Dam and Pump	C	Warmwater	
172.4	srog002	UNT to Saddletree Swamp	Intermittent	7	1) Dam and Pump	C	Warmwater	
172.4	srog001	UNT to Saddletree Swamp	Intermittent	3	1) Dam and Pump	C	Warmwater	
172.8	ncwq_030	Saddletree Swamp	Intermittent	35	1) Dam and Pump	C, Sw	Warmwater	
174.0	sroh010	Raft Swamp	Perennial	40	1) Dam and Pump 2) Flume	WS-IV, Sw	Warmwater	
174.5	ncwq_031	Raft Swamp	Perennial	47	1) Dam and Pump 2) Flume	WS-IV, Sw	Warmwater	
176.8	ncwq_032	Panther Branch	Perennial	45	1) Dam and Pump 2) Flume	WS-IV, Sw	Warmwater	
177.0	ncwq_033	Richland Swamp	Perennial	33	1) Dam and Pump 2) Flume	WS-IV, Sw	Warmwater	
178.3	sroh009	UNT to Burnt Swamp	Intermittent	3	1) Dam and Pump	C	Warmwater	
178.8	ncwq_034	Little Burnt Swamp	Perennial	87	1) Dam and Pump 2) Flume	WS-IV, Sw	Warmwater	
178.9	ncwq_035	Burnt Swamp	Perennial	39	1) Dam and Pump 2) Flume	WS-IV, Sw	Warmwater	
181.1	sroh008	Moss Neck Swamp	Perennial	20	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
181.2	sroh007	UNT to Moss Neck Swamp	Intermittent	2	1) Dam and Pump	C	Warmwater	
181.5	sroh006	UNT to Bear Swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
181.6	sroh005	UNT to Bear Swamp	Perennial	7	1) Dam and Pump	C	Warmwater	
181.6	sroh004	UNT to Bear Swamp	Intermittent	4	1) Dam and Pump	C	Warmwater	
181.7	sroh003	UNT to Bear Swamp	Intermittent	4	1) Dam and Pump	C	Warmwater	
182.2	sroh002	UNT to Bear Swamp	Intermittent	Not Crossed by Centerline	Not Crossed by Centerline	C	Warmwater	
182.3	sroh001	UNT to Bear Swamp	Perennial	5	Dam and Pump	C	Warmwater	
182.6	ncwq_036	Bear Swamp	Perennial	38	1) Dam and Pump 2) Flume	C, Sw	Warmwater	
AP-3								
0.6	nhd_nc_062	Jacks Swamp	Perennial	10	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
1.3	snrc002	UNT to Jack's Swamp	Ephemeral	14	1) Dam and Pump	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
1.5	snrc001	UNT to Jack's Swamp	Ephemeral	3	1) Dam and Pump	C	Warmwater	
3.6	snrp002	UNT to Cypress Creek	Intermittent	3	1) Dam and Pump	C	Warmwater	
4.2	snrp003	UNT to Cypress Creek	Intermittent	10	1) Dam and Pump	C	Warmwater	
5.9	snrp017	UNT to Cypress Creek	Perennial	8	1) Dam and Pump	C, NSW	Warmwater	
5.9	snrp016	UNT to Cypress Creek	Perennial	31	1) Flume 2) Dam and Pump	C, NSW	Warmwater	
7.0	snrp005	UNT to Cypress Creek	Perennial	7	1) Dam and Pump	C	Warmwater	
7.4	ncwq_003	Cypress Creek	Perennial	20	Open Cut	C, NSW	Warmwater	
7.8	snrb101	UNT to Cypress Creek	Ephemeral	2	1) Dam and Pump	C	Warmwater	
10.0	snrp001	Cypress Creek	Perennial	13	1) Dam and Pump 2) Flume	C, NSW	Warmwater	
11.6	snrp012	UNT to Meherrin River	Intermittent	4	1) Dam and Pump	C	Warmwater	
WEST VIRGINIA ACCESS ROADS								
AP-1								
0.4	shab101	Tanner Fork	Perennial	4	N/A	B1, C	Warmwater	
0.4	nhd_wv_a_009	UNT to Tanner Fork	Intermittent	5	N/A	UNT to B1	Warmwater	
1.1	slea001	Kincheloe Creek	Perennial	14	N/A	HQS, C	High Quality Stream	Spawning Season Waiver Needed
2.3	nhd_wv_a_010	Kincheloe Creek	Perennial	10	N/A	B1, C	High Quality Stream	Spawning Season Waiver Needed
2.4	slea003	UNT to Kincheloe Creek	Intermittent	13	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
2.4	sleb117	Kincheloe Creek	Perennial	Within Access Road Corridor but Not Crossed	N/A	B1, C	High Quality Stream	Spawning Season Waiver Needed
2.4	sleb117	Kincheloe Creek	Perennial	45	N/A	B1, C	High Quality Stream	Spawning Season Waiver Needed
3.0	sleb118	UNT to Hog Camp Run	Perennial	Within Access Road Corridor but Not Crossed	N/A	UNT to B1	Warmwater	
3.8	nhd_wv_a_014	Hog Camp Run	Perennial	16	N/A	B1, C	Warmwater	
3.9	nhd_wv_a_015	Hog Camp Run	Perennial	Within Access Road Corridor but Not Crossed	N/A	B1, C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
5.0	sleb119	UNT to Elk Lick	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to B1	Warmwater	
5.0	sleb004	Elk Lick	Intermittent	6	N/A	B1, C	Warmwater	
5.7	sleb005	Turkeypen Creek	Perennial	7	N/A	B1, C	Warmwater	
9.9	sleb121	UNT to Broad Run	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to B1	Warmwater	
10.2	sleb120	Broad Run	Perennial	4	N/A	B1, C	Warmwater	
10.9	sleb120i	Broad Run	Intermittent	3	N/A	B1, C	Warmwater	
12.5	sleb013	UNT to West Run	Intermittent	1	N/A	UNT to B1	Warmwater	
12.5	nhd_wv_a_007	UNT to West Run	Intermittent	5	N/A	UNT to B1	Warmwater	
13.6	slec001	UNT to Lifes Run	Ephemeral	3	N/A	UNT to B1	Warmwater	
13.7	slec002	UNT to Lifes Run	Intermittent	3	N/A	UNT to B1	Warmwater	
14.2	olec002	Unnamed Pond	Pond	Within Access Road Corridor but Not Crossed	N/A	N/A	N/A	
14.3	slec005	Lifes Run	Perennial	9	N/A	B1, C	Warmwater	
14.4	slec003	UNT to Lifes Run	Intermittent	9	N/A	UNT to B1	Warmwater	
14.7	nhd_wv_042	Hacker's Creek	Perennial	45	N/A	HQS, C	High Quality Stream	Spawning Season Waiver Needed
14.8	nhd_wv_041	Hacker's Creek	Perennial	Within Access Road Corridor but Not Crossed	N/A	HQS, C	High Quality Stream	Spawning Season Waiver Needed
14.8	nhd_wv_036	UNT to Hackers Creek	Intermittent	7	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
14.9	nhd_wv_a_016	UNT to Hackers Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
15.5	nhd_wv_a_019	UNT to Hackers Creek	Intermittent	6	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
15.5	nhd_wv_a_018	UNT to Hackers Creek	Intermittent	42	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
15.6	nhd_wv_040	Hacker's Creek	Perennial	30	N/A	HQS, C	High Quality Stream	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
16.2	nhd_wv_037	UNT to Hackers Creek	Intermittent	14	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
16.2	nhd_wv_039	Hacker's Creek	Perennial	57	N/A	HQS, C	High Quality Stream	Spawning Season Waiver Needed
19.1	nhd_wv_a_011	UNT to Laurel Lick	Intermittent	9	N/A	UNT to HQS	Warmwater	
19.9	nhd_wv_a_002	UNT to Buckhannon Run	Intermittent	5	N/A	UNT to B1	Warmwater	
22.3	nhd_wv_a_004	Bridge Run	Perennial	11	N/A	B1, C	Warmwater	
25.4	supb001	UNT to Brushy Fork	Intermittent	2	N/A	UNT to B1	Warmwater	April through June
25.7	supb102	Brushy Fork	Intermittent	Within Access Road Corridor but Not Crossed	N/A	B1, C	Warmwater	
29.3	supa050	UNT to Cutright Run	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to B1	Warmwater	
30.3	nhd_wv_a_005	UNT to French Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQC/B2	UNT to HQS	Spawning Season Waiver Needed
30.6	nhd_wv_035	UNT to French Creek	Intermittent	5	N/A	UNT to HQC/B3	UNT to HQS	Spawning Season Waiver Needed
33.0	supb103	Trubie Run	Perennial	Within Access Road Corridor but Not Crossed	N/A	B1, C	Warmwater	
36.7	supa051	UNT to Laurel Run	Intermittent	5	N/A	UNT to B1	Warmwater	
36.8	supb011	Laurel Run	Perennial	Within Access Road Corridor but Not Crossed	N/A	B1, C	Warmwater	April through June
37.1	supa053	UNT to Tenmile Creek	Intermittent	7	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
37.5	supa052	UNT to Tenmile Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
37.8	supb050	UNT to Tenmile Creek	Perennial	3	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
37.8	oupa002	UNP to Tenmile Creek	Pond	Within Access Road Corridor but Not Crossed	N/A	N/A	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
37.8	supb051	UNT to Tenmile Creek	Perennial	5	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
39.6	nhd_wv_034	Tenmile Creek	Perennial	5	N/A	HQS, C	High Quality Stream	Spawning Season Waiver Needed
41.4	supb106	UNT to Middle Fork	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to B1, C	Warmwater	
41.9	supb105	UNT to Jackson Fork	Ephemeral	18	N/A	UNT to B1, C	Warmwater	
41.9	supb104	Jackson Fork	Perennial	Within Access Road Corridor but Not Crossed	N/A	B1, C	Warmwater	
45.4	srac001	UNT to Jenks Fork	Intermittent	4	N/A	UNT to B1, C	Warmwater	
49.9	nhd_wv_004	Schoolcraft Run	Perennial	39	N/A	B2, C	Coldwater	September 15 through March 31
50.2	srab109	Birch Fork	Perennial	31	N/A	B2, C	High Quality Stream	Spawning Season Waiver Needed
55.7	nhd_wv_008	UNT to Tygart Valley River	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	Coldwater	
55.7	nhd_wv_008	UNT to Tygart Valley River	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	Coldwater	
55.7	nhd_wv_009	UNT to Tygart Valley River	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	Coldwater	
55.7	nhd_wv_009	UNT to Tygart Valley River	Intermittent	407	N/A	UNT to HQS, C	Coldwater	
56.1	nhd_wv_010	UNT to Tygart Valley River	Perennial	12	N/A	UNT to HQS, C	Coldwater	
57.9	sraa004	UNT to Becky Creek	Intermittent	9	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
57.9	oraa001	UNT to Becky Creek	Pond	17	N/A	N/A	UNT to HQS	Spawning Season Waiver Needed
62.3	sraa059	UNT to Big Branch	Ephemeral	Within Access Road Corridor but Not Crossed	N/A	UNT to B1, C	Warmwater	
62.3	sraa058	UNT to Big Branch	Intermittent	6	N/A	UNT to B1, C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
62.3	sraa060	UNT to Lambert Run	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to B2, HQS	UNT to HQS	Spawning Season Waiver Needed
67.7	srac066	UNT to Shavers Fork	Perennial	8	N/A	UNT to B2, HQS	UNT to HQS	Spawning Season Waiver Needed
67.7	srac065	UNT to Shavers Fork	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to B2, HQS	UNT to HQS	Spawning Season Waiver Needed
67.7	srac058	UNT to Shavers Fork	Intermittent	7	N/A	UNT to B2, HQS	UNT to HQS	Spawning Season Waiver Needed
70.8	spoa020	UNT to West Fork Greenbrier	Intermittent	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
72.3	spoa009	UNT to Mountain Lick Creek	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
72.3	spoa008	UNT to Mountain Lick Creek	Intermittent	6	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.1	spoa010	UNT to Mountain Lick Creek	Perennial	26	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.1	spoa014	UNT to Mountain Lick Creek	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.2	spoc023	UNT to West Fork Greenbriar River	Perennial	23	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.2	spoc024	UNT to West Fork Greenbriar River	Intermittent	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.2	spoc025	UNT to West Fork Greenbriar River	Ephemeral	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.2	spoc022	UNT to West Fork Greenbriar River	Ephemeral	2	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.4	spoc021	UNT to West Fork Greenbrier River	Perennial	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.9	nhd_wv_a_013	Mountain Lick Creek	Perennial	10	N/A	HQS, C	High Quality Stream	September 15 through March 31
73.9	spoa011	UNT to Mountain Lick Creek	Intermittent	13	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
73.9	spoa012	UNT to Mountain Lick Creek	Perennial	36	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.9	spoa013	UNT to Mountain Lick Creek	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.9	spoa013	UNT to Mountain Lick Creek	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
75.3	spoc026	UNT to John's Run	Intermittent	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
75.4	spoc027	UNT to John's Run	Intermittent	7	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
75.4	spoc028	UNT to John's Run	Intermittent	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
75.6	spoc029	UNT to John's Run	Perennial	9	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
77.9	spoc018	UNT to East Fork Greenbriar River	Intermittent	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.1	spoa007	UNT to Little River	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.1	spoc017	UNT to Little River	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.2	spoa006	UNT to Little River	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.2	nhd_wv_a_008	UNT to Little River	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.7	spoc019	UNT to Little River	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.8	spoc020	UNT to Little River	Ephemeral	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.8	spoc015	UNT to Little River	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.8	spoc016	UNT to Little River	Intermittent	14	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.9	spoa004	UNT to Little River	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.9	spoc014	UNT to Little River	Intermittent	6	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
78.9	spoa002	UNT to Little River	Intermittent	12	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.9	spoa005	UNT to Little River	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.9	spob003	UNT to Little River	Perennial	9	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.0	spoc013	UNT to Little River	Intermittent	6	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.0	spoc001	UNT to Little River	Intermittent	11	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.1	spoc002	UNT to Little River	Ephemeral	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.1	spob002	UNT to Little River	Intermittent	6	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.6	nhd_wv_a_012	UNT to Little River	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.8	nhd_wv_a_006	UNT to Buffalo Fork	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
81.7	nhd_wv_a_001	Big Run	Perennial	1	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
82.2	nhd_wv_a_003	Buffalo Fork	Intermittent	5	N/A	B2, C	Coldwater	
82.2	nhd_wv_a_020	UNT to Little River	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
82.2	nhd_wv_a_021	UNT to Little River	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
82.2	spoa015	UNT to Buffalo Fork	Intermittent	2	N/A	UNT to B2, C	Coldwater	
82.2	spoa016	UNT to Buffalo Fork	Perennial	6	N/A	UNT to B2, C	Coldwater	
VIRGINIA ACCESS ROADS								
AP-1								
87.0	shib203	UNT to Back Creek	Intermittent	3	N/A	UNT to Aquatic Life, VI	Coldwater	
87.1	shib202	UNT to Back Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to Aquatic Life, VI	Coldwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
87.3	shib201	UNT to Back Creek	Intermittent	1	N/A	UNT to Aquatic Life, VI	Coldwater	
93.2	shib117	UNT to Jackson River	Perennial	20	N/A	UNT to Aquatic Life, VI	Coldwater	
96.6	nhd_va_a_049	Crab Run	Perennial	10	N/A	Aquatic Life, II	Coldwater	October 1 through May 15
96.7	nhd_va_a_043	UNT to Crab Run	Intermittent	6	N/A	UNT to Aquatic Life, II	Coldwater	
97.0	nhd_va_a_037	UNT to Crab Run	Intermittent	6	N/A	UNT to Aquatic Life, II	Coldwater	
97.0	nhd_va_a_046	UNT to Crab Run	Intermittent	12	N/A	UNT to Aquatic Life, II	Coldwater	
99.0	shib119	UNT to Bullpasture River	Perennial	8	N/A	UNT to Aquatic Life		
99.1	shib101	UNT to Bullpasture River	Intermittent	34	N/A	UNT to Aquatic Life		
99.2	shib118	UNT to Bullpasture River	Perennial	7	N/A	UNT to Aquatic Life		
99.4	shib101	UNT to Bullpasture River	Intermittent	2	N/A	UNT to Aquatic Life		
99.6	nhd_va_a_057	UNT to Bullpasture River	Intermittent	5	N/A	UNT to Aquatic Life		
100.7	shib100	Crab Run	Perennial	37	N/A	Aquatic Life, II	Coldwater	October 1 through May 15
101.9	shib120	UNT to Bullpasture River	Intermittent	2	N/A	UNT to Aquatic Life		
102.1	shib121	UNT to Bullpasture River	Intermittent	2	N/A	UNT to Aquatic Life		
102.9	nhd_va_a_063	Bullpasture River	Perennial	55	N/A	Aquatic Life		May 15 through July 31
103.2	nhd_va_a_044	UNT to Bullpasture River	Intermittent	5	N/A	UNT to Aquatic Life		
103.7	nhd_va_a_060	UNT to Bullpasture River	Intermittent	13	N/A	UNT to Aquatic Life		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
107.7	shic008	UNT to Shrews Fork	Intermittent	6	N/A	UNT to Aquatic Life, V-VI		
108.1	shic007	UNT to Shrews Fork	Intermittent	4	N/A	UNT to Aquatic Life, V-VI		
108.6	shic006	UNT to Shaws Fork	Ephemeral	1	N/A	UNT to Aquatic Life, V-VI		
108.7	shic005	UNT to Shaws Fork	Ephemeral	2	N/A	UNT to Aquatic Life, V-VI		
109.0	shic004	UNT to Shaws Fork	Intermittent	10	N/A	UNT to Aquatic Life, V-VI		
111.2	nhd_va_a_048	UNT to Shaws Fork	Perennial	12	N/A	UNT to Aquatic Life, V-VI		
111.2	nhd_va_a_036	UNT to Calfpasture River	Perennial	10	N/A	UNT to Aquatic Life		
111.4	nhd_va_a_032	UNT to Calfpasture River	Perennial	11	N/A	UNT to Aquatic Life		
111.6	nhd_va_a_051	UNT to Calfpasture River	Intermittent	7	N/A	UNT to Aquatic Life		
111.8	nhd_va_a_033	UNT to Calfpasture River	Perennial	15	N/A	UNT to Aquatic Life		
113.9	nhd_va_a_035	UNT to Body Lick Branch	Intermittent	11	N/A	Unclassified		
115.4	nhd_va_a_052	UNT to Calfpasture River	Perennial	140	N/A	UNT to Aquatic Life		
117.3	saub110	East Branch Dowells Draft	Perennial	10	N/A	Unclassified		
120.2	saub111	UNT to Jennings Branch	Perennial	25	N/A	UNT to Aquatic Life	Coldwater	
120.2	saub113	UNT to Jennings Branch	Perennial	Within Access Road Corridor but Not Crossed	N/A	UNT to Aquatic Life	Coldwater	
120.2	saub113	UNT to Jennings Branch	Perennial	364	N/A	UNT to Aquatic Life	Coldwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
120.3	saub112	UNT to Jennings Branch	Ephemeral	1	N/A	UNT to Aquatic Life	Coldwater	
124.2	nhd_va_a_055	UNT to Elk Run	Intermittent	5	N/A	Unclassified		
149.1	nhd_va_a_061	UNT to South River	Perennial	10	N/A	UNT to Aquatic Life		
149.1	nhd_va_a_062	UNT to South River	Perennial	11	N/A	UNT to Aquatic Life		
149.6	nhd_va_a_054	UNT to South River	Perennial	10	N/A	UNT to Aquatic Life		
151.6	nhd_va_a_034	UNT to Back Creek	Intermittent	6	N/A	UNT to Aquatic Life		
153.1	saua050	UNT to Mills Creek	Perennial	6	N/A	UNT to Aquatic Life		
153.3	nhd_va_a_040	UNT to Orebank Creek	Intermittent	8	N/A	UNT to Aquatic Life		
155.2	nhd_va_a_045	Back Creek	Perennial	10	N/A	Aquatic Life, V-VI		
155.2	nhd_va_a_053	UNT to Back Creek	Intermittent	14	N/A	UNT to Aquatic Life, V-VI		
157.2	nhd_va_a_056	UNT to Back Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to Aquatic Life, V-VI		
166.7	nhd_va_a_038	UNT to South Fork Rockfish River	Perennial	99	N/A	UNT to Aquatic Life, V-VI		
189.1	sbuc008	Walton Fork	Intermittent	3	N/A	Unclassified		
195.2	nhd_va_394	North River	Perennial	10	N/A	Aquatic Life		
195.3	nhd_va_396	UNT to North River	Intermittent	5	N/A	UNT to Aquatic Life		
197.1	sbua004	UNT to Slate River	Perennial	4	N/A	UNT to Aquatic Life		
205.1	sbuc009	Willis River	Perennial	28	N/A	Aquatic Life		
209.2	sbua005	UNT to Little Willis River	Intermittent	5	N/A	UNT to Aquatic Life		
211.0	sbua003	UNT to Perkins Creek	Ephemeral	2	N/A	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
218.8	scua011	Green Creek	Perennial	14	N/A	UNT to Aquatic Life		
229.7	nhd_va_a_047	UNT to Flat Creek	Intermittent	6	N/A	UNT to Aquatic Life		
286.6	sgrc001	UNT to Meherrin River	Intermittent	4	N/A	UNT to Aquatic Life, Migratory Fish Spawning and Nursery		
297.6	sgrp003	UNT to Fontaine Creek	Perennial	Within Access Road Corridor but Not Crossed	N/A	Unclassified		
298.6	nhd_va_a_064	Unnamed Pond	Pond	564	N/A	Unclassified		
AP-3								
13.8	nhd_va_436	UNT to Meherrin River	Perennial	10	N/A	UNT to Migratory Fish Spawning and Nursery		
28.8	ssoo001	UNT to Nottoway River	Intermittent	4	N/A	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
30.8	ssoa008	UNT to Nottoway River	Perennial	Within Access Road Corridor but Not Crossed	N/A	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
31.6	nhd_va_201	UNT to Nottoway River	Perennial	10	N/A	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
32.2	ssoa007	Nottoway River	Perennial	Within Access Road Corridor but Not Crossed	N/A	Aquatic Life, Migratory Fish Spawning and Nursery, EFH		March 15 through July 31 and August 15 through October 15
36.3	ssoa011	UNT to Blackwater River	Perennial	16	N/A	UNT to Aquatic Life,		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
						Migratory Fish Spawning and Nursery, EFH		
36.4	ssol013	UNT to Blackwater River	Perennial	Within Access Road Corridor but Not Crossed	N/A	UNT to Aquatic Life, Migratory Fish Spawning and Nursery, EFH		
55.1	nhd_va_434	Pitchkettle Creek	Perennial	10	N/A	Wildlife		
64.8	nhd_va_a_039	UNT to Bernetts Mill Creek	Intermittent	5	N/A	UNT to Aquatic Life		
64.8	nhd_va_a_042	UNT to Bernetts Mill Creek	Intermittent	5	N/A	UNT to Aquatic Life		
65.1	nhd_va_a_050	UNT to Bernetts Mill	Intermittent	6	N/A	UNT to Aquatic Life		
67.7	nhd_va_421	East Ditch	Canal/Ditch	Within Access Road Corridor but Not Crossed	N/A	Unclassified		
67.7	nhd_va_412	East Ditch	Canal/Ditch	Within Access Road Corridor but Not Crossed	N/A	Unclassified		
67.7	nhd_va_421	East Ditch	Canal/Ditch	Within Access Road Corridor but Not Crossed	N/A	Unclassified		
AP-4								
No Waterbodies Crossed								
AP-5								
0.3	sgrc102	UNT to Greensville Creek	Perennial	7	N/A	Unclassified		
0.3	sgrc002	UNT to Greensville Creek	Intermittent	1	N/A	Unclassified		
0.3	sgrc002	UNT to Greensville Creek	Intermittent	1	N/A	Unclassified		
0.3	sgrc102	UNT to Greensville Creek	Perennial	1	N/A	Unclassified		
0.4	sgrc002	UNT to Greensville Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	Unclassified		
0.4	sgrc002	UNT to Greensville Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	Unclassified		

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		Time Restrictions [e]
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	
0.4	sgrc102	UNT to Greensville Creek	Perennial	Within Access Road Corridor but Not Crossed	N/A	Unclassified		
NORTH CAROLINA ACCESS ROADS								
AP-2								
8.3	snrh010	UNT to Trouble Field Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	C	Warmwater	
8.5	snrh009	UNT to Trouble Field Creek	Perennial	10	N/A	C	Warmwater	
19.6	nhd_nc_a007	UNT to Marsh Swamp	Intermittent	5	N/A	C	Warmwater	
29.0	nhd_nc_a011	UNT to Jacket Swamp	Intermittent	5	N/A	C	Warmwater	
33.5	shlh022	UNT to Fishing Creek	Perennial	4	N/A	C	Warmwater	
122.5	nhd_nc_a008	UNT to Starlins Swamp	Intermittent	5	N/A	C	Warmwater	
122.5	nhd_nc_a012	Unnamed Pond	Pond	179	N/A	C	Warmwater	
131.1	scmp021	UNT to Cape Fear River	Intermittent	4	N/A	C	Warmwater	
135.1	nhd_nc_a010	UNT to Gum Log Canal	Intermittent	5	N/A	C	Warmwater	
135.1	nhd_nc_a009	UNT to Gum Log Canal	Perennial	10	N/A	C	Warmwater	
147.9	scmp035	UNT to Locks Creek	Intermittent	4	N/A	C	Warmwater	
148.7	nhd_nc_a006	UNT to Gum Log Canal	Intermittent	5	N/A	C	Warmwater	
171.9	sroh013	UNT to Saddletree Swamp	Intermittent	Within Access Road Corridor but Not Crossed	N/A	C	Warmwater	
172.0	sroh014	UNT to Saddletree Swamp	Intermittent	Within Access Road Corridor but Not Crossed	N/A	C	Warmwater	
177.4	sroc002	UNT to Richland Swamp	Ephemeral	3	N/A	C	Warmwater	
AP-3								
0.3	snrh008	UNT to Jack's Swamp	Perennial	6	N/A	C	Warmwater	
6.5	snrp015	UNT to Cypress Creek	Intermittent	Within Access Road Corridor but Not Crossed	N/A	C	Warmwater	
10.8	snrr004	UNT to Meherin River	Ephemeral	Within Access Road Corridor but Not Crossed	N/A	C	Warmwater	
11.2	nhd_nc_083	UNT to Mush Island Gut	Intermittent	7	N/A	C	Warmwater	

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
ABOVEGROUND FACILITIES (Impacts for facilities provided in acreage instead of linear feet)								
AP-1, AP-3, AP-4, AP-5								
No waterbodies crossed.								
AP-2 NORTH CAROLINA								
132.9	scmp037	UNT to Cape Fear River	Perennial	(0.08 acre)	N/A	C	Warmwater	
CONTRACTOR AND PIPE STORAGE YARDS								
AP-1 WEST VIRGINIA								
24.4	nhd_wv_43	UNT to Fink Run	Intermittent	(0.03 acre)	N/A	UNT to B1	Warmwater	
24.4	nhd_wv_43	UNT to Fink Run	Intermittent	(>0.01 acre)	N/A	UNT to B2	Warmwater	
24.4	nhd_wv_44	Mud Lick	Perennial	(0.22 acre)	N/A	B1, C	Warmwater	
AP-1 VIRGINIA								
210.2	nhd_va_143	Gills Creek	Perennial	(0.02 acre)	N/A	Unclassified		
AP-2, AP-3, AP-4, and AP-5								
No waterbody Impacts								

[a] N/A for Approximate Crossing Width indicates that the proposed route centerline does not cross the waterbody. Waterbodies with a Feature ID starting with nhd represent waterbodies that are based on desktop data from the National Hydrography Dataset, and widths have been assumed as 10 feet wide for perennial and 5 feet wide for intermittent waterbodies in this dataset. Waterbodies with a Feature ID starting with ncwq represent waterbodies within North Carolina that have been included in the dataset to account for water use designations assigned to waterbodies flowing thru large wetlands documented during field surveys; these features have an assumed width of 10 feet.

[b] N/A indicates construction method is not applicable for access roads.

[C] Consultation Needed – indicates that further consultation with State/Commonwealth resource management agencies is necessary to determine classifications for streams where there are not readily available GIS data or other water classification data.

Abbreviations for State/Commonwealth waterbody classifications are listed by state below:

West Virginia State Water Quality Classifications

Antidegradation Classes:

Tier 3 - Outstanding national resource waters that have been placed on the highest tier of the state classification; including waters that are in federally-designated Wilderness Areas, waters with naturally reproducing trout in state parks, national parks, and national forests.

West Virginia Stream Water Use Categories:

Category A - Public Water; Category B - Propagation and Maintenance of Fish and Other Aquatic Life; Category B1 - Warm Water Fishery; Category B2 - Trout Waters; Category B4 – Wetlands; Category C - Water Contact Recreation (Category C); Category D - Agricultural and Wildlife Uses; Category D1 –Irrigation; Category D2 - Livestock; Category D3 - Wildlife; Category E - Water Supply Industrial, Water Transport, Cooling and Power ; Category E1 - Water Transport; Category E2 - Cooling Water; Category E3 -Power Production; Category E4 - Industrial (West Virginia CSR, 2014).

State Water Quality Classifications were determined using West Virginia Code of State Regulations, Title 47, Series 2 and communication with West Virginia Department of Environmental Protection (WVDEP) staff (Peterson, 2015). WVDEP considers all waters of the state Category A, B, and C waters. Waterbodies are assumed to be capable of supporting public water use. Those waterbodies listed in the table as Category A waters are waterbodies listed in appendices to West Virginia CSR, Title 47.

TABLE 2A-1 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]

High Quality Streams (HQS) are based on the Sixth Edition of the West Virginia High Quality Streams prepared by the Wildlife Resources Section of the West Virginia Division of Natural Resources.

State regulations require the classification to extend into adjacent tributaries, indicated by UNT (unnamed tributary) to [Stream Class] to indicate connected tributaries to classified waters.

Spawning Season Waiver – coordination with the West Virginia Division of Natural Resources will be required to acquire a Stream Activity Permit, and a spawning season waiver may be required for these streams depending on the timing of work within each stream.

Virginia State Water Quality Classifications

Virginia Trout Waters Classes:

Classes I, II, III, IV are wild natural trout streams ranking from highest to lowest quality

Classes V, VI, VII, VIII are stockable trout streams ranking from highest to lowest quality

State Water Quality Classifications were determined using Virginia Department of Environmental Quality GIS dataset, 2012 Integrated WQ Report Rivers, January 27, 2014 available for download from the Virginia Environmental Geographic Information System (VEGIS) website at: http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS/VEGISDatasets.aspx. State regulations require the classification to extend into adjacent tributaries, indicated by UNT (unnamed tributary) to [Stream Class] to indicate connected tributaries to classified waters.

Unclassified – waters that do not have an assigned classification, or are not unnamed tributaries to classified waters.

North Carolina State Water Quality Classifications

Class C: secondary recreation, fishing, and aquatic life; this category includes all freshwater in the state to protect these uses.

Class B: primary recreation, including swimming and all Class C uses.

Classes WS-I, WS-II, WS-III, WS-IV, and WS-V: waters that are protected as water supplies within watersheds of increasing development, ranging from natural, undeveloped, and upstream watersheds to moderate or highly developed watersheds.

Supplemental Classes:

Trout Waters (Tr), Swamp Waters (Sw), Nutrient Sensitive Waters (NSW), Outstanding Resource Waters (ORW), High Quality Waters (HQW)

State Water Quality Classifications were determined using North Carolina Department of Environment and Natural Resources GIS dataset, Water Quality Classifications, November 26, 2014 available for download from the NC OneMap website at: ftp://ftp.nconemap.com/outgoing/vector/waterqclass.zip.

[d] Fisheries type is based on readily available data from agency consultation letters or online data. Additional consultation with state and federal agencies will be on-going to further refine these waterbody designations.

[e] Timing restrictions are based on readily available data from agency consultation letters or online data. Additional consultations with state and federal agencies, as well as field survey data for protected species will be necessary to further refine timing restrictions.

[f] Beaverdam Swamp was documented as an open water feature, but the rate of flow is low and it is part of a large wetland complex. Therefore this crossing was not included in the major crossings list despite being over 100 feet over the open water portion of this feature.

TABLE 2A-2

Waterbodies Crossed and Crossing Methods for the Supply Header Project

State/Facility/ Milepost	Feature ID [a]	Waterbody Name [b]	Flow Regime	Crossing		Special Designations		
				Approximate Crossing Width (Feet)[a]	Method [c]	State Water Quality Classifications [d]	Fishery Type [e]	Time Restriction [f]
WEST VIRGINIA								
TL-635								
0.2	shag002	UNT to Tanner Fork	Perennial	2	Not Crossed by Centerline	B, C	TBD	
0.7	sdog002	UNT to Dry Fork	Intermittent	NA	Not Crossed by Centerline	B, C	TBD	
0.8	sdog001	UNT to Dry Fork	Perennial	8	1) Dam and Pump 2) Flume	B1, C	Warmwater	
1.3	sdoh004	Dry Fork	Perennial	11	1) Dam and Pump 2) Flume	B1, C	Warmwater	
1.4	sdoh003	UNT to Dry Fork	Perennial	4	1) Dam and Pump 2) Flume	B1, C	Warmwater	
2.0	sdog014	Meathouse Fork	Perennial	30	Dam and Pump	B1, C	Warmwater	
2.8	sdog015	Johnson Fork	Perennial	6	1) Dam and Pump 2) Flume	B1, C	Warmwater	
3.9	sdog018	UNT to Indian Fork	Perennial	13	Dam and Pump	B, C	TBD	
4.0	sdog019	UNT to Indian Fork	Intermittent	NA	Not crossed by Centerline	B, C	TBD	
4.6	sdog020	UNT to Indian Fork	Perennial	9	Dam and Pump	B, C	TBD	
5.0	sdog022	UNT to Indian Fork	Perennial	8	1) Dam and Pump 2) Flume	B, C	TBD	
5.4	ndh_wv_083	Buckeye Creek	Perennial	31	1) Dam and Pump 2) Flume	B1, C	Warmwater	
5.5	nhd_wv_084	UNT to Buckeye Creek	Intermittent	17	1) Dam and Pump 2) Flume	B1, C	Warmwater	
5.8	ndh_wv_082	UNT to Buckeye Creek	Intermittent	5	1) Dam and Pump 2) Flume	B1, C	Warmwater	
6.6	ndh_wv_081	Greenbriar Creek	Perennial	10	1) Dam and Pump 2) Flume	B1, C	Warmwater	
7.8	sdog033	Buffalo Calf Fork	Perennial	20	Dam and Pump	B1, C	Warmwater	
7.9	sdog034	UNT to Buffalo Calf Fork	Perennial	NA	Not Crossed by Centerline	B1, C	Warmwater	
8.8	sdog023	UNT to Buffalo Calf Fork	Perennial	8	1) Dam and Pump 2) Flume	B1, C	Warmwater	
9.4	sdog024	Long Run	Perennial	26	Dam and Pump	B1, C	Warmwater	
10.5	sdog025	Buckeye Run	Perennial	17	Bore	B1, C	Warmwater	
10.6	sdog026	UNT to Buckeye Run	Perennial	10	Bore	B1, C	Warmwater	
12.9	sdog028	Flint Run	Perennial	12	Dam and Pump	B1, C	Warmwater	
14.1	sdog007	UNT to Righthand Fork East Run	Perennial	7	Dam and Pump	B, C	TBD	
15.1	sdog008	UNT to Big Battle Run	Perennial	17	1) Dam and Pump 2) Flume	B, C	TBD	
15.2	sdog009	UNT to Big Battle Run	Perennial	3	1) Dam and Pump 2) Flume	B, C	TBD	
15.6	sdoh009	UNT to Big Battle Run	Perennial	11	Dam and Pump	B, C	TBD	
15.7	sdoh008	UNT to Big Battle Run	Perennial	6	1) Dam and Pump 2) Flume	B, C	TBD	

TABLE 2A-2 (cont'd)

Waterbodies Crossed and Crossing Methods for the Supply Header Project

State/Facility/ Milepost	Feature ID [a]	Waterbody Name [b]	Flow Regime	Crossing		Special Designations		
				Approximate Crossing Width (Feet)[a]	Method [c]	State Water Quality Classifications [d]	Fishery Type [e]	Time Restriction[f]
17.8	sdoh010	Little Battle Run	Perennial	16	Dam and Pump	B1, C	Warmwater	
18.5	sdoh012	McElroy Creek	Perennial	74	Dam and Pump	B1, C	Warmwater	
18.6	sdog031	UNT to McElroy Creek	Perennial	41	Dam and Pump	B, C	TBD	
20.6	sdog032	Franks Run	Perennial	31	Dam and Pump	B1, C	Warmwater	
23.0	styg001	UNT to Indian Creek	Intermittent	NA	Not crossed by centerline	B, C	Warmwater	
23.1	styg002	Indian Creek	Perennial	16	Dam and Pump	B1, C	Warmwater	
24.7	swzg024	UNT to Buffalo Run	Perennial	14	Dam and Pump	B, C	Warmwater	
25.4	swzg026	UNT to Buffalo Run	Perennial	13	Dam and Pump	B, C	Warmwater	
25.4	swzg025	UNT to Buffalo Run	Perennial	NA	Not crossed by centerline	B, C	Warmwater	
25.4	swzg026	UNT to Buffalo Run	Perennial	NA	Not crossed by centerline	B,C	Warmwater	
26.8	swzg028	UNT to Carpenter Run	Perennial	NA	Not crossed by centerline	B, C	Warmwater	
26.9	swzg027	Carpenter Run	Perennial	16	Dam and Pump	B1, C	Warmwater	
28.0	nhd_wv_096	Ashcamp Run	Perennial	10	1) Dam and Pump 2) Flume	B1, C	Warmwater	
29.4	swzh028	South Fork Fishing Creek	Perennial	70.4	1) Dam and Pump 2) Flume	B1, C	Warmwater	
29.5	swzg014	UNT to South Fork Fishing Creek	Perennial	3	1) Dam and Pump 2) Flume	B, C	Warmwater	
29.6	swzg016	UNT to South Fork Fishing Creek	Intermittent	NA	Not crossed by centerline	B, C	Warmwater	
29.6	swzg015	UNT to South Fork Fishing Creek	Intermittent	6	1) Dam and Pump 2) Flume	B, C	Warmwater	
29.8	swzg018	South Fork Fishing Creek	Perennial	47	Dam and Pump	B1, C	Warmwater	
30.1		South Fork Fishing Creek	Perennial	52	Dam and Pump	B1, C	Warmwater	
30.9	swzg019	Richwood Run	Perennial	33	Dam and Pump	B1, C	Warmwater	
31.8	swzg021	Upper Run	Perennial	32	Dam and Pump	B1, C	Warmwater	
32.2	swzg022	UNT to Upper Run	Perennial	18	Dam and Pump	B, C	Warmwater	
33.2	swzg023	Lower Run	Perennial	27	1) Dam and Pump 2) Flume	B1, C	Warmwater	
33.4	swzg009	UNT to Lower Run	Perennial	15	Dam and Pump	B, C	Warmwater	
33.5	swzg006	UNT to Lower Run	Intermittent	NA	Not crossed by centerline	B, C	Warmwater	
33.5	owzg001	Unnamed Pond	Perennial	NA	Not crossed by centerline	--	--	
33.5	swzg005	UNT to Lower Run	Perennial	NA	Not crossed by centerline	B, C	Warmwater	
33.5	swzg006	UNT to Lower Run	Perennial	NA	Not crossed by centerline	B, C	Warmwater	

TABLE 2A-2 (cont'd)

Waterbodies Crossed and Crossing Methods for the Supply Header Project

State/Facility/ Milepost	Feature ID [a]	Waterbody Name [b]	Flow Regime	Crossing		Special Designations		
				Approximate Crossing Width (Feet)[a]	Method [c]	State Water Quality Classifications [d]	Fishery Type [e]	Time Restriction[f]
PENNSYLVANIA								
TL-636								
0.2	swmh001	UNT to Turtle Creek	Perennial	4	1) Dam and Pump 2) Flume		TSF	March 1 – June 15
0.6	swmh003	UNT to Turtle Creek	Perennial	3	1) Dam and Pump 2) Flume		TSF	March 1 – June 15
1.2	swmh004	UNT to Kemerer Hollow	Perennial	2	1) Dam and Pump 2) Flume	HQ	CWF	
1.3	swmh005	Kemerer Hollow	Perennial	5	1) Dam and Pump 2) Flume	HQ	CWF	
1.7	swmh012	UNT to Kemerer Hollow	Perennial	6	1) Dam and Pump 2) Flume	HQ	CWF	
1.9	swmh013	UNT to Kemerer Hollow	Perennial	5	1) Dam and Pump 2) Flume	HQ	CWF	
2.5	swmh006	UNT to Steels Run	Perennial	4	1) Dam and Pump 2) Flume	HQ	CWF	
2.6	swmh007	Steels Run	Perennial	7	1) Dam and Pump 2) Flume	HQ	CWF	
2.9	swmh014	UNT to Steels Run	Perennial	5	1) Dam and Pump 2) Flume	HQ	CWF	
3.6	swmh015	UNT to Haymakers Run	Perennial	6	1) Dam and Pump 2) Flume	HQ	CWF	
3.8	swmh011	UNT to Haymakers Run	Perennial	3	1) Dam and Pump 2) Flume	HQ	CWF	
Aboveground Facilities								
WEST VIRGINIA								
Mockingbird Hill Compressor Station								
33.6	swzg009	UNT to Lower Run	Perennial	15	--	B, C	Warmwater	
33.6	swzg006	UNT to Lower Run	Intermittent	10	--	B, C	Warmwater	
33.6	owzg001	Unnamed Pond	Perennial	NA	--	--	--	
33.6	swzg005	UNT to Lower Run	Perennial	6	--	B, C	Warmwater	
33.6	swzg007	UNT to Lower Run	Perennial	6	--	B, C	Warmwater	
PENNSYLVANIA								
JB Tonkin Compressor Station								
3.9	swmh011	UNT to Haymakers Run	Perennial	3	--	HQ	CWF	
3.9	swmh010	Haymakers Run	Perennial	9	--	HQ	CWF	
3.9	swmh009	UNT to Haymakers Run	Perennial	8	--	HQ	CWF	
Access Roads								
WEST VIRGINIA								
TL-635								
0.8	sdog002	UNT to Dry Fork	Intermittent	2	--	B1, C	Warmwater	

TABLE 2A-2 (cont'd)

Waterbodies Crossed and Crossing Methods for the Supply Header Project

State/Facility/ Milepost	Feature ID [a]	Waterbody Name [b]	Flow Regime	Crossing		Special Designations		
				Approximate Crossing Width (Feet)[a]	Method [c]	State Water Quality Classifications [d]	Fishery Type [e]	Time Restriction[f]
0.9	sdoj009	Dry Fork	Perennial	6	--	B1, C	Warmwater	
0.9	sdoj010	UNT to Dry Fork	Perennial	4	--	B1, C	Warmwater	
2.9	sdog016	UNT to Johnson Fork	Perennial	4	--	B1, C	Warmwater	
5.0	sdoj008	Indian Fork	Perennial	20	--	B,C	TBD	
5.1	sdoj007	Indian Fork	Perennial	6	--	B,C	TBD	
5.4	nhd_wv_151	Indian Fork	Perennial	12	--	B,C	TBD	
5.4	nhd_wv_150	Buckeye Creek	Perennial	21	--	B1, C	Warmwater	
7.8	sdoj005	Buffalo Calf Fork	Perennial	10	--	B1, C	Warmwater	
7.9	sdoj004	UNT to Buffalo Calf Fork	Perennial	4	--	B1, C	Warmwater	
9.4	sdoj003	UNT to Long Run	Perennial	44	--	B1, C	Warmwater	
11.2	sdoj002	UNT to Buckeye Run	Perennial	0	--	B1, C	Warmwater	
11.7	sdoj001	UNT to Buckeye Run	Intermittent	5	--	B1, C	Warmwater	
13.5	sdoh019	UNT to Flint Run	Perennial	4	--	B1, C	Warmwater	
14.1	sdoh020	UNT to Righthand Fork	Perennial	4	--	B, C	TBD	
14.1	sdog007	UNT to Righthand Fork East Run	Perennial	19	--	B, C	TBD	
14.2	sdoh021	UNT to Big Battle Run	Perennial	6	--	B, C	TBD	
14.2	sdog029	UNT to Righthand Fork East Run	Intermittent	3	--	B, C	TBD	
15.5	sdoh022	Big Battle Run	Perennial	18	--	B, C	TBD	
15.8	sdoh008	UNT to Big Battle Run	Perennial	16	--	B, C	TBD	
15.8	sdog030	UNT to Big Battle Run	Intermittent	4	--	B, C	TBD	
16.3	sdoh023	Big Battle Run	Perennial	32	--	B, C	TBD	
16.3	sdoh024	UNT to Big Battle Run	Perennial	5	--	B, C	TBD	
17.8	sdoh017	Little Battle Run	Perennial	19	--	B1, C	Warmwater	
17.8	sdoh010	Little Battle Run	Perennial	6	--	B1, C	Warmwater	
18.5	sdoh012	McElroy Creek	Perennial	37	--	B1, C	Warmwater	
19.0	sdoh016	Franks Run	Perennial	10	--	B1, C	Warmwater	
19.5	sdoh015	UNT to Talkington Fork	Perennial	8	--	TBD	TBD	
21.9	sdoh013	UNT to Broad Run	Intermittent	5	--	TBD	TBD	
24.8	swzh025	UNT to Buffalo Run	Perennial	17	--	B, C	Warmwater	
24.8	swzh023	UNT to Buffalo Run	Perennial	10	--	B, C	Warmwater	

TABLE 2A-2 (cont'd)

Waterbodies Crossed and Crossing Methods for the Supply Header Project

State/Facility/ Milepost	Feature ID [a]	Waterbody Name [b]	Flow Regime	Crossing		Special Designations		
				Approximate Crossing Width (Feet)[a]	Method [c]	State Water Quality Classifications [d]	Fishery Type [e]	Time Restriction[f]
24.8	swzh022	UNT to Buffalo Run	Perennial	3	--	B, C	Warmwater	
24.8	swzh026	UNT to Buffalo Run	Perennial	3	--	B, C	Warmwater	
24.8	swzh023	UNT to Buffalo Run	Perennial	19	--	B, C	Warmwater	
25.4	swzg025	UNT to Buffalo Run	Perennial	5	--	B, C	Warmwater	
25.4	swzg026	UNT to Buffalo Run	Perennial	24	--	B, C	Warmwater	
25.4	swzh019	UNT to Arches Fork	Perennial	17	--	TBD	TBD	
25.4	swzh021	Arches Fork	Perennial	29	--	TBD	TBD	
25.4	swzh017	UNT to Arches Fork	Perennial	3	--	TBD	TBD	
25.4	swzh018	UNT to Arches Fork	Intermittent	4	--	TBD	TBD	
25.4	swzh020	UNT to Arches Fork	Perennial	8	--	TBD	TBD	
25.4	swzh014	UNT to Arches Fork	Perennial	10	--	B, C	Warmwater	
25.4	swzh012	UNT to Buffalo Run	Intermittent	63	--	B, C	Warmwater	
25.5	swzh010	UNT to Buffalo Run	Perennial	15	--	B, C	Warmwater	
25.6	swzh008	UNT to Buffalo Run	Intermittent	4	--	B, C	TBD	
25.6	swzh009	UNT to Buffalo Run	Intermittent	2	--	B, C	TBD	
25.7	swzh002	UNT to Buffalo Run	Perennial	12	--	B, C	Warmwater	
25.9	swzh013	UNT to Buffalo Run	Intermittent	83	--			
25.9	swzh016	UNT to Arches Fork	Perennial	8	--	B, C	Warmwater	
26.2	swzh004	UNT to Buffalo Run	Perennial	6	--	B, C	Warmwater	
26.2	swzh003	UNT to Buffalo Run	Perennial	54	--	B, C	Warmwater	
26.2	swzh005	UNT to Buffalo Run	Perennial	4	--	B, C	Warmwater	
26.2	swzh006	UNT to Buffalo Run	Intermittent	3	--	B, C	Warmwater	
26.2	swzh007	UNT to Buffalo Run	Intermittent	2	--	B, C	Warmwater	
29.0	swzh001	UNT to Buffalo Run	Intermittent	21	--	B, C	TBD	
29.5	swzh027	UNT to South Fork Fishing Creek	Perennial	4	--	B, C	Warmwater	
29.7	swzg016	UNT to South Fork Fishing Creek	Intermittent	4	--	B, C	Warmwater	
29.7	swzg017	UNT to South Fork Fishing Creek	Perennial	5	--	B1, C	Warmwater	
30.9	swzg019	Richwood Run	Perennial	48	--	B1, C	Warmwater	
33.2	swzg023	Lower Run	Perennial	73	--	B1, C	Warmwater	

TABLE 2A-2 (cont'd)

Waterbodies Crossed and Crossing Methods for the Supply Header Project

State/Facility/ Milepost	Feature ID [a]	Waterbody Name [b]	Flow Regime	Crossing		Special Designations		
				Approximate Crossing Width (Feet)[a]	Method [c]	State Water Quality Classifications [d]	Fishery Type [e]	Time Restriction[f]
33.4	swzg008	Lower Run	Perennial	20	--	B, C	Warmwater	
33.4	swzg010	UNT to Lower Run	Perennial	6	--	B1, C	TBD	
33.5	swzg003	South Fork Fishing Creek	Perennial	87	--	B1, C	Warmwater	
33.5	swzg007	UNT to Lower Run	Perennial	7	--	B, C	TBD	
PENNSYLVANIA								
TL-636								
0.0	nhd_pa_019	UNT to Turtle Creek	Intermittent	9	--		TSF	March 1 – June 15
0.2	swmh001	UNT to Turtle Creek	Perennial	13	--		TSF	March 1 – June 15
1.2	swmh004	UNT to Kemerer Hollow	Perennial	4	--	HQ	CWF	
1.4	swmh005	Kemerer Hollow	Perennial	4	--	HQ	CWF	
2.6	swmh007	Steels Run	Perennial	6	--	HQ	CWF	
2.7	swmh008	UNT to Steels Run	Perennial	2	--	HQ	CWF	
3.9	swmh010	Haymakers Run	Perennial	9	--	HQ	CWF	

[a] Waterbodies with a Feature ID starting with nhd represent waterbodies that are based on desktop data from the National Hydrography Dataset, and widths have been assumed as 10 feet wide for perennial and 5 feet wide for intermittent waterbodies in this dataset. N/A for Approximate Crossing Width indicates that the proposed route centerline does not cross the waterbody.

[b] UNT = Unnamed tributary

[c] TBD = to be determined by engineering and will be inserted at a later date. The bore method is associated with a road crossing

[d] TBD = Consultation Needed – indicates that further consultation with State/Commonwealth resource management agencies is necessary to determine classifications for streams where there are not readily available GIS data or other water classification data.

Abbreviations for State/Commonwealth waterbody classifications are listed by state below:

West Virginia Stream Water Use Categories:

Category B - Propagation and Maintenance of Fish and Other Aquatic Life; Category C - Water Contact Recreation (Category C); Category A - Public Water; Category B1 - Warmwater Fishery; Category

B2 - Trout Waters; Category B4 – Wetlands; Category D - Agricultural and Wildlife Uses; Category D1 –Irrigation; Category D2 - Livestock; Category D3 - Wildlife; Category E - Water Supply Industrial,

Water Transport, Cooling and Power; Category E1 - Water Transport; Category E2 - Cooling Water; Category E3 -Power Production; Category E4 - Industrial.

State Water Quality Classifications were determined using West Virginia Code of State Regulations, Title 47, Series 2 and communication with West Virginia Department of Environmental Protection (WVDEP)

staff (Peterson, 2015). WVDEP considers all waters of the state Category A, B, and C waters. Waterbodies are assumed to be capable of supporting public water use. Those waterbodies listed in the table as

Category A waters are waterbodies listed in appendices to West Virginia CSR, Title 47.

TABLE 2A-2 (cont'd)

Waterbodies Crossed and Crossing Methods for the Supply Header Project

State/Facility/ Milepost	Feature ID [a]	Waterbody Name [b]	Flow Regime	Crossing: Approximate Crossing Width (Feet)[a]	Crossing: Method [c]	Special Designations: State Water Quality Classifications [d]	Special Designations: Fishery Type [e]	Special Designations: Time Restriction[f]

Pennsylvania State Water Quality Classifications:

HQ = High quality water

CWF = Coldwater fishery

TSF = Trout Stocking

[e] Fisheries type is based on readily available data from agency consultation letters or online data. Additional consultation with state and federal agencies will be on-going to further refine these waterbody designations.

[f] Timing restrictions are based on readily available data from agency consultation letters or online data. Additional consultations with state and federal agencies, as well as field survey data for protected species will be necessary to further refine timing restrictions. The Pennsylvania Fish and Boat Commission (PFBC) states that construction windows for protected stocked streams occur from March 1 to June 15 unless a waiver is granted by the PFBC.

Sources:

Pennsylvania Code. 1971. *Chapter 93 Water Quality Standards.* Available online at: http://www.pacode.com/secure/data/025/chapter93/chap93toc.html. Accessed December 2014.

Pennsylvania Department of Environmental Protection. 2013. *Streams Chapter 93 Designated Use.* GIS layer available at: http://www.pasda.psu.edu/uci/SearchResults.aspx?originator=Pennsylvania%20Department%20of%20Environmental%20Protection&Keyword=&searchType=originator&entry=PASDA&sessionID=16187590420153320436. Accessed February 2015.

Pennsylvania Fish and Boat Commission. 2014. Program Activities that Contribute to the Protection, Conservation, and Management of our Commonwealth's Coldwater Resources. Available online at: http://fishandboat.com/pafish/trout/trout_plan/des_programs.pdf Access April 2015.

West Virginia Code of State Regulations. 2014. *Title 47 Legislative Rule: Series 2, Requirements Governing Water Quality Standards.* Available online at: http://www.dep.wv.gov/WWE/Programs/wqs/Documents/Rule%20Approved%20Letter%20and%20Rule%20Itself%202014/WVDEP_WQS_2014Tri-Review_FinalRule47CSR2_June_2014.pdf Accessed November 2014.

TABLE 2A-3

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
AP-1 MAINLINE								
56.4	srab124	UNT to Tygart River	Perennial	31	1) Flume 2) Dam and Pump	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
56.4	srab128	UNT to Tygart River	Intermittent	5	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
56.4	srab125	UNT to Tygart River	Perennial	94	1) Flume 2) Dam and Pump	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
56.5	srab126	Tygart River	Perennial	88	1) Cofferdam 2)Flume	A, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
56.7	srab127	UNT to Tygart River	Perennial	4	1) Dam and Pump	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
57.5	nhd_wv_012	UNT to Tygart River	Intermittent	5	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
57.9	srab116	UNT to Becky Creek	Intermittent	5	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
58.5	srab117	UNT to Becky Creek	Intermittent	3	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
58.7	srab118	UNT to Becky Creek	Intermittent	2	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
59.0	srab119	Dry Run	Perennial	6	1) Dam and Pump	B1, C	Warmwater	April 1 through June 30
60.3	srab121	Big Branch	Perennial	16	1) Dam and Pump 2) Flume	B1, C	Warmwater	April 1 through June 30
60.3	srab120a	Becky Creek	Perennial	22	1) Flume 2) Dam and Pump	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
60.5	srab122	UNT to Becky Creek	Ephemeral	3	1) Dam and Pump	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
60.6	srab120c	Becky Creek	Perennial	32	1) Dam and Pump 2) Flume	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
60.6	srab123	UNT to Becky Creek	Perennial	3	1) Dam and Pump 2) Flume	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
62.7	srab050	UNT to Peters Run	Ephemeral	N/A	N/A	UNT to B1	Warmwater	April 1 through June 30

TABLE 2A-3 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
63.8	sraa051	UNT to Lambert Run	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.2	srab052	UNT to Lambert Run	Intermittent	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
64.2	sraa054	UNT to Shavers Fork	Intermittent	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
64.5	sraa055	UNT to Lambert Run	Perennial	N/A	N/A	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.5	srab053	UNT to Lambert Run	Intermittent	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
64.7	srab054	UNT to Lambert Run	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.7	srab055	UNT to Lambert Run	Perennial	4	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.8	sraa056	UNT to Lambert Run	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.9	sraa057	UNT to Lambert Run	Perennial	N/A	N/A	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
64.9	srab057	UNT to Lambert Run	Perennial	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.4	srab058	UNT to Shavers Fork	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.4	srab059	UNT to Shavers Fork	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.5	srac051	UNT to Shavers Fork	Perennial	4	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.6	srab060	UNT to Shavers Fork	Perennial	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.7	srab063	UNT to Shavers Fork	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
65.7	srab062	UNT to Shavers Fork	Ephemeral	N/A	N/A	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
65.7	srab064	UNT to Shavers Fork	Perennial	N/A	N/A	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1

TABLE 2A-3 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
65.8	srab065	UNT to Shavers Fork	Perennial	7	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
66.5	srab066	UNT to Shavers Fork	Perennial	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
66.5	srab067	UNT to Shavers Fork	Intermittent	4	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
66.6	sraa057	UNT to Lambert Run	Perennial	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
66.7	srac053	UNT to Shavers Fork	Intermittent	N/A	N/A	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
67.5	srac055e	UNT to Shavers Fork	Ephemeral	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
67.8	srac057	UNT to Shavers Fork	Intermittent	4	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
67.9	srac059	Shavers Fork	Perennial	103	1) Cofferdam	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
68.0	orac002	Unnamed Pond	Pond	N/A	N/A	N/A	N/A	
69.5	srac064	UNT to Blister Run	Intermittent	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
69.5	srac063	UNT to Blister Run	Intermittent	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
69.6	srac062	UNT to Blister Run	Ephemeral	5	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
69.6	srac061	UNT to Blister Run	Ephemeral	3	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
69.6	srac060	UNT to Blister Run	Intermittent	6	1) Dam and Pump	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
70.2	spoa019	UNT to West Fork Greenbrier	Ephemeral	N/A	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
70.4	spoa018	UNT to West Fork Greenbrier River	Intermittent	N/A	N/A	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed
70.5	spoc030	UNT to Blister Run	Perennial	10	1) Dam and Pump 2) Flume	UNT to HQS	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1

TABLE 2A-3 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
71.4	spob005	West Fork Greenbrier River	Perennial	54	1) Cofferdam	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
72.2	spoc004	UNT to Mountain Lick	Intermittent	4	1) Dam and Pump 2) Flume	UNT to HQS/B2	UNT to HQS	Spawning Season Waiver Needed
72.2	spoc003	Mountain Lick Creek	Perennial	22	1) Flume 2) Dam and Pump	HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
73.2	spoc010	UNT to Mountain Lick Creek	Perennial	17	1) Flume 2) Dam and Pump	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
74.8	spob010	John's Run	Perennial	53	1) Flume 2) Dam and Pump	B2, C, HQS, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
75.2	spob008	UNT to John's Run	Intermittent	N/A	N/A	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
75.2	spoc007	UNT to John's Run	Perennial	22	1) Dam and Pump 2) Flume	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
75.5	spob007	UNT to John's Run	Intermittent	7	1) Dam and Pump 2) Flume	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
76.6	spoc009	UNT to East Fork Greenbriar River	Perennial	14	1) Dam and Pump 2) Flume	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
76.6	spoc009	UNT to East Fork Greenbriar River	Perennial	12	1) Dam and Pump 2) Flume	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed/October 1 to June 1
77.1	spob001	East Fork Greenbrier	Perennial	60	1) Cofferdam	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
79.2	spoc006	Little River	Perennial	20	1) Dam and Pump 2) Flume	B2, HQS, C, Tier 3	High Quality Stream	Spawning Season Waiver Needed/October 1 to June 1
80.4	spob006	Old House Run	Perennial	18	1) Dam and Pump 2) Flume	B2, C	Coldwater	September 15 through March 31/October 1 to June 1
82.4	spoa001	UNT to Little River	Intermittent	N/A	N/A	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed
82.8	spoc011	UNT to Little River	Intermittent	7	1) Dam and Pump	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed
82.8	spoc012	UNT to Little River	Intermittent	N/A	N/A	UNT to HQS/B2, C	UNT to HQS	Spawning Season Waiver Needed
ACCESS ROADS								

TABLE 2A-3 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
55.7	nhd_wv_008	UNT to Tygart Valley River	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	Coldwater	
55.7	nhd_wv_008	UNT to Tygart Valley River	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	Coldwater	
55.7	nhd_wv_009	UNT to Tygart Valley River	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	Coldwater	
55.7	nhd_wv_009	UNT to Tygart Valley River	Intermittent	407	N/A	UNT to HQS, C	Coldwater	
56.1	nhd_wv_010	UNT to Tygart Valley River	Perennial	12	N/A	UNT to HQS, C	Coldwater	
57.9	sraa004	UNT to Becky Creek	Intermittent	9	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
57.9	oraa001	UNT to Becky Creek	Pond	17	N/A	N/A	UNT to HQS	Spawning Season Waiver Needed
62.3	sraa059	UNT to Big Branch	Ephemeral	Within Access Road Corridor but Not Crossed	N/A	UNT to B1, C	Warmwater	
62.3	sraa058	UNT to Big Branch	Intermittent	6	N/A	UNT to B1, C	Warmwater	
62.3	sraa060	UNT to Lambert Run	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to B2, HQS	UNT to HQS	Spawning Season Waiver Needed
67.7	srac066	UNT to Shavers Fork	Perennial	8	N/A	UNT to B2, HQS	UNT to HQS	Spawning Season Waiver Needed
67.7	srac065	UNT to Shavers Fork	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to B2, HQS	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-3 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
67.7	srac058	UNT to Shavers Fork	Intermittent	7	N/A	UNT to B2, HQS	UNT to HQS	Spawning Season Waiver Needed
70.8	spoa020	UNT to West Fork Greenbrier	Intermittent	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
72.3	spoa009	UNT to Mountain Lick Creek	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
72.3	spoa008	UNT to Mountain Lick Creek	Intermittent	6	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.1	spoa010	UNT to Mountain Lick Creek	Perennial	26	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.1	spoa014	UNT to Mountain Lick Creek	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.2	spoc023	UNT to West Fork Greenbriar River	Perennial	23	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.2	spoc024	UNT to West Fork Greenbriar River	Intermittent	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.2	spoc025	UNT to West Fork Greenbriar River	Ephemeral	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.2	spoc022	UNT to West Fork Greenbriar River	Ephemeral	2	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.4	spoc021	UNT to West Fork Greenbrier River	Perennial	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.9	nhd_wv_a_013	Mountain Lick Creek	Perennial	10	N/A	HQS, C	High Quality Stream	September 15 through March 31
73.9	spoa011	UNT to Mountain Lick Creek	Intermittent	13	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.9	spoa012	UNT to Mountain Lick Creek	Perennial	36	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
73.9	spoa013	UNT to Mountain Lick Creek	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-3 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
73.9	spoa013	UNT to Mountain Lick Creek	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
75.3	spoc026	UNT to John's Run	Intermittent	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
75.4	spoc027	UNT to John's Run	Intermittent	7	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
75.4	spoc028	UNT to John's Run	Intermittent	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
75.6	spoc029	UNT to John's Run	Perennial	9	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
77.9	spoc018	UNT to East Fork Greenbriar River	Intermittent	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.1	spoa007	UNT to Little River	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.1	spoc017	UNT to Little River	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.2	spoa006	UNT to Little River	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.2	nhd_wv_a_008	UNT to Little River	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.7	spoc019	UNT to Little River	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.8	spoc020	UNT to Little River	Ephemeral	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.8	spoc015	UNT to Little River	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.8	spoc016	UNT to Little River	Intermittent	14	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.9	spoa004	UNT to Little River	Ephemeral	3	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.9	spoc014	UNT to Little River	Intermittent	6	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed

TABLE 2A-3 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
78.9	spoa002	UNT to Little River	Intermittent	12	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.9	spoa005	UNT to Little River	Ephemeral	4	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
78.9	spob003	UNT to Little River	Perennial	9	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.0	spoc013	UNT to Little River	Intermittent	6	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.0	spoc001	UNT to Little River	Intermittent	11	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.1	spoc002	UNT to Little River	Ephemeral	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.1	spob002	UNT to Little River	Intermittent	6	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.6	nhd_wv_a_012	UNT to Little River	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
79.8	nhd_wv_a_006	UNT to Buffalo Fork	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
81.7	nhd_wv_a_001	Big Run	Perennial	1	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
82.2	nhd_wv_a_003	Buffalo Fork	Intermittent	5	N/A	B2, C	Coldwater	
82.2	nhd_wv_a_020	UNT to Little River	Intermittent	5	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
82.2	nhd_wv_a_021	UNT to Little River	Intermittent	Within Access Road Corridor but Not Crossed	N/A	UNT to HQS, C	UNT to HQS	Spawning Season Waiver Needed
82.2	spoa015	UNT to Buffalo Fork	Intermittent	2	N/A	UNT to B2, C	Coldwater	
82.2	spoa016	UNT to Buffalo Fork	Perennial	6	N/A	UNT to B2, C	Coldwater	

TABLE 2A-3 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the Monongahela National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]

[a] N/A for Approximate Crossing Width indicates that the proposed route centerline does not cross the waterbody. Waterbodies with a Feature ID starting with nhd represent waterbodies that are based on desktop data from the National Hydrography Dataset, and widths have been assumed as 10 feet wide for perennial and 5 feet wide for intermittent waterbodies in this dataset.

[b] N/A indicates construction method is not applicable for access roads.

[C] Abbreviations for West Virginia State Water Quality Classifications are listed below:

Antidegradation Classes:

Tier 3 - Outstanding national resource waters that have been placed on the highest tier of the state classification; including waters that are in federally-designated Wilderness Areas, waters with naturally reproducing trout in state parks, national parks, and national forests.

West Virginia Stream Water Use Categories:

Category A - Public Water; Category B - Propagation and Maintenance of Fish and Other Aquatic Life; Category B1 - Warm Water Fishery; Category B2 - Trout Waters; Category B4 – Wetlands; Category C - Water Contact Recreation (Category C); Category D - Agricultural and Wildlife Uses; Category D1 –Irrigation; Category D2 - Livestock; Category D3 - Wildlife; Category E - Water Supply Industrial, Water Transport, Cooling and Power ; Category E1 - Water Transport; Category E2 - Cooling Water; Category E3 -Power Production; Category E4 - Industrial (West Virginia CSR, 2014).

State Water Quality Classifications were determined using West Virginia Code of State Regulations, Title 47, Series 2 and communication with West Virginia Department of Environmental Protection (WVDEP) staff (Peterson, 2015). WVDEP considers all waters of the state Category A, B, and C waters. Waterbodies are assumed to be capable of supporting public water use. Those waterbodies listed in the table as Category A waters are waterbodies listed in appendices to West Virginia CSR, Title 47.

High Quality Streams (HQS) are based on the Sixth Edition of the West Virginia High Quality Streams prepared by the Wildlife Resources Section of the West Virginia Division of Natural Resources.

State regulations require the classification to extend into adjacent tributaries, indicated by UNT (unnamed tributary) to [Stream Class] to indicate connected tributaries to classified waters.

Spawning Season Waiver – coordination with the West Virginia Division of Natural Resources will be required to acquire a Stream Activity Permit, and a spawning season waiver may be required for these streams depending on the timing of work within each stream.

[d] Fisheries type is based on readily available data from agency consultation letters or online data. Additional consultation with state and federal agencies will be on-going to further refine these waterbody designations.

[e] Timing restrictions are based on readily available data from agency consultation letters or online data. Additional consultations with state and federal agencies, as well as field survey data for protected species will be necessary to further refine timing restrictions.

TABLE 2A-4

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the George Washington National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
AP-1 MAINLINE								
108.6	shic002	UNT to Shaws Fork	Perennial	11	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
108.7	shic001	UNT to Shaws Fork	Perennial	18	1) Flume 2) Dam and Pump	UNT to Aquatic Life, V-VI		
111.2	sauc001	Hodges Draft	Perennial	10	1) Flume 2) Dam and Pump	Aquatic Life, I-IV	Coldwater	October 1 through March 31
115.8	saub108	Barn Lick Branch	Perennial	N/A	N/A	Unclassified		
117.1	sauc002	Dowell's Draft	Perennial	10	1) Flume 2) Dam and Pump	Unclassified		
117.2	sauc004	UNT to Dowell's Draft	Perennial	9	1) Dam and Pump	Unclassified		
117.7	sauc005	UNT to Dowell's Draft	Intermittent	7	1) Dam and Pump	Unclassified		
120.2	sauc007	UNT to White Oak Draft	Ephemeral	2	1) Dam and Pump 2) Flume	UNT to Aquatic Life, I-IV	Coldwater	
120.2	sauc006	White Oak Draft	Perennial	25	1) Dam and Pump	Aquatic Life, I-IV	Coldwater	October 1 through March 31
120.4	sauc008	UNT to White Oak Draft	Perennial	29	1) Flume 2) Dam and Pump	UNT to Aquatic Life, I-IV	Coldwater	
120.6	sauc009	UNT to White Oak Draft	Intermittent	N/A	N/A	UNT to Aquatic Life, I-IV	Coldwater	
121.1	nhd_va_030	Stoutameyer Branch	Perennial	9	1) Dam and Pump 2) Flume	Aquatic Life I-IV	Coldwater	October 1 through March 31
122.5	sauc010	UNT to Jennings Branch	Intermittent	3	1) Dam and Pump	UNT to Aquatic Life	Coldwater	
122.8	sauc011	UNT to Jennings Branch	Perennial	6	1) Dam and Pump 2) Flume	UNT to Aquatic Life	Coldwater	
123.0	sauc012	UNT to Jennings Branch	Intermittent	3	1) Dam and Pump 2) Flume	UNT to Aquatic Life	Coldwater	
154.4	nhd_va_333	UNT to Back Creek	Intermittent	8	1) Dam and Pump	UNT to Aquatic Life, V-VI		
154.8	nhd_va_388	UNT to Back Creek	Intermittent	5	1) Dam and Pump	UNT to Aquatic Life, V-VI		

TABLE 2A-4 (cont'd)

Waterbodies Crossed and Crossing Methods for the Atlantic Coast Pipeline in the George Washington National Forest

State/ Facility/ Milepost	Waterbody			Crossing		Special Designations		
	Feature ID	Waterbody Name	Flow Regime	Approximate Crossing Width (feet)[a]	Method [b]	State Water Quality Classification [c]	Fishery [d] Type	Time Restrictions [e]
ACCESS ROADS								
107.7	shic008	UNT to Shrews Fork	Intermittent	6	N/A	UNT to Aquatic Life, V-VI		
108.1	shic007	UNT to Shrews Fork	Intermittent	4	N/A	UNT to Aquatic Life, V-VI		
108.6	shic006	UNT to Shaws Fork	Ephemeral	1	N/A	UNT to Aquatic Life, V-VI		
108.7	shic005	UNT to Shaws Fork	Ephemeral	2	N/A	UNT to Aquatic Life, V-VI		
109.0	shic004	UNT to Shaws Fork	Intermittent	10	N/A	UNT to Aquatic Life, V-VI		
111.2	nhd_va_a_048	UNT to Shaws Fork	Perennial	12	N/A	UNT to Aquatic Life, V-VI		
111.2	nhd_va_a_036	UNT to Calfpasture River	Perennial	10	N/A	UNT to Aquatic Life		
111.4	nhd_va_a_032	UNT to Calfpasture River	Perennial	11	N/A	UNT to Aquatic Life		
111.6	nhd_va_a_051	UNT to Calfpasture River	Intermittent	7	N/A	UNT to Aquatic Life		
117.3	saub110	East Branch Dowells Draft	Perennial	10	N/A	Unclassified		
120.2	saub111	UNT to Jennings Branch	Perennial	25	N/A	UNT to Aquatic Life	Coldwater	
120.2	saub113	UNT to Jennings Branch	Perennial	364	N/A	UNT to Aquatic Life	Coldwater	
120.3	saub112	UNT to Jennings Branch	Ephemeral	1	N/A	UNT to Aquatic Life	Coldwater	

[a] N/A for Approximate Crossing Width indicates that the proposed route centerline does not cross the waterbody. Waterbodies with a Feature ID starting with nhd represent waterbodies that are based on desktop data from the National Hydrography Dataset, and widths have been assumed as 10 feet wide for perennial and 5 feet wide for intermittent waterbodies in this dataset.

[b] N/A indicates construction method is not applicable for access roads.

[C] Abbreviations for Virginia State Water Quality Classifications are listed below:

Virginia Trout Waters Classes:

Classes I, II, III, IV are wild natural trout streams ranking from highest to lowest quality

Classes V, VI, VII, VIII are stockable trout streams ranking from highest to lowest quality

State Water Quality Classifications were determined using Virginia Department of Environmental Quality GIS dataset, 2012 Integrated WQ Report Rivers, January 27, 2014 available for download from the Virginia Environmental Geographic Information System (VEGIS) website at: http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS/VEGISDatasets.aspx. State regulations require the classification to extend into adjacent tributaries, indicated by UNT (unnamed tributary) to [Stream Class] to indicate connected tributaries to classified waters.

Unclassified – waters that do not have an assigned classification, or are not unnamed tributaries to classified waters.

[d] Fisheries type is based on readily available data from agency consultation letters or online data. Additional consultation with state and federal agencies will be on-going to further refine these waterbody designations.

[e] Timing restrictions are based on readily available data from agency consultation letters or online data. Additional consultations with state and federal agencies, as well as field survey data for protected species will be necessary to further refine timing restrictions.

ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE

and

DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT

Resource Report 2
Water Use and Quality

APPENDIX 2B
Impaired Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

TABLE 2B

Impaired Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/County/ City and State [a]	Milepost	Waterbody Name	Proposed Crossing Method [b]	Impairment Cause
ATLANTIC COAST PIPELINE				
AP-1				
Harrison County, WV	1.1	Kincheloe Creek	Dam and Pump/Flume	Iron and Fecal Coliform
Lewis County, WV	8.2	West Fork River	Cofferdam	Conditions Not Allowable (CNA)-Biological and Fecal Coliform
Lewis County, WV	12.6	West Run	Dam and Pump	CNA-Biological and Fecal Coliform
Lewis County, WV	14.3	Lifes Run	Flume/Dam and Pump	Fecal Coliform
Lewis County, WV	18.1	Laurel Lick	Flume/Dam and Pump	Iron and Fecal Coliform
Lewis County, WV	20.3	Buckhannon Run	Dam and Pump	Iron and Fecal Coliform
Upshur County, WV	29.1	Cutright Creek	Dam and Pump/Flume	pH
Upshur County, WV	31.1	French Creek	Cofferdam	Iron
Upshur County, WV	36.8	Laurel Run	Dam and Pump/Flume	CNA-Biological
Upshur County, WV	41.3	Right Fork Middle Fork River	Flume/Cofferdam	Iron
Randolph County, WV	50.2	Birch Fork	Flume/Dam and Pump	pH
Randolph County, WV	52.0	Kittle Creek	Flume/Dam and Pump	pH
Randolph County, WV	56.4	Tygart Valley River	Flume/Dam and Pump	Fecal Coliform
Randolph County, WV	56.4	Tygart Valley River	Flume/Dam and Pump	Fecal Coliform
Randolph County, WV	56.5	Tygart Valley River	Cofferdam/Flume	Fecal Coliform
Randolph County, WV	67.9	Shavers Fork	Cofferdam	pH
AP-1				
Highland County, VA	87.2	Back Creek	Dam and Pump/Flume	Escherichia Coli (E. Coli)
Highland County, VA	102.9	Bull Pasture River	Cofferdam/Dam and Pump	E. Coli and Temperature
Augusta County, VA	152.9	Mills Creek	Flume/Dam and Pump	Benthic-Macroinvertebrate Bioassessments
Augusta County, VA	153.4	Orebank Creek	Flume/Dam and Pump	pH
Augusta County, VA	153.7	Back Creek	Flume/Dam and Pump	Benthic-Macroinvertebrate Bioassessments and E. coli
Nelson County, VA	158.9	Rockfish River South Fork	Flume/Dam and Pump	E. Coli and Fecal Coliform
Nelson County, VA	163.7	Rockfish River South Fork	Flume/Dam and Pump	E. Coli and Fecal Coliform
Nelson County, VA	184.7	James River	HDD	Mercury in Fish and Polychlorinated Biphenyls (PCB) in Fish
Greensville County, VA	299.9	Fontaine Creek	Dam and Pump/Flume	E. Coli, Dissolved Oxygen, and Mercury in Fish

TABLE 2B (cont'd)

Impaired Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/County/ City and State [a]	Milepost	Waterbody Name	Proposed Crossing Method [b]	Impairment Cause
AP-3				
Greensville County, VA	12.4	Meherrin River	Cofferdam	Mercury in Fish
Southampton County, VA	17.8	Tarrara Creek	Dam and Pump/Flume	Dissolved Oxygen and E. Coli
Southampton County, VA	32.6	Nottoway River	HDD	Benthic-Macroinvertebrate Bioassessments and Mercury in Fish
Southampton County, VA	36.3	UNT to Blackwater River	Flume	Mercury in Fish
Suffolk County, VA	38.6	Blackwater River	HDD	Dissolved Oxygen and Mercury in Fish
Suffolk County, VA	39.4	UNT to Blackwater River	Dam and Pump	Mercury in Fish
Suffolk County, VA	40.1	UNT to Blackwater River	Dam and Pump	Mercury in Fish
Suffolk County, VA	41.2	UNT to Blackwater River	Dam and Pump/Flume	Mercury in Fish
Suffolk County, VA	42.3	UNT to Blackwater River	Dam and Pump/Flume	Mercury in Fish
Suffolk County, VA	44.2	UNT to Kingsale Swamp	Dam and Pump/Flume	Mercury in Fish
Suffolk County, VA	44.7	UNT to Kingsale Swamp	Dam and Pump/Flume	Mercury in Fish
AP-2				
Johnson County, NC	89.7	Moccasin Creek	Dam and Pump/Flume	Ecological/biological Integrity Benthos
SUPPLY HEADER PROJECT				
TL-635				
Wetzel County, WV	31.7	Upper Run	Dam and Pump//Dry Ditch Crossing	Fecal Coliform
Wetzel County, WV	30.9	Richwood Run	Dam and Pump/Dry Ditch Crossing	Fecal Coliform
Wetzel County, WV	30.1, 29.8, 29.4	South Fork Fishing Creek	Dam and Pump/Dry Ditch Crossing	Fecal Coliform, Iron, CNA (Conditions not allowable) Biological - Aquatic life
Doddridge County, WV	18.5	McElroy Creek	Dam and Pump/Dry Ditch Crossing	Fecal Coliform, Iron
Doddridge County, WV	12.9	Flint Run	Dam and Pump/Dry Ditch Crossing	Fecal Coliform
Doddridge County, WV	10.6	Buckeye Run	Associated with Road Bore	Fecal Coliform, Iron, CNA Biological – Aquatic Life
Doddridge County, WV	7.8	Buffalo Calf Fork	Dam and Pump/Dry Ditch Crossing	Fecal Coliform
Doddridge County, WV	5.5	Buckeye Creek	Dam and Pump/Flume	Fecal Coliform
Doddridge County, WV	2.1	Meathouse Fork	Dam and Pump	Fecal Coliform, Iron, CNA Biological – Aquatic Life
TL-636				
Westmoreland County, PA	0.2	UNT to Turtle Creek	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life
Westmoreland County, PA	0.6	UNT to Turtle Creek	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life

TABLE 2B (cont'd)

Impaired Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/County/ City and State [a]	Milepost	Waterbody Name	Proposed Crossing Method [b]	Impairment Cause
Westmoreland County, PA	1.2	UNT to Kemerer Hollow	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life
Westmoreland County, PA	1.3	Kemerer Hollow	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life
Westmoreland County, PA	1.7	UNT to Kemerer Hollow	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life
Westmoreland County, PA	1.9	UNT to Kemerer Hollow	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life
Westmoreland County, PA	2.5	UNT to Steels Run	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life
Westmoreland County, PA	2.6	Steels Run	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life
Westmoreland County, PA	2.9	UNT to Steels Run	Dam and Pump/Flume/Dry Ditch Crossing	Aquatic life

[a] North Carolina, OneMap; GeoSpatial Portal (NC OneMap). 2015b. *2012 Integrated Reporting Water Quality Assessments.* Available online at: http://data.nconemap.com/geoportal/catalog/search/resource/details.page?uuid=%7B25194871-C1CD-42AE-9D8C-0D16AF28F074%7D. Accessed February 2015.

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[b] TBD – construction methods will be determined by project engineers at a later date.

ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE

and

DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT

Resource Report 2
Water Use and Quality

APPENDIX 2C
Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

TABLE 2C

Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/County/ City and State	Waterbody Name	Milepost	Flow Type	Approximate Crossing Width (feet)	Crossing Method	Sensitive Feature of Waterbody [a]
ATLANTIC COAST PIPELINE						
AP-1						
Harrison County, WV	Kincheloe Creek	1.1	Perennial	14	Dam and Pump/Flume	High Quality Stream
Lewis County, WV	Sand Fork	1.5	Perennial	12	Dam and Pump/Flume	High Quality Stream
Lewis County, WV	West Fork River	8.2	Perennial	93	Cofferdam	Section 10/High Quality Stream
Upshur County, WV	French Creek	31.1	Perennial	40	Cofferdam	High Quality Stream/Trout Water
Upshur County, WV	Buckhannon River	31.7	Perennial	91	Cofferdam	Potential for Freshwater Mussels/NRI River/High Quality Stream
Upshur County, WV	Tenmile Creek	37.7	Perennial	17	Dam and Pump/Flume	High Quality Stream
Upshur County, WV	Tenmile Creek	39.6	Perennial	8	Dam and Pump/Flume	High Quality Stream
Upshur County, WV	Right Fork Middle River	41.3	Perennial	45	Cofferdam/Flume	Extant[b] Cheat Minnow range/Trout Waters/High Quality Stream
Randolph County, WV	Schoolcraft Run	49.2	Perennial	16	Dam and Pump/Flume	Trout Waters
Randolph County, WV	Birch Fork	50.2	Perennial	14	Dam and Pump/Flume	High Quality Stream
Randolph County, WV	Mitchell Lick Fork	51.1	Perennial	13	Dam and Pump	High Quality Stream
Randolph County, WV	Kittle Creek	52.0	Perennial	25	Dam and Pump/Flume	Trout Waters/NRI River
Randolph County, WV	Mill Creek	53.6	Perennial	10	Flume/Cofferdam	Potential (non-Federal) Freshwater Mussel Resource/High Quality Stream
Randolph County, WV	Tygart River	56.5	Perennial	88	Cofferdam/Flume	High Quality Stream/Brook Trout/Tier 3
Randolph County, WV	Becky Creek	60.3	Perennial	22	Flume/Dam and Pump	High Quality Stream/Brook Trout Water/Tier 3
Randolph County, WV	Becky Creek	60.6	Perennial	32	Dam and Pump/Flume	High Quality Stream/Brook Trout Water/Tier 3
Randolph County, WV	First Fork-Shavers Fork	62.7 to 66.3	Sub-watershed	Multiple	Multiple	Cheat Minnow present/Trout Waters/High Quality Stream
Randolph County, WV	Red-Run-Shavers Fork	66.3 to 69.7	Sub-watershed	Multiple	Multiple	Cheat Minnow present/High Quality Stream/Brook Trout Waters
Randolph County, WV	Shavers Fork	67.9	Perennial	103	Cofferdam	NRI River/Trout Water/Brook Trout Water/Tier 3/ High Quality Stream
Pocahontas County, WV	UNT to West Fork Greenbrier River	70.5	Perennial	10	Dam and Pump/Flume	Tier 3
Pocahontas County, WV	West Fork Greenbrier River	71.4	Perennial	54	Cofferdam	Historical[b] Tonguetied Minnow range/Brook Trout Water/Tier 3/High Quality Stream/NRI River
Pocahontas County, WV	West Fork Greenbrier River	69.7 to 74.0	Sub-watershed	Multiple	Multiple	Tonguetied Minnow, New River shiner, Kanawha Minnow, Candy Darter, Appalachian darter presence/High Quality Stream

TABLE 2C (cont'd)

Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/ County/City and State	Waterbody Name	Milepost	Flow Type	Approximate Crossing Width (feet)	Crossing Method	Sensitive Feature of Waterbody [a]
Pocahontas County, WV	Mountain Lick Creek	72.2	Perennial	22	Dam and Pump/Flume	Extant[b] Candy Darter range/Brook Trout Water/Tier 3/High Quality Stream
Pocahontas County, WV	Outlet East Fork Greenbrier River	74.0 to 83.1	Sub-watershed	Multiple	Multiple	Tonguetied Minnow, New River shiner, Kanawha Minnow, Candy Darter, Appalachian darter presence
Pocahontas County, WV	John's Run	74.8	Perennial	53	Dam and Pump/Flume	Brook Trout/Tier 3/High Quality Stream
Pocahontas County, WV	East Fork Greenbrier River	77.1	Perennial	60	Cofferdam	NRI River/Extant[b] Kanawha Sculpin, Candy Darter, New River Shiner, and Kanawha Minnow range/Brook Trout/Tier 3/High Quality Stream
Pocahontas County, WV	Little River	79.2	Perennial	20	Dam and Pump/Flume	Brook Trout Water/Tier 3/High Quality Stream
Pocahontas County, WV	Old House Run	80.4	Perennial	18	Dam and Pump/Flume	Trout Waters
AP-1						
Highland County, VA	Collins Run	83.5	Perennial	5	Dam and Pump	Wild brook trout
Highland County, VA	Laurel Fork	84.7	Perennial	27	Dam and Pump/Flume	Wild brook and brown trout
Highland County, VA	Back Creek	87.2	Perennial	15	Dam and Pump/Flume	NRI River
Highland County, VA	Crab Run	96.7	Perennial	28	Dam and Pump/Flume	Moderate Freshwater Mussels Habitat/Wild brook and/or rainbow trout
Highland County, VA	Crab Run	100.8	Perennial	26	Dam and Pump/Flume	Moderate Freshwater Mussels Habitat/Wild brook and/or rainbow trout
Highland County, VA	Bull Pasture River	102.9	Perennial	55	Cofferdam/Dam and Pump	Federal Freshwater Mussel Resource/ NRI River/ Moderate Freshwater Mussels Habitat/ James Spinymussel/VA T&E Waters
Highland County, VA	Cowpasture River	106.7	Perennial	20	Dam and Pump	NRI River/ Potential Federal Freshwater Mussel Resource /VA T&E Waters
Highland County, VA	Shaw's Fork	107.4	Perennial	34	Dam and Pump	Moderate Freshwater Mussels Habitat
Augusta County, VA	Hodges Draft	111.2	Perennial	10	Dam and Pump/Flume	Wild brook trout/Potential for mussels
Augusta County, VA	Ramseys Draft	114.0	Perennial	10	Dam and Pump/Flume	Moderate Freshwater Mussels Habitat/Wild brook trout
Augusta County, VA	Ramseys Draft	115.2	Perennial	11	Dam and Pump/Flume	Moderate Freshwater Mussels Habitat/Wild brook trout
Augusta County, VA	Calfpasture River	116.7	Perennial	10	Dam and Pump/Flume	Potential for Freshwater Mussels /Shiner roughhead
Augusta County, VA	White Oak Draft	120.2	Perennial	25	Dam and Pump	Wild brook trout/Potential for mussels
Augusta County, VA	Stoutameyer Branch	121.1	Perennial	9	Dam and Pump/Flume	Wild brook trout/Potential for mussels
Augusta County, VA	Jennings Branch	129.2	Perennial	54	Cofferdam/Dam and Pump	Potential for Freshwater Mussels /Wild brook trout
Augusta County, VA	Middle River	130.4	Perennial	80	Cofferdam/Dam and Pump	Potential for Freshwater Mussels
Augusta County, VA	Folly Mills Creek	139.2	Perennial	12	Dam and Pump/Flume	Potential for Freshwater Mussels
Augusta County, VA	Christian's Creek	142.5	Perennial	25	Dam and Pump/Flume	Moderate Freshwater Mussels Habitat
Augusta County, VA	South River	148.4	Perennial	35	Dam and Pump	Potential for Freshwater Mussels
Augusts County, VA	Mills Creek	152.9	Perennial	14	Dam and Pump/Flume	Wild brook trout

TABLE 2C (cont'd)

Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/ County/City and State	Waterbody Name	Milepost	Flow Type	Approximate Crossing Width (feet)	Crossing Method	Sensitive Feature of Waterbody [a]
Augusts County, VA	Mills Creek	152.9	Perennial	33	Dam and Pump/Flume	Wild brook trout
Augusts County, VA	Orebank Creek	153.4	Perennial	16	Dam and Pump/Flume	Wild brook trout
Augusts County, VA	Back Creek	153.8	Perennial	20	Dam and Pump/Flume	Potential for Freshwater Mussels
Nelson County, VA	Spruce Creek	162.4	Perennial	11	Dam and Pump/Flume	Wild brook trout
Nelson County, VA	South Fork Rockfish River	163.7	Perennial	11	Dam and Pump/Flume	Wild brook trout/ Potential for Freshwater Mussels
Nelson County, VA	Davis Creek	168.8	Perennial	10	Dam and Pump/Flume	Potential for Freshwater Mussels
Nelson County, VA	James River	184.7	Perennial	387	HDD	Anadromous Fish/NRI River/Federal Freshwater Mussel Resource/VA T&E Waters/Section 10
Buckingham County, VA	North River	194.1	Perennial	34	Dam and Pump/Flume	Suitable Freshwater Mussel Habitat
Buckingham County, VA	Slate River	197.9	Perennial	36	Dam and Pump/Flume	NRI River/Suitable Freshwater Mussel Habitat
Buckingham County, VA	Willis River	205.1	Perennial	25	Dam and Pump/Flume	NRI River/Suitable Freshwater Mussel Habitat
Buckingham County, VA	Little Willis River	209.5	Perennial	16	Dam and Pump/Flume	Suitable Freshwater Mussel Habitat
Cumberland County, VA	Appomattox River	220.8	Perennial	104	Cofferdam	NRI River/VA T & E Waters/Section 10/ Potential Freshwater Mussel Habitat
Prince Edward County, VA	Little Saylers Creek	223.2	Perennial	17	Dam and Pump/ Flume	Potential Freshwater Mussel Habitat
Nottoway County, VA	Flat Creek	229.2	Perennial	38	Dam and Pump/Flume	Potential Federal Freshwater Mussel Habitat
Nottoway County, VA	Little Creek	230.7	Perennial	10	Dam and Pump/Flume	Moderate Freshwater Mussels Habitat
Nottoway County, VA	Deep Creek	236.0	Perennial	25	Dam and Pump/Flume	NRI River/Suitable Freshwater Mussels Habitat
Nottoway County, VA	Winningham Creek	238.6	Perennial	60	Cofferdam/Dam and Pump	Suitable Freshwater Mussel Habitat
Nottoway County, VA	Woody Creek	240.6	Perennial	13	Dam and Pump/Flume	Suitable Freshwater Mussel Habitat
Nottoway County, VA	Cellar Creek	242.9	Perennial	14	Dam and Pump/Flume	Suitable Freshwater Mussel Habitat
Dinwiddie County, VA	Butterwood Creek	249.1	Perennial	4	Dam and Pump	Federal Listed Roanoke logperch/VA T&E Waters/ Potential Federal Freshwater Mussel Resource
Dinwiddie County, VA	Butterwood Creek	253.7	Perennial	10	Dam and Pump/Flume	Federal Listed Roanoke logperch/VA T&E Waters/ Potential Federal Freshwater Mussel Resource
Brunswick County, VA	Nottoway River	260.7	Perennial	96	Cofferdam	NRI River/ VA T&E Waters/ Federal Freshwater Mussel Resource
Brunswick County, VA	Waqua Creek	267.4	Perennial	10	Dam and Pump	VA T&E Waters/ Potential Federal Freshwater Mussel Resource
Brunswick County, VA	Sturgeon Creek	272.0	Perennial	10	Dam and Pump/Flume	VA T&E Waters/ Potential Federal Freshwater Mussel Resource
Brunswick County, VA	Reedy Creek	274.9	Intermittent	33	Dam and Pump/Flume	Potential Freshwater Mussels Habitat
Brunswick County, VA	Reedy Creek	275.0	Intermittent	5	Dam and Pump/Flume	Potential Freshwater Mussels Habitat
Greensville County, VA	Meherrin River	286.3	Perennial	182	Wet Crossing	Anadromous Fish/ NRI River/VA T&E Waters/ Potential Freshwater Mussels Habitat
Greensville County, VA	Fountains Creek	299.4	Perennial	19	Dam and Pump/Flume	Anadromous Fish/Potential Freshwater Mussels Habitat

TABLE 2C (cont'd)

Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/ County/City and State	Waterbody Name	Milepost	Flow Type	Approximate Crossing Width (feet)	Crossing Method	Sensitive Feature of Waterbody [a]
Greensville County, VA	Fountains Creek	299.4	Perennial	14	Dam and Pump/Flume	Anadromous Fish/Potential Freshwater Mussels Habitat
Greensville County, VA	Fountains Creek	299.6	Intermittent	31	Dam and Pump/Flume	Anadromous Fish/Potential Freshwater Mussels Habitat
Greensville County, VA	Fountains Creek	299.6	Perennial	30	Dam and Pump/Flume	Anadromous Fish/Potential Freshwater Mussels Habitat
AP-3						
Greensville County, VA	Meherrin River	12.4	Perennial	116	Cofferdam	Anadromous Fish/ Potential Freshwater Mussels Resource
Southampton County, VA	Tarrara Creek	18.0	Perennial	10	Dam and Pump/Flume	Potential Freshwater Mussel Habitat
Southampton County, VA	Tarrara Creek	17.8	Perennial	14	Dam and Pump/Flume	Potential Freshwater Mussel Habitat
Southampton County, VA	Tarrara Creek	17.9	Perennial	13	Dam and Pump/Flume	Potential Freshwater Mussel Habitat
Southampton County, VA	Tarrara Creek	18.0	Perennial	10	Dam and Pump/Flume	Potential Freshwater Mussel Habitat
Southampton County, VA	Tarrara Creek	18.0	Perennial	12	Dam and Pump/Flume	Potential Freshwater Mussel Habitat
Southampton County, VA	Tarrara Creek	19.2	Perennial	10	Dam and Pump/Flume	Potential Freshwater Mussel Habitat
Southampton County, VA	Nottoway River	32.6	Perennial	240	HDD	Anadromous Fish/NRI River/ Federal Freshwater Mussel Resource, Dwarf Wedgemussel Known Habitat/Section 10
City of Suffolk, VA	Blackwater River	38.6	Perennial	205	HDD	Anadromous Fish/Potential for Freshwater Mussels/ Section 10/NRI River
City of Suffolk, VA	Pitchkettle Creek – Tributary to Lake Kilby	55.6	Perennial	Not Crossed by Centerline	Not Crossed by Centerline	Upstream from Public Fishing Lake
City of Chesapeake, VA	East Ditch	68.1	Canal/Ditch	9	Dam and Pump	Potential for Federal Listed Atlantic Sturgeon
City of Chesapeake, VA	Gilmerton Deep Creek Canal	76.5	Canal/Ditch	38	Dam and Pump	Potential for Federal Listed Atlantic Sturgeon
City of Chesapeake, VA	Southern Branch Elizabeth River	78.4	Perennial	851	HDD	Anadromous Fish/EFH/Federal Listed Atlantic sturgeon/ Potential marine mammals/Section 10 /Potential Freshwater Mussels Resource
AP-2						
Northampton County, NC	Jacks Swamp	1.9	Perennial	29	Dam and Pump/Flume	Potential for Freshwater Mussels/Significant aquatic endangered habitat
Northampton County, NC	Roanoke River	9.8	Perennial	360	HDD	Anadromous Fish-AFSA/Federal Listed Atlantic sturgeon, American Eel, Roanoke logperch/Section 10/ Known (non-Federal) Freshwater Mussel Resource
Halifax County, NC	Marsh Swamp	11.6	Perennial	38	Dam and Pump/Flume	Significant aquatic endangered habitat
Halifax County, NC	Beaverdam Swamp	23.1	Perennial	63	Dam and Pump/Flume	Significant aquatic endangered habitat/ Potential Federal Freshwater Mussel Resource
Halifax County, NC	Jacket Swamp	27.4	Perennial	28	Dam and Pump/Flume	Significant aquatic endangered habitat
Halifax County, NC	Breeches Swamp	29.8	Perennial	16	Dam and Pump/Flume	Significant aquatic endangered habitat
Halifax County, NC	Rocky Swamp	32.0	Perennial	33	Open Cut	Significant aquatic endangered habitat/ Federal Freshwater Mussel Resource, Known Dwarf wedgemussel habitat

TABLE 2C (cont'd)

Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/ County/City and State	Waterbody Name	Milepost	Flow Type	Approximate Crossing Width (feet)	Crossing Method	Sensitive Feature of Waterbody [a]
Halifax County, NC	Fishing Creek	33.9	Perennial	105	Dam and Pump/Flume	Federal Listed Atlantic sturgeon/NRI River/ Significant aquatic endangered habitat
Nash County, NC	Black Swamp	37.0	Perennial	36	Dam and Pump/Flume	Significant aquatic endangered habitat
Nash County, NC	Swift Creek	40.6	Perennial	127	Dam and Pump/Flume	Federal Freshwater Mussel Resource, Known Tar River Spinymussel habitat/Significant aquatic endangered habitat
Nash County, NC	Flat Rock Branch	44.4	Perennial	6	Dam and Pump	Significant aquatic endangered habitat/ Potential Federal Freshwater Mussel Resource
Nash County, NC	Pig Basket Creek	47.6	Perennial	30	Dam and Pump/Flume	Potential Federal Freshwater Mussel Resource
Nash County, NC	Stony Creek	48.8	Perennial	19	Dam and Pump/Flume	Federal Listed Atlantic sturgeon/ Federal Freshwater Mussel Resource, Known Dwarf Wedgemussel Habitat
Nash County, NC	Little Sapony Creek	54.0	Perennial	10	Dam and Pump/Flume	Potential Federal Freshwater Mussel Resource
Nash County, NC	Sapony Creek	56.3	Perennial	20	Dam and Pump/Flume	Potential Federal Freshwater Mussel Resource
Nash County, NC	Tar River	59.4	Perennial	165	Open Cut	Federal Listed Atlantic sturgeon/NRI River/ Federal Freshwater Mussel Resource, Known Tar River Spinymussel Habitat/Significant aquatic endangered habitat
Wilson County, NC	Contentnea Creek	73.6	Perennial	53	Dam and Pump/Flume	Federal Listed Atlantic Sturgeon/Significant aquatic endangered habitat
Johnston County, NC	Little River	82.5	Perennial	88	Cofferdam/Flume	Known Dwarf Wedgemussel and Tar River Spiny Mussel habitat/ Significant aquatic endangered habitat
Johnston County, NC	Buffalo Creek	83.5	Perennial	48	Dam and Pump/Flume	Anadromous Fish-AFSA/Federal Freshwater Mussel Resource/Significant aquatic endangered habitat
Johnston County, NC	Neuse River	98.4	Perennial	137	Wet Crossing	Anadromous Fish-AFSA/ Federal Listed Atlantic sturgeon/Significant aquatic endangered habitat/Section 10/ NRI River/Federal Freshwater Mussel Resource
Johnston County, NC	Hannah Creek	101.3	Perennial	34	Dam and Pump	Potential Federal Freshwater Mussel Resource
Johnston County, NC	White Oak Branch	105.1	Perennial	33	Dam and Pump/Flume	Potential Federal Freshwater Mussel Resource
Johnston County, NC	Stone Creek	106.7	Perennial	10	Dam and Pump	Potential Federal Freshwater Mussel Resource
Johnston County, NC	Johnson Swamp	107.6	Perennial	36	Dam and Pump/Flume	Potential Federal Freshwater Mussel Resource
Sampson County, NC	Little Juniper Run	116.9	Perennial	8	Dam and Pump	Significant aquatic endangered habitat
Sampson County, NC	Juniper Run	117.2	Perennial	17	Dam and Pump/Flume	Significant aquatic endangered habitat
Sampson County, NC	Beaverdam Swamp	118.9	Perennial	35	Dam and Pump	Significant aquatic endangered habitat
Sampson County, NC	Beaverdam Swamp	119.3	Perennial	33	Dam and Pump/Flume	Significant aquatic endangered habitat
Sampson County, NC	Beaverdam Swamp	119.7	Perennial	217	Dam and Pump/Flume	Significant aquatic endangered habitat
Sampson County, NC	Starlins Swamp	122.2	Perennial	25	Dam and Pump	Significant aquatic endangered habitat
Sampson County, NC	Starlins Swamp	122.3	Perennial	20	Dam and Pump	Significant aquatic endangered habitat
Cumberland County, NC	Black River	124.5	Perennial	33	Dam and Pump/Flume	Significant aquatic endangered habitat/NRI River

TABLE 2C (cont'd)

Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/ County/City and State	Waterbody Name	Milepost	Flow Type	Approximate Crossing Width (feet)	Crossing Method	Sensitive Feature of Waterbody [a]
Cumberland County, NC	Cape Fear River	149.3	Perennial	325	HDD	Known (non-Federal) Freshwater Mussel Resource/Significant aquatic endangered habitat/Section 10
Cumberland County, NC	Rockfish Creek	149.4	Perennial	35	Dam and Pump/Flume	Anadromous Fish-AFSA
Cumberland County, NC	Grays Creek	152.5	Perennial	8	Dam and Pump	Anadromous Fish-AFSA
Cumberland County, NC	Swans Creek	156.7	Perennial	10	Dam and Pump/Flume	Anadromous Fish-AFSA
Robeson County, NC	Gallberry Swamp	160.5	Perennial	38	Dam and Pump/Flume	NRI River
Robeson County, NC	Little Marsh Swamp	162.4	Perennial	49	Dam and Pump/Flume	NRI River
AP-3						
Northampton County, NC	Jacks Swamp	0.6	Perennial	10	Dam and Pump/Flume	Significant aquatic endangered habitat
Northampton County, NC	Cypress Creek	7.4	Perennial	20	Open Cut	Significant aquatic endangered habitat
Northampton County, NC	Cypress Creek	10.0	Perennial	13	Dam and Pump/Flume	Significant aquatic endangered habitat
SUPPLY HEADER PROJECT						
TL-635						
Wetzel County, WV	South Fork Fishing Creek	30.1	Perennial	52	Dam and Pump/Flume	Potential for Freshwater Mussels
Wetzel County, WV	South Fork Fishing Creek	29.8	Perennial	47	Dam and Pump	Potential for Freshwater Mussels
Wetzel County, WV	South Fork Fishing Creek	29.4	Perennial	70	Dam and Pump	Potential for Freshwater Mussels
Doddridge County, WV	McElroy Creek	18.5	Perennial	74	Dam and Pump	Federal T&E Resources/No Federal Freshwater Mussels encountered
TL-636						
Westmoreland County, PA	UNT to Turtle Creek	0.2	Perennial	4	Dam and Pump/Flume	TSF
Westmoreland County, PA	UNT to Turtle Creek	0.6	Perennial	3	Dam and Pump/Flume	TSF
Westmoreland County, PA	UNT to Kemerer Hollow	1.2	Perennial	2	Dam and Pump/Flume	CWF/HQ
Westmoreland County, PA	Kemerer Hollow	1.3	Perennial	5	Dam and Pump/Flume	CWF/HQ
Westmoreland County, PA	UNT to Kemerer Hollow	1.7	Perennial	6	Dam and Pump/Flume	CWF/HQ
Westmoreland County, PA	UNT to Kemerer Hollow	1.9	Perennial	5	Dam and Pump/Flume	CWF/HQ
Westmoreland County, PA	UNT to Steels Run	2.5	Perennial	4	Dam and Pump/Flume	CWF/HQ
Westmoreland County, PA	Steels Run	2.6	Perennial	7	Dam and Pump/Flume	CWF/HQ
Westmoreland County, PA	UNT to Steels Run	2.9	Perennial	5	Dam and Pump/Flume	CWF/HQ
Westmoreland County, PA	UNT to Haymakers Run	3.6	Perennial	6	Dam and Pump/Flume	CWF/HQ
Westmoreland County, PA	UNT to Haymakers Run	3.8	Perennial	3	Dam and Pump/Flume	CWF/HQ

TABLE 2C (cont'd)

Sensitive Waterbodies Crossed by the Atlantic Coast Pipeline and Supply Header Project

Pipeline Segment/ County/City and State	Waterbody Name	Milepost	Flow Type	Approximate Crossing Width (feet)	Crossing Method	Sensitive Feature of Waterbody [a]

_____

[a] Sensitive Feature Definitions:

Anadromous Fish = Waterbody that has been identified by a state or federal agency as having potential for migratory fish populations.

Anadromous Fish-AFSA = Classified as inland Anadromous Fish Spawning Areas (AFSA) freshwater reaches, which are under the jurisdiction of North Carolina Wildlife Resource Commission.

B2 = West Virginia State water quality classification for waters which sustain year-round trout populations, excluding those waters that are stocked annually but which do not support year-round trout populations.

Brook Trout Waters= Identification of Brook Trout Streams as requested by West Virginia Fish & Wildlife Service.

CWF = Pennsylvania State water quality classification for waters that support coldwater fisheries.

EFH = Identified as potential essential fish habitat by National Oceanic and Atmospheric Administration Habitat Conservation Division Northeast Regional Office correspondence.

Federal Freshwater Mussel Resource = Waters that have the potential to support federally listed mussel resources.

Federal T&E Resources: Stream identified as supporting threatened and endangered aquatic species by West Virginia Fish and Wildlife Service.

High Quality Streams= Streams or stream segments stocked with trout or contain native trout populations and warmwater streams over five miles in length with public utilization of desirable warmwater fish populations (WVDNR *West Virginia High Quality Streams* 6th edition). These waterbodies may require a Spawning Season Wavier from the WVDNR.

HQ = Pennsylvania State water quality classification for high quality waters.

NRI River = Waterbodies listed on the National Parks Service Nationwide Rivers Inventory

Poor, Moderate or Suitable Freshwater Mussels Habitat = Poor, Moderate, and Suitable habitat identified in waterbodies containing watershed >5 mi^2 where habitat assessments for freshwater mussels have been completed in Virginia in December 2014. Consultation with Virginia Department of Game and Inland Fisheries is needed to confirm if these waterbodies can be removed from this list as a concern for freshwater mussels.

Potential for Freshwater Mussels = Waters that have the potential to support mussel resources protected by the states of West Virginia, Virginia, and North Carolina.

Public Fishing Lake = Lakes located within a half mile from centerline.

Section 10 = Navigable water of the United States.

Significant aquatic endangered habitat = North Carolina designated significant endangered habitat.

Tier 3 = Streams supporting reproducing brook trout populations on the MNF are classified as Tier 3 streams (West Virginia Department of Environmental Protection 2008). The following 6th level watersheds (12 digit Hydrologic Unit Code) and the streams within them represent the watershed restoration priorities on the MNF in accordance with the USDA Forest Service Watershed Condition Framework.

Trout Waters= These waters sustain year-round trout populations. Excluded are those waters which receive annual stockings of trout but which do not support year-round trout populations.

TSF = Pennsylvania state water quality classification of Trout Stocking waters

VA T&E Waters= Waters with potential for state or federally listed species in Virginia, based on agency available data from Virginia Department of Game and Inland Fisheries.

[b] **Extan**t = Occurrence has been recently verified as still existing but the viability of the occurrence is lacking; **Historical** = Species or community occurred historically in the state, and there is some possibility that it may be rediscovered. Recent field verification is lacking.

ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE

Resource Report 2
Water Use and Quality

APPENDIX 2D
Wetland and Waterbody Delineation Reports – Atlantic Coast Pipeline

Atlantic Coast Pipeline

Wetland and Waterbody Survey Report 1

REPORT

Prepared by:

NATURAL RESOURCE GROUP

an ERM Group company

September 2015

Atlantic Coast Pipeline
Wetland and Waterbody Survey Report 1

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 METHODS 3
2.1 DESKTOP REVIEW 3
2.2 FIELD SURVEY 5
2.2.1 Wetlands 5
2.2.2 Waterbodies 8
2.2.3 Non-tidal Ditches 9
2.2.4 Seep Points 9
2.2.5 Non-Water Points 9
3.0 RESULTS AND FINDINGS 10
3.1 Wetlands 10
3.2 Waterbodies 10
3.3 Non-tidal Ditches 10
3.4 Seep Points 10
3.5 Non-Water Points 85
4.0 REFERENCES 90

LIST OF TABLES

Table 2-1 Wetland, Waterbody, Seep, and Non-Water Point Feature Naming Protocol 3
Table 2-2 Survey Corridor County Codes 4
Table 3.1-1 Wetland Inventory 11
Table 3.2-1 Wetlands and Waterbodies on County Borders 36
Table 3.2-2 Waterbody Inventory 37
Table 3.3-1 Non-tidal Ditches in Virginia 81
Table 3.4-1 Seep Points 82
Table 3.5-1 Non-Water Points 85

LIST OF FIGURES

Figure 1-1 Project Overview Map. 2

APPENDICES

Appendix A Wetland Datasheets and Photo Pages
Appendix B Waterbody Datasheets and Photo Pages
Appendix C Seep Point Photo Pages
Appendix D Non-Water Point Datasheets and Photo Pages

ACRONYMS

ACP	Atlantic Coast Project
CFR	Code of Federal Regulations
COE	U.S. Army Corps of Engineers
D&D	Duncan & Duncan West, LLC
DTI	Dominion Transmission, Inc.
EPA	Environmental Protection Agency
ESI	Environmental Services Inc.
FAC	Facultative Plants
FACU	Facultative Upland Plants
FACW	Facultative Wetland Plants
GPS	Global Positioning System
NHD	National Hydrography Dataset
NRCS	Natural Resource Conservation Service
NRG	Natural Resource Group, LLC
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OBL	Obligate Plants
OHWM	Ordinary High Water Mark
PEM	Palustrine System Emergent Wetland Class
PFO	Palustrine System Forested Wetland Class
PSS	Palustrine System Scrub-Shrub Wetland Class
TOB	Top of bank
UPL	Uplands Plants
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
W&C	Woodard & Curran

1.0 INTRODUCTION

Natural Resource Group, LLC (NRG), on behalf of Atlantic Coast Pipeline, LLC (Atlantic), conducted wetland and waterbody surveys for the proposed Atlantic Coast Pipeline (ACP). Surveys were completed by staff from NRG, and contracted staff from Duncan & Duncan WEST, LLC (D&D), Environmental Services Inc. (ESI), and Woodard & Curran (W&C). This report presents results of the wetland and waterbody field surveys that were completed in West Virginia, Virginia, and North Carolina for the ACP. The survey area consists of a 300-foot-wide corridor approximately 564.1 miles long, including 83.1 miles in West Virginia, 285.8 miles in Virginia, and 195.2 miles in North Carolina (Figure 1.0-1). The survey corridor includes areas within the U.S. Army Corps of Engineers (COE) Pittsburgh, Huntington, Norfolk, and Wilmington Districts.

Wetland and waterbody surveys were conducted along the proposed mainlines AP-1 and AP-2, and proposed lateral pipelines AP-3, AP-4, and AP-5. The following counties were surveyed along AP-1: Harrison, Lewis, Upshur, Randolph, and Pocahontas Counties in West Virginia; Highland, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, and Greensville Counties in Virginia. The following counties were surveyed along AP-2: Northampton, Halifax, Nash, Wilson, Johnston, Sampson, Cumberland, and Robeson Counties in North Carolina. The following counties were surveyed along AP-3: Greensville and Southampton Counties, the Cities of Suffolk and Chesapeake in Virginia, and a portion of Northampton County in North Carolina. Another surveyed portion of Brunswick County, Virginia was part of the proposed AP-4. Greensville County, Virginia was also surveyed as the proposed AP-5. The first series of field surveys were conducted from June 2014 to June 2015, and will continue until the wetland and waterbody surveys are complete on available land parcels along the proposed pipeline route. This report serves as the first wetland and waterbody report to be submitted to the Federal Energy Regulatory Commission.

This report provides an assessment of wetlands, rivers, streams, open waterbodies (e.g., ponds), and seep points documented within the survey corridor based on qualified wetland biologists' best professional judgment and interpretation of the *U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual* (COE, 1987), *the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)* (COE, 2010a), *the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)* (COE, 2010b), the *COE Regulatory Guidance Letter regarding Ordinary High Water Mark Identification* (COE, 2005), and other applicable COE guidance documents and regulations. The report also documents observations made at "non-water points" where desktop data indicated a wetland or waterbody may be present but upon field inspection requisite wetland parameters or discernable evidence of waterbody morphological characteristics were not present. The wetland and waterbody delineation report included with the 404/401 permit applications includes data specific to the jurisdiction of the permit under review. Please refer to figures within the permit application for relevant location information for the wetlands and waterbodies documented in the report. Specifically, Figure Set 3 includes U.S. Geological Survey (USGS) 7.5-Minute Topographic maps and Figure Set 4 includes aerial photography maps each with illustrated wetlands and waterbodies delineated during field surveys.

West Virginia
Virginia
North Carolina
AP-1
AP-2
AP-3
AP-4
AP-5
Clarksburg
Harrisonburg
Staunton
Charlottesville
Richmond
Petersburg
Roanoke Rapids
Greensboro
Durham
Raleigh
Fayetteville
Lumberton
Laurinburg
Charlotte
Asheboro
Winston-Salem
Danville
Martinsville
Blacksburg
Christiansburg
Hollins
Cave Spring
Radford
Madison Heights
Mechanicsville
Highland Springs
Chester
Hopewell
Newport News
Hampton
Virginia Beach
Chesapeake
Norfolk
Portsmouth
Suffolk
Elizabeth City
Albemarle Sound
Roanoke River
Henderson
Reidsville
Eden
Graham
Kernersville
Clemmons
Lexington
Statesville
Salisbury
Mooresville
Kannapolis
Albemarle
Matthews
Monroe
Wake Forest
Chapel Hill
Cary
Garner
Clayton
Wilson
Greenville
Goldsboro
Kinston
New Bern
Havelock
Croatan National Forest
Smithfield
Dunn
Sanford
Fort Bragg
Southern Pines
Hope Mills
Concord
Huguenot-Varina
Uwharrie National Forest
Jefferson National Forest
Monongahela National Forest
Front Royal
Winchester
Culpeper
Fredericksburg
Manassas
Dale City
Arlington
Alexandria
Washington
Baltimore
Annapolis
Columbia
Germantown
Gaithersburg
Frederick
Woodlawn
Dundalk
Severna Park
Easton
Cambridge
Lexington Park
Saint Charles
MARYLAND
Middle River
Rapidan River
Potomac River
Shenandoah River
South Fork Shenandoah River
James River
Dan River
Meherrin River
Roanoke River
Tar River
Neuse River
Deep River
Haw River
New River
Appalachian Mountains
Piedmont
0
50
100
150
200
250
300
0
50
100
150
0
20
40
Miles
ACP Mainline
ACP Lateral
ACP Compressor Station
Atlantic Coast Pipeline
Dominion
Atlantic Coast Pipeline Project
Figure 1.0-1
Project Overview Map
FILE: M:\Clients\D-F\DOM\SRPP_ArcGIS\Resource_Reports\RREP_03\Figures_DRS_ACP_RR03_OverviewMap.mxd, REVISED: 08/25/2015, SCALE: 1:2,464,036
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2.0 METHODS

Prior to conducting field surveys, a review of high resolution aerial photographic resources and other desktop data (e.g., National Wetland Inventory, soils maps, USGS maps) was conducted prior to field surveys. These resources were used both prior to and during field surveys to identify potential wetland or waterbody areas that may be present within the survey corridor.

Field surveys for the proposed pipeline were conducted within a 300-foot-wide survey corridor and proposed access roads were conducted within a 50-foot-wide survey corridor. The survey area was evaluated to determine the presence of water features including wetlands, waterbodies (streams and open waterbodies), non-tidal ditches, and seep points. Data were also collected to document a lack of water features where desktop data indicated water features may be present; these are referred to as non-water points.

Accessible tracts within the survey corridor were evaluated to determine the presence or absence of water features, including wetlands, waterbodies (streams and open waterbodies), seep points, and non-water points. Specific naming conventions were followed during field surveys in order to catalog each feature type collected. Tables 2-1 and 2-2 describe the unique naming conventions for these features.

TABLE 2-1

Atlantic Coast Pipeline Project
Wetland, Waterbody, Seep, and Non-Water Point Feature Naming Protocol

Water Feature Type	Polygon/Line	County	Field Crew Letter	Feature Number	Special Designation
Wetland	w (wetland)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	f, e, s (PFO, PEM, PSS wetlands)
Waterbody	s (stream) o (open waterbody)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	p, i, e (change in stream morphology to perennial, intermittent, or ephemeral)
Non-tidal Ditch*	d (ditch)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	
Seep	p (seep)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	
Non-Water Point	no (non-water)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	

*Note: Non-tidal Ditches were only reported in Virginia.

2.1 DESKTOP REVIEW

Several sources of information were used to complete a "desktop" review of survey areas for potential wetlands and waterbodies prior to conducting field surveys. Biologists utilized high resolution aerial photography, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data, U.S. Department of Agriculture Soil Survey Geographical Database, the USGS National Hydrography Dataset (NHD), and USGS Topographic Maps. The evaluation prior to field survey allowed crews to identify areas of high probability for wetlands or waterbodies in planning and preparation for field survey.

TABLE 2-2

Atlantic Coast Pipeline
Survey Corridor County Codes

Facility Type/State	County	County Code
Mainline Pipelines		
AP-1		
West Virginia	Harrison	ha
	Lewis	le
	Upshur	up
	Randolph	ra
	Pocahontas	po
Virginia	Highland	hi
	Augusta	au
	Nelson	ne
	Buckingham	bu
	Cumberland	cu
	Prince Edward	pe
	Nottoway	no
	Dinwiddie	di
	Brunswick	br
	Greensville	gr
AP-2		
North Carolina	Northampton	nr
	Halifax	hl
	Nash	na
	Wilson	wi
	Johnston	jo
	Sampson	sa
	Cumberland	cm
	Robeson	ro
Lateral Pipelines		
AP-3		
Virginia	Southampton	so
	Greensville	gr
	City of Chesapeake	ch
	City of Suffolk	su
North Carolina	Northampton	nr
AP-4		
Virginia	Brunswick	br
AP-5		
Virginia	Greensville	gr

2.2 FIELD SURVEY

The first series of field surveys for the ACP were conducted from June 2014 to June 2015 in multiple counties throughout West Virginia, Virginia, and North Carolina. NRG worked along with D&D, ESI, and W&C on several occasions to support the progress of wetland and waterbody surveys along accessible tracts. For instance, NRG surveyed in West Virginia, in addition to Greensville, Brunswick, Southampton Counties, and the City of Suffolk in Virginia. D&D and ESI surveyed in North Carolina, while W&C surveyed in Brunswick County, Virginia. Wetland boundaries, waterbody thalweg or banks, data collection points, open waterbody boundaries, seep points, and non-water points were surveyed using a Trimble® 6000 series GeoXH model global positioning system (GPS) unit. The field data collection settings within the GPS units used available satellites to capture location data. Note that while the GPS data collected during survey provides reasonably accurate spatial information regarding the wetlands, open waterbodies, seep points, and non-water points delineated, typically one-meter accuracy with sufficient satellite reception, it does not constitute the same accuracy as a professional land survey.

2.2.1 Wetlands

The delineation of wetlands was conducted using the method described in the 1987 Manual, along with either of the Regional Supplements. The wetland boundaries were delineated using the routine onsite determination method described in the Regional Supplements and utilizing *the National Wetland Plant List: 2014 (NWPL)* (Lichvar et al., 2012; Federal Register, 2012) for determination of plant indicator status, and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979) to classify wetlands. According to the COE 1987 Wetland Manual, three criteria or parameters are considered during a wetland delineation, and for a plant community to be considered a wetland it must have: a predominance of hydrophytic vegetation, indications of wetland hydrology, and the presence of hydric soils under normal circumstances (i.e., where naturally problematic conditions or disturbances are absent). Wetland data sheets were completed at sample points within each wetland community type (i.e., Cowardin classification) making up the wetland or wetland complex, along with a minimum of one corresponding upland community sample point.

2.2.1.1 Hydrophytic Vegetation

The 1987 Manual and NWPL defines the wetland indicator status of plants as follows:

- Obligate Wetland Plants (OBL): almost always occur in wetlands (estimated probability >99 percent) in wetlands under natural conditions. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface. These plants are of four types: submerged, floating, floating-leaved, and emergent.
- Facultative Wetland Plants (FACW): usually occur in wetlands (estimated probability >67 percent to 99 percent), but may occur in non-wetlands. These plants predominantly occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.

- Facultative Plants (FAC): occur in wetlands and uplands (estimated probability 33 percent to 99 percent within wetlands). These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH and elevation. They have a wide tolerance of soil moisture conditions.
- Facultative Upland Plants (FACU): usually occur in uplands, but many occur in wetlands (estimated probability 1 percent to <33 percent in wetlands). These plants predominantly occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.
- Upland Plants (UPL): almost never occur in wetlands (estimated probability <1 percent). These plants occupy mesic to xeric upland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

Dominant vegetation was assessed for each stratum present (tree, sapling/shrub, woody vine, and herbaceous) at a sample point location. In most cases, plant dominance was determined using the COE "50/20 Rule" in which species from each stratum that individually or collectively make up more than 50 percent of the total cover in each stratum, in addition to other species that account for at least 20 percent of the total cover in the stratum are determined to be dominant species. The hydrophytic vegetation criterion is met when greater than 50 percent of the dominant plant species are classified as OBL, FACW, or FAC. Vegetation information was recorded on the appropriate COE data forms.

2.2.1.2 Wetland Hydrology

Hydrology is influenced by many variables, including: seasonal and long-term rainfall patterns, local geology, topography, soil type, local water table conditions, and drainage. According to the 1987 Manual and Regional Supplements, wetland hydrology is present if 14 or more consecutive days of inundation or water saturation within 12 inches of the soil surface occurs during the growing season at a minimum frequency of 5 years in 10.

Indicators of wetland hydrology provide evidence that a site has a persistent wetland hydrologic regime. The Regional Supplements both provide a list of hydrology indicators that include primary and secondary indicators, which are grouped as:

- Observation of Surface Water or Saturated Soils
- Evidence of Recent Inundation
- Evidence of Current and Recent Soil Saturation
- Evidence of Other Site Conditions or Data

One primary indicator or two secondary indicators are required to confirm that wetland hydrology is present or occurs at some time during the growing season. Field observations of hydrology were made at each vegetation community sample point. Examples of key indicators observed include presence of water above the ground surface, high water table within the hole dug for soil observations, saturated soil in the upper portion of the soil profile, water-stained

leaves, drainage patterns as evidence of water presence, and the geomorphic position of the vegetation community and sample point location. Hydrology information was recorded on the appropriate COE data sheets.

2.2.1.3 Hydric Soils

The 1987 Manual defines hydric soils as soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

Hydric soils are characterized by specific morphological characteristics developed in the soil profile over time due to reduction of iron, manganese, and sulfur under saturated and anaerobic conditions (U.S. Department of Agriculture [USDA] Natural Resource Conservation Service [NRCS], 2010). The hydric soil indicators described in the Regional Supplements are a subset of hydric soil indicators described in *Field Indicators of Hydric Soils in the United States, Version 7.0 (2010)*. The *Munsell Book of Soil Color Charts (2014)* was utilized to determine soil matrix and mottle colors (redoximorphic features) and record soil profile descriptions. The soils were observed and documented at representative sample point locations in both wetland communities and adjacent upland communities to help establish the wetland boundary. Soil profile descriptions were recorded on the appropriate COE data sheets.

2.2.1.4 Cowardin Classification

The Cowardin Classification was developed in 1979 to classify a variety of wetland habitats. The Cowardin Classification divides wetlands into five systems, including: Marine, Estuarine, Riverine, Lacustrine, and Palustrine. These represent the five major landscape settings. The classification system further divides wetland communities into systems and classes. The 2014 and 2015 surveys were conducted in inland wetlands, and descriptions of the common Cowardin Classification community types are described in the bullets below.

- Palustrine System Emergent Wetland Class (PEM): A PEM wetland is defined as a non-tidal wetland characterized by erect, rooted, hydrophytic herbaceous species. These wetland habitats are often dominated by perennial plants, where the vegetation is present for the majority of the growing season (Cowardin, 1979).
- Palustrine Forested Wetland Class (PFO): A PFO wetland is defined as a non-tidal wetland characterized by dominant woody vegetation that is greater than 20 feet tall, with an understory of small trees and shrubs, as well as an herbaceous layer (Cowardin, 1979).
- Palustrine System Scrub-Shrub Wetland Class (PSS): A PSS wetland is defined as a non-tidal wetland consisting of woody vegetation that is less than 20 feet tall, including shrubs, young trees, and stunted trees or shrubs (Cowardin, 1979).

Each wetland delineated was assigned a Cowardin class. For wetland complexes, or wetlands that are comprised of more than one wetland plant community (i.e., Cowardin class) a sample point was established and observations recorded to document each community. Unique wetland IDs and separate polygons were established based on the wetland community present

within the complex. The field crews in 2014 and 2015 collected wetland information for PEM, PFO, and PSS wetlands.

2.2.2 Waterbodies

Waterbodies documented during field survey were categorized as 1) linear or flowing waterbodies such as streams and rivers, and assigned a unique ID starting with an "s" or 2) non-flowing open waterbodies such as ponds and lakes which were assigned a unique ID starting with an "o". Linear or flowing waterbodies were identified as landscape features with a channel that include a bed and a bank in a concave landscape position where water flow has resulted in a feature that possesses an ordinary high water mark (OHWM). Based on evidence of flow regime at the time of survey linear waterbodies were attributed a flow regime, according to the definitions provided by the COE for the Nationwide Permit Program in Code of Federal Regulations (CFR) 33 Part 330 (Federal Register, 1993). Similarly non-flowing, open waterbody features were assigned a Cowardin hydrology regime based on observations recorded at the time of survey. Definitions of these flow regimes and hydrology regimes are included below.

2.2.2.1 Regime Classification

Water regime classification is defined by its flow duration. The following regime classifications are described below as defined by the CFR 33 Part 330 ruling:

- Perennial Stream: A perennial stream has flowing water year round during a typical year. The water table is located above the stream bed for most of the year, and groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
- Intermittent Stream: An intermittent stream has flowing water during most times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water, and runoff from rainfall is a supplemental source of water for stream flow.
- Ephemeral Stream: An ephemeral stream has flowing water during a short duration after precipitation events. Ephemeral stream beds are located above the water table year round, therefore, groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Non-flowing or open waterbodies were documented based on the evidence of inundation/saturation at the time of surveys, utilizing one of four categories based on the USFWS's *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979) including the following:

- Non-flowing: Water covers the land surface throughout the year in all years.
- Semi-Non-flowing: Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface

- Seasonally flooded: Surface water is present for extended periods especially early in the growing season, but is absent by the end of the season in most years. When surface water is absent, the water table is often near the land surface.
- Temporarily flooded: Surface water is present for brief periods during the growing season, but the water table usually lies well below the soil surface for most of the season.

2.2.3 Non-tidal Ditches

Non-tidal ditches were documented primarily within Virginia, specifically in the coastal plain where these features are more common. Field crews documented ditches that had an OHWM, bed and bank, and/or were connected to waters of the United States. Additionally, the ditches documented by the field review contained one or more of the following characteristics, in accordance with Draft Guidance provided by the Environmental Protection Agency (EPA, 2015):

- Standing or flowing water
- A link to two or more waters of the United States.
- Drain wetlands or waterbodies that can be linked to waters of the United States.
- Excavated within waters of the United States.
- A relocated, channelized, and/or straightened tributary

Ditches that exhibited wetland characteristics were classified as wetlands if they met the criteria specified in the Manual or applicable Regional Supplement.

2.2.4 Seep Points

Seep points are defined as small areas where groundwater saturates the soil surface on steep slopes or along sidehill cuts or banks. Seeps do not meet the definition of either a waterbody, due to lack of OHWM, top of bank (TOB), or a wetland, lacking the three wetland parameters (hydrology, vegetation, soils). One example of where a seep point would likely be located would be a road cut. Seep points were reviewed and documented on a case-by-case basis by wetland biologists. Where seep points were observed a GPS data point was taken along with corresponding photos of the area.

2.2.5 Non-Water Points

Non-water points were collected to document areas mapped as NWI polygons or NHD lines that did not meet the required criteria of wetlands or waterbodies (i.e., upland habitat). Observations were recorded, photographs were taken, and a GPS point was recorded at each non-water point to document that wetland biologists visited the point and determined that a wetland or waterbody was not present. COE wetland delineation forms were used to record information for non-water points located within NWI wetlands polygons. Documentation of non-water points provides a record to demonstrate that areas mapped as NWI and NHD, or areas with an aerial photography signature indicative of wetland conditions, which from a desktop may be assumed to be aquatic, were visited by wetland biologists and determined to lack the requisite indicators of a wetland or waterbody.

3.0 RESULTS AND FINDINGS

The following sections present the results of water resources survey from June 2014 through June 2015 on the ACP, including wetlands, waterbodies, seep points, and non-water points that were documented on accessible tracts within the ACP survey corridor.

3.1 WETLANDS

A total of 1,135 wetlands have been documented within the survey corridor along the proposed pipeline route in West Virginia, Virginia, and North Carolina during the field season. A table listing the delineated wetlands is located in Table 3.1-1. Table 3.1-1 includes the state, county, unique project wetland ID, Cowardin classification, approximate milepost, latitude, and longitude. Datasheets and photo pages for each wetland and upland sample point are provided in Appendix A.

3.2 WATERBODIES

A total of 1,096 waterbodies have been documented within the survey corridor along the proposed pipeline route in West Virginia, Virginia, and North Carolina during the field season. Table 3.2-1 shows the waterbodies that serve as county borders, and their associated counties. A table listing delineated waterbodies is located in Table 3.2-2. Table 3.2-2 includes the state, county, unique project waterbody ID, USGS waterbody name, hydrologic regime, field estimated OHWM width (ft.), and field estimated bank-to-bank width (feet), approximate milepost, latitude, and longitude. Occasionally, waterbodies serve as county borders. The naming convention assigned to the waterbody correlates with the datasheet, and the field crew's location when the data points were taken. Datasheets and photo pages for each waterbody sample point are provided in Appendix B.

3.3 NON-TIDAL DITCHES

A total of 14 ditches were documented within the survey corridor along the proposed pipeline route in Virginia (COE Norfolk District). A table listing all features identified is located in Table 3.3-1. Table 3.3-1 includes the unique project ditch ID, state, county, latitude, and longitude.

3.4 SEEP POINTS

A total of 94 seep points were documented within the survey corridor along the proposed pipeline route in West Virginia, Virginia, and North Carolina during the field season. A table listing all features identified is located in Table 3.4-1. Table 3.4-1 includes the state, county, unique project seep point ID, approximate milepost, latitude, and longitude. Datasheets and photo pages for each seep sampling point are provided in Appendix C.

TABLE 3.1-1

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
MAIN LINE PIPELINE				
AP-1				
West Virginia				
Harrison				
0.0	whab001e	PEM	39.171175	-80.560238
0.0	whab001s	PSS	39.171004	-80.559831
0.5	whab002e	PEM	39.165492	-80.560036
Lewis				
1.1	wleb001e	PEM	39.159147	-80.553268
2.4	wleb110e	PEM	39.147636	-80.545478
2.4	wleb109e	PEM	39.148282	-80.544893
3.0	wleb111e	PEM	39.141661	-80.536036
4.0	wleb002e	PEM	39.139642	-80.520600
5.7	wlea003e	PEM	39.143560	-80.493344
5.7	wlea002e	PEM	39.143257	-80.493326
5.7	wlea001s	PSS	39.142924	-80.493486
5.8	wlea004e	PEM	39.142864	-80.491454
6.8	wleb105e	PEM	39.138494	-80.473085
7.2	wlea005e	PEM	39.141809	-80.470441
8.2	wleb003e	PEM	39.135230	-80.455947
9.2	wlea006e	PEM	39.130818	-80.443802
9.2	wleb004e	PEM	39.130418	-80.443835
9.6	wleb201e	PEM	39.124428	-80.443541
9.8	wleb005e	PEM	39.121728	-80.443098
10.3	wleb006s	PSS	39.116929	-80.441315
11.8	wlea007e	PEM	39.107763	-80.419574
12.5	wleb008e	PEM	39.099980	-80.413808
12.7	wleb007e	PEM	39.098444	-80.410797
13.6	wlec001e	PEM	39.084858	-80.409730
13.8	wleh003e	PEM	39.085710	-80.402560
13.9	wleh002e	PEM	39.084893	-80.401360
14.0	wleh001e	PEM	39.083965	-80.400809
14.5	wleh006e	PEM	39.080283	-80.393207
15.0	wleb106e	PEM	39.074256	-80.390296
15.3	wleb107e	PEM	39.070818	-80.388171
16.4	wleb108e	PEM	39.059337	-80.379600
19.0	wlec005e	PEM	39.032536	-80.348766
19.9	wleb012e	PEM	39.035769	-80.335708
19.9	wlea011e	PEM	39.034671	-80.335592
20.2	wlec006e	PEM	39.035218	-80.332562
20.7	wlea012f	PFO	39.033996	-80.322983
Upshur				
24.0	wupb101e	PEM	39.003975	-80.288045
24.0	wupa001e	PEM	39.002086	-80.291183
24.3	wupa002e	PEM	38.998196	-80.288505
24.7	wupa003e	PEM	38.993193	-80.287746

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
25.4	wupb001e	PEM	38.984381	-80.284460
25.7	wupb002e	PEM	38.981961	-80.279539
25.9	wupb003e	PEM	38.980648	-80.275958
26.0	wupb004e	PEM	38.979531	-80.274293
26.3	wupb005e	PEM	38.977084	-80.272343
26.3	wupa005e	PEM	38.976141	-80.271459
26.6	wupa004e	PEM	38.972947	-80.269214
26.8	wupc001e	PEM	38.970061	-80.268967
26.8	wupa006e	PEM	38.970460	-80.267368
29.1	wupb006e	PEM	38.945388	-80.251573
29.3	wupb007e	PEM	38.943273	-80.253037
29.9	wupb008e	PEM	38.935539	-80.255979
30.6	wupa007e	PEM	38.929178	-80.249108
30.9	wupa008e	PEM	38.926371	-80.244530
31.1	wupa009e	PEM	38.926482	-80.240617
36.1	wupb009f	PFO	38.886806	-80.189617
36.1	wupa010f	PFO	38.886697	-80.189280
36.1	wupa010e	PEM	38.886714	-80.189204
36.8	wupb010e	PEM	38.880296	-80.184298
37.1	wupa050e	PEM	38.876025	-80.182453
37.8	wupb050e	PEM	38.871625	-80.174808
37.9	wupb011e	PEM	38.868984	-80.175342
39.4	wupa012e	PEM	38.854511	-80.162872
39.5	wupa013e	PEM	38.853348	-80.161686
39.5	wupa014e	PEM	38.853705	-80.160399
39.6	wupa015e	PEM	38.853662	-80.159447
39.6	wupa015f	PFO	38.853563	-80.159253
40.5	wupb012f	PFO	38.848064	-80.144379
41.3	wupa011e	PEM	38.840328	-80.134966
41.9	wupb103e	PEM	38.836322	-80.123644
Randolph				
46.6	wrab101e	PEM	38.781645	-80.095139
47.2	wraa059f	PFO	38.772984	-80.096091
47.2	wraa058e	PEM	38.772968	-80.093900
47.3	wrab102e	PEM	38.772041	-80.093679
47.5	wrab103e	PEM	38.769772	-80.091962
47.7	wrab104e	PEM	38.766635	-80.089744
47.8	wrab105e	PEM	38.765912	-80.089438
47.8	wrab106e	PEM	38.765881	-80.089016
48.0	wrab107e	PEM	38.764133	-80.087155
48.0	wrab107f	PFO	38.764077	-80.086405
48.3	wrab108e	PEM	38.761710	-80.081515
49.7	wrab109e	PEM	38.748794	-80.065340
50.3	wrac001e	PEM	38.739578	-80.066060
50.3	wrab110e	PEM	38.742119	-80.061213
51.1	wrab111e	PEM	38.734210	-80.050342
52.0	wrab112e	PEM	38.725586	-80.040925
55.7	wrab119e	PEM	38.697709	-79.990591

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
56.4	wrab120e	PEM	38.687931	-79.986136
56.7	wrab121e	PEM	38.684965	-79.983293
58.7	wrab113e	PEM	38.658430	-79.978724
58.8	wrab117e	PEM	38.657101	-79.977244
59.5	wrab114e	PEM	38.650177	-79.970057
59.5	wrab118e	PEM	38.648583	-79.968207
60.4	wrab115e	PEM	38.639465	-79.963319
60.6	wrab116f	PFO	38.636448	-79.960419
62.3	wraa085e	PEM	38.628153	-79.927294
62.3	wraa086e	PEM	38.627083	-79.929898
62.5	wrac081e	PEM	38.623276	-79.931044
62.7	wrab052e	PEM	38.617655	-79.936332
63.0	wrab051e	PEM	38.612901	-79.933670
63.1	wrab050e	PEM	38.611524	-79.933220
63.2	wraa054e	PEM	38.610567	-79.932539
63.3	wrac053e	PEM	38.609696	-79.931705
63.3	wrac052e	PEM	38.609284	-79.931233
63.4	wraa053e	PEM	38.608686	-79.930545
63.5	wrac051e	PEM	38.607109	-79.929509
63.7	wraa052e	PEM	38.606274	-79.927670
63.8	wraa055e	PEM	38.607209	-79.926558
63.9	wraa057e	PEM	38.607364	-79.924314
64.0	wraa056e	PEM	38.608264	-79.923163
64.1	wrab053e	PEM	38.608706	-79.921177
64.2	wraa060e	PEM	38.609579	-79.920179
64.2	wraa061e	PEM	38.609730	-79.919591
64.2	wrab054e	PEM	38.610211	-79.919853
64.2	wraa062e	PEM	38.610335	-79.919375
64.2	wrab055e	PEM	38.610131	-79.918977
64.3	wraa063e	PEM	38.609351	-79.918154
64.4	wrab056e	PEM	38.608987	-79.917643
64.5	wraa064e	PEM	38.608087	-79.916156
64.5	wrab057e	PEM	38.607729	-79.915362
64.6	wrab058e	PEM	38.606756	-79.913936
64.6	wraa065e	PEM	38.607062	-79.912206
64.6	wraa065f2	PFO	38.607439	-79.913591
64.7	wraa065f1	PFO	38.607715	-79.912118
64.9	wrac054e	PEM	38.605450	-79.909002
65.0	wrac054f	PFO	38.604968	-79.909037
65.0	wrac055e	PEM	38.605095	-79.908206
65.0	wrab059f	PFO	38.604101	-79.907697
65.2	wrab060e	PEM	38.603677	-79.904631
65.3	wrac056e	PEM	38.604877	-79.904116
65.3	wrac057e	PEM	38.605279	-79.904330
65.4	wrac058e	PEM	38.607601	-79.903600
65.7	wrac059e	PEM	38.608624	-79.900108
65.7	wrab061f	PFO	38.608314	-79.900189
65.7	wrac059f	PFO	38.608904	-79.900109

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
65.7	wrac060e	PEM	38.607744	-79.897740
65.8	wrac060f	PFO	38.608047	-79.898402
66.0	wrab062e	PEM	38.606309	-79.896393
66.1	wrac061f	PFO	38.605256	-79.894246
66.3	wrac062e	PEM	38.605057	-79.890142
66.3	wrac063e	PEM	38.605812	-79.889670
66.4	wrac064e	PEM	38.606436	-79.889702
66.5	wrab063e	PEM	38.607411	-79.890519
66.5	wrac065e	PEM	38.607941	-79.889850
66.5	wrac066f	PFO	38.608515	-79.889732
66.6	wrab064e	PEM	38.609243	-79.890012
66.6	wraa066e	PEM	38.609096	-79.889354
66.6	wrac067e	PEM	38.609678	-79.888476
66.6	wraa067e	PEM	38.609315	-79.888152
66.7	wraa068f	PFO	38.609949	-79.886854
66.9	wraa070e	PEM	38.612209	-79.885775
66.9	wrac068e	PEM	38.612566	-79.884725
66.9	wraa068e	PEM	38.613127	-79.885339
67.1	wraa074e	PEM	38.614641	-79.882645
67.2	wraa075e	PEM	38.614730	-79.882050
67.2	wrac071s	PSS	38.615077	-79.881564
67.2	wrac070e	PEM	38.615636	-79.881388
67.4	wraa073e	PEM	38.617591	-79.880500
67.4	wraa071e	PEM	38.617588	-79.879364
67.4	wraa072e	PEM	38.618048	-79.879244
67.4	wrac069f	PFO	38.617550	-79.878789
67.5	wraa076e	PEM	38.617602	-79.878334
67.5	wraa077f	PFO	38.617858	-79.878027
67.5	wraa078e	PEM	38.618090	-79.877259
67.6	wraa079f	PFO	38.617891	-79.876602
67.7	wrac072e	PEM	38.617587	-79.875455
67.8	wrac073e	PEM	38.616636	-79.873697
67.8	wraa081e	PEM	38.615818	-79.873111
67.8	wraa081f	PFO	38.615937	-79.873563
67.8	wrac074e	PEM	38.615734	-79.873422
67.9	wraa081s2	PSS	38.615448	-79.872339
68.0	wraa088e	PEM	38.614262	-79.871381
68.1	wrac087e	PEM	38.613638	-79.870014
68.7	wraa083e	PEM	38.606356	-79.863617
68.7	wraa082e	PEM	38.606158	-79.862711
69.5	wrac077e	PEM	38.598507	-79.852972
69.5	wrac078e	PEM	38.598907	-79.852738
69.5	wrac076e	PEM	38.598546	-79.852407
Pocahontas				
70.5	wpoa008f	PFO	38.596280	-79.835617
70.8	wpoa009e	PEM	38.589395	-79.835797
71.3	wpoc005f	PFO	38.591168	-79.824328
71.4	wpoc004e	PEM	38.590543	-79.823791

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
72.2	wpob005f	PFO	38.587964	-79.811668
72.2	wpob005e	PEM	38.587681	-79.812062
72.2	wpoc003e	PEM	38.587277	-79.811730
73.1	wpoa004e	PEM	38.576659	-79.814804
73.2	wpoc019e	PEM	38.577707	-79.802630
73.2	wpoc018e	PEM	38.577744	-79.802341
73.2	wpoa001f	PFO	38.578068	-79.800547
73.4	wpoc017s	PSS	38.577469	-79.791032
73.6	wpoa005f	PFO	38.575918	-79.814941
73.8	wpoa006f	PFO	38.572738	-79.816825
74.5	wpoc009e	PEM	38.562907	-79.795950
74.8	wpob008f	PFO	38.561719	-79.790734
75.2	wpoc008e	PEM	38.561052	-79.783364
75.4	wpoc020e	PEM	38.568730	-79.775193
75.4	wpoc021e	PEM	38.566522	-79.772218
76.6	wpob009e	PEM	38.553970	-79.761768
77.0	wpob001e	PEM	38.551484	-79.754885
77.1	wpob002e	PEM	38.550295	-79.754142
77.3	wpob003e	PEM	38.548192	-79.752297
78.1	wpoa003e	PEM	38.549457	-79.734314
78.1	wpoc013e	PEM	38.548562	-79.733689
78.6	wpoc015e	PEM	38.535209	-79.735138
78.7	wpoa002f	PFO	38.531357	-79.734478
78.7	wpoc014e	PEM	38.533248	-79.733778
78.8	wpoc016e	PEM	38.536668	-79.732601
78.8	wpoc012e	PEM	38.532310	-79.733237
79.0	wpoc002e	PEM	38.542268	-79.725988
79.0	wpob004e	PEM	38.541689	-79.725902
79.1	wpoc001e	PEM	38.537278	-79.725576
79.2	wpoc006e	PEM	38.536831	-79.724943
79.2	wpoc007e	PEM	38.536743	-79.724327
80.4	wpob006e	PEM	38.521496	-79.718205
80.4	wpob007e	PEM	38.521478	-79.718988
82.2	wpoa007f	PFO	38.510379	-79.684522
82.8	wpoc011e	PEM	38.500386	-79.691967
82.8	wpoc010f	PFO	38.500156	-79.691140
VIRGINIA				
Highland				
84.7	whib001e	PEM	38.479179	-79.673493
85.3	whia001e	PEM	38.474307	-79.665965
87.2	whia002e	PEM	38.453813	-79.650288
87.2	whib002e	PEM	38.453963	-79.649750
87.7	whib003e	PEM	38.450685	-79.643729
89.0	whia051e	PEM	38.435430	-79.641784
89.1	whia052e	PEM	38.434331	-79.640618
89.2	whia053e	PEM	38.432382	-79.638985
91.3	whia050e	PEM	38.405292	-79.622782
96.4	whib107e	PEM	38.371702	-79.553529

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
96.5	whib108s	PSS	38.371084	-79.552115
96.6	whib105e	PEM	38.370806	-79.549964
100.5	whib102e	PEM	38.339006	-79.506232
100.6	whib109e	PEM	38.337348	-79.509266
100.7	whib100e	PEM	38.335595	-79.506830
101.0	whib103e	PEM	38.332634	-79.509272
102.1	whib111e	PEM	38.320885	-79.505654
102.4	whia054e	PEM	38.315593	-79.504402
102.4	whib104e	PEM	38.315865	-79.503930
102.5	whia055e	PEM	38.313556	-79.503077
102.5	whib112e	PEM	38.314417	-79.503925
102.6	whib113e	PEM	38.312579	-79.503159
102.7	whia056e	PEM	38.312138	-79.503265
105.6	whib110e	PEM	38.290838	-79.464081
105.9	whib201e	PEM	38.290782	-79.459660
106.8	whib106e	PEM	38.299875	-79.448501
107.7	whic002s	PSS	38.304904	-79.424793
108.6	whic001f	PFO	38.292776	-79.422322
Augusta				
115.4	waub100e	PEM	38.278510	-79.316680
115.7	waub101e	PEM	38.280945	-79.310990
115.8	waub102e	PEM	38.280874	-79.310302
117.1	wauc001f	PFO	38.283788	-79.288569
120.4	wauc002s	PSS	38.291725	-79.234308
143.2	waub001e	PEM	38.061445	-79.048151
148.4	waub104e	PEM	38.028843	-78.976717
148.5	waub105f	PFO	38.028102	-78.975983
150.6	waua056e	PEM	38.000293	-78.963490
150.6	waua056f	PFO	38.000390	-78.963130
150.7	waua057e	PEM	37.998552	-78.963161
150.9	waua058f	PFO	37.996325	-78.964437
152.4	waub103f	PFO	37.977652	-78.966776
152.6	waua050f	PFO	37.974732	-78.966053
153.4	waua059f	PFO	37.966525	-78.959653
153.4	waua060f	PFO	37.966041	-78.958957
153.6	waua061f	PFO	37.964383	-78.956467
156.0	waua053s	PSS	37.935173	-78.971151
156.2	waua052e	PEM	37.933774	-78.973267
156.4	waua051e	PEM	37.931208	-78.976205
Nelson				
166.2	wnea051f	PFO	37.857527	-78.865944
179.5	wnea050s	PSS	37.712244	-78.776765
182.9	wnep001f	PFO	37.671596	-78.747760
183.9	wnep002e	PEM	37.664104	-78.734340
178.9	wnea050s	PSS	37.712194	-78.776864
Buckingham				
184.9	wbup006e	PEM	37.661005	-78.715528
187.6	wbup005f	PFO	37.629288	-78.693477

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
188.2	wbup004f	PFO	37.620550	-78.693481
188.2	wbup003f	PFO	37.620190	-78.693648
189.1	wbuc002e	PEM	37.610576	-78.685500
189.1	wbuc007s	PSS	37.605923	-78.687890
190.6	wbua001f	PFO	37.599060	-78.662234
191.0	wbua002f	PFO	37.595617	-78.656381
191.4	wbub050f	PFO	37.590264	-78.656262
191.5	wbub050e	PEM	37.589753	-78.655697
191.9	wbub051s	PSS	37.586237	-78.654820
193.5	wbuc003f	PFO	37.565620	-78.641948
194.1	wbuc004e	PEM	37.558486	-78.639914
194.1	wbuc005f	PFO	37.557889	-78.640337
194.2	wbuc006f	PFO	37.557367	-78.639563
195.0	wbuk001e	PEM	37.549292	-78.629783
195.7	wbuk006e	PEM	37.542191	-78.620130
196.1	wbuk005e	PEM	37.541807	-78.613838
196.2	wbuk004e	PEM	37.541867	-78.611692
196.3	wbuk003e	PEM	37.541829	-78.610399
196.3	wbuk002e	PEM	37.540880	-78.610374
197.5	wbuk007e	PEM	37.527099	-78.596984
198.0	wbuk009e	PEM	37.522392	-78.591472
198.0	wbuk008e	PEM	37.522812	-78.590825
198.5	wbua200e	PEM	37.516494	-78.587445
198.5	wbua201e	PEM	37.515812	-78.587485
198.5	wbua201f	PFO	37.515549	-78.587220
200.1	wbul004s	PSS	37.495158	-78.577455
200.5	wbup002e	PEM	37.489553	-78.576140
201.2	wbup001f	PFO	37.486734	-78.565585
201.2	wbup001s	PSS	37.486976	-78.565488
201.8	wbul005f	PFO	37.482933	-78.554948
203.6	wbul002f	PFO	37.470979	-78.527812
205.2	wbul003f	PFO	37.455642	-78.506400
206.5	wbul007f	PFO	37.440317	-78.494130
206.9	wbul006f	PFO	37.437009	-78.489663
207.8	wbua004f	PFO	37.428627	-78.476336
209.1	wbuk013f	PFO	37.414432	-78.462467
209.4	wbuk016f	PFO	37.411745	-78.460015
209.5	wbuk017e	PEM	37.410703	-78.458589
209.5	wbuk018e	PEM	37.410131	-78.458004
209.6	wbuk019e	PEM	37.409635	-78.457169
209.9	wbuk020e	PEM	37.406547	-78.453630
210.0	wbuk021f	PFO	37.405315	-78.453042
210.1	wbuk012e	PEM	37.403842	-78.452008
210.1	wbuk011e	PEM	37.403259	-78.451358
210.9	wbuk010f	PFO	37.394249	-78.444012
211.4	wbua003e	PEM	37.388442	-78.437069
211.6	wbua202f	PFO	37.390870	-78.432886
211.7	wbua203e	PEM	37.389790	-78.431949

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
Cumberland				
213.8	wcuk001f	PFO	37.369041	-78.410432
213.9	wcuk002f	PFO	37.368309	-78.410181
214.0	wcuk003f	PFO	37.367410	-78.408556
214.0	wcuk004f	PFO	37.366341	-78.408500
214.5	wcuc001f	PFO	37.363500	-78.401414
215.0	wcuk014f	PFO	37.363753	-78.392288
215.1	wcuk015e	PEM	37.363928	-78.390356
215.9	wcuk020f	PFO	37.361305	-78.375906
216.0	wcuk017e	PEM	37.360421	-78.374650
216.2	wcuk019e	PEM	37.360439	-78.371654
216.2	wcuk018e	PEM	37.360569	-78.371568
218.2	wcuk013f	PFO	37.344124	-78.343108
218.2	wcuk012s	PSS	37.343985	-78.342404
218.7	wcuk011f	PFO	37.338252	-78.336410
218.9	wcua002f	PFO	37.334423	-78.338122
219.5	wcuk008f	PFO	37.331250	-78.325641
219.6	wcuk009f	PFO	37.330949	-78.324155
219.6	wcuk010e	PEM	37.330397	-78.324709
220.1	wcuk007e	PEM	37.326552	-78.315846
220.4	wcuk006e	PEM	37.324097	-78.310003
220.7	wcuk005e	PEM	37.322097	-78.306409
Prince Edward				
221.7	wpek001e	PEM	37.314649	-78.291529
222.6	wpek002e	PEM	37.305552	-78.282310
223.2	wpea005f	PFO	37.302693	-78.271588
223.8	wpea001f	PFO	37.299658	-78.263596
223.9	wpea002f	PFO	37.298390	-78.261251
224.1	wpea003e	PEM	37.297200	-78.257797
224.3	wpea004f	PFO	37.295435	-78.255268
225.2	wpec001f	PFO	37.287733	-78.242352
225.5	wpea006f	PFO	37.285304	-78.237399
Nottoway				
226.0	wnok021s	PSS	37.281875	-78.231091
226.1	wnok022f	PFO	37.280471	-78.229626
226.8	wnok001f	PFO	37.273834	-78.220854
227.2	wnok002f	PFO	37.271430	-78.213993
228.2	wnok004e	PEM	37.266606	-78.197814
228.3	wnok003f	PFO	37.265956	-78.196581
228.3	wnok003e	PEM	37.265433	-78.196360
228.8	wnok005f	PFO	37.261829	-78.189072
229.2	wnok006e	PEM	37.258998	-78.182821
229.3	wnok007f	PFO	37.258712	-78.181412
229.9	wnok008f	PFO	37.254836	-78.171047
230.0	wnok009f	PFO	37.253925	-78.168778
231.8	wnol001f	PFO	37.244937	-78.138919
232.3	wnol002f	PFO	37.242945	-78.129611
232.4	wnol003f	PFO	37.242738	-78.129439

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
232.7	wnok017f	PFO	37.239963	-78.124370
232.7	wnok017e	PEM	37.239977	-78.124164
232.8	wnok018s	PSS	37.239303	-78.123533
233.4	wnok019f	PFO	37.233990	-78.114484
233.5	wnok020s	PSS	37.232917	-78.113009
233.5	wnok020f	PFO	37.232214	-78.112894
235.2	wnom005e	PEM	37.212339	-78.097663
235.5	wnom006f	PFO	37.207996	-78.096236
235.9	wnok101f	PFO	37.203396	-78.090352
236.1	wnok100f	PFO	37.202559	-78.089950
238.6	wnok010f	PFO	37.181132	-78.057006
238.6	wnok010e	PEM	37.180837	-78.056756
238.8	wnok011e	PEM	37.179417	-78.053689
239.1	wnok012f	PFO	37.176172	-78.050572
240.0	wnok013e	PEM	37.166159	-78.041038
240.5	wnok015e	PEM	37.160444	-78.034195
240.6	wnok014s	PSS	37.160180	-78.033098
240.6	wnok016f	PFO	37.159200	-78.032484
242.8	wnoc001f	PFO	37.139924	-78.001426
242.8	wnoc001e	PEM	37.140257	-78.001774
243.4	wnoa001e	PEM	37.136415	-77.992354
243.7	wnol004e	PEM	37.135187	-77.987057
244.2	wnol005s	PSS	37.132914	-77.979362
244.2	wnol005f	PFO	37.132823	-77.978817
245.1	wnol006f	PFO	37.128649	-77.964817
245.4	wnoa010f	PFO	37.127758	-77.959393
245.6	wnol007f	PFO	37.127727	-77.955973
246.0	wnol008f	PFO	37.128435	-77.948223
247.1	wnok023f	PFO	37.125352	-77.930461
247.2	wnok024f	PFO	37.124306	-77.930381
247.2	wnok025f	PFO	37.124356	-77.929883
247.2	wnok026f	PFO	37.123870	-77.929237
247.7	wnom001e	PEM	37.120175	-77.921836
248.1	wnom002e	PEM	37.118756	-77.916035
248.1	wnom003f	PFO	37.118571	-77.912649
248.6	wnom004f	PFO	37.118976	-77.907265
Dinwiddie				
249.1	wdim001f	PFO	37.119068	-77.898262
249.1	wdim001e	PEM	37.119176	-77.897961
249.2	wdim002s	PSS	37.119181	-77.896053
249.5	wdim003e	PEM	37.119348	-77.889075
249.8	wdim004e	PEM	37.118386	-77.886123
249.9	wdim005s	PSS	37.117531	-77.884413
250.2	wdim006f	PFO	37.115578	-77.878336
250.5	wdim007f	PFO	37.114001	-77.874342
250.6	wdim011f	PFO	37.112779	-77.871877
251.2	wdim010f	PFO	37.108956	-77.862210
251.4	wdim008e	PEM	37.107656	-77.859353

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
251.5	wdim009e	PEM	37.107135	-77.858172
251.5	wdim009f	PFO	37.107106	-77.857899
251.5	wdim012f	PFO	37.106393	-77.857610
251.8	wdim013f	PFO	37.103607	-77.855714
251.9	wdim014f	PFO	37.102476	-77.855133
252.0	wdim015f	PFO	37.100248	-77.853897
252.1	wdim016f	PFO	37.099107	-77.853396
252.2	wdim017f	PFO	37.098626	-77.852236
252.6	wdim018f	PFO	37.093381	-77.849014
252.7	wdia007f	PFO	37.092121	-77.848409
252.7	wdim019f	PFO	37.090980	-77.848276
252.9	wdim020f	PFO	37.088637	-77.846496
253.1	wdim021f	PFO	37.087197	-77.844386
254.6	wdib006f	PFO	37.068845	-77.829893
254.8	wdia006f	PFO	37.067337	-77.827757
255.4	wdib004f	PFO	37.061502	-77.819057
255.4	wdib005e	PEM	37.060981	-77.818878
255.5	wdib003s	PSS	37.059782	-77.817866
255.7	wdib002s	PSS	37.057846	-77.816525
255.9	wdib001f	PFO	37.054743	-77.818006
256.7	wdil001f	PFO	37.046411	-77.828382
257.2	wdil002f	PFO	37.042099	-77.834338
257.3	wdia005f	PFO	37.041069	-77.834906
257.5	wdil003f	PFO	37.038163	-77.836051
257.8	wdil004e	PEM	37.035323	-77.837437
257.8	wdil004f	PFO	37.034451	-77.838122
258.3	wdic002f	PFO	37.025806	-77.838974
259.3	wdic001f	PFO	37.014608	-77.835906
260.6	wdic003f	PFO	36.997004	-77.840031
Brunswick				
260.7	wbrc003f	PFO	36.995506	-77.840301
260.8	wbra201f	PFO	36.994641	-77.839346
261.3	wbrc001e	PEM	36.988128	-77.837326
261.4	wbrc002e	PEM	36.987476	-77.836174
261.5	wbra202f	PFO	36.984932	-77.834587
262.5	wbra203f	PFO	36.972012	-77.827032
262.8	wbra204f	PFO	36.967747	-77.823390
264.7	wbra205f	PFO	36.947261	-77.803814
274.0	wbrc006f	PFO	36.838450	-77.740705
280.0	wbra217e	PEM	36.762690	-77.700473
280.0	wbra217s	PSS	36.762814	-77.700296
280.4	wbra216f	PFO	36.762533	-77.693876
280.6	wbra215e	PEM	36.762349	-77.690260
281.0	wbra214f	PFO	36.760900	-77.684216
281.3	wbra213s	PSS	36.760194	-77.678946
281.5	wbra212e	PEM	36.759287	-77.674411
281.9	wbrb003f	PFO	36.757332	-77.669191
282.0	wbrb002f	PFO	36.756418	-77.668559

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
282.1	wbrb001f	PFO	36.754109	-77.666665
282.3	wbrb004f	PFO	36.752701	-77.665335
282.4	wbra026f	PFO	36.750946	-77.663909
282.8	wbra002f	PFO	36.747660	-77.659530
282.9	wbra001f	PFO	36.746595	-77.657281
Greensville				
283.0	wgra018f	PFO	36.745953	-77.656491
283.3	wgra035f	PFO	36.742285	-77.652083
283.5	wgra036e	PEM	36.740237	-77.650158
283.5	wgra036f	PFO	36.740157	-77.649485
283.7	wgra037f	PFO	36.738678	-77.648410
283.9	wgra016f	PFO	36.734248	-77.643225
284.1	wgra016e	PEM	36.733800	-77.642562
284.4	wgra038s	PSS	36.731052	-77.640230
284.5	wgra017f	PFO	36.728824	-77.637798
284.8	wgrc002f	PFO	36.726037	-77.636343
285.3	wgra040e	PEM	36.719771	-77.629632
285.9	wgra013f	PFO	36.713956	-77.623650
286.2	wgra014f	PFO	36.709609	-77.620169
286.3	wgra015f	PFO	36.708710	-77.619752
286.4	wgra008f	PFO	36.707019	-77.619158
286.5	wgra008e	PEM	36.706494	-77.618941
286.6	wgrc001f	PFO	36.703165	-77.623546
286.8	wgra009f	PFO	36.702101	-77.616955
287.1	wgra010f	PFO	36.697670	-77.615218
287.4	wgra039f	PFO	36.693628	-77.609689
287.8	wgra011f	PFO	36.691415	-77.606165
287.8	wgra011f2	PFO	36.690549	-77.604870
288.2	wgra001f	PFO	36.687134	-77.602240
288.5	wgra002f	PFO	36.681815	-77.600120
290.1	wgrc010e	PEM	36.661614	-77.591000
290.2	wgrc011f	PFO	36.660434	-77.589445
290.4	wgrc009f	PFO	36.658487	-77.586660
291.4	wgra003f	PFO	36.647433	-77.576714
292.4	wgra012s	PSS	36.630072	-77.566303
294.0	wgra004f	PFO	36.623128	-77.548033
294.2	wgra005f	PFO	36.621075	-77.545393
294.5	wgra006f	PFO	36.618738	-77.541149
294.7	wgra007f	PFO	36.615734	-77.537624
295.6	wgrb003f	PFO	36.604089	-77.534298
295.9	wgrp004f	PFO	36.600435	-77.532065
296.1	wgrp003f	PFO	36.597919	-77.530555
296.8	wgrb001f	PFO	36.587468	-77.530148
296.9	wgrb002f	PFO	36.582812	-77.529346
297.5	wgrc012e	PEM	36.577943	-77.527331
297.7	wgra034e	PSS	36.575344	-77.525555
297.8	wgra034f	PFO	36.574475	-77.524757
298.2	wgra033f	PFO	36.570242	-77.522044

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
298.3	wgra032f	PFO	36.568377	-77.520437
298.4	wgra031f	PFO	36.566996	-77.519339
298.4	wgra030f	PFO	36.566289	-77.518954
298.6	wgra029f	PFO	36.565301	-77.517781
298.7	wgrp005s	PSS	36.562042	-77.515474
299.3	wgrp006s	PSS	36.553619	-77.510854
299.6	wgrp006f	PFO	36.550133	-77.509554
AP-2				
NORTH CAROLINA				
Northampton				
0.3	wnra002f	PFO	36.539872	-77.510599
0.7	wnra001f	PFO	36.534872	-77.512931
1.0	wnrh011f	PFO	36.530737	-77.515060
1.2	wnrh010f	PFO	36.527949	-77.517015
1.4	wnrh009f	PFO	36.525076	-77.518500
1.6	wnrh008f	PFO	36.522637	-77.519916
1.8	wnrh007f	PFO	36.519776	-77.521980
2.5	wnrh013f	PFO	36.509842	-77.524582
3.3	wnrh012f	PFO	36.500600	-77.530538
3.5	wnrg001e	PEM	36.498741	-77.531053
3.6	wnrg002f	PFO	36.496435	-77.532127
3.9	wnrg003f	PFO	36.493753	-77.533051
4.0	wnrh015f	PFO	36.491414	-77.534475
6.6	wnrp019f	PFO	36.465462	-77.551585
8.0	wnrg005f	PFO	36.444975	-77.549885
8.4	wnrg006f	PFO	36.438840	-77.552085
9.6	wnrh005f	PFO	36.423294	-77.558227
Halifax				
9.9	whlh001s	PSS	36.419070	-77.561439
10.1	whlh002f	PFO	36.416469	-77.563099
10.7	whlh003f	PFO	36.409098	-77.569038
11.4	whlc002f	PFO	36.403486	-77.577847
11.6	whlc003e	PEM	36.402513	-77.582122
11.7	whlc004e	PEM	36.402200	-77.583105
11.8	whlc005f	PFO	36.401306	-77.584459
11.9	whlc006f	PFO	36.400230	-77.584467
12.8	whlc001f	PFO	36.388238	-77.588123
12.8	whlh037f	PFO	36.387738	-77.588253
12.9	whlg001f	PFO	36.386771	-77.588846
14.5	whlh006f	PFO	36.369029	-77.606619
14.7	whlh007f	PFO	36.367005	-77.608665
15.5	whlg006f	PFO	36.357232	-77.620045
15.8	whlg005f	PFO	36.354040	-77.623044
17.3	whlg008f	PFO	36.339106	-77.637463
17.8	whlg009f	PFO	36.333361	-77.642350
19.2	whlh010f	PFO	36.314807	-77.652992
19.7	whlh009f	PFO	36.305737	-77.661923
20.4	whlh008f	PFO	36.300971	-77.664992

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
20.6	whlg012e	PEM	36.298040	-77.664378
20.7	whlg012f	PFO	36.296736	-77.664920
21.0	whlh032s	PSS	36.293961	-77.668179
21.5	whlh032f	PFO	36.287958	-77.672857
21.6	whlh031f	PFO	36.286565	-77.673957
21.9	whlh030f	PFO	36.283276	-77.676858
22.0	whlb103f	PFO	36.281261	-77.678583
22.2	whlh027e	PEM	36.279978	-77.679692
22.3	whlh027f	PFO	36.279512	-77.680402
22.7	whlh028f	PFO	36.273036	-77.685088
23.0	whlh029f	PFO	36.268102	-77.689438
23.5	whlg019f	PFO	36.263452	-77.693764
23.8	whlg018f	PFO	36.259362	-77.697870
24.2	whlg017s	PSS	36.254131	-77.702329
24.6	whlg016f	PFO	36.251437	-77.704786
24.7	whlg015f	PFO	36.249816	-77.706365
24.9	whlb100e	PEM	36.247503	-77.708574
25.0	whlb100f	PFO	36.246850	-77.708962
25.2	whlg014f	PFO	36.244633	-77.711587
25.3	whlg013f	PFO	36.241783	-77.713741
25.8	whlh012f	PFO	36.236312	-77.717422
26.0	whlh013f	PFO	36.234619	-77.718222
26.3	whlh014f	PFO	36.229208	-77.723731
27.2	whlh015f	PFO	36.219386	-77.733820
27.7	whlh016f	PFO	36.215624	-77.738465
29.0	whlh017f	PFO	36.208643	-77.756554
29.1	whlh018f	PFO	36.207175	-77.757844
29.3	whlh019f	PFO	36.203586	-77.759234
29.7	whlh020f	PFO	36.197944	-77.761169
30.2	whlh024f	PFO	36.191982	-77.763124
30.5	whlh025f	PFO	36.188141	-77.765482
30.9	whlh026f	PFO	36.182555	-77.770304
31.2	whlo001f	PFO	36.179641	-77.772861
31.6	whlh021s	PSS	36.174647	-77.775278
31.7	whlh022f	PFO	36.172785	-77.775845
32.0	whlh023e	PEM	36.169004	-77.777824
33.3	whlg010f	PFO	36.153065	-77.789915
33.5	whlh034f	PFO	36.152325	-77.795935
33.7	whlg011f	PFO	36.147369	-77.793718
Nash				
34.2	wnah039e	PEM	36.141561	-77.797153
34.5	wnah038s	PSS	36.138497	-77.799303
34.8	wnag001f	PFO	36.134809	-77.802559
34.9	wnag002f	PFO	36.132699	-77.804336
35.1	wnag003f	PFO	36.131442	-77.805628
35.1	wnah017f	PFO	36.130344	-77.806782
36.0	wnah016f	PFO	36.119707	-77.814359
36.5	wnah015f	PFO	36.112868	-77.819006

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
36.7	wnah014f	PFO	36.110567	-77.820747
37.0	wnah019f	PFO	36.107645	-77.822905
37.0	wnah019e	PEM	36.106885	-77.823733
37.8	wnah036f	PFO	36.100476	-77.833146
37.9	wnah018f	PFO	36.099470	-77.834216
37.9	wnah018s	PSS	36.099471	-77.835052
38.1	wnah006f	PFO	36.097853	-77.838105
38.3	wnah005f	PFO	36.094909	-77.840517
38.4	wnab102s	PSS	36.093900	-77.841338
38.5	wnah004f	PFO	36.092832	-77.841807
38.7	wnab101f	PFO	36.090128	-77.845019
38.9	wnah003f	PFO	36.088679	-77.846472
39.1	wnah002f	PFO	36.085649	-77.849085
39.2	wnah001f	PFO	36.083739	-77.851342
39.7	wnab100f	PFO	36.080025	-77.856240
39.9	wnah008f	PFO	36.077323	-77.857832
40.1	wnah007f	PFO	36.075464	-77.860216
40.6	wnab001f	PFO	36.070510	-77.865896
40.9	wnah013f	PFO	36.068634	-77.870110
41.0	wnah012f	PFO	36.066424	-77.871609
41.6	wnah011f	PFO	36.059855	-77.875862
41.7	wnah010f	PFO	36.058182	-77.877044
41.8	wnah009f	PFO	36.056980	-77.877908
42.0	wnah034f	PFO	36.054239	-77.880414
42.8	wnac002f	PFO	36.045188	-77.886622
43.0	wnac001f	PFO	36.042813	-77.884405
43.6	wnac003f	PFO	36.039446	-77.873295
44.0	wnac004f	PFO	36.035534	-77.874188
44.4	wnac005s	PSS	36.030935	-77.877074
44.4	wnac005f	PFO	36.030112	-77.877849
45.4	wnac006f	PFO	36.022490	-77.890700
45.6	wnab103f	PFO	36.021764	-77.894962
47.2	wnah021f	PFO	36.005338	-77.909993
47.6	wnah022f	PFO	35.999900	-77.911491
48.1	wnah022e	PEM	35.993066	-77.908822
48.4	wnah023f	PFO	35.987692	-77.909395
48.6	wnah023e	PEM	35.985678	-77.910234
48.9	wnah024f	PFO	35.981894	-77.912983
50.3	wnag006f	PFO	35.967534	-77.921890
50.7	wnag005f	PFO	35.965271	-77.929757
50.8	wnag004f	PFO	35.964382	-77.929927
51.5	wnag008f	PFO	35.958338	-77.940541
52.0	wnag007f	PFO	35.953384	-77.944992
53.3	wnah030e	PEM	35.938207	-77.958696
53.5	wnah029f	PFO	35.935423	-77.960231
53.7	wnah028f	PFO	35.930701	-77.963524
54.3	wnah027f	PFO	35.923392	-77.968173
54.9	wnah026f	PFO	35.918696	-77.972857

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
55.7	wnah032f	PFO	35.911381	-77.983864
55.9	wnah033f	PFO	35.908494	-77.986019
56.2	wnah031f	PFO	35.901480	-77.991048
56.8	wnah025f	PFO	35.895186	-77.994360
57.7	wnag010f	PFO	35.885187	-77.997067
58.3	wnao013f	PFO	35.876294	-77.996855
58.5	wnao012f	PFO	35.871838	-77.996570
58.8	wnap004f	PFO	35.869339	-77.998491
59.1	wnap003f	PFO	35.865837	-78.000878
59.3	wnap002f	PFO	35.862739	-78.003180
59.4	wnap001f	PFO	35.862343	-78.003823
59.8	wnao011f	PFO	35.857773	-78.007069
60.6	wnao010f2	PFO	35.846327	-78.015287
60.8	wnao010f1	PFO	35.844332	-78.016609
61.2	wnao009f	PFO	35.838382	-78.018597
61.3	wnap006f	PFO	35.838099	-78.019220
61.8	wnao008f	PFO	35.832015	-78.023991
62.1	wnao007f	PFO	35.828286	-78.027262
62.3	wnao006f	PFO	35.825199	-78.029188
62.6	wnao005f	PFO	35.821092	-78.030772
62.8	wnao004f	PFO	35.818891	-78.032662
63.3	wnao003f	PFO	35.812979	-78.037363
64.6	wnao002f	PFO	35.794303	-78.048722
65.3	wnao001f	PFO	35.787533	-78.052928
Wilson				
66.0	wwio021f	PFO	35.778783	-78.055633
66.0	wwio019f	PFO	35.778202	-78.054839
66.2	wwio020f	PFO	35.776353	-78.053518
66.5	wwio018f	PFO	35.772396	-78.052836
66.6	wwio017f	PFO	35.768881	-78.053441
67.7	wwio001s	PSS	35.755649	-78.053376
67.8	wwio001f	PFO	35.755498	-78.053492
68.0	wwio002f	PFO	35.753609	-78.056525
68.3	wwio003f	PFO	35.752616	-78.061740
69.1	wwio004e	PEM	35.744783	-78.072366
69.1	wwio004f	PFO	35.745179	-78.071941
69.3	wwio005f	PFO	35.743814	-78.075049
69.6	wwio006f	PFO	35.739010	-78.078553
69.9	wwio007f	PFO	35.735815	-78.079644
70.3	wwio009f	PFO	35.731660	-78.084435
70.5	wwip020f	PFO	35.729480	-78.085784
70.5	wwio008f	PFO	35.729649	-78.085214
70.5	wwio010f	PFO	35.728847	-78.085971
70.7	wwio011f	PFO	35.726188	-78.086020
70.9	wwio012f	PFO	35.722941	-78.086989
71.3	wwio013f	PFO	35.716779	-78.088895
71.6	wwip001f	PFO	35.713317	-78.090423
71.7	wwip002f	PFO	35.712325	-78.092117

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
71.9	wwip003e	PEM	35.710935	-78.093683
71.9	wwip003f	PFO	35.710680	-78.094156
72.3	wwic002f	PFO	35.706790	-78.097854
72.5	wwic001f	PFO	35.703744	-78.098147
72.9	wwic003f	PFO	35.697365	-78.098560
73.1	wwib101f	PFO	35.693850	-78.099641
73.5	wwib100f	PFO	35.692018	-78.101828
73.8	wwip018f	PFO	35.690036	-78.106062
73.9	wwip017f	PFO	35.688944	-78.106260
74.0	wwip016f	PFO	35.686264	-78.107686
74.3	wwip015f	PFO	35.683978	-78.110971
74.5	wwip004f	PFO	35.681562	-78.113456
74.8	wwip006f	PFO	35.677006	-78.115240
75.1	wwip007f	PFO	35.672986	-78.116912
75.2	wwip008f	PFO	35.671959	-78.117179
75.2	wwia001f	PFO	35.671273	-78.117776
75.6	wwip019f	PFO	35.665153	-78.120134
76.0	wwip013f	PFO	35.658537	-78.127931
76.8	wwip013e	PEM	35.653403	-78.131241
76.9	wwip014f	PFO	35.652442	-78.132325
77.0	wwio016f	PFO	35.650721	-78.133706
77.3	wwio015f	PFO	35.648150	-78.136609
77.4	wwio014s	PSS	35.646322	-78.138931
77.5	wwio014f	PFO	35.644968	-78.139665
Johnston				
77.9	wjoo003f	PFO	35.638837	-78.146036
78.5	wjoo002f	PFO	35.634017	-78.150905
78.8	wjoo001e	PEM	35.631808	-78.153508
79.1	wjob109f	PFO	35.627895	-78.156314
79.3	wjob110f	PFO	35.625418	-78.159437
79.4	wjob111s	PSS	35.624642	-78.161564
79.5	wjob111f	PFO	35.623883	-78.162092
79.7	wjob106f	PFO	35.623079	-78.164837
79.8	wjob105f	PFO	35.621757	-78.167127
79.9	wjob105e	PEM	35.621196	-78.168437
80.1	wjoo004f	PFO	35.618732	-78.171697
80.4	wjop022f	PFO	35.615706	-78.174375
80.6	wjop020f	PFO	35.612290	-78.176848
81.0	wjop021f	PFO	35.608478	-78.179483
81.4	wjoo009f	PFO	35.606991	-78.184980
81.5	wjoo010e	PEM	35.606378	-78.186361
81.9	wjop004f	PFO	35.600179	-78.190068
82.5	wjop014f	PFO	35.596963	-78.198144
82.7	wjop015f	PFO	35.594275	-78.204686
83.4	wjop016f	PFO	35.589421	-78.211036
83.8	wjop017f	PFO	35.585652	-78.212463
84.2	wjop001f	PFO	35.579307	-78.214283
84.5	wjop002f	PFO	35.575700	-78.217335

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
85.0	wjoo011f	PFO	35.575729	-78.227476
85.3	wjop003f	PFO	35.575662	-78.231756
85.6	wjoo012f	PFO	35.571685	-78.233707
85.9	wjoo013f	PFO	35.570453	-78.237889
86.1	wjoo014s	PSS	35.570049	-78.241413
86.3	wjoo015f	PFO	35.569983	-78.243947
86.4	wjoo016f	PFO	35.568080	-78.246839
87.0	wjoo017f	PFO	35.562049	-78.250011
87.2	wjoo018f	PFO	35.558662	-78.250512
87.3	wjoo019f	PFO	35.556604	-78.250011
87.4	wjoo020f	PFO	35.555546	-78.250737
87.6	wjoo021f1	PFO	35.550471	-78.250508
88.0	wjoo021f2	PFO	35.546202	-78.250242
89.6	wjop005f	PFO	35.526458	-78.251067
89.7	wjop006f	PFO	35.525928	-78.252664
89.8	wjop007f	PFO	35.525389	-78.254458
90.0	wjop027f	PFO	35.524573	-78.258822
90.3	wjop026e	PEM	35.523810	-78.262562
90.4	wjop008e	PEM	35.522547	-78.264010
90.6	wjop009f	PFO	35.521303	-78.267719
90.9	wjop028s	PSS	35.520387	-78.272148
91.0	wjop011s	PSS	35.520231	-78.273682
91.0	wjop011e	PEM	35.519932	-78.274045
91.1	wjop011f	PFO	35.519757	-78.274039
91.8	wjop012f	PFO	35.509247	-78.278087
92.2	wjop013f	PFO	35.505926	-78.280755
92.7	wjop031f	PFO	35.507108	-78.291127
93.3	wjop019f	PFO	35.497625	-78.293415
94.0	wjoa020f	PFO	35.488642	-78.299378
94.7	wjoo029f	PFO	35.479699	-78.303953
95.1	wjoa019f	PFO	35.474936	-78.305726
95.9	wjob108f	PFO	35.463594	-78.311709
96.1	wjob107f	PFO	35.461600	-78.313762
97.0	wjoa017f	PFO	35.451168	-78.323887
97.2	wjoa018f	PFO	35.445127	-78.328821
97.8	wjop036f1	PFO	35.439181	-78.327170
98.0	wjoc001e	PEM	35.440719	-78.332758
98.0	wjop036f2	PFO	35.438561	-78.328867
98.1	wjob112f	PFO	35.438386	-78.334117
98.2	wjob112s	PSS	35.436691	-78.335523
98.3	wjop034f	PFO	35.435464	-78.332402
98.3	wjop032e	PEM	35.434336	-78.334514
98.3	wjop032f	PFO	35.434337	-78.334522
98.7	wjoa013s	PSS	35.433304	-78.339462
98.8	wjoa013f	PFO	35.432139	-78.339531
98.8	wjoa014f	PFO	35.431123	-78.339836
98.9	wjoa015f	PFO	35.430368	-78.341683
99.0	wjoa016f	PFO	35.429744	-78.342714

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
99.8	wjoa021f	PFO	35.417898	-78.351428
99.9	wjoa021s	PSS	35.418208	-78.351642
100.5	wjob113e	PEM	35.411245	-78.356289
100.5	wjob113f	PFO	35.409749	-78.357398
101.2	wjoa012f	PFO	35.403420	-78.365258
101.5	wjoa011f	PFO	35.400463	-78.366199
101.7	wjoa010f	PFO	35.395701	-78.367822
102.2	wjoa009f	PFO	35.390595	-78.370056
102.8	wjoa008f	PFO	35.384356	-78.376656
103.9	wjoa007f	PFO	35.370386	-78.380439
104.4	wjoa006f	PFO	35.363672	-78.381999
105.0	wjoa005f	PFO	35.356777	-78.387935
106.3	wjob104f	PFO	35.344789	-78.401785
106.3	wjob103s	PSS	35.344845	-78.402840
106.3	wjoa004e	PEM	35.344055	-78.402517
106.5	wjoa003f	PFO	35.340578	-78.405833
107.5	wjoa002f	PFO	35.328822	-78.414728
108.1	wjob100f	PFO	35.323246	-78.420573
108.9	wjoa001f	PFO	35.315160	-78.430784
109.8	wjop023f	PFO	35.305151	-78.438745
110.1	wjop024f	PFO	35.303537	-78.442645
110.5	wjop029f	PFO	35.302137	-78.451043
111.4	wjoo026f	PFO	35.301465	-78.463523
112.6	wjop025f	PFO	35.302931	-78.484476
113.1	wjoo027f	PFO	35.303048	-78.495020
113.7	wjoo024f	PFO	35.302396	-78.504939
114.2	wjoo025f	PFO	35.302165	-78.512456
114.5	wjoo023f	PFO	35.299750	-78.518483
114.6	wjoo022f	PFO	35.298840	-78.520527
Sampson				
116.7	wsao002f	PFO	35.281931	-78.548973
116.9	wsao001f	PFO	35.279805	-78.550620
117.2	wsap002f	PFO	35.276997	-78.553678
117.9	wsap003f	PFO	35.268718	-78.558996
118.3	wsao010f	PFO	35.260992	-78.560832
118.7	wsao011f	PFO	35.257264	-78.562445
118.8	wsao007e	PEM	35.255961	-78.563819
118.9	wsao007f	PFO	35.254059	-78.567126
119.4	wsao008f	PFO	35.251516	-78.570715
119.6	wsao009f	PFO	35.249484	-78.574462
119.7	wsao009f2	PFO	35.248537	-78.576819
120.4	wsao003s	PSS	35.243798	-78.585679
120.9	wsao004e	PEM	35.239437	-78.592881
121.1	wsao005e	PEM	35.238801	-78.595917
121.8	wsao006f	PFO	35.229033	-78.611630
Cumberland				
122.7	wcmo011s	PSS	35.227085	-78.617921
124.7	wcmo011f	PFO	35.214364	-78.650181

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
125.4	wcmc006s	PSS	35.214769	-78.662350
125.6	wcmc005f	PFO	35.213905	-78.664169
126.0	wcmp006f	PFO	35.208985	-78.669479
126.3	wcmp007f	PFO	35.206804	-78.672164
126.8	wcmp008f	PFO	35.200821	-78.677757
126.8	wcmp009f	PFO	35.200765	-78.678243
127.2	wcmp010f	PFO	35.195161	-78.682284
127.7	wcmp011f	PFO	35.191763	-78.687596
128.4	wcmp017f	PFO	35.194175	-78.699834
128.8	wcmp016f	PFO	35.190286	-78.702909
129.0	wcmp015f	PFO	35.188041	-78.704612
129.4	wcmc002f	PFO	35.183230	-78.709957
129.6	wcmc003f	PFO	35.182536	-78.712371
130.1	wcmc007f	PFO	35.179312	-78.719950
130.5	wcmp005f	PFO	35.175831	-78.726242
130.6	wcmp004f	PFO	35.174688	-78.727304
130.9	wcmp003f	PFO	35.172001	-78.731911
131.8	wcmb103f	PFO	35.167257	-78.747398
132.3	wcmb102f	PFO	35.163402	-78.751064
132.4	wcmb102e	PEM	35.163245	-78.751091
133.0	wcmo009f	PFO	35.155509	-78.759614
134.8	wcmo007f	PFO	35.133843	-78.772832
135.1	wcmo006f	PFO	35.129708	-78.774800
135.7	wcmo005f	PFO	35.123877	-78.772045
135.8	wcmo004f	PFO	35.122049	-78.771204
136.4	wcmo003f	PFO	35.115347	-78.764022
136.9	wcmo002f2	PFO	35.107938	-78.761063
137.0	wcmo002f	PFO	35.108038	-78.760578
137.1	wcmo002f1	PFO	35.106905	-78.760920
137.4	wcmo001f2	PFO	35.101960	-78.760818
137.5	wcmo001f1	PFO	35.097911	-78.759076
138.3	wcmo019f	PFO	35.092302	-78.761006
138.3	wcmp014f	PFO	35.088865	-78.759073
139.2	wcmp013f	PFO	35.079303	-78.758993
141.3	wcmg003s	PSS	35.057180	-78.775928
141.8	wcmo018f	PFO	35.051861	-78.779819
142.2	wcmo010f	PFO	35.046210	-78.781368
142.3	wcmo010s	PSS	35.044160	-78.781863
142.6	wcmh005f	PFO	35.040186	-78.781994
142.8	wcmh006f	PFO	35.037485	-78.783771
143.1	wcmh007f	PFO	35.034856	-78.783949
143.4	wcmc001f	PFO	35.031127	-78.781434
144.0	wcmo012f	PFO	35.021622	-78.780944
144.1	wcmo012s	PSS	35.021083	-78.780824
144.4	wcmo013f	PFO	35.017390	-78.782497
144.5	wcmo014f	PFO	35.016496	-78.783554
144.5	wcmp018f	PFO	35.015729	-78.783783
144.6	wcmp019e	PEM	35.013041	-78.784423

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
144.6	wcmp019s	PSS	35.013032	-78.784905
144.7	wcmp019f	PFO	35.013607	-78.784181
145.3	wcmp022f	PFO	35.004585	-78.783996
145.3	wcmp022s	PSS	35.004606	-78.784493
145.8	wcmp037f	PFO	34.998549	-78.784019
145.9	wcmp038e	PEM	34.997005	-78.784692
146.4	wcmp021f	PFO	34.993105	-78.791269
146.6	wcmp020f	PFO	34.992864	-78.795106
146.8	wcmp036f	PFO	34.990669	-78.797211
147.4	wcmp035f	PFO	34.983091	-78.806703
147.9	wcmp034f	PFO	34.981958	-78.812720
148.3	wcmp033f	PFO	34.980957	-78.818538
148.3	wcmp032s	PSS	34.980786	-78.818932
148.3	wcmp032f	PFO	34.980778	-78.818986
148.4	wcmp031f	PFO	34.980122	-78.821189
148.6	wcmp030f	PFO	34.978734	-78.822616
148.6	wcmp029f	PFO	34.978383	-78.823434
148.7	wcmp028f	PFO	34.978068	-78.822962
148.7	wcmp027f	PFO	34.977707	-78.822807
148.7	wcmp026f	PFO	34.976864	-78.823326
148.9	wcmp024f	PFO	34.973550	-78.823699
149.0	wcmp025f	PFO	34.973452	-78.823241
149.3	wcmp023s	PSS	34.969486	-78.823964
149.4	wcmo016e	PEM	34.967326	-78.824049
149.5	wcmo017e	PEM	34.965503	-78.823896
149.6	wcmb101f	PFO	34.963953	-78.824508
150.0	wcmb100f	PFO	34.960028	-78.827880
150.7	wcmc008f	PFO	34.950751	-78.833516
150.8	wcmc008e	PEM	34.949489	-78.833904
151.5	wcmc009f	PFO	34.939773	-78.835068
152.0	wcmc010s	PSS	34.933204	-78.838229
153.3	wcmp012f	PFO	34.920117	-78.852392
154.1	wcmh001f	PFO	34.912644	-78.863259
156.7	wcmg002f	PFO	34.880055	-78.871071
157.4	wcmg001f	PFO	34.871096	-78.874735
158.3	wcmh004f	PFO	34.864710	-78.891098
158.5	wcmh004s	PSS	34.865081	-78.891136
158.9	wcmh003f	PFO	34.862295	-78.898065
159.1	wcmh002s2	PSS	34.861059	-78.900018
159.1	wcmh002f	PFO	34.861324	-78.901273
159.2	wcmh002s1	PSS	34.861879	-78.901562
159.6	wcmh008s	PSS	34.861368	-78.909659
159.7	wcmh008f	PFO	34.860537	-78.910737
160.5	wcmb001s	PSS	34.851253	-78.916916
160.5	wcmb001f	PFO	34.851149	-78.917038
Robeson				
160.5	wrog009f	PFO	34.849281	-78.918399
160.9	wrog010f	PFO	34.845459	-78.921022

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
162.1	wroh019f	PFO	34.839334	-78.946070
163.1	wroh021s	PSS	34.840644	-78.954158
163.3	wroh020f	PFO	34.843932	-78.956052
164.2	wrog008f	PFO	34.849624	-78.970688
164.9	wrog007f	PFO	34.844856	-78.982410
165.3	wrob001f	PFO	34.840589	-78.987621
165.7	wrob002f	PFO	34.837569	-78.990119
166.1	wroc001s	PSS	34.833802	-78.994349
166.1	wroc002f	PEM	34.832790	-78.995121
166.6	wrob003f	PFO	34.827151	-79.002632
167.0	wroc003f	PFO	34.825278	-79.007583
167.6	wroh018f	PFO	34.819014	-79.014735
167.7	wroh018s	PSS	34.815092	-79.016977
169.1	wroh017f	PFO	34.797858	-79.028544
169.6	wrog006f	PFO	34.793158	-79.032877
170.1	wrog005f	PFO	34.789581	-79.037221
170.6	wrog004f	PFO	34.781158	-79.042041
171.3	wrog003f	PFO	34.774925	-79.048838
171.6	wrog002s	PSS	34.771538	-79.052708
171.8	wrog002f	PFO	34.769705	-79.054606
172.0	wrog001s	PSS	34.766697	-79.055495
172.1	wrog001f	PFO	34.765827	-79.055807
172.4	wroh016s	PSS	34.762183	-79.063100
172.9	wroh015f	PFO	34.761823	-79.071351
173.4	wroh014f	PFO	34.761489	-79.076788
173.9	wroh013f	PFO	34.760957	-79.085467
174.0	wroh013s	PSS	34.760808	-79.087967
175.1	wroh012s	PSS	34.757823	-79.105671
175.5	wroh011f	PFO	34.755820	-79.114488
176.4	wroh010s	PSS	34.750896	-79.125588
176.6	wroh009e	PEM	34.748548	-79.127927
176.7	wroh008f	PFO	34.743858	-79.129563
177.5	wroh007s	PSS	34.735394	-79.133400
178.8	wroh006s	PSS	34.728578	-79.148171
180.7	wroh005s	PSS	34.726045	-79.178199
181.6	wroh004s	PSS	34.723854	-79.191789
181.6	wroh003s	PSS	34.723634	-79.192981
182.5	wroh002f	PFO	34.722207	-79.207983
182.7	wroh001f	PFO	34.722687	-79.210613
LATERAL PIPELINES				
AP-3				
VIRGINIA				
Greensville				
12.1	wgrp001f	PFO	36.546057	-77.301640
Southampton				
12.4	wsop004f	PFO	36.549122	-77.294363
13.3	wsop003f	PFO	36.553743	-77.285269
13.4	wsop002f	PFO	36.554805	-77.285476

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
13.4	wsop002e	PEM	36.554950	-77.285174
13.4	wsop001f	PFO	36.559396	-77.282263
13.6	wsop001s	PSS	36.556354	-77.282921
14.1	wsop001e	PEM	36.563764	-77.281620
14.2	wsop006f	PFO	36.564820	-77.279900
14.2	wsop006s	PSS	36.565083	-77.278058
14.3	wsop006e2	PEM	36.565676	-77.277524
14.8	wsop005f	PFO	36.572304	-77.271916
22.8	wsoa032f	PFO	36.626886	-77.148167
23.0	wsoa031e	PEM	36.627975	-77.145243
23.3	wsoa030e	PEM	36.630401	-77.141813
23.5	wsoa005f	PFO	36.632365	-77.139669
23.8	wsoa006s	PSS	36.635454	-77.135825
27.3	wsol009f	PFO	36.641378	-77.073998
27.4	wsol009e	PEM	36.641101	-77.073588
27.7	wsol010f	PFO	36.642598	-77.067771
27.7	wsol010e	PEM	36.642449	-77.067454
27.9	wsol011e	PEM	36.643359	-77.064601
28.1	wsol012f	PFO	36.643953	-77.061350
28.1	wsol012e	PEM	36.643681	-77.061451
28.2	wsol013f	PFO	36.643947	-77.059450
28.2	wsol013e	PEM	36.644033	-77.059445
28.3	wsol014e	PEM	36.644326	-77.057872
28.3	wsol014f	PFO	36.644923	-77.057439
28.7	wsol015e	PEM	36.645809	-77.050950
28.7	wsol015f	PFO	36.645707	-77.050913
28.9	wsoa033f	PFO	36.645554	-77.048338
29.2	wsol016f	PFO	36.642551	-77.043817
29.4	wsol017s	PSS	36.639350	-77.041381
29.5	wsol018f	PFO	36.637923	-77.039356
29.7	wsoc009f	PFO	36.636768	-77.038503
29.9	wsol019e	PEM	36.635560	-77.034136
30.0	wsol019f	PFO	36.635546	-77.032685
30.1	wsol020f	PFO	36.635606	-77.030651
30.7	wsoa017f	PFO	36.633969	-77.020575
30.7	wsoa017e	PEM	36.634828	-77.020831
31.1	wsoa018f	PFO	36.630573	-77.014208
31.8	wsoa020f	PFO	36.628257	-77.002825
32.1	wsol031f	PFO	36.630493	-76.998215
32.2	wsol030f	PFO	36.631601	-76.995724
32.3	wsol029f	PFO	36.632065	-76.994480
32.4	wsol029s	PSS	36.632200	-76.993928
32.4	wsoa019s	PSS	36.633554	-76.995340
32.5	wsol028s	PSS	36.633035	-76.992687
32.5	wsol027f	PFO	36.633201	-76.992020
32.6	wsol026f	PFO	36.634049	-76.991691
32.6	wsol021f	PFO	36.635105	-76.989503
32.9	wsoa029f	PFO	36.637418	-76.987236

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
33.5	wsoa026e	PEM	36.640594	-76.977623
33.6	wsoa027s	PSS	36.641104	-76.975853
33.7	wsoa028f	PFO	36.641629	-76.974103
34.9	wsol025e	PEM	36.640905	-76.952488
35.1	wsol025f	PFO	36.640801	-76.950503
35.1	wsol025s	PSS	36.640366	-76.949724
35.2	wsol024s	PSS	36.640027	-76.947355
35.4	wsol023s	PSS	36.639296	-76.943207
35.6	wsol023e	PEM	36.638741	-76.939334
35.8	wsoa025e	PEM	36.638854	-76.937324
37.0	wsol033e	PEM	36.635787	-76.916952
37.3	wsol034f	PFO	36.633910	-76.912788
37.4	wsoa023f	PFO	36.632677	-76.909651
37.6	wsoc008f	PFO	36.631621	-76.907283
37.7	wsoc007f	PFO	36.631074	-76.905827
37.8	wsoa022f	PFO	36.630394	-76.904049
38.1	wsoa021f	PFO	36.628926	-76.898670
38.4	wsoa024f	PFO	36.629917	-76.893415
Suffolk				
38.6	wsua006f	PFO	36.630736	-76.890570
39.1	wsua007s	PSS	36.631630	-76.882166
39.3	wsua008f	PFO	36.633633	-76.878311
39.5	wsua021f	PFO	36.634503	-76.875812
39.7	wsua020f	PFO	36.634379	-76.872669
39.7	wsua019s	PSS	36.634050	-76.871931
39.9	wsua018s	PSS	36.633864	-76.869467
40.0	wsua009f	PFO	36.633505	-76.867636
40.1	wsua010f	PFO	36.633547	-76.864769
46.5	wsua023f	PFO	36.666623	-76.786008
46.6	wsup011f	PFO	36.666981	-76.784202
53.9	wsuo003e	PEM	36.687132	-76.661127
54.0	wsuo003f	PFO	36.686731	-76.660858
54.5	wsuo004f	PFO	36.687960	-76.652200
54.5	wsuo004e	PEM	36.688239	-76.652484
54.7	wsuo005e	PEM	36.689498	-76.649393
54.7	wsuo005f	PFO	36.689328	-76.648897
55.5	wsup008f	PFO	36.695576	-76.636408
55.6	wsup007f	PFO	36.696632	-76.635038
56.5	wsup005e	PEM	36.704666	-76.624151
56.5	wsup004e	PEM	36.704939	-76.623783
56.6	wsup003e	PEM	36.705322	-76.622600
56.6	wsup002e	PEM	36.704989	-76.622652
56.6	wsup003f	PFO	36.705661	-76.622402
56.9	wsup006e	PEM	36.706761	-76.617325
56.9	wsup006f	PFO	36.706950	-76.618133
57.8	wsuo001e	PEM	36.708399	-76.602749
57.8	wsuo001f	PFO	36.708527	-76.602055
59.0	wsuo002s	PSS	36.702743	-76.582482

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
60.1	wsup001s	PSS	36.709739	-76.568163
64.3	wsur006f	PFO	36.749851	-76.517343
64.6	wsur005e	PEM	36.752113	-76.515401
64.6	wsur004e	PEM	36.752281	-76.514919
64.7	wsur003e	PEM	36.753004	-76.513237
64.9	wsuo006f	PFO	36.755291	-76.514272
64.9	wsuo008s	PSS	36.756122	-76.512902
65.1	wsuo007e	PEM	36.756239	-76.511355
65.1	wsuo008f	PFO	36.757014	-76.510810
65.1	wsuo007f	PFO	36.756648	-76.510781
65.2	wsuo009f	PFO	36.763983	-76.491956
65.2	wsuo009e	PEM	36.757927	-76.510116
67.6	wsuo010s	PSS	36.771145	-76.470504
67.7	wsur001f	PFO	36.770739	-76.468288
67.7	wsur002f	PFO	36.771173	-76.468128
67.8	wsuo011f	PFO	36.770786	-76.466602
67.9	wsuo011e	PEM	36.770470	-76.465547
Chesapeake				
70.1	wchr002f	PFO	36.759108	-76.417979
71.6	wchr001f	PFO	36.758167	-76.399191
NORTH CAROLINA				
Northampton				
0.3	wnrh014e	PEM	36.540749	-77.504920
0.4	wnrc001f	PFO	36.542416	-77.500361
0.7	wnrc001s	PSS	36.541217	-77.497412
0.7	wnrc001e	PEM	36.541619	-77.496858
1.5	wnrc003f	PFO	36.538124	-77.483593
1.6	wnrc002f	PFO	36.537822	-77.480280
2.2	wnrc004f	PFO	36.536130	-77.470757
2.4	wnrc005f	PFO	36.535348	-77.466780
2.6	wnrc006f	PFO	36.535030	-77.463547
3.0	wnrc007f	PFO	36.533966	-77.457435
3.6	wnrp003f	PFO	36.532389	-77.446255
4.1	wnrp004f	PFO	36.532515	-77.436545
4.9	wnrc008e	PEM	36.528253	-77.423839
4.9	wnrc008f	PFO	36.528119	-77.423986
5.1	wnrc009e	PEM	36.527567	-77.421589
5.3	wnrp020f	PFO	36.526608	-77.416020
5.9	wnrp022f	PFO	36.524869	-77.406529
6.3	wnrp012f	PFO	36.524940	-77.401058
6.3	wnrp011f	PFO	36.524804	-77.399696
6.3	wnrp011e	PEM	36.524978	-77.399912
6.7	wnrp010f	PFO	36.526078	-77.394152
7.0	wnrp009e	PEM	36.528418	-77.387508
7.0	wnrp009f	PFO	36.528294	-77.387469
7.1	wnrp008f	PFO	36.528516	-77.385876
7.1	wnrp008e	PEM	36.528773	-77.385984
7.3	wnrp006e	PEM	36.530004	-77.381612

TABLE 3.1-1 (cont'd)

Atlantic Coast Pipeline
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
7.5	wnrp006f	PFO	36.529819	-77.381357
7.5	wnrp007e	PEM	36.530490	-77.379596
7.6	wnrb107f	PFO	36.530728	-77.378244
7.6	wnrb107e	PEM	36.531020	-77.378019
8.1	wnrb108e	PEM	36.533515	-77.368640
8.2	wnrb108f	PFO	36.533293	-77.368478
8.6	wnrc011e	PEM	36.535628	-77.361281
8.6	wnrc011f	PFO	36.535787	-77.361455
8.7	wnrc012e	PEM	36.537025	-77.355813
9.0	wnrc012f	PFO	36.537021	-77.355996
9.2	wnrp018f	PFO	36.538080	-77.350411
9.4	wnrp017f	PFO	36.538888	-77.347717
9.4	wnrp017e	PEM	36.539153	-77.347775
9.4	wnrp016e	PEM	36.539578	-77.346823
9.4	wnrp016f	PFO	36.539455	-77.346517
9.7	wnrb106s	PSS	36.537993	-77.343610
9.9	wnrb105f	PFO	36.536709	-77.337722
10.2	wnrp001f	PFO	36.536157	-77.335234
10.3	wnrb102f	PFO	36.535254	-77.333962
10.5	wnrb101f	PFO	36.536599	-77.330914
10.7	wnrb100f	PFO	36.537442	-77.327866
11.9	wnrp015f	PFO	36.543891	-77.305916
AP-4				
AP-5				
VIRGINIA				
Greensville				
0.2	wgrc003f	PFO	36.728415	-77.640554
0.2	wgrc014f	PFO	36.728494	-77.641533
0.8	wgrc013f	PFO	36.723201	-77.650787

TABLE 3.2-1

Atlantic Coast Pipeline
Wetlands and Waterbodies on County Borders

Project Facility/State/Unique ID	USGS Name	Counties		County within which datasheet was recorded
AP-1				
West Virginia				
slea001	Kincheloe Creek	Harrison	Lewis	Lewis
wleb001e	n/a	Harrison	Lewis	Lewis
Virginia				
scuk011	Appomattox River	Cumberland	Prince Edward	Cumberland
sdic007	Nottoway River	Dinwiddie	Brunswick	Dinwiddie
sgra016	Greensville Creek	Brunswick	Greensville	Greensville
wgra018	n/a	Brunswick	Greensville	Greensville
AP-2				
North Carolina				
shlh001	Roanoke River	Northampton	Halifax	Halifax
snag001	Fishing Creek	Halifax	Nash	Nash
wcmo011s	n/a	Sampson	Cumberland	Cumberland
wcmb001f	n/a	Cumberland	Robeson	Cumberland
wrog009f	n/a	Cumberland	Robeson	Robeson
AP-3				
Virginia				
ssoa010	Blackwater River	Southampton	Suffolk	Southampton
wsoa024f	n/a	Southampton	Suffolk	Southampton
wgrb001f*	n/a	Northampton, NC	Greensville	Greensville

*Note: This wetland crosses the North Carolina/Virginia border.

TABLE 3.2-2

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
MAINLINE PIPELINES							
AP-1							
WEST VIRGINIA							
Harrison							
0.0	shaa001	UNT to Tanner Fork	Perennial	3.0	5.0	39.171054	-80.560321
0.0	shaa002	Tanner Fork	Perennial	6.0	9.0	39.171071	-80.559848
0.4	shab101	Tanner Fork	Perennial	4.0	6.0	39.1664939	-80.557102
0.5	shaa003	UNT to Tanner Fork	Intermittent	4.5	10.0	39.165609	-80.559816
Lewis							
1.1	slea001	Kincheloe Creek	Perennial	12.0	15.0	39.159250	-80.553282
1.5	slea002	Sand Fork	Perennial	14.0	19.0	39.154334	-80.554103
2.4	slea003	UNT to Kincheloe Creek	Intermittent	5.0	9.0	39.147002	-80.545864
2.4	sleb117	Kincheloe Creek	Perennial	20.0	25.0	39.149630	-80.541774
3.0	sleb118	UNT to Hog Camp Run	Perennial	4.0	5.0	39.141680	-80.536126
4.0	sleb001	UNT to Hog Camp Run	Intermittent	5.0	8.0	39.140703	-80.521090
4.0	sleb002	Hog Camp Run	Perennial	15.0	20.0	39.140029	-80.520379
4.0	sleb003	UNT to Hog Camp Run	Intermittent	4.0	6.0	39.140235	-80.520101
4.1	oleb001	UNP to Hog Camp Run	Non-flowing	na	na	39.140171	-80.519593
5.0	sleb004	Elk Lick	Intermittent	4.0	6.0	39.141329	-80.505016
5.0	sleb119	UNT to Elk Lick	Intermittent	2.0	5.0	39.142420	-80.505062
5.7	sleb005	Turkeypen Creek	Perennial	8.0	15.0	39.142439	-80.492781
5.7	sleb006	UNT to Turkeypen Creek	Intermittent	3.0	10.0	39.142786	-80.492298
6.8	sleb106	UNT to Hollick Run	Intermittent	2.0	5.0	39.138759	-80.473466
7.2	sleb105e	UNT to Hollick Run	Ephemeral	1.0	6.0	39.141499	-80.471030
7.5	oleb100	UNP to Kincheloe Creek	Non-flowing	na	na	39.141104	-80.463463
7.7	sleb008	UNT to Hollick Run	Intermittent	4.0	8.0	39.137306	-80.464239
7.7	sleb104i	UNT to Hollick Run	Intermittent	4.0	5.0	39.139455	-80.462362
7.7	sleb104	UNT to Hollick Run	Intermittent	1.5	3.0	39.138553	-80.461476
7.7	slea004	Hollick Run	Perennial	8.5	15.0	39.137268	-80.462882

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
7.9	slea005	UNT to Hollick Run	Intermittent	3.0	7.0	39.135486	-80.460586
8.2	sleb009	West Fork River	Perennial	65.0	75.0	39.135364	-80.456269
8.6	slea006	UNT to West Fork River	Ephemeral	2.5	5.0	39.136987	-80.449456
9.2	oleb002	UNP to West Fork River	Non-flowing	na	na	39.130472	-80.444153
9.2	olea001	Unnamed Pond	Non-flowing	na	na	39.130178	-80.443099
9.4	slea007	UNT to Broad Run	Intermittent	2.0	3.0	39.128577	-80.443271
9.4	slea008	Broad Run	Perennial	9.0	14.0	39.127390	-80.443728
9.9	sleb121	UNT to Broad Run	Intermittent	2.0	4.0	39.120312	-80.436717
10.2	sleb120	Broad Run	Perennial	4.0	6.0	39.119832	-80.436968
10.2	slea009	UNT to Broad Run	Intermittent	3.0	8.0	39.117230	-80.441566
10.7	slea010	UNT to Sycamore Lick	Ephemeral	2.0	5.0	39.112294	-80.436556
10.7	olea002	Unnamed Pond	Non-flowing	na	na	39.112880	-80.436018
10.8	slea011	UNT to Sycamore Lick	Ephemeral	2.0	7.0	39.111711	-80.434561
10.9	sleb120i	Broad Run	Intermittent	3.0	5.0	39.115626	-80.432497
11.8	slea012	UNT to Hackers Creek	Intermittent	3.0	15.0	39.107575	-80.419352
11.8	slea013	UNT to Hackers Creek	Intermittent	3.0	10.0	39.107337	-80.419580
12.3	slea014	UNT to West Run	Intermittent	3.0	10.0	39.101980	-80.415929
12.5	sleb013	UNT to West Run	Intermittent	1.3	3.5	39.099914	-80.413724
12.5	sleb012	UNT to West Run	Perennial	2.0	3.0	39.099487	-80.413112
12.6	sleb011	West Run	Perennial	8.0	12.0	39.098918	-80.411469
13.1	sleb010	UNT to Hackers Creek	Intermittent	4.0	8.0	39.095354	-80.406364
13.6	slec001	UNT to Lifes Run	Ephemeral	2.0	5.0	39.084655	-80.410023
13.7	slec002	UNT to Lifes Run	Intermittent	3.0	5.0	39.086976	-80.404092
13.8	sleh001	UNT to Lifes Run	Intermittent	4.0	5.0	39.085909	-80.402925
14.2	olec002	Unnamed Pond	Non-flowing	na	na	39.083848	-80.396226
14.3	sleh002	Lifes Run	Perennial	15.0	20.0	39.081864	-80.395065
14.3	slec005	Lifes Run	Perennial	22.0	25.0	39.085102	-80.391920
14.4	slec003	UNT to Lifes Run	Intermittent	4.0	8.0	39.082393	-80.392794

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
14.5	sleh009	UNT to Lifes Run	Perennial	4.0	8.0	39.080618	-80.393098
14.8	sleh008	UNT to Hackers Creek	Intermittent	6.0	8.0	39.076654	-80.389381
15.0	sleb110	UNT to Hackers Creek	Ephemeral	1.5	4.0	39.074687	-80.390068
15.0	sleb109	UNT to Hackers Creek	Intermittent	5.0	10.0	39.074433	-80.389927
15.5	sleb111	UNT to Hackers Creek	Perennial	10.0	12.0	39.068577	-80.384696
16.3	sleb113	UNT to Hackers Creek	Intermittent	2.0	5.0	39.059743	-80.379932
16.4	sleb112	UNT to Hackers Creek	Perennial	4.0	5.0	39.059274	-80.379636
17.2	sleb114	UNT to Hackers Creek	Perennial	5.0	10.0	39.052266	-80.368835
18.1	sleb116	UNT to Laurel Lick	Intermittent	1.5	3.0	39.045744	-80.357651
18.1	sleb115	Laurel Lick	Intermittent	15.0	20.0	39.045860	-80.357287
19.9	slea023	UNT to Buckhannon Run	Intermittent	4.0	6.0	39.035726	-80.336303
20.3	sleb018	Buckhannon Run	Perennial	6.0	12.0	39.034646	-80.329368
20.6	sleb019	UNT to Buckhannon Run	Intermittent	3.0	6.0	39.034082	-80.324033
20.7	olea003	Unnamed Pond	Non-flowing	na	na	39.033993	-80.322740
Upshur							
23.3	supa001	Fink Run	Perennial	10.0	16.0	39.010855	-80.292611
24.0	supa002	UNT to Fink Run	Intermittent	3.0	4.0	39.002049	-80.291232
24.3	supa004	UNT to Brushy Fork	Intermittent	2.5	4.0	38.997986	-80.288989
24.6	supa003	UNT to Brushy Fork	Intermittent	2.0	6.0	38.993995	-80.287726
24.7	supa005	UNT to Brushy Fork	Intermittent	2.0	3.0	38.993179	-80.287750
25.4	supb001	UNT to Brushy Fork	Intermittent	2.0	3.0	38.984359	-80.284413
25.7	supb102	Brushy Fork	Intermittent	3.0	5.0	38.983967	-80.279601
25.8	supb003	UNT to Brushy Fork	Intermittent	2.0	5.0	38.982166	-80.278224
25.8	supb002	Brushy Fork	Perennial	3.0	10.0	38.982379	-80.277748
26.0	supb004	Brushy Fork	Perennial	15.0	20.0	38.980309	-80.275386
28.4	supb005	UNT to Lick Run	Intermittent	2.0	4.0	38.953914	-80.253253
28.5	oupa001	UNP to Lick Run	Non-flowing	na	na	38.953510	-80.253116
29.1	oupb001	UNP to Cutright Run	Non-flowing	na	na	38.946053	-80.252168

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
29.2	supb006	Cutright Run	Perennial	12.0	16.0	38.944861	-80.252139
29.3	supa050	UNT to Cutright Run	Intermittent	3.0	5.0	38.943626	-80.253695
29.9	oupb002	UNP to French Creek	Non-flowing	na	na	38.935892	-80.256674
29.9	supb007	UNT to French Creek	Perennial	5.0	7.0	38.935626	-80.255971
29.9	supb008	UNT to French Creek	Intermittent	5.0	7.0	38.935571	-80.255740
30.6	supa006	UNT to French Creek	Perennial	3.0	5.0	38.929219	-80.248913
30.9	supa007	UNT to French Creek	Intermittent	3.0	5.0	38.926468	-80.244413
31.1	supa008	French Creek	Perennial	40.0	55.0	38.926171	-80.240173
31.7	supa009	Buckhannon River	Perennial	75.0	95.0	38.925019	-80.230768
31.8	supa010	UNT to Buckhannon Run	Intermittent	1.0	3.0	38.924818	-80.228677
32.1	supa011	UNT to Trubie Run	Intermittent	4.0	6.0	38.923958	-80.223973
33.0	supb009	UNT to Trubie Run	Perennial	5.0	6.0	38.921127	-80.210858
33.0	supb103	Trubie Run	Perennial	20.0	20.0	38.922634	-80.211601
34.1	supa012	UNT to Buckhannon Run	Ephemeral	2.5	3.0	38.908109	-80.203505
34.4	supa013	Grassy Run	Perennial	17.0	35.0	38.902851	-80.202780
36.1	supb010	Gravel Run	Perennial	15.0	15.0	38.886989	-80.189535
36.1	supa014	UNT to Gravel Run	Intermittent	5.0	8.0	38.886790	-80.189312
36.7	supa051	UNT to Laurel Run	Intermittent	3.0	5.0	38.882529	-80.182520
36.8	supb011	Laurel Run	Perennial	15.0	20.0	38.880322	-80.184642
37.1	supa053	UNT to Tenmile Creek	Intermittent	3.5	3.0	38.876711	-80.181461
37.5	supa052	UNT to Tenmile Creek	Intermittent	2.5	5.0	38.873302	-80.182275
37.8	supa016	Tenmile Creek	Perennial	14.0	18.0	38.871530	-80.175863
37.8	supb050	UNT to Tenmile Creek	Perennial	3.0	4.0	38.871473	-80.174460
37.8	oupa002	UNP to Tenmile Creek	Non-flowing	na	na	38.871110	-80.175505
37.8	supb051	UNT to Tenmile Creek	Perennial	5.0	10.0	38.870543	-80.171527
37.9	supa017	UNT to Tenmile Creek	Intermittent	8.0	10.0	38.869772	-80.175595
37.9	oupa003	Unnamed Pond	Non-flowing	na	na	38.869167	-80.175932
39.3	supa018	UNT to Tenmile Creek	Intermittent	3.5	5.0	38.854927	-80.163428

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
39.6	supa020	UNT to Tenmile Creek	Intermittent	4.0	6.0	38.853723	-80.159228
39.6	supa019	Tenmile Creek	Intermittent	8.0	10.0	38.853202	-80.159038
40.5	supb013	UNT to Leonard Run	Intermittent	1.5	2.5	38.847761	-80.144793
40.7	supb012	UNT to Leonard Run	Intermittent	5.0	6.0	38.846847	-80.141962
40.9	oupb003	Unnamed Pond	Non-flowing	na	na	38.845397	-80.139647
41.3	supa015	Right Fork Middle Fork River	Perennial	32.0	45.0	38.840555	-80.134973
41.4	supb106	UNT to Middle Fork	Intermittent	2.0	3.0	38.838812	-80.134785
41.9	supb105	UNT to Jackson Fork	Ephemeral	1.0	1.5	38.836318	-80.123653
41.9	supb104	Jackson Fork	Perennial	15.0	25.0	38.835787	-80.124220
Randolph							
45.4	srab101	UNT to Jenks Fork	Intermittent	4.0	5.0	38.797041	-80.095463
45.4	srac001	UNT to Jenks Fork	Intermittent	4.0	8.0	38.796356	-80.094598
46.6	srab102	Headwaters of Jenks Fork	Intermittent	4.0	9.0	38.781727	-80.095177
47.0	srab103	UNT to Long Run	Intermittent	4.0	7.0	38.775318	-80.094836
47.5	srab104	UNT to Sugar Run	Intermittent	5.0	7.0	38.769897	-80.092217
47.8	srab105	UNT to Long Run	Perennial	5.0	10.0	38.766024	-80.089303
48.3	srab106	UNT to Schoolcraft Run	Intermittent	4.0	6.0	38.761822	-80.081546
49.2	srab107	UNT to Schoolcraft Run	Perennial	12.0	14.0	38.755539	-80.069596
49.2	srab108	Schoolcraft Run	Perennial	15.0	20.0	38.755124	-80.069387
50.2	srab111	UNT to Birch Fork	Intermittent	6.0	10.0	38.742791	-80.062069
50.2	srab109	Birch Fork	Perennial	25.0	35.0	38.740132	-80.067967
51.1	srab112	Mitchell Lick Fork	Perennial	12.0	14.0	38.734315	-80.050364
52.0	srab113	Kittle Creek	Perennial	30.0	35.0	38.725754	-80.041329
52.0	srab114	UNT to Kittle Creek	Intermittent	2.0	2.5	38.725636	-80.040891
54.8	srab115	Buck Run	Intermittent	7.0	10.0	38.706832	-80.000559
56.4	srab124	UNT to Tygart River	Perennial	35.0	40.0	38.688334	-79.986140
56.4	srab128	UNT to Tygart River	Intermittent	5.0	6.0	38.688204	-79.986031

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
56.4	srab125	UNT to Tygart River	Perennial	45.0	50.0	38.687948	-79.985684
56.5	srab126	Tygart River	Perennial	30.0	50.0	38.687449	-79.985331
56.7	srab127	UNT to Tygart River	Perennial	3.0	4.0	38.684943	-79.983305
57.9	srab116	UNT to Becky Creek	Intermittent	5.0	7.0	38.668368	-79.982758
57.9	sraa004	UNT to Becky Creek	Intermittent	3.0	6.0	38.668746	-79.980640
57.9	oraa001	UNP to Becky Creek	Non-flowing	na	na	38.667932	-79.984685
58.5	srab117	UNT to Becky Creek	Intermittent	3.0	5.0	38.660806	-79.980429
58.7	srab118	UNT to Becky Creek	Intermittent	1.5	2.0	38.658843	-79.978290
59.0	srab119	Dry Run	Perennial	6.0	8.0	38.655545	-79.974819
60.2	srab120	Becky Creek	Perennial	12.0	13.0	38.641684	-79.963235
60.3	srab121	Big Branch	Perennial	12.0	12.0	38.640703	-79.962959
60.3	srab120a	Becky Creek	Perennial	19.0	20.0	38.640533	-79.962972
60.4	srab120b	Becky Creek	Perennial	19.0	20.0	38.639175	-79.962277
60.5	srab122	UNT to Becky Creek	Ephemeral	1.5	1.5	38.637541	-79.962127
60.6	srab120c	Becky Creek	Perennial	19.0	20.0	38.637202	-79.961491
60.6	srab123	UNT to Becky Creek	Perennial	6.0	7.0	38.636626	-79.960314
62.3	sraa059	UNT to Big Branch	Ephemeral	3.0	5.0	38.629673	-79.925561
62.3	sraa058	UNT to Big Branch	Intermittent	4.5	6.0	38.629753	-79.925305
62.3	sraa060	UNT to Lambert Run	Intermittent	4.0	8.0	38.628573	-79.926255
62.7	srab050	UNT to Peters Run	Ephemeral	2.0	5.0	38.617614	-79.936193
62.8	srab051	UNT to Lambert Run	Intermittent	4.0	6.0	38.615679	-79.935709
63.8	sraa051	UNT to Lambert Run	Perennial	5.0	10.0	38.607204	-79.926431
64.0	sraa052	UNT to Lambert Run	Perennial	10.0	20.0	38.607597	-79.922854
64.2	sraa053	UNT to Shavers Fork	Intermittent	3.0	10.0	38.609459	-79.919866
64.2	srab052	UNT to Lambert Run	Intermittent	4.0	6.0	38.609861	-79.919770
64.2	sraa054	UNT to Shavers Fork	Intermittent	4.0	10.0	38.610056	-79.919229
64.5	sraa055	UNT to Lambert Run	Perennial	4.0	15.0	38.607831	-79.916500
64.5	srab053	UNT to Lambert Run	Intermittent	2.0	5.0	38.607515	-79.915724

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
64.7	srab054	UNT to Lambert Run	Perennial	5.0	8.0	38.607240	-79.912636
64.7	srab055	UNT to Lambert Run	Perennial	4.0	8.0	38.607465	-79.912126
64.8	sraa056	UNT to Lambert Run	Perennial	5.0	20.0	38.607043	-79.911475
64.8	orab050	UNP to Lambert Run	Non-flowing	na	na	38.607043	-79.910662
64.9	sraa057	UNT to Lambert Run	Perennial	5.0	10.0	38.605942	-79.910206
64.9	srab057	UNT to Lambert Run	Perennial	3.0	5.0	38.605324	-79.909132
65.1	srac050	UNT to Lambert Run	Intermittent	5.0	15.0	38.603698	-79.906074
65.4	srab058	UNT to Shavers Fork	Perennial	5.0	7.0	38.606754	-79.904586
65.4	orab051	UNP to Shavers Fork	Non-flowing	na	na	38.607029	-79.904639
65.4	srab059	UNT to Shavers Fork	Perennial	5.0	7.0	38.607285	-79.904477
65.5	srac051	UNT to Shavers Fork	Perennial	3.0	5.0	38.607288	-79.903708
65.6	srab060	UNT to Shavers Fork	Perennial	3.0	5.0	38.608216	-79.902172
65.7	srab061	UNT to Shavers Fork	Perennial	4.0	6.0	38.608214	-79.900804
65.7	srab063	UNT to Shavers Fork	Perennial	5.0	6.0	38.608518	-79.900207
65.7	srab062	UNT to Shavers Fork	Ephemeral	4.0	6.0	38.608616	-79.900063
65.7	srab064	UNT to Shavers Fork	Perennial	4.0	6.0	38.608234	-79.899507
65.8	srab065	UNT to Shavers Fork	Perennial	7.0	10.0	38.607704	-79.898261
66.5	srab066	UNT to Shavers Fork	Perennial	5.0	7.0	38.607800	-79.890077
66.5	srab067	UNT to Shavers Fork	Intermittent	4.0	6.0	38.608122	-79.890515
66.6	srac052	UNT to Shavers Fork	Intermittent	4.0	10.0	38.609542	-79.889531
66.7	srac053	UNT to Shavers Fork	Intermittent	3.0	6.0	38.609603	-79.887763
66.9	srac054	UNT to Shavers Fork	Perennial	2.0	8.0	38.612495	-79.884715
67.5	srac055i	UNT to Shavers Fork	Intermittent	3.0	8.0	38.617469	-79.878532
67.5	srac055e	UNT to Shavers Fork	Ephemeral	3.0	8.0	38.617944	-79.878639
67.7	srac066	UNT to Shavers Fork	Perennial	8.0	15.0	38.617518	-79.873923

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
67.7	srac065	UNT to Shavers Fork	Intermittent	5.0	10.0	38.617563	-79.873680
67.7	srac058	UNT to Shavers Fork	Intermittent	6.0	12.0	38.616047	-79.875464
67.8	srac057	UNT to Shavers Fork	Intermittent	4.0	10.0	38.616491	-79.874271
67.9	oraa005	UNP to Shavers Fork	Non-flowing	na	na	38.615917	-79.872466
67.9	srac059	Shavers Fork	Perennial	100.0	115.0	38.615065	-79.871779
68.0	orac002	Unnamed Pond	Non-flowing	na	na	38.614043	-79.871102
69.5	srac064	UNT to Blister Run	Intermittent	4.0	8.0	38.598910	-79.852702
69.5	srac063	UNT to Blister Run	Intermittent	4.0	10.0	38.598898	-79.851769
69.6	srac062	UNT to Blister Run	Ephemeral	4.0	8.0	38.598777	-79.851539
69.6	srac061	UNT to Blister Run	Ephemeral	3.0	6.0	38.598945	-79.851178
69.6	srac060	UNT to Blister Run	Intermittent	5.0	10.0	38.598925	-79.850874
Pocahontas							
70.2	spoa019	UNT to West Fork Greenbrier	Ephemeral	3.0	20.0	38.597762	-79.841466
70.4	spoa018	UNT to West Fork Greenbrier River	Intermittent	9.0	20.0	38.597079	-79.837386
70.5	spoc030	UNT to Blister Run	Perennial	15.0	22.0	38.596962	-79.836618
70.8	spoa020	UNT to West Fork Greenbrier	Intermittent	3.0	6.0	38.589396	-79.835779
71.4	spob005	West Fork Greenbrier River	Perennial	50.0	60.0	38.590639	-79.823988
71.6	spob004	UNT to West Fork Greenbrier River	Intermittent	3.0	5.0	38.589617	-79.821445
72.2	spoc005	UNT to Mountain Lick Creek	Intermittent	3.0	7.0	38.588186	-79.812031
72.2	spoc004	UNT to Mountain Lick	Intermittent	4.0	12.0	38.587696	-79.811474
72.2	spoc003	Mountain Lick Creek	Perennial	22.0	26.0	38.587477	-79.811557
72.3	spoa009	UNT to Mountain Lick Creek	Intermittent	4.0	12.0	38.583181	-79.812929
72.3	spoa008	UNT to Mountain Lick Creek	Intermittent	6.0	12.0	38.585628	-79.811142
73.1	spoa010	UNT to Mountain Lick Creek	Perennial	18.0	24.0	38.576450	-79.814766

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
73.1	spoa014	UNT to Mountain Lick Creek	Ephemeral	4.0	16.0	38.577098	-79.808226
73.2	spoc023	UNT to West Fork Greenbriar River	Perennial	8.0	11.0	38.578799	-79.798598
73.2	spoc024	UNT to West Fork Greenbriar River	Intermittent	3.0	5.0	38.577725	-79.802420
73.2	spoc025	UNT to West Fork Greenbriar River	Ephemeral	2.0	5.0	38.577660	-79.802640
73.2	spoc010	UNT to Mountain Lick Creek	Perennial	27.0	33.0	38.577569	-79.800900
73.2	spoc022	UNT to West Fork Greenbriar River	Ephemeral	2.0	6.0	38.578470	-79.797399
73.4	spoc021	UNT to West Fork Greenbrier River	Perennial	14.0	18.0	38.577221	-79.791105
73.9	spoa011	UNT to Mountain Lick Creek	Intermittent	9.0	15.0	38.566739	-79.817840
73.9	spoa012	UNT to Mountain Lick Creek	Perennial	20.0	25.0	38.563291	-79.818247
73.9	spoa013	UNT to Mountain Lick Creek	Ephemeral	3.0	8.0	38.562464	-79.819924
74.4	spoc008	UNT to John's Run	Intermittent	6.0	12.0	38.564579	-79.795717
74.8	spob010	John's Run	Perennial	12.0	15.0	38.561895	-79.790973
74.8	spob011	UNT to John's Run	Intermittent	2.0	4.0	38.561895	-79.790973
75.2	spob008	UNT to John's Run	Intermittent	4.0	5.0	38.560786	-79.783379
75.2	spob009	UNT to John's Run	Intermittent	5.0	6.0	38.561396	-79.783280
75.2	spoc007	UNT to John's Run	Perennial	14.0	16.0	38.561020	-79.783211
75.3	spoc026	UNT to John's Run	Intermittent	3.0	7.0	38.574553	-79.771289
75.4	spoc027	UNT to John's Run	Intermittent	5.0	9.0	38.566531	-79.772341
75.4	spoc028	UNT to John's Run	Intermittent	4.0	6.0	38.564493	-79.773725
75.5	spob007	UNT to John's Run	Intermittent	5.0	6.0	38.559406	-79.779762
75.6	spoc029	UNT to John's Run	Perennial	8.0	12.0	38.560428	-79.776075

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
76.6	spoc009	UNT to East Fork Greenbriar River	Perennial	14.0	17.0	38.554056	-79.761676
77.1	spob001	East Fork Greenbrier	Perennial	40.0	50.0	38.551082	-79.754634
77.9	spoc018	UNT to East Fork Greenbriar River	Intermittent	4.0	8.0	38.545476	-79.742577
78.1	spoa007	UNT to Little River	Ephemeral	3.0	6.0	38.549582	-79.734347
78.1	spoc017	UNT to Little River	Ephemeral	4.0	10.0	38.548449	-79.733658
78.2	spoa006	UNT to Little River	Ephemeral	2.5	5.0	38.546766	-79.732918
78.7	spoc019	UNT to Little River	Ephemeral	4.0	10.0	38.533764	-79.733692
78.8	spoc020	UNT to Little River	Ephemeral	2.0	4.0	38.536658	-79.732526
78.8	spoc015	UNT to Little River	Ephemeral	3.0	7.0	38.529061	-79.734224
78.8	spoc016	UNT to Little River	Intermittent	9.0	12.0	38.543993	-79.729838
78.9	spoa004	UNT to Little River	Ephemeral	3.0	8.0	38.527337	-79.733035
78.9	spoc014	UNT to Little River	Intermittent	4.0	10.0	38.529228	-79.732475
78.9	spoa002	UNT to Little River	Intermittent	4.0	8.0	38.530564	-79.731306
78.9	spoa005	UNT to Little River	Ephemeral	3.5	8.0	38.543328	-79.728069
78.9	spob003	UNT to Little River	Perennial	9.0	15.0	38.534894	-79.729466
79.0	spoc013	UNT to Little River	Intermittent	6.0	15.0	38.532134	-79.729375
79.0	spoc001	UNT to Little River	Intermittent	5.0	9.0	38.541267	-79.725851
79.1	spoc002	UNT to Little River	Ephemeral	4.0	12.0	38.535296	-79.727277
79.1	spob002	UNT to Little River	Intermittent	6.0	8.0	38.538014	-79.726292
79.2	spoc006	Little River	Perennial	22.0	30.0	38.536765	-79.724795
80.4	spob006	Old House Run	Perennial	15.0	18.0	38.521517	-79.718585
82.2	spoa015	UNT to Buffalo Fork	Intermittent	2.0	8.0	38.511442	-79.670543
82.2	spoa016	UNT to Buffalo Fork	Perennial	5.0	20.0	38.510377	-79.684520
82.4	spoa001	UNT to Little River	Intermittent	8.0	14.0	38.506366	-79.693429
82.8	spoc011	UNT to Little River	Intermittent	12.0	12.0	38.500520	-79.691761

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
82.8	spoc012	UNT to Little River	Intermittent	9.0	15.0	38.500361	-79.691368
VIRGINIA							
Highland							
84.7	shia001	Laurel Fork	Perennial	25.0	30.0	38.478958	-79.673184
85.3	shib002	UNT to Laurel Fork	Ephemeral	3.0	5.0	38.474387	-79.666453
85.3	shib001	UNT to Laurel Fork	Intermittent	6.0	8.0	38.474574	-79.666018
87.0	shib203	UNT to Back Creek	Intermittent	3.0	5.0	38.454287	-79.653571
87.1	shib202	UNT to Back Creek	Intermittent	4.0	5.0	38.452389	-79.654320
87.2	shib003	Back Creek	Perennial	12.0	17.0	38.453772	-79.650042
87.3	shib201	UNT to Back Creek	Intermittent	1.0	3.0	38.452519	-79.650112
87.6	shia002	UNT to Back Creek	Intermittent	2.5	6.0	38.451366	-79.644524
88.9	shia051	UNT to Jackson River	Intermittent	4.0	10.0	38.435489	-79.643043
89.2	shia052	UNT to Jackson River	Intermittent	5.0	20.0	38.432394	-79.639125
91.1	shia050	UNT to Jackson River	Perennial	7.0	10.0	38.408041	-79.626475
93.2	shib117	UNT to Jackson River	Perennial	15.0	17.0	38.386241	-79.602762
94.3	shia003	UNT to Jackson River	Intermittent	4.0	6.0	38.382478	-79.583802
96.5	shib115	UNT to Crab Run	Perennial	4.0	5.0	38.371336	-79.552516
96.7	shib110	Crab Run	Perennial	20.0	25.0	38.370733	-79.549565
99.0	shib119	UNT to Bullpasture River	Perennial	7.0	9.0	38.365012	-79.510316
99.1	shib101	UNT to Bullpasture River	Intermittent	2.0	3.0	38.351449	-79.516678
99.2	shib118	UNT to Bullpasture River	Perennial	9.0	13.0	38.364909	-79.509750
100.7	shib100	Crab Run	Perennial	22.0	24.0	38.336752	-79.509818
101.0	shib102	UNT to Crab Run	Intermittent	7.0	7.0	38.332775	-79.509280
101.8	shib104	UNT to Bullpasture River	Intermittent	4.0	5.0	38.322632	-79.508453
101.9	shib120	UNT to Bullpasture River	Intermittent	2.0	3.0	38.321384	-79.506341

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
101.9	shib103	UNT to Bullpasture River	Intermittent	4.0	5.0	38.320866	-79.508661
102.1	shib121	UNT to Bullpasture River	Intermittent	2.0	5.0	38.320910	-79.505707
102.3	shib105	UNT to Bullpasture River	Intermittent	1.0	4.0	38.316959	-79.504498
102.4	shib122	UNT to Bullpasture River	Perennial	6.0	15.0	38.315632	-79.504099
102.6	shib123	UNT to Bullpasture River	Perennial	6.0	15.0	38.313232	-79.503330
102.9	shib124	Bullpasture River	Perennial	45.0	55.0	38.308606	-79.504140
103.0	shia053	UNT to Bullpasture River	Intermittent	6.0	5.0	38.308190	-79.503557
105.9	ohib201	Unnamed Pond	Non-flowing	na	na	38.290882	-79.459378
106.4	shib111	UNT to Cowpasture River	Ephemeral	1.0	2.0	38.294295	-79.452854
106.4	shib116	UNT to Cowpasture River	Ephemeral	2.0	3.0	38.295070	-79.452542
106.7	shib112	Cowpasture River	Perennial	15.0	20.0	38.298087	-79.450138
106.7	shib113	UNT to Cowpasture River	Intermittent	3.0	4.0	38.298493	-79.450301
107.4	shib114	Shaw's Fork	Perennial	30.0	40.0	38.300765	-79.439602
107.7	shic008	UNT to Shrews Fork	Intermittent	6.0	9.0	38.304836	-79.424839
108.1	shic007	UNT to Shrews Fork	Intermittent	4.0	7.0	38.302348	-79.425598
108.6	shic002	UNT to Shrews Fork	Perennial	10.0	20.0	38.292145	-79.421125
108.6	shic006	UNT to Shrews Fork	Ephemeral	3.0	10.0	38.296168	-79.421668
108.6	shic003	UNT to Shrews Fork	Ephemeral	3.0	12.0	38.292773	-79.420830
108.7	shic005	UNT to Shrews Fork	Ephemeral	2.0	10.0	38.294041	-79.419598
108.7	shic001	UNT to Shrews Fork	Perennial	18.0	35.0	38.292485	-79.420338
109.0	shic004	UNT to Shrews Fork	Intermittent	14.0	18.0	38.291785	-79.413896
Augusta							
111.2	sauc001	Hodges Draft	Perennial	25.0	45.0	38.273736	-79.385335

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
114.5	saub100	UNT to Ramsey's Draft	Intermittent	4.0	6.0	38.278887	-79.332087
114.8	saub101	UNT to Ramsey's Draft	Perennial	5.0	6.0	38.277876	-79.327742
114.8	saub102	UNT to Ramsey's Draft	Ephemeral	1.0	2.0	38.277680	-79.327296
115.1	saub103	UNT to Ramsey's Draft	Intermittent	2.0	4.0	38.278035	-79.321439
115.2	saub104	Ramsey's Draft	Perennial	12.0	20.0	38.278378	-79.320642
115.4	saub105	UNT to Calfpasture River	Intermittent	3.0	4.0	38.278372	-79.316535
115.7	saub106	UNT to Barn Lick Branch	Ephemeral	0.5	1.0	38.279981	-79.312222
115.7	saub107	UNT to Barn Lick Branch	Intermittent	1.0	2.0	38.280528	-79.310887
115.8	saub108	Barn Lick Branch	Perennial	8.0	10.0	38.280737	-79.310105
116.3	saub109	UNT to Calfpasture River	Perennial	6.0	8.0	38.279891	-79.301447
117.1	sauc002	Dowell's Draft	Perennial	16.0	18.0	38.283791	-79.288796
117.1	sauc003	UNT to Dowell's Draft	Ephemeral	6.0	6.0	38.283524	-79.288499
117.2	sauc004	UNT to Dowell's Draft	Perennial	8.0	12.0	38.284006	-79.286812
117.3	saub110	East Branch Dowells Draft	Perennial	10.0	12.0	38.282987	-79.284320
117.7	sauc005	UNT to Dowell's Draft	Intermittent	7.0	15.0	38.287362	-79.278573
120.2	sauc007	UNT to White Oak Draft	Ephemeral	2.0	15.0	38.291353	-79.238757
120.2	sauc006	White Oak Draft	Perennial	20.0	25.0	38.291501	-79.238730
120.2	saub111	UNT to Jennings Branch	Perennial	10.0	15.0	38.289162	-79.237736
120.2	saub113	UNT to Jennings Branch	Perennial	20.0	27.0	38.285375	-79.237306
120.3	saub112	UNT to Jennings Branch	Ephemeral	1.0	2.0	38.288668	-79.237010
120.4	sauc008	UNT to White Oak Draft	Perennial	15.0	25.0	38.291956	-79.234943
120.6	sauc009	UNT to White Oak Draft	Intermittent	3.0	10.0	38.291277	-79.231780
120.7	saub013	UNT to Stoutameyer Branch	Intermittent	3.0	5.0	38.290999	-79.229035
120.9	saub012	UNT to Stoutameyer Branch	Intermittent	4.0	5.0	38.290443	-79.226404
122.5	sauc010	UNT to Jennings Branch	Intermittent	3.0	15.0	38.291814	-79.199558

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
122.8	sauc011	UNT to Jennings Branch	Perennial	4.0	15.0	38.290620	-79.193183
123.0	sauc012	UNT to Jennings Branch	Intermittent	3.0	8.0	38.289603	-79.190598
124.1	saub004	UNT to Elk Run	Intermittent	3.0	7.0	38.279907	-79.176845
124.4	saub003	UNT to Elk Run	Intermittent	2.0	3.0	38.276013	-79.174691
125.1	saub002	UNT to Elk Run	Intermittent	4.0	10.0	38.270288	-79.165288
125.8	saub001	UNT to Elk Run	Intermittent	2.0	9.0	38.263911	-79.154606
130.4	saua070	Middle River	Perennial	75.0	85.0	38.204086	-79.148486
142.5	saub007	Christian`s Creek	Perennial	25.0	40.0	38.068465	-79.057451
142.6	saub008	UNT to Christian`s Creek	Intermittent	4.0	8.0	38.068227	-79.056773
143.9	saub011	UNT to Barterbrook Branch	Intermittent	4.0	10.0	38.055541	-79.037047
144.0	saub010	Barterbrook Branch	Intermittent	2.5	8.0	38.055337	-79.036659
148.2	saub114	UNT to South River	Perennial	2.0	4.0	38.031082	-78.980230
148.4	saub116	South River	Perennial	35.0	40.0	38.028648	-78.976517
152.2	oaub101	UNP to Back Creek	Non-flowing	na	na	37.980378	-78.968163
152.3	oaub100	UNP to Back Creek	Non-flowing	na	na	37.979270	-78.967137
152.4	saub115	UNT to Back Creek	Intermittent	4.0	5.0	37.977332	-78.966767
152.9	saua053	Mills Creek	Perennial	14.0	18.0	37.971462	-78.965304
152.9	saua052	Mills Creek	Perennial	16.0	20.0	37.971166	-78.965553
152.9	saua051	UNT to Mills Creek	Intermittent	4.0	8.0	37.970893	-78.965495
153.1	saua050	UNT to Mills Creek	Perennial	6.0	12.0	37.968466	-78.964196
153.4	saua067	Orebank Creek	Perennial	13.0	16.0	37.966328	-78.959038
153.6	saua069	UNT to Back Creek	Intermittent	3.0	7.0	37.964236	-78.956483
153.6	saua068	UNT to Back Creek	Perennial	6.0	10.0	37.964231	-78.956178
155.2	saua064	UNT to Back Creek	Intermittent	5.0	10.0	37.944632	-78.961162
155.3	saua065	UNT to Back Creek	Intermittent	4.0	6.0	37.943136	-78.962002
155.3	saua066	UNT to Back Creek	Intermittent	6.0	10.0	37.942604	-78.962396
155.8	saua062	UNT to Back Creek	Perennial	8.0	12.0	37.937022	-78.968130

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
155.9	saua061	UNT to Back Creek	Intermittent	6.0	8.0	37.936516	-78.968456
155.9	saua060	UNT to Back Creek	Intermittent	6.0	8.0	37.936410	-78.968662
155.9	saua059	UNT to Back Creek	Intermittent	6.0	8.0	37.936165	-78.969166
156.0	saua058	UNT to Back Creek	Intermittent	6.0	10.0	37.935832	-78.970772
156.0	saua057	UNT to Back Creek	Intermittent	4.0	7.0	37.935291	-78.971005
156.2	saua056	UNT to Back Creek	Perennial	4.0	6.0	37.933929	-78.972628
156.4	saua055	UNT to Back Creek	Intermittent	3.5	10.0	37.931708	-78.976072
156.4	saua054	UNT to Back Creek	Intermittent	2.0	3.0	37.931082	-78.976007
Nelson							
166.2	snea051	UNT to Rockfish River	Perennial	4.5	6.0	37.857509	-78.866088
166.3	snea050	UNT to Rockfish River	Perennial	9.0	13.0	37.857410	-78.865836
166.7	snea052	UNT to Rockfish River	Perennial	9.0	16.0	37.855802	-78.858031
180.2	snea001	UNT to Buffalo Creek	Perennial	12.0	18.0	37.705109	-78.768262
180.5	snec002	UNT to Buffalo Creek	Intermittent	7.0	13.0	37.701312	-78.765397
180.9	snec003	UNT to Buffalo Creek	Intermittent	1.5	2.0	37.697227	-78.763390
181.5	snec004	UNT to Mayo Creek	Intermittent	3.0	5.0	37.689318	-78.757783
181.9	snec005	Mayo Creek	Perennial	10.0	13.0	37.684766	-78.753401
182.6	snec006	UNT to Mayo Creek	Intermittent	5.0	7.0	37.675492	-78.751555
182.9	snep002	UNT to Mayo Creek	Perennial	4.0	5.0	37.671662	-78.747710
182.9	snep001	UNT to Mayo Creek	Perennial	3.0	5.0	37.671760	-78.747613
182.9	snep003	UNT to Mayo Creek	Perennial	2.0	3.0	37.671321	-78.747492
183.2	snep004	UNT to Mayo Creek	Intermittent	4.0	6.0	37.668804	-78.744225
183.3	snep005	UNT to Mayo Creek	Perennial	2.0	3.0	37.667985	-78.742476
183.4	snep006	UNT to Mayo Creek	Intermittent	2.0	3.0	37.666829	-78.741146
183.8	snep007	UNT to Mayo Creek	Perennial	2.0	3.0	37.664106	-78.734446
Buckingham							
184.8	sbup015	James River	Perennial	300.0	300.0	37.661384	-78.718390

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
185.9	sbup013	UNT to James River	Perennial	3.0	4.0	37.652195	-78.703867
185.9	sbup014	UNT to James River	Perennial	3.0	4.0	37.651980	-78.704216
185.9	sbup012	UNT to James River	Intermittent	2.0	4.0	37.651263	-78.703656
186.1	sbup011	UNT to James River	Intermittent	2.0	5.0	37.649541	-78.702283
186.1	sbup010	UNT to James River	Perennial	4.0	6.0	37.648550	-78.701578
186.4	sbup007	UNT to James River	Perennial	2.0	4.0	37.645149	-78.699652
187.6	sbup005	Sycamore Creek	Perennial	3.0	5.0	37.629429	-78.693452
187.6	sbup006	UNT to Sycamore Creek	Perennial	2.0	2.0	37.629095	-78.693682
187.9	sbup004	UNT to Sycamore Creek	Perennial	2.0	3.0	37.625273	-78.692156
189.1	sbuc003	UNT to Walton Fork	Intermittent	3.0	12.0	37.610484	-78.685266
189.1	sbuc008	Walton Fork	Intermittent	3.0	8.0	37.605928	-78.687874
191.0	sbua002	UNT to Ripley Creek	Perennial	5.0	6.0	37.595700	-78.656398
191.4	sbuc050	UNT to Ripley Creek	Intermittent	4.0	8.0	37.590217	-78.656016
193.1	sbuc004	UNT to Matthews Creek	Perennial	5.0	7.0	37.571471	-78.644376
194.1	sbuc005	North River	Perennial	30.0	35.0	37.558317	-78.640088
194.1	sbuc006	UNT to North River	Intermittent	3.0	8.0	37.557902	-78.639604
194.9	sbuc007	UNT to North River	Intermittent	12.0	15.0	37.549631	-78.631457
195.1	sbuk005	UNT to North River	Perennial	10.0	14.0	37.549158	-78.629012
195.5	sbuk004	UNT to North River	Ephemeral	2.0	3.0	37.544399	-78.622422
196.1	sbuk003	UNT to North River	Intermittent	1.0	1.0	37.541789	-78.613704
196.3	sbuk002	UNT to North River	Intermittent	3.0	5.0	37.541827	-78.610351
196.3	sbuk001	UNT to North River	Intermittent	2.0	4.0	37.541243	-78.610173
196.9	sbuk006	UNT to Slate River	Ephemeral	1.0	1.0	37.533736	-78.603010
197.1	sbua004	UNT to Slate River	Perennial	4.0	6.0	37.533496	-78.598337
197.2	sbuk007b	UNT to Slate River	Ephemeral	5.0	7.0	37.530462	-78.600701
197.2	sbuk007a	UNT to Slate River	Intermittent	5.0	7.0	37.530338	-78.600718

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
197.2	sbuk008	UNT to Slate River	Ephemeral	1.0	8.0	37.530107	-78.600473
197.4	sbuk009	UNT to Slate River	Perennial	8.0	10.0	37.528090	-78.597908
197.4	sbuk010	UNT to Slate River	Ephemeral	1.0	2.0	37.527780	-78.597408
197.5	sbuk011	UNT to Slate River	Ephemeral	1.0	1.0	37.527382	-78.596963
197.9	sbuk012	Slate River	Perennial	19.0	25.0	37.523094	-78.591907
198.1	sbuk013	UNT to Slate River	Ephemeral	1.0	6.0	37.521596	-78.589189
198.1	sbuk014	UNT to Slate River	Perennial	4.0	6.0	37.521576	-78.589230
198.1	sbuk015	UNT to Slate River	Ephemeral	1.0	4.0	37.521317	-78.588477
198.3	sbua200	UNT to Licky Branch	Intermittent	5.0	12.0	37.518405	-78.587474
198.5	sbua202	UNT to Licky Branch	Intermittent	1.5	3.0	37.515591	-78.587590
198.5	sbua201	Licky Branch	Perennial	12.0	18.0	37.515387	-78.587470
199.0	sbuc010	UNT to Licky Branch	Intermittent	2.0	4.0	37.509873	-78.582906
199.4	sbul012	UNT to Licky Creek	Ephemeral	2.0	4.0	37.505728	-78.578975
200.3	sbul013	UNT to Pitman Creek	Intermittent	3.0	8.0	37.492137	-78.577040
200.5	sbup003	UNT to Pitman Creek	Intermittent	3.0	5.0	37.489380	-78.576537
201.2	sbup002	Horsepen Creek	Perennial	4.0	9.0	37.486834	-78.565669
201.3	sbup001	UNT to Horsepen Creek	Intermittent	3.0	7.0	37.485473	-78.563469
201.8	sbul014	UNT to Horsepen Creek	Intermittent	3.0	5.0	37.482902	-78.556018
201.8	sbul015	UNT to Horsepen Creek	Perennial	6.0	11.0	37.482895	-78.554968
202.7	sbul004	UNT to Willis River	Ephemeral	2.0	4.0	37.478600	-78.541541
203.6	sbul003	UNT to Willis River	Perennial	8.0	10.0	37.470887	-78.527800
204.5	sbul005	UNT to Willis River	Ephemeral	2.0	4.0	37.463265	-78.515015
204.5	sbul006	UNT to Willis River	Ephemeral	1.0	3.0	37.463139	-78.514871
204.7	sbul007	UNT to Willis River	Perennial	8.0	18.0	37.461664	-78.512472
204.8	sbul008	UNT to Willis River	Intermittent	5.0	20.0	37.460983	-78.511224
205.1	sbul009	Willis River	Perennial	30.0	36.0	37.457817	-78.507877
205.1	sbuc009	Willis River	Perennial	25.0	50.0	37.455032	-78.510873

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
205.2	sbul011	UNT to Willis River	Intermittent	2.0	4.0	37.456776	-78.506399
205.2	sbul010	UNT to Willis River	Intermittent	3.0	4.0	37.456090	-78.506473
205.6	sbuk041	UNT to Little Willis River	Ephemeral	3.0	15.0	37.451649	-78.502114
205.7	sbuk042	UNT to Little Willis River	Intermittent	4.0	6.0	37.450797	-78.502057
205.7	sbuk043	UNT to Little Willis River	Perennial	8.0	15.0	37.450797	-78.502057
205.7	sbuk044	UNT to Little Willis River	Intermittent	4.0	15.0	37.450413	-78.502225
205.9	sbuk045	UNT to Little Willis River	Perennial	4.0	25.0	37.448002	-78.501213
205.9	sbuk046	UNT to Little Willis River	Intermittent	3.0	4.0	37.447600	-78.500999
206.5	sbul022	UNT to Willis River	Intermittent	1.0	5.0	37.440287	-78.494182
206.9	sbul021	UNT to Willis River	Perennial	3.0	9.0	37.437184	-78.489598
207.1	sbuk024	UNT to Bishop Creek	Intermittent	2.0	10.0	37.435146	-78.485610
207.1	sbuk025	UNT to Bishop Creek	Ephemeral	2.0	10.0	37.435317	-78.485538
207.2	sbuk026	UNT to Bishop Creek	Intermittent	3.0	20.0	37.434225	-78.484706
207.3	sbuk027	UNT to Bishop Creek	Ephemeral	2.0	18.0	37.433841	-78.484135
207.3	sbuk028	UNT to Bishop Creek	Intermittent	4.0	22.0	37.433060	-78.483174
207.4	sbuk029	UNT to Bishop Creek	Ephemeral	2.0	20.0	37.432356	-78.482201
207.8	sbuk030	Bishop Creek	Perennial	8.0	25.0	37.428852	-78.476936
208.2	sbuk031	UNT to Little Willis River	Perennial	5.0	20.0	37.425202	-78.470329
208.3	sbuk032	UNT to Little Willis River	Perennial	4.0	15.0	37.424790	-78.470508
208.3	sbuk033	UNT to Little Willis River	Ephemeral	2.0	10.0	37.424480	-78.470216
208.6	sbuk034	UNT to Little Willis River	Ephemeral	2.0	7.0	37.420856	-78.467224
208.6	sbuk035	UNT to Little Willis River	Intermittent	4.0	12.0	37.419743	-78.467081
208.9	sbuk020	UNT to Little Willis River	Ephemeral	1.0	7.0	37.415731	-78.465620
209.0	sbuk021	UNT to Little Willis River	Ephemeral	2.0	4.0	37.415018	-78.464259
209.2	sbuk022a	UNT to Little Willis River	Ephemeral	4.0	6.0	37.414383	-78.462330
209.2	sbua005	UNT to Little Willis River	Intermittent	4.0	6.0	37.414434	-78.460708

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
209.5	sbuk037	Little Willis River	Perennial	25.0	25.0	37.410590	-78.458356
209.6	sbuk038	UNT to Little Willis River	Perennial	2.0	12.0	37.409988	-78.457325
209.9	sbuk040	UNT to Gillis Creek	Intermittent	4.0	7.0	37.405612	-78.453381
210.0	sbuk039	Little Willis River	Perennial	20.0	24.0	37.405395	-78.452646
210.1	sbuk019	Gills Creek	Perennial	6.0	18.0	37.403350	-78.451757
211.0	sbuk018	UNT to Little Willis River	Ephemeral	1.0	3.0	37.394266	-78.443841
211.0	sbua003	UNT to Perkins Creek	Ephemeral	2.0	4.0	37.389568	-78.445609
211.4	sbuk017	Perkins Creek	Perennial	13.0	22.0	37.391817	-78.437034
211.7	sbuk016	UNT to Perkins Creek	Ephemeral	3.0	7.0	37.389994	-78.431806
Cumberland							
212.0	scuk029	UNT to Perkins Creek	Ephemeral	3.0	5.0	37.386830	-78.426455
212.2	scuk027	UNT to Perkins Creek	Intermittent	12.0	16.0	37.385530	-78.424356
212.2	scuk028	UNT to Perkins Creek	Intermittent	5.0	12.0	37.385647	-78.423969
212.4	scuk026	UNT to Perkins Creek	Intermittent	4.0	6.0	37.383977	-78.421967
212.9	scuk001	UNT to Little Willis River	Ephemeral	4.0	6.0	37.379435	-78.413445
213.0	scuk002	UNT to Little Willis River	Ephemeral	3.0	5.0	37.379427	-78.411899
213.1	scuk003	UNT to Little Willis River	Perennial	4.0	10.0	37.378693	-78.409900
213.1	ocuk001	Unnamed Pond	Non-flowing	na	na	37.378316	-78.410442
213.7	scuk004	UNT to Dry Creek	Ephemeral	2.0	3.0	37.371025	-78.410356
213.9	scuk005	UNT to Dry Creek	Intermittent	5.0	7.0	37.367711	-78.409900
214.0	scuk007	UNT to Dry Creek	Ephemeral	2.0	3.0	37.367154	-78.408728
214.0	scuk008	UNT to Dry Creek	Ephemeral	2.0	2.0	37.367087	-78.408653
214.0	scuk009	UNT to Dry Creek	Intermittent	2.0	7.0	37.366777	-78.408865
214.0	scuk006	UNT to Dry Creek	Intermittent	2.0	7.0	37.366775	-78.408915
214.2	scuk010	UNT to Dry Creek	Intermittent	4.0	10.0	37.364920	-78.405948
214.3	scuc001	UNT to Dry Creek	Intermittent	3.0	5.0	37.364148	-78.404237
214.5	scuc002	UNT to Dry Creek	Ephemeral	2.0	4.0	37.363108	-78.400217

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
214.6	scuc003	UNT to Dry Creek	Intermittent	5.0	15.0	37.362911	-78.398183
215.0	scuk030	UNT to Dry Creek	Ephemeral	2.0	3.0	37.364114	-78.391855
215.1	scuk032B	UNT to Dry Creek	Intermittent	3.0	6.0	37.364085	-78.389947
215.1	scuk032A	UNT to Dry Creek	Ephemeral	4.0	8.0	37.364515	-78.389746
215.1	scuk031	UNT to Dry Creek	Ephemeral	1.0	6.0	37.364572	-78.389596
215.2	scuk034	UNT to Dry Creek	Ephemeral	3.0	8.0	37.363987	-78.389207
215.2	scuk033	Dry Creek	Perennial	9.0	16.0	37.364205	-78.389183
215.2	scuk035	UNT to Dry Creek	Ephemeral	1.0	6.0	37.364097	-78.389027
215.3	scuk036	Dry Creek	Perennial	8.0	12.0	37.363905	-78.385821
215.4	scuk037	UNT to Dry Creek	Ephemeral	2.0	4.0	37.363580	-78.385303
215.5	scuk038	Dry Creek	Perennial	4.0	8.0	37.363237	-78.382062
215.9	scuk039b	UNT to Green Creek	Intermittent	4.0	8.0	37.361189	-78.376114
215.9	scuk039a	UNT to Green Creek	Ephemeral	3.0	5.0	37.361046	-78.376126
215.9	scuk041	UNT to Green Creek	Ephemeral	2.0	5.0	37.360685	-78.376152
216.0	scuk040	UNT to Green Creek	Ephemeral	2.0	5.0	37.360296	-78.374556
216.2	scuk042	UNT to Green Creek	Perennial	6.0	10.0	37.360188	-78.371655
216.8	scua006	UNT to Green Creek	Perennial	5.0	10.0	37.356693	-78.360409
217.0	scuc004	UNT to Green Creek	Intermittent	6.0	8.0	37.355933	-78.357761
217.4	scua001	UNT to Green Creek	Intermittent	2.0	12.0	37.352431	-78.352476
217.4	scua002	UNT to Green Creek	Intermittent	2.0	6.0	37.351610	-78.351726
217.6	scua003	UNT to Green Creek	Intermittent	2.5	4.5	37.350699	-78.350336
217.6	scua004	UNT to Green Creek	Perennial	5.0	12.0	37.350536	-78.349740
217.6	scua005	UNT to Green Creek	Intermittent	2.0	5.0	37.349869	-78.348904
218.1	scuk025	UNT to Green Creek	Ephemeral	1.0	10.0	37.345093	-78.344167
218.1	scuk024	UNT to Green Creek	Perennial	10.0	15.0	37.345197	-78.343819
218.2	scuk023	UNT to Green Creek	Intermittent	3.0	7.0	37.344316	-78.342751

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
218.4	scuk022	UNT to Green Creek	Intermittent	3.0	15.0	37.341757	-78.340083
218.6	scuk021	UNT to Green Creek	Ephemeral	2.0	4.0	37.339795	-78.338467
218.7	scuk020	UNT to Green Creek	Intermittent	2.0	25.0	37.338294	-78.336397
218.8	scua011	Green Creek	Perennial	14.0	25.0	37.334770	-78.337835
219.2	scuk015	UNT to Green Creek	Perennial	15.0	20.0	37.334013	-78.329966
219.4	scuk016	UNT to Green Creek	Ephemeral	1.0	3.0	37.332213	-78.327196
219.4	scuk017	Green Creek	Perennial	18.0	24.0	37.331838	-78.326055
219.5	scuk018	UNT to Green Creek	Intermittent	2.0	4.0	37.331305	-78.325301
219.6	scuk019	UNT to Green Creek	Intermittent	3.0	5.0	37.330791	-78.324540
219.8	scuk014	UNT to Green Creek	Intermittent	3.0	6.0	37.328926	-78.321584
219.8	scuk013	UNT to Green Creek	Intermittent	3.0	10.0	37.328857	-78.321102
220.3	scuk012	UNT to Green Creek	Ephemeral	2.0	4.0	37.325933	-78.313666
220.8	scuk011	Appomattox River	Perennial	100.0	110.0	37.321875	-78.305744
Prince Edward							
220.8	spek003	UNT to Appomattox River	Perennial	4.0	8.0	37.321531	-78.305814
221.0	spek002	UNT to Appomattox River	Ephemeral	2.0	14.0	37.320463	-78.303126
221.1	spek001	UNT to Appomattox River	Ephemeral	1.0	20.0	37.319347	-78.300959
221.6	spek004	UNT to Appomattox River	Perennial	4.0	6.0	37.315502	-78.293376
221.7	spek005	UNT to Appomattox River	Ephemeral	1.0	2.0	37.314477	-78.291126
221.8	spek006	UNT to Appomattox River	Perennial	9.0	15.0	37.314376	-78.291115
222.0	spek007	UNT to Appomattox River	Intermittent	2.0	12.0	37.312579	-78.287145
222.1	spek008	UNT to Appomattox River	Intermittent	2.0	10.0	37.311621	-78.285548
222.2	spek009	UNT to Appomattox River	Perennial	4.0	14.0	37.310266	-78.285192

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
222.4	spek010	UNT to Appomattox River	Perennial	6.0	10.0	37.308210	-78.283794
222.5	spek011	UNT to Appomattox River	Intermittent	4.0	12.0	37.306469	-78.282627
222.6	spek012	UNT to Appomattox River	Intermittent	2.0	8.0	37.305809	-78.282403
223.4	spea006	UNT to Little Saylers Creek	Intermittent	4.0	10.0	37.301319	-78.268672
223.7	spea001	UNT to Little Saylers Creek	Intermittent	2.0	7.0	37.299700	-78.263763
223.8	spea002	UNT to Little Saylers Creek	Intermittent	1.5	10.0	37.299479	-78.263653
223.9	spea003	UNT to Little Saylers Creek	Perennial	6.0	12.0	37.298593	-78.261142
223.9	spea004	UNT to Little Saylers Creek	Intermittent	4.0	7.0	37.298420	-78.261341
224.1	spea005	UNT to Little Saylers Creek	Intermittent	2.0	3.5	37.297162	-78.258468
225.2	spec001	UNT to Little Saylers Creek	Intermittent	2.0	3.0	37.287672	-78.242549
225.5	spea007	UNT to Little Saylers Creek	Intermittent	2.0	3.0	37.285252	-78.237532
Nottoway							
226.6	snok001	Saylers Creek	Perennial	10.0	14.0	37.274790	-78.224014
227.2	snok002	UNT to Ellis Creek	Intermittent	3.0	5.0	37.271407	-78.213797
227.6	snok003	UNT to Ellis Creek	Intermittent	3.0	8.0	37.270266	-78.208366
227.8	snom011	UNT to Ellis Creek	Ephemeral	3.0	4.0	37.269198	-78.205022
228.2	snok005	Ellis Creek	Perennial	18.0	24.0	37.265938	-78.197113
228.6	snok004	UNT to Ellis Creek	Intermittent	2.0	6.0	37.263491	-78.191829
228.8	snok006	UNT to Flat Creek	Intermittent	3.0	6.0	37.261506	-78.187580
229.0	snok007	UNT to Flat Creek	Perennial	5.0	15.0	37.260690	-78.185841
229.2	snok008	Flat Creek	Perennial	20.0	30.0	37.258378	-78.181454
229.9	snok009	UNT to Flat Creek	Ephemeral	2.0	5.0	37.254415	-78.171240
230.7	snom007	UNT to Little Creek	Perennial	3.0	10.0	37.250903	-78.156832
230.7	snom006	Little Creek	Perennial	10.0	20.0	37.251137	-78.156558
230.9	snom005	UNT to Little Creek	Ephemeral	1.0	10.0	37.249737	-78.154007
231.8	snol002	UNT to West Creek	Ephemeral	3.0	10.0	37.245022	-78.139841

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
231.8	snol001	UNT to West Creek	Perennial	4.0	7.0	37.244819	-78.139176
231.9	snol003	UNT to West Creek	Intermittent	4.0	12.0	37.244174	-78.136838
232.0	snol005	UNT to West Creek	Perennial	3.0	10.0	37.243346	-78.135630
232.0	snol004	West Creek	Perennial	6.0	16.0	37.243520	-78.135313
232.2	snol006	UNT to West Creek	Ephemeral	2.0	8.0	37.243004	-78.132781
232.4	snol007	UNT to West Creek	Perennial	2.0	12.0	37.242485	-78.129400
232.4	snol008	UNT to West Creek	Perennial	4.0	8.0	37.242147	-78.127942
232.7	snok021	UNT to West Creek	Intermittent	4.0	6.0	37.240104	-78.123629
232.7	snok020	West Creek	Perennial	10.0	15.0	37.239730	-78.123685
232.8	snok022	UNT to West Creek	Intermittent	1.0	15.0	37.239228	-78.123465
233.0	snok024	UNT to West Creek	Ephemeral	1.0	5.0	37.237459	-78.120542
233.0	snok023	UNT to West Creek	Intermittent	3.0	8.0	37.237385	-78.120353
233.1	snok025	UNT to West Creek	Ephemeral	3.0	15.0	37.236779	-78.118723
233.1	snok026b	UNT to West Creek	Intermittent	5.0	12.0	37.237044	-78.118634
233.1	snok026a	UNT to West Creek	Ephemeral	3.0	20.0	37.236773	-78.118246
233.4	snok027	UNT to Little West Creek	Perennial	7.0	12.0	37.233936	-78.114646
234.2	snok028	Little West Creek	Perennial	15.0	20.0	37.225375	-78.105281
234.3	snok029b	UNT to Little West Creek	Intermittent	5.0	12.0	37.224593	-78.104235
234.3	snok029a	UNT to Little West Creek	Perennial	3.0	20.0	37.223983	-78.104091
235.1	snom008	UNT to Deep Creek	Ephemeral	2.0	10.0	37.214072	-78.098198
235.2	snom009	UNT to Deep Creek	Ephemeral	2.0	7.0	37.212327	-78.097837
235.5	snom010	UNT to Deep Creek	Intermittent	3.0	4.0	37.208042	-78.096195
235.7	snok103	UNT to Deep Creek	Ephemeral	5.0	16.0	37.206772	-78.094793
235.7	snok102	UNT to Deep Creek	Perennial	6.0	16.0	37.206233	-78.093918
236.0	snok100	Deep Creek	Perennial	35.0	45.0	37.202700	-78.089962
236.1	snok101	UNT to Deep Creek	Intermittent	5.0	8.0	37.202496	-78.090024

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
236.2	snoc001	UNT to Deep Creek	Perennial	7.0	8.0	37.201015	-78.087468
236.5	snol021	UNT to Deep Creek	Intermittent	3.0	8.0	37.198923	-78.083148
236.9	snol020	UNT to Deep Creek	Intermittent	4.0	12.0	37.197378	-78.077374
237.0	snol019	UNT to Deep Creek	Perennial	5.0	14.0	37.196701	-78.075088
238.3	snok010	UNT to Winningham Creek	Ephemeral	2.0	3.0	37.184804	-78.061197
238.6	snok011	Winningham Creek	Perennial	50.0	70.0	37.180788	-78.056265
238.8	snok012	UNT to Winningham Creek	Intermittent	3.0	15.0	37.179454	-78.053765
238.8	snok013	UNT to Winningham Creek	Ephemeral	2.0	15.0	37.178749	-78.053688
239.1	snok014	UNT to Winningham Creek	Perennial	6.0	20.0	37.175688	-78.050526
239.6	snok015	UNT to Woody Creek	Ephemeral	2.0	4.0	37.170167	-78.043913
239.9	snok016	UNT to Woody Creek	Perennial	5.0	15.0	37.166814	-78.042016
239.9	snok017	UNT to Woody Creek	Perennial	4.0	10.0	37.166933	-78.041538
239.9	snok018	UNT to Woody Creek	Ephemeral	2.0	15.0	37.166319	-78.041222
240.0	onok001	UNP to Woody Creek	Non-flowing	na	na	37.165998	-78.041085
240.6	snok019	Woody Creek	Perennial	17.0	25.0	37.159616	-78.032855
241.1	snoa003	UNT to Watson Creek	Intermittent	2.5	9.0	37.155170	-78.026800
241.1	snoa004	UNT to Watson Creek	Intermittent	2.5	9.0	37.154941	-78.026725
242.6	snoc004	UNT to Cellar Creek	Perennial	4.0	8.0	37.140969	-78.005865
242.9	snoc003	Cellar Creek	Perennial	15.0	25.0	37.139754	-78.000848
242.9	snoc002	UNT to Cellar Creek	Intermittent	3.0	5.0	37.139612	-78.000493
243.3	snoa001	UNT to Cellar Creek	Intermittent	3.5	10.0	37.137690	-77.994766
243.3	snoa002	UNT to Cellar Creek	Intermittent	3.0	12.0	37.137377	-77.994746
244.0	snod001	UNT to Lees Creek	Ephemeral	1.5	20.0	37.134336	-77.983024
244.2	snol009	Less Creek	Perennial	4.0	12.0	37.132893	-77.979159
244.6	snol010	UNT to Less Creek	Perennial	6.0	14.0	37.130826	-77.972209

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
244.9	snol011	UNT to Less Creek	Ephemeral	2.0	4.0	37.129749	-77.968283
245.1	snol012	UNT to Less Creek	Intermittent	3.0	6.0	37.128705	-77.965077
245.4	snol013	UNT to Bland Creek	Intermittent	4.0	8.0	37.127553	-77.959093
245.4	snol014	UNT to Bland Creek	Ephemeral	2.0	6.0	37.127771	-77.959202
245.5	snol015	UNT to Bland Creek	Perennial	4.0	12.0	37.127704	-77.957171
245.6	snol016	UNT to Bland Creek	Perennial	8.0	15.0	37.127722	-77.956156
245.6	snol017	UNT to Bland Creek	Ephemeral	2.0	5.0	37.127424	-77.954621
246.0	snol018	UNT to Bland Creek	Perennial	5.0	20.0	37.128432	-77.948381
247.2	snok030b	UNT to Bland Creek	Intermittent	5.0	8.0	37.124731	-77.930105
247.2	snok031	UNT to Bland Creek	Ephemeral	2.0	8.0	37.124537	-77.929965
247.2	snok030a	UNT to Bland Creek	Ephemeral	3.0	6.0	37.124054	-77.929363
247.8	snom001	UNT to Butterwood Creek	Ephemeral	2.0	10.0	37.120183	-77.921867
248.2	snom002	UNT to Twin Lakes	Intermittent	8.0	12.0	37.118693	-77.914754
248.4	snom003	UNT to Twin Lakes	Ephemeral	3.0	7.0	37.118761	-77.911116
248.6	snom004	UNT to Twin Lakes	Ephemeral	3.0	3.0	37.118948	-77.907418
Dinwiddie							
249.1	sdim002	UNT to Butterwood Creek	Ephemeral	2.0	3.0	37.119055	-77.898378
249.1	sdim001	Butterwood Creek	Perennial	4.0	5.0	37.119169	-77.898170
249.6	sdim003	UNT to Butterwood Creek	Intermittent	2.0	8.0	37.119353	-77.888984
249.7	sdim004	UNT to Butterwood Creek	Intermittent	1.0	3.0	37.118987	-77.887755
249.9	sdim005	UNT to Butterwood Creek	Intermittent	6.0	10.0	37.117677	-77.884059
250.2	sdim006	UNT to Butterwood Creek	Ephemeral	3.0	8.0	37.116083	-77.879056
250.2	sdim007	UNT to Butterwood Creek	Ephemeral	4.0	5.0	37.116013	-77.878497

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
250.2	sdim008	UNT to Butterwood Creek	Ephemeral	5.0	9.0	37.115754	-77.878465
250.2	sdim009	UNT to Butterwood Creek	Ephemeral	2.0	4.0	37.115818	-77.878353
250.2	sdim010	UNT to Butterwood Creek	Ephemeral	2.0	4.0	37.115733	-77.878251
250.5	sdim011	UNT to Butterwood Creek	Ephemeral	2.0	3.0	37.113929	-77.874514
250.7	sdim014	UNT to Butterwood Creek	Intermittent	2.0	7.0	37.112752	-77.872178
251.2	sdim013	UNT to Butterwood Creek	Intermittent	3.0	5.0	37.108968	-77.862207
251.5	sdim012	UNT to Butterwood Creek	Intermittent	4.0	10.0	37.106935	-77.858128
251.6	sdim015	UNT to Butterwood Creek	Ephemeral	2.0	2.5	37.106424	-77.857394
251.7	sdim016	UNT to Butterwood Creek	Ephemeral	2.0	10.0	37.104989	-77.856927
251.8	sdim017	UNT to Butterwood Creek	Ephemeral	2.0	6.0	37.103639	-77.856174
252.0	sdim018	UNT to Butterwood Creek	Ephemeral	2.0	4.0	37.100054	-77.853699
252.1	sdim019	UNT to Butterwood Creek	Ephemeral	2.0	3.0	37.099296	-77.853106
252.6	sdim020	UNT to Butterwood Creek	Ephemeral	2.0	2.5	37.093347	-77.848967
252.7	sdim021	UNT to Butterwood Creek	Intermittent	2.0	4.0	37.091080	-77.848223
254.9	sdib003	UNT to Butterwood Creek	Intermittent	3.0	6.0	37.066552	-77.825548
255.0	sdib002	UNT to Butterwood Creek	Intermittent	2.0	5.0	37.066057	-77.824806
255.9	sdib001	UNT to Beaver Pond Creek	Intermittent	2.0	3.0	37.054685	-77.818212
256.7	sdil001	Beaver Pond Creek	Perennial	7.0	24.0	37.046878	-77.827574
256.7	sdil002	UNT to Beaver Pond Creek	Perennial	3.0	8.0	37.046557	-77.827715

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
256.9	sdil003	UNT to Beaver Pond Creek	Intermittent	3.0	10.0	37.045193	-77.830277
257.0	sdil004	UNT to Beaver Pond Creek	Intermittent	4.0	20.0	37.044978	-77.831519
257.3	sdil005	UNT to Beaver Pond Creek	Intermittent	4.0	14.0	37.040549	-77.835286
257.4	sdia005	Beaver Pond Creek	Perennial	6.5	8.0	37.039131	-77.836251
257.5	sdil007	UNT to Beaver Pond Creek	Perennial	5.0	10.0	37.038131	-77.836027
257.5	sdil006	UNT to Beaver Pond Creek	Intermittent	3.0	12.0	37.037954	-77.836109
257.6	sdil009	UNT to Beaver Pond Creek	Intermittent	3.0	9.0	37.036568	-77.836511
257.8	sdil008	Beaver Pond Creek	Perennial	10.0	15.0	37.033788	-77.838598
258.2	sdic003	UNT to Beaver Pond Creek	Ephemeral	4.0	5.0	37.028542	-77.840857
258.3	sdic005	Beaver Pond Creek	Perennial	13.0	30.0	37.027081	-77.840123
258.4	sdic004	UNT to Beaver Pond Creek	Perennial	6.0	7.0	37.026587	-77.839769
258.5	sdic002	UNT to Beaver Pond Creek	Intermittent	6.0	9.0	37.025250	-77.837994
258.6	sdic006	UNT to Beaver Pond Creek	Intermittent	9.0	15.0	37.023776	-77.837216
259.3	sdic001	Beaver Pond Creek	Perennial	4.0	7.0	37.014719	-77.835798
260.3	sdic008	UNT to Tommeheton Creek	Intermittent	3.5	9.0	37.000690	-77.842292
260.7	sdic007	Nottoway River	Perennial	55.0	75.0	36.996004	-77.839832
Brunswick							
260.8	sbra201	UNT to Nottoway River	Ephemeral	6.0	10.0	36.995248	-77.839606
261.3	sbrc001	UNT to Nottoway River	Ephemeral	2.0	8.0	36.988468	-77.837270
261.3	sbra211	UNT to Nottoway River	Intermittent	2.0	10.0	36.987716	-77.836220
261.5	sbra202	UNT to Nottoway River	Intermittent	3.0	5.0	36.984951	-77.834564
261.8	sbra212	Miry Run	Perennial	7.0	10.0	36.981456	-77.833060
262.5	sbra203	Hickory Run	Perennial	8.0	10.0	36.972065	-77.827070
262.6	sbra204	UNT to Hickory Run	Intermittent	4.0	6.0	36.971831	-77.827115
262.9	sbra205	UNT to Hickory Run	Perennial	6.0	9.0	36.967502	-77.823216
263.8	sbra206	UNT to Hickory Run	Ephemeral	4.0	7.0	36.957687	-77.812842

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
264.6	sbra207	UNT to Great Branch	Perennial	6.0	9.0	36.948681	-77.805084
264.7	sbra208	UNT to Great Branch	Perennial	3.0	6.0	36.947152	-77.803966
280.1	sbra221	UNT to Reedy Creek	Intermittent	2.0	5.0	36.763026	-77.700116
280.2	sbra220	UNT to Reedy Creek	Intermittent	3.0	8.0	36.762777	-77.697265
280.4	sbra219	UNT to Reedy Creek	Intermittent	2.0	4.0	36.762757	-77.693549
280.5	sbra218	UNT to Reedy Creek	Intermittent	3.0	5.0	36.762756	-77.692724
282.9	sbra001	UNT to Greensville Creek	Intermittent	3.0	5.0	36.746504	-77.657503
Greensville							
283.0	sgra017	UNT to Greensville Creek	Intermittent	4.0	5.0	36.745611	-77.655874
283.0	sgra016	Greensville Creek	Perennial	12.0	14.0	36.745324	-77.655893
283.2	sgra018	UNT to Greensville Creek	Intermittent	3.0	4.0	36.744256	-77.654220
284.2	sgra015	UNT to Greensville Creek	Intermittent	2.5	3.0	36.732752	-77.641776
285.7	sgra011	UNT to Meadows Branch	Intermittent	3.0	12.0	36.715939	-77.625482
285.9	sgra012	UNT to Meherrin River	Intermittent	3.0	5.0	36.713972	-77.623600
286.2	sgra013	UNT to Meherrin River	Intermittent	3.0	7.0	36.709910	-77.620297
286.2	sgra014	UNT to Meherrin River	Intermittent	4.0	6.0	36.709831	-77.620013
286.3	sgra007	Meherrin River	Perennial	115.0	120.0	36.708154	-77.619582
286.6	sgrc001	UNT to Meherrin River	Intermittent	4.0	10.0	36.703223	-77.623654
286.8	sgra008	UNT to Meherrin River	Intermittent	9.0	12.0	36.702385	-77.617097
287.1	sgra009	UNT to Meherrin River	Intermittent	6.5	10.0	36.697788	-77.615145
287.1	sgra010	UNT to Meherrin River	Intermittent	3.0	4.0	36.698060	-77.615637
288.5	sgra001	UNT to Falling Run	Ephemeral	2.5	3.5	36.682762	-77.600762
288.5	sgra002	Falling Run	Intermittent	8.0	12.0	36.681810	-77.600004
288.8	sgra003	UNT to Falling Run	Intermittent	3.0	5.0	36.679211	-77.599256

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
290.0	sgra004	UNT to Fountains Creek	Intermittent	2.5	4.0	36.662899	-77.592720
290.4	sgra005	UNT to Fountains Creek	Ephemeral	2.0	4.0	36.659400	-77.587733
294.2	sgra006	UNT to Mill Swamp	Intermittent	3.0	4.0	36.621521	-77.545424
295.7	sgrp002	UNT to Camey Swamp	Intermittent	4.0	5.0	36.603468	-77.533843
296.9	sgrb001	UNT to Fountains Creek	Perennial	5.0	7.0	36.582515	-77.529133
297.6	sgrp003	UNT to Fontaine Creek	Perennial	2.0	2.5	36.578320	-77.524987
299.4	sgrp004	Fontaine Creek	Perennial	15.0	16.0	36.553999	-77.511196
299.4	sgrp005	Fontaine Creek	Perennial	12.0	17.0	36.553705	-77.510976
299.6	sgro001	Fontaine Creek	Intermittent	20.0	26.0	36.551590	-77.510140
299.6	sgro002	Fontaine Creek	Perennial	40.0	45.0	36.551597	-77.510199
AP-2							
NORTH CAROLINA							
Northampton							
0.4	snrh005	UNT to Roanoke RIver	Intermittent	6.0	10.0	36.539818	-77.510558
1.1	snrh007	UNT to Jack's Swamp	Intermittent	4.0	6.0	36.529837	-77.515627
1.9	snrh006	Jacks Swamp	Perennial	15.0	17.0	36.519131	-77.522070
8.3	snrh010	UNT to Trouble Field Creek	Intermittent	5.0	10.0	36.442053	-77.559160
8.5	snrg002	UNT to Trouble Field Creek	Perennial	5.0	5.0	36.437797	-77.552005
8.5	snrh009	UNT to Trouble Field Creek	Perennial	10.0	18.0	36.439540	-77.558725
8.8	snrg004	UNT to Trouble Field Creek	Intermittent	4.0	10.0	36.433460	-77.553629
8.8	snrg003	UNT to Trouble Field Creek	Intermittent	4.0	15.0	36.433288	-77.553874
8.9	snrg005	UNT to Trouble Field Creek	Intermittent	4.0	10.0	36.432555	-77.553744
9.6	snrh004	UNT to Roanoke River	Perennial	3.0	4.0	36.423086	-77.558170
9.8	snrh002	UNT to Roanoke River	Perennial	20.0	60.0	36.420415	-77.560558
Halifax							
9.9	shlh001	Roanoke River	Perennial	360.0	400.0	36.419525	-77.560944
11.8	ohlc001	Mush Island Gut	Non-flowing	na	na	36.401549	-77.583780
11.9	shlc003	UNT to Mush Island Gut	Intermittent	5.0	8.0	36.400144	-77.584826
11.9	shlc004i	UNT to Mush Island Gut	Intermittent	6.0	9.0	36.399604	-77.584615

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
12.0	shlc004e	UNT to Mush Island Gut	Intermittent	6.0	9.0	36.398622	-77.584844
12.4	shlc002	UNT to Mush Island Gut	Intermittent	4.0	8.0	36.392967	-77.585053
12.4	shlc001	UNT to Mush Island Gut	Intermittent	5.0	8.0	36.392507	-77.584874
13.5	shlh002	UNT to Roanoke River	Perennial	6.0	8.0	36.380036	-77.596020
14.1	shlh003	UNT to Roanoke River	Perennial	10.0	12.0	36.373861	-77.602002
14.1	shlh004	UNT to Roanoke River	Perennial	6.0	10.0	36.373730	-77.602330
14.5	shlh006	UNT to Roanoke River	Perennial	6.0	8.0	36.369205	-77.606870
14.5	shlh005	UNT to Roanoke River	Perennial	8.0	10.0	36.368850	-77.606795
15.0	ohlg001	Unnamed Pond	Non-flowing	na	na	36.363240	-77.612472
15.6	shlg003	Little Quankey Creek	Perennial	9.0	10.0	36.357555	-77.620124
17.3	shlg005	UNT to Quankey Creek	Intermittent	3.0	4.0	36.339131	-77.637300
18.1	shlg007	UNT to Marsh Swamp	Intermittent	6.0	6.0	36.328891	-77.644893
18.2	shlg008	UNT to Marsh Swamp	Ephemeral	2.0	2.0	36.328575	-77.644731
18.5	shlg009	UNT to Marsh Swamp	Perennial	9.0	15.0	36.323849	-77.647192
20.1	shlh008	Marsh Swamp	Perennial	15.0	20.0	36.305623	-77.662042
20.5	shlh007	UNT to Marsh Swamp	Intermittent	5.0	6.0	36.300373	-77.665072
20.6	ohlg003	Unnamed Pond	Non-flowing	na	na	36.298496	-77.664775
21.0	shlh019	UNT to Marsh Swamp	Intermittent	4.0	6.0	36.294354	-77.667441
22.8	shlh016	UNT to Beaverdam Swamp	Intermittent	5.0	7.0	36.272739	-77.685596
23.1	shlh017	Beaverdam Swamp	Perennial	45.0	50.0	36.269274	-77.688975
23.3	shlh018	UNT to Beaverdam Swamp	Intermittent	3.0	5.0	36.266148	-77.691079
23.6	shla002	UNT to Beaverdam Swamp	Intermittent	4.0	5.5	36.263347	-77.693948
24.0	shlg012	UNT to Beaverdam Swamp	Perennial	5.0	8.0	36.258247	-77.698657
25.0	shlb100	UNT to Beaverdam Creek	Intermittent	3.0	4.0	36.246710	-77.709252

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
26.6	shlh009	UNT to Burnt Goat Swamp	Perennial	8.0	15.0	36.228175	-77.724624
26.9	shlh010	UNT to Burnt Goat Swamp	Intermittent	2.0	5.0	36.224541	-77.728046
27.4	shlh011	Jacket Swamp	Perennial	25.0	35.0	36.218796	-77.734590
27.7	shlh012	UNT to Jacket Swamp	Intermittent	5.0	6.0	36.215686	-77.738436
29.8	shla001	Breeches Swamp	Perennial	15.0	17.0	36.197637	-77.761194
30.6	shlh015	UNT to Rocky Swamp	Intermittent	6.0	10.0	36.187470	-77.766390
31.0	shlh020	UNT to Rocky Swamp	Intermittent	4.0	8.0	36.181647	-77.771152
31.2	shlo001	UNT to Rocky Swamp	Intermittent	4.0	5.0	36.179817	-77.772388
31.2	shlo002	UNT to Rocky Swamp	Intermittent	3.0	4.0	36.179553	-77.772730
32.7	shlh013	UNT to Rocky Swamp	Intermittent	6.0	10.0	36.160488	-77.784428
32.8	shlh014	UNT to Rocky Swamp	Intermittent	6.0	10.0	36.159176	-77.785505
33.5	shlh022	UNT to Fishing Creek	Perennial	4.0	6.0	36.152289	-77.795682
33.8	shlg011	UNT to Fishing Creek	Perennial	8.0	8.0	36.147518	-77.793602
33.8	ohlg002	UNP to Fishing Creek	Non-flowing	na	na	36.147799	-77.794121
Nash							
33.9	snag001	Fishing Creek	Perennial	40.0	75.0	36.145311	-77.795178
34.8	snag003	UNT to Fishing Creek	Intermittent	3.0	3.0	36.134893	-77.802302
34.8	snag002	UNT to Fishing Creek	Intermittent	5.0	5.0	36.134841	-77.802643
35.1	snag004	UNT to Fishing Creek	Intermittent	4.0	4.0	36.131521	-77.805503
37.6	onah002	Unnamed Pond	Non-flowing	na	na	36.101625	-77.830775
39.7	snab100	UNT to Swift Creek	Intermittent	2.0	5.0	36.079693	-77.855913
39.7	onah001	Unnamed Pond	Non-flowing	na	na	36.079327	-77.855830
39.9	snah001	UNT to Swift Creek	Intermittent	4.0	6.0	36.077287	-77.858028
40.3	snah002	UNT to Swift Creek	Perennial	6.0	10.0	36.072800	-77.862257
40.6	snah003	Swift Creek	Perennial	130.0	150.0	36.071044	-77.865525
40.9	snah006	UNT to Flat Rock Branch	Perennial	8.0	12.0	36.069011	-77.869789
41.6	snah005	UNT to Flat Rock Branch	Perennial	6.0	8.0	36.059785	-77.875891
41.7	snah004	UNT to Flat Rock Branch	Perennial	4.0	5.0	36.058137	-77.876923

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
42.0	snah029	UNT to Flat Rock Branch	Intermittent	4.0	4.0	36.054660	-77.879674
42.1	snah025	UNT to Flat Rock Branch	Perennial	10.0	10.0	36.053751	-77.880690
42.2	snah026	UNT to Flat Rock Branch	Perennial	4.0	6.0	36.052936	-77.881502
42.8	snab103	UNT to Flat Rock Branch	Intermittent	3.0	3.0	36.045403	-77.886539
43.5	onac001	Unnamed Pond	Non-flowing	na	na	36.039993	-77.875665
44.0	snab104	UNT to Flat Rock Branch	Intermittent	3.0	4.0	36.035088	-77.873860
44.4	snab105	UNT to Flat Rock Branch	Perennial	4.0	4.0	36.030737	-77.876703
44.4	snac001	Flat Rock Branch	Perennial	8.0	9.0	36.030335	-77.877841
45.4	onac002	Unnamed Pond	Non-flowing	na	na	36.022700	-77.890693
47.2	snah008	UNT to Pig Basket Creek	Perennial	4.0	6.0	36.005339	-77.910216
47.6	onah004	Unnamed Pond	Non-flowing	na	na	35.999600	-77.910645
47.6	onah005	Unnamed Pond	Non-flowing	na	na	35.999461	-77.911101
47.6	snah009	Pig Basket Creek	Perennial	25.0	30.0	35.999549	-77.911552
47.6	snah010	UNT to Pig Basket Creek	Intermittent	9.0	15.0	35.999308	-77.911669
47.7	snah012	UNT to Pig Basket Creek	Perennial	7.0	10.0	35.998155	-77.910933
48.7	snah014	UNT to Stony Creek	Perennial	25.0	30.0	35.984680	-77.911176
48.8	snah015	Stony Creek	Perennial	28.0	35.0	35.984240	-77.911196
49.2	snah016	UNT to Stony Creek	Perennial	4.0	6.0	35.979277	-77.914616
49.5	snah017	UNT to Stony Creek	Perennial	6.0	8.0	35.975249	-77.913618
50.1	snag008	UNT to Stony Creek	Perennial	8.0	15.0	35.967580	-77.919442
50.2	snag007	UNT to Stony Creek	Perennial	6.0	10.0	35.967424	-77.921280
50.3	snag006	UNT to Stony Creek	Perennial	7.0	8.0	35.967186	-77.922105
50.7	snag005	UNT to Stony Creek	Perennial	4.0	4.0	35.965232	-77.929764
51.5	snag011	UNT to Stony Creek	Perennial	5.0	10.0	35.959248	-77.939936
51.5	snag009	UNT to Stony Creek	Perennial	6.0	12.0	35.958436	-77.939261
51.6	snag010	UNT to Stony Creek	Perennial	5.0	8.0	35.957449	-77.941393
52.0	onag002	UNP to Sapony Creek	Non-flowing	na	na	35.953356	-77.944834

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
53.3	snah021	UNT to Sapony Creek	Perennial	10.0	12.0	35.938286	-77.958831
54.9	snah020	UNT to Sapony Creek	Perennial	8.0	10.0	35.918800	-77.972963
56.1	snah023	UNT to Sapony Creek	Perennial	8.0	12.0	35.906004	-77.987943
56.3	snah024	Sapony Creek	Perennial	20.0	25.0	35.904063	-77.989373
56.6	snah022	UNT to Sapony Creek	Perennial	10.0	10.0	35.898881	-77.992771
56.9	snah018	UNT to Sapony Creek	Perennial	9.0	10.0	35.896373	-77.993602
57.0	snah019	UNT to Sapony Creek	Intermittent	7.0	9.0	35.894256	-77.994581
58.8	snap004	UNT to Tar River	Perennial	3.0	3.5	35.869309	-77.998575
59.1	snap003	UNT to Tar River	Intermittent	3.0	3.0	35.866667	-78.000518
59.1	snap002	UNT to Tar River	Intermittent	3.0	3.0	35.865900	-78.000754
59.1	snap001	UNT to Tar River	Intermittent	4.0	6.0	35.865424	-78.000742
59.4	snao011	Tar River	Perennial	130.0	132.0	35.861838	-78.003844
59.7	onao005	Unnamed Pond	Non-flowing	na	na	35.858040	-78.006866
59.8	snao010	UNT to Tar River	Intermittent	2.0	8.0	35.857083	-78.007716
60.4	snao009	UNT to Tar River	Ephemeral	2.0	8.0	35.849644	-78.012931
61.9	snao008	UNT to Toisnot Swamp	Ephemeral	3.0	10.0	35.830440	-78.025439
62.7	snao007	UNT to Toisnot Swamp	Intermittent	2.0	5.0	35.820821	-78.030920
62.7	onao004	Unnamed Pond	Non-flowing	na	na	35.821149	-78.031428
62.8	onao003	Toisnot Swamp	Non-flowing	na	na	35.819521	-78.032427
62.9	onao002	Toisnot Swamp	Non-flowing	na	na	35.818152	-78.033001
63.0	snao006	UNT to Toisnot Swamp	Ephemeral	2.0	8.0	35.817472	-78.033709
63.3	snao005	UNT to Beaverdam Creek	Ephemeral	2.0	4.0	35.813213	-78.037036
63.3	snao004	UNT to Beaverdam Creek	Intermittent	5.0	7.0	35.813002	-78.037279
63.5	snao003	UNT to Beaverdam Creek	Ephemeral	6.0	8.0	35.810981	-78.038792
64.5	snao002	UNT to Bloomers Swamp	Ephemeral	2.0	6.0	35.797978	-78.045162
64.6	onao001	Unnamed Pond	Non-flowing	na	na	35.796772	-78.046713

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
65.1	snah030	UNT to Bloomery Swamp	Perennial	8.0	10.0	35.790331	-78.052073
65.2	snah031	UNT to Bloomery Swamp	Perennial	8.0	10.0	35.790200	-78.052092
65.6	snao001	UNT to Juniper Creek	Ephemeral	2.0	6.0	35.784509	-78.054403
Wilson							
66.1	swio015	UNT to Juniper Creek	Perennial	8.0	20.0	35.777872	-78.055065
66.3	swio016	UNT to Juniper Creek	Intermittent	4.0	8.0	35.775567	-78.053406
66.9	swio014	Millstone Creek	Perennial	15.0	20.0	35.767190	-78.052559
66.9	owio003	Unnamed Pond	Non-flowing	na	na	35.766955	-78.052622
67.7	swio001	UNT to Millstone Creek	Intermittent	2.0	4.0	35.756060	-78.052870
67.8	swio002	UNT to Millstone Creek	Perennial	1.5	2.0	35.755544	-78.053541
68.3	swio003	UNT to Marsh Swamp	Intermittent	5.0	6.0	35.752291	-78.061449
69.1	owio001	Unnamed Pond	Non-flowing	na	na	35.745594	-78.071546
69.1	swio004	UNT to Marsh Swamp	Perennial	6.0	10.0	35.745143	-78.071838
69.3	swio005	UNT to Marsh Swamp	Perennial	5.0	7.0	35.743873	-78.074916
69.5	swio006	UNT to Marsh Swamp	Intermittent	5.0	6.0	35.741558	-78.076920
69.7	swio007	Marsh Swamp	Perennial	8.0	10.0	35.738605	-78.078612
70.4	swio009	UNT to Marsh Swamp	Perennial	4.0	4.0	35.731149	-78.085064
70.5	swio008	UNT to Marsh Swamp	Perennial	5.0	7.0	35.729112	-78.085539
70.9	swio010	UNT to Marsh Swamp	Perennial	5.0	7.0	35.723597	-78.087129
70.9	swio013	UNT to Marsh Swamp	Perennial	4.0	6.0	35.723590	-78.086878
71.0	swio011	UNT to Marsh Swamp	Perennial	20.0	25.0	35.722731	-78.087010
71.0	swio012	UNT to Marsh Swamp	Intermittent	10.0	10.0	35.722690	-78.087220
71.7	swip015	UNT to Contentnea Creek	Intermittent	3.0	4.0	35.712872	-78.090342
71.8	swip016	UNT to Contentnea Creek	Intermittent	4.0	5.0	35.712423	-78.091477
72.2	swip001	UNT to Contentnea Creek	Ephemeral	3.0	5.0	35.708301	-78.097290

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
72.3	swic001	UNT to Contentnea Creek	Intermittent	5.0	12.0	35.706951	-78.097534
72.3	owic001	Unnamed Pond	Non-flowing	na	na	35.706594	-78.097433
73.1	swib100	UNT to Contentnea Creek	Perennial	3.0	4.0	35.695877	-78.099001
73.4	swib101	UNT to Contentnea Creek	Intermittent	3.0	4.0	35.692595	-78.100133
73.6	swic002	Contentnea Creek	Perennial	40.0	60.0	35.691736	-78.104367
73.7	swic004	Contentnea Creek	Perennial	30.0	50.0	35.691679	-78.105676
73.9	swip008	UNT to Contentnea Creek	Intermittent	3.0	4.0	35.688806	-78.106559
74.1	swip006	UNT to Contentnea Creek	Intermittent	2.0	3.0	35.686021	-78.107993
74.1	swip007	UNT to Contentnea Creek	Intermittent	3.0	6.0	35.685711	-78.108981
74.6	swip002	UNT to Buckhorn Branch	Ephemeral	3.0	5.0	35.680988	-78.113579
74.9	swip003	UNT to Buckhorn Branch	Ephemeral	4.0	5.0	35.677136	-78.115275
75.8	swip017	UNT to Buckhorn Branch	Perennial	4.5	6.0	35.664811	-78.120531
75.8	swip009	UNT to Buckhorn Branch	Intermittent	3.0	4.0	35.664588	-78.121035
Johnston							
78.9	sjob101	UNT to Little Buffalo Creek	Ephemeral	2.0	10.0	35.630461	-78.154165
78.9	ojob103	UNP to Little Buffalo Creek	Non-flowing	na	na	35.630154	-78.153758
78.9	ojob102	UNP to Little Buffalo Creek	Non-flowing	na	na	35.629755	-78.154495
78.9	sjob102	UNT to Little Buffalo Creek	Ephemeral	2.0	5.0	35.629904	-78.154913
79.2	sjob103	UNT to Little Buffalo Creek	Perennial	5.0	6.0	35.627561	-78.156685
79.5	sjob104	Little Buffalo Creek	Perennial	20.0	20.0	35.624254	-78.162238
80.9	ojop005	Unnamed Pond	Non-flowing	na	na	35.610262	-78.177533
81.0	sjop013	UNT to Little River	Intermittent	1.5	2.5	35.609125	-78.178756

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
81.0	ojop003	Unnamed Pond	Non-flowing	na	na	35.608482	-78.179620
82.0	sjop003	UNT to Little River	Intermittent	5.0	5.0	35.599246	-78.190706
82.5	sjop011	Little River	Perennial	40.0	50.0	35.597374	-78.198689
83.0	sjop014	Buffalo Creek	Perennial	40.0	45.0	35.593982	-78.204655
83.5	sjop012	Buffalo Creek	Perennial	25.0	30.0	35.588753	-78.210835
84.2	ojop001	Unnamed Pond	Non-flowing	na	na	35.579988	-78.213894
84.5	sjop001	Big Branch	Intermittent	6.0	6.0	35.575718	-78.217448
84.5	sjop002	UNT to Big Branch	Intermittent	5.0	6.0	35.575345	-78.217629
85.1	ojoo001	Unnamed Pond	Non-flowing	na	na	35.576040	-78.227333
85.9	sjoo003	UNT to Little Creek	Perennial	8.0	8.0	35.570505	-78.237506
86.5	sjoo004	Little Creek	Perennial	4.0	6.0	35.568285	-78.246565
87.3	sjoo005	UNT to Moccasin Creek	Intermittent	3.0	4.0	35.556527	-78.250246
88.8	sjop004	UNT to Moccasin Creek	Intermittent	3.0	4.5	35.536494	-78.246563
88.9	sjop005	UNT to Moccasin Creek	Intermittent	3.0	4.5	35.535044	-78.245171
88.9	sjop006	UNT to Moccasin Creek	Intermittent	4.0	5.0	35.534539	-78.244633
89.6	ojop002	Unnamed Pond	Non-flowing	na	na	35.526199	-78.250508
89.7	sjop007	Moccasin Creek	Perennial	12.0	13.5	35.525872	-78.252984
91.2	sjop009	Bawdy Swamp	Intermittent	12.0	16.0	35.518196	-78.275543
91.2	sjop008	UNT to Bawdy Swamp	Intermittent	2.0	6.0	35.517701	-78.275084
92.1	sjop010	Bawdy Swamp	Perennial	8.0	10.0	35.505882	-78.280426
93.6	sjop015	UNT to Mill Branch	Intermittent	4.0	6.5	35.495232	-78.294416
95.1	sjob011	UNT to Neuse River	Intermittent	6.0	7.0	35.474880	-78.305753
95.8	sjob010	UNT to Polecat Branch	Intermittent	4.0	6.0	35.465966	-78.310613
96.1	ojoa007	Unnamed Pond	Non-flowing	na	na	35.461572	-78.313502
96.3	sjob008	UNT to Polecat Branch	Perennial	4.0	6.0	35.459746	-78.315726
96.3	sjob009	UNT to Polecat Branch	Perennial	4.0	6.0	35.460227	-78.316399
98.0	sjoc001	UNT to Neuse River	Intermittent	5.0	12.0	35.439723	-78.333069
98.1	sjob106	UNT to Neuse River	Perennial	25.0	35.0	35.439008	-78.333499
98.4	sjob105	Neuse River	Perennial	110.0	125.0	35.435276	-78.337812
98.8	sjob007	UNT to Neuse River	Intermittent	5.0	6.0	35.431654	-78.339554

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
100.9	ojop004	Unnamed Pond	Non-flowing	na	na	35.406952	-78.361363
102.4	sjob006	UNT to Hannah Creek	Intermittent	1.0	3.0	35.389107	-78.373925
102.8	sjob005	UNT to Hannah Creek	Intermittent	4.0	4.0	35.384598	-78.376633
102.8	sjob004	UNT to Hannah Creek	Perennial	4.0	5.0	35.384466	-78.376670
103.1	ojoa005	Unnamed Pond	Non-flowing	na	na	35.381024	-78.376073
103.9	sjob003	UNT to Hannah Creek	Perennial	4.0	5.0	35.370233	-78.380718
104.4	ojoa004	Unnamed Pond	Non-flowing	na	na	35.363885	-78.381663
104.5	ojoa003	Unnamed Pond	Non-flowing	na	na	35.361592	-78.382562
104.6	sjob002	UNT to Ojoa003	Intermittent	2.0	4.0	35.361441	-78.382461
105.8	ojoa002	Unnamed Pond	Non-flowing	na	na	35.350602	-78.397409
106.1	ojoa001	Unnamed Pond	Non-flowing	na	na	35.346941	-78.400821
107.7	sjob001	UNT to Johnson Swamp	Perennial	12.0	13.0	35.327934	-78.415378
107.9	ojoa006	Unnamed Pond	Non-flowing	na	na	35.325972	-78.418333
108.1	ojob100	UNP to Johnson Swamp	Non-flowing	na	na	35.323246	-78.420651
110.3	sjop017	UNT to John K Swamp	Intermittent	4.0	5.0	35.301337	-78.446707
110.5	sjop016	UNT to John K Swamp	Ephemeral	3.0	6.0	35.301691	-78.449812
113.1	sjoo007	Mill Branch	Intermittent	7.0	8.0	35.303025	-78.493301
114.2	ojoo002	Unnamed Pond	Non-flowing	na	na	35.301739	-78.512592
114.2	sjoo006	UNT to Jumping Run	Perennial	4.0	6.0	35.302084	-78.512877
Sampson							
115.4	ssao003	UNT to Juniper Run	Ephemeral	3.0	8.0	35.292203	-78.530447
116.9	ssao002	UNT to Juniper Run	Intermittent	4.0	7.0	35.279738	-78.550045
116.9	ssao001	Little Juniper Run	Perennial	8.0	12.0	35.279761	-78.550523
117.2	ssap003	Juniper Run	Perennial	12.0	12.0	35.277302	-78.553270
117.7	ssap002	UNT to Beaverdam Swamp	Ephemeral	4.0	6.0	35.271972	-78.558951
117.7	ssap001	UNT to Beaverdam Swamp	Ephemeral	4.0	6.0	35.271415	-78.558976
118.9	ssao007	Beaverdam Swamp	Perennial	9.0	10.0	35.255949	-78.564327
119.3	osao003	Unnamed Pond	Non-flowing	na	na	35.251864	-78.569994

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
119.3	ssao008	UNT to Beaverdam Swamp	Intermittent	1.0	10.0	35.251753	-78.569952
119.7	ssaa001	Beaverdam Swamp	Perennial	25.0	30.0	35.249054	-78.575715
121.6	osao001	Unnamed Pond	Non-flowing	na	na	35.232860	-78.601594
121.9	ssao004	UNT to Starlins Swamp	Intermittent	2.0	5.0	35.231704	-78.605355
121.9	osao002	Unnamed Pond	Non-flowing	na	na	35.231467	-78.606312
122.2	ssao006	Starlins Swamp	Perennial	15.0	16.0	35.230300	-78.610352
122.3	ssao005	Starlins Swamp	Perennial	20.0	21.0	35.228716	-78.613365
Cumberland							
125.2	scmc004	UNT to Black River	Intermittent	5.0	7.0	35.214279	-78.657967
125.8	scmp007e	UNT to South River	Ephemeral	8.0	12.0	35.211347	-78.665586
125.8	scmp007i	UNT to South River	Intermittent	10.0	15.0	35.211360	-78.666198
126.7	scmp008	UNT to Cape Fear River	Ephemeral	4.0	10.0	35.202365	-78.676360
126.8	scmp009	UNT to Cape Fear River	Perennial	8.0	10.0	35.200670	-78.678000
127.3	scmp010	UNT to Cape Fear River	Perennial	6.0	7.0	35.195135	-78.682231
127.6	scmp011	UNT to Cape Fear River	Perennial	4.0	4.0	35.192534	-78.686699
129.0	scmp022	UNT to Cape Fear Rive	Intermittent	3.0	3.5	35.187907	-78.704696
129.4	scmc001	UNT to Cape Fear River	Perennial	7.0	9.0	35.183087	-78.710030
129.6	scmc002	UNT to Cape Fear River	Perennial	30.0	50.0	35.182567	-78.712243
129.7	scmc003	UNT to Cape Fear River	Ephemeral	3.0	4.0	35.181844	-78.713573
130.1	scmc005	UNT to Cape Fear River	Intermittent	3.0	4.0	35.179137	-78.719597
131.1	scmp021	UNT to Cape Fear River	Intermittent	4.0	6.0	35.169311	-78.735208
131.5	scmp005	UNT to Cape Fear River	Perennial	5.0	>50.0	35.171717	-78.741406
131.6	scmb102	UNT to Cape Fear River	Ephemeral	3.0	6.0	35.171851	-78.743705
131.6	scmp002	UNT to Cape Fear River	Intermittent	3.0	6.0	35.171433	-78.744528
131.7	scmb103	UNT to Cape Fear River	Ephemeral	2.0	5.0	35.170444	-78.744418
131.7	scmp003	UNT to Cape Fear River	Intermittent	2.5	5.0	35.170428	-78.744734
131.7	scmp004	UNT to Cape Fear River	Intermittent	4.0	9.0	35.170236	-78.745144

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
132.7	scmp001	UNT to Cape Fear River	Intermittent	9.0	15.0	35.160637	-78.755231
132.9	scmp037	UNT to Cape Fear River	Perennial	15.0	20.0	35.158971	-78.758126
133.0	scmo008	UNT to Cape Fear River	Perennial	20.0	30.0	35.157486	-78.758064
133.4	scmo007	UNT to Flat Swamp Ditch	Ephemeral	4.0	15.0	35.152326	-78.762133
133.7	scmo006	UNT to Flat Swamp Ditch	Ephemeral	18.0	30.0	35.148771	-78.765506
134.1	scmo005	UNT to Flat Swamp Ditch	Ephemeral	2.0	14.0	35.144292	-78.769361
134.2	scmo004	UNT to Flat Swamp Ditch	Intermittent	8.0	20.0	35.143710	-78.770285
134.5	scmb100	UNT to Flat Swamp Ditch	Intermittent	10.0	12.0	35.138921	-78.772795
134.7	scmo011	UNT to Flat Swamp Ditch	Intermittent	10.0	20.0	35.136226	-78.772316
135.0	scmo003	UNT to Gum Log Canal	Intermittent	15.0	20.0	35.132472	-78.773435
135.7	scmo002	Gum Log Canal	Perennial	20.0	30.0	35.124019	-78.772482
136.3	ocmo001	Unnamed Pond	Non-flowing	na	na	35.116638	-78.765013
137.1	scmo001	Bakers Swamp	Intermittent	6.0	8.0	35.107162	-78.761019
138.4	ocmp008	Unnamed Pond	Non-flowing	na	na	35.090436	-78.760616
139.8	ocmp002	Unnamed Pond	Non-flowing	na	na	35.076939	-78.766344
140.0	ocmp004	Unnamed Pond	Non-flowing	na	na	35.073894	-78.767190
140.3	scmp026	UNT to Reese Creek	Intermittent	3.0	15.0	35.070975	-78.770122
142.1	ocmo002	Unnamed Pond	Non-flowing	na	na	35.048042	-78.780939
142.2	scmo012	UNT to Locks Creek	Intermittent	4.0	5.0	35.046279	-78.781495
143.1	scmh002	UNT to Locks Creek	Intermittent	4.0	8.0	35.034804	-78.783796
143.4	ocmc001	Unnamed Pond	Non-flowing	na	na	35.030480	-78.781268
144.4	scmo013	UNT to Pasture Branch Swamp	Intermittent	5.0	6.0	35.016747	-78.782929
144.5	scmp023	UNT to Pasture Branch	Intermittent	2.5	3.0	35.015422	-78.783994
144.7	scmp024	Pasture Branch Swamp	Perennial	8.0	9.0	35.012747	-78.784507
144.9	scmp036	Pasture Branch Swamp	Perennial	4.0	4.5	35.010492	-78.785111
145.2	scmp025	UNT to Pasture Branch Swamp	Ephemeral	4.0	6.0	35.006355	-78.784108
145.3	scmp028	UNT to Reese Creek	Intermittent	5.0	8.0	35.005137	-78.784137
145.4	scmp027	UNT to Reese Creek	Intermittent	2.0	2.0	35.003331	-78.784557

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
146.5	ocmp003	Unnamed Pond	Non-flowing	na	na	34.993061	-78.794159
147.9	scmp034	UNT to Locks Creek	Perennial	6.0	10.0	34.982169	-78.811092
147.9	scmp035	UNT to Locks Creek	Intermittent	4.0	6.0	34.982465	-78.811357
148.3	scmp033	Locks Creek	Perennial	20.0	25.0	34.981272	-78.818133
148.3	scmp032	UNT to Locks Creek	Perennial	3.0	4.0	34.980927	-78.818389
148.4	scmp031	UNT to Locks Creek	Intermittent	3.0	4.0	34.980463	-78.819634
148.5	ocmp007	Unnamed Pond	Non-flowing	na	na	34.980560	-78.821364
148.8	scmp030	UNT to Locks Creek	Intermittent	3.0	4.0	34.976651	-78.823339
149.3	scmp029	Cape Fear River	Perennial	200.0	200.0	34.968221	-78.823839
149.4	scmo018	Rockfish Creek	Perennial	105.0	106.0	34.967303	-78.823863
149.6	scmb101	UNT to Rockfish Creek	Intermittent	3.0	4.0	34.963864	-78.824434
150.0	ocmb100	UNP to Rockfish Creek	Non-flowing	na	na	34.960356	-78.827048
151.1	scmc006	UNT to Murphy Swamp	Perennial	11.0	16.0	34.946270	-78.834347
151.5	ocmc003	Unnamed Pond	Non-flowing	na	na	34.940347	-78.835338
151.9	scmo019	UNT to Murphy Swamp	Intermittent	10.0	12.0	34.934731	-78.837720
152.1	scmp013	UNT to Grays Creek	Ephemeral	6.0	10.0	34.931501	-78.839115
152.2	scmp012	UNT to Grays Creek	Ephemeral	6.0	10.0	34.930179	-78.840062
152.5	scmp020	Grays Creek	Perennial	8.0	12.0	34.926624	-78.843720
153.3	scmp019	UNT to Grays Creek	Intermittent	6.0	6.0	34.919595	-78.853029
154.9	ocmb001	UNP to Long Branch Creek	Non-flowing	na	na	34.904784	-78.867338
157.4	scmo017	UNT to Swans Creek	Perennial	4.0	6.0	34.870888	-78.875422
158.3	scmg002	UNT to Kirks Mill Creek	Intermittent	4.0	10.0	34.866321	-78.887377
158.3	scmg001	UNT to Kirks Mill Creek	Intermittent	9.0	18.0	34.865969	-78.887821
159.1	scmh001	UNT to Kirks Mill Creek	Intermittent	5.0	8.0	34.861041	-78.900498
159.1	ocmh001	Unnamed Pond	Non-flowing	na	na	34.860943	-78.901054
Robeson							
160.8	orog002	Unnamed Pond	Non-flowing	na	na	34.847403	-78.919798
161.8	oroh003	UNP to Little Marsh	Non-flowing	na	na	34.838906	-78.932484
161.9	sroh011	UNT to Little Marsh Swamp	Intermittent	8.0	15.0	34.838722	-78.934500

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
164.2	srog006	UNT Little Marsh Swamp	Intermittent	8.0	10.0	34.849607	-78.970692
170.0	oroh002	Unnamed Pond	Non-flowing	na	na	34.789908	-79.036606
170.2	srog005	UNT to Tenmile Swamp	Ephemeral	3.0	3.0	34.786987	-79.038863
171.4	srog004	UNT to Little Tenmile Swamp	Intermittent	4.0	8.0	34.774627	-79.049139
171.8	sroh015	UNT to Saddletree Swamp	Intermittent	4.0	10.0	34.770204	-79.054345
171.9	sroh013	UNT to Saddletree Swamp	Intermittent	4.0	8.0	34.768954	-79.057742
172.0	srog003	UNT to Little Tenmile Swamp	Intermittent	4.0	10.0	34.767073	-79.055407
172.0	sroh014	UNT to Saddletree Swamp	Intermittent	5.0	10.0	34.768009	-79.060621
172.4	srog002	UNT to Saddletree Swamp	Intermittent	3.0	3.0	34.763323	-79.057730
172.4	srog001	UNT to Saddletree Swamp	Intermittent	3.0	8.0	34.763003	-79.058972
174.0	sroh010	Raft Swamp	Perennial	40.0	50.0	34.760926	-79.086758
177.4	oroh001	Unnamed Pond	Non-flowing	na	na	34.737825	-79.131700
177.4	sroc002	UNT to Richland Swamp	Ephemeral	3.0	10.0	34.736195	-79.130002
178.3	sroh009	UNT to Burnt Swamp	Intermittent	3.0	7.0	34.727994	-79.141113
181.1	sroh008	Moss Neck Swamp	Perennial	20.0	30.0	34.727496	-79.184770
181.2	sroh007	UNT to Moss Neck Swamp	Intermittent	2.0	4.0	34.726979	-79.186716
181.5	sroh006	UNT to Bear Swamp	Intermittent	6.0	10.0	34.725232	-79.189686
181.6	sroh005	UNT to Bear Swamp	Perennial	7.0	10.0	34.723931	-79.191018
181.6	sroh004	UNT to Bear Swamp	Intermittent	3.0	7.0	34.723734	-79.192188
181.7	sroh003	UNT to Bear Swamp	Intermittent	3.0	7.0	34.723460	-79.192654
182.2	sroh002	UNT to Bear Swamp	Intermittent	3.0	6.0	34.722490	-79.201822
182.3	sroh001	UNT to Bear Swamp	Perennial	5.0	8.0	34.722101	-79.203155
LATERAL PIPELINES							
AP-3							
VIRGINIA							

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
Greensville							
12.4	sgrp001	Meherrin River	Perennial	113.0	114.0	36.547004	-77.298966
Southampton							
13.4	ssop002	UNT to Meherrin River	Perennial	6.0	7.0	36.554966	-77.284658
13.6	ssop001	UNT to Meherrin River	Perennial	6.0	7.0	36.556501	-77.283016
14.4	ssop003	UNT to Meherrin River	Perennial	7.0	8.0	36.565757	-77.277184
23.7	ssoa001	UNT to Darden Pond	Perennial	6.0	12.0	36.635070	-77.136220
27.4	ssol006	UNT to Nottoway River	Ephemeral	3.0	4.0	36.641287	-77.073895
27.8	ssol007	UNT to Nottoway River	Ephemeral	1.0	1.3	36.642458	-77.067115
28.8	ssoo001	UNT to Nottoway River	Intermittent	4.0	8.0	36.644666	-77.050119
30.8	ssoa008	UNT to Nottoway River	Perennial	9.0	10.0	36.634792	-77.017436
31.3	ssoa006	UNT to Nottoway River	Intermittent	2.0	5.0	36.629108	-77.011728
32.2	ssoa007	Nottoway River	Perennial	160.0	175.0	36.633079	-76.998279
32.6	ssol015	Nottoway River	Perennial	160.0	>200.0	36.634209	-76.990710
33.0	ssol009	UNT to Nottoway River	Intermittent	5.0	7.0	36.638220	-76.984792
33.1	ssol010	UNT to Nottoway River	Intermittent	4.0	6.0	36.638598	-76.983561
33.2	ssol011	UNT to Nottoway River	Intermittent	10.0	12.0	36.639540	-76.981618
33.9	ssoc006	UNT to Nottoway River	Perennial	22.0	30.0	36.642222	-76.971128
33.9	ssoc008	UNT to Nottoway River	Intermittent	6.0	20.0	36.642618	-76.970280
34.4	ssoc009	UNT to Nottoway River	Intermittent	4.0	8.0	36.643808	-76.962117
35.7	ssol012	UNT to Nottoway River	Intermittent	4.0	5.0	36.638681	-76.939891
36.3	ssol013	UNT to Blackwater River	Perennial	16.0	20.0	36.638514	-76.929108
36.3	ssoa011	UNT to Blackwater River	Perennial	13.0	16.0	36.635309	-76.928620
36.6	ssol014	UNT to Blackwater River	Intermittent	3.0	4.0	36.638103	-76.923876
38.5	ssoa010	Blackwater River	Perennial	185.0	195.0	36.630045	-76.891761
Suffolk							

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
39.4	ssua004	UNT to Blackwater River	Perennial	4.0	7.0	36.633699	-76.878140
39.7	ssua005	UNT to Blackwater River	Intermittent	3.0	7.0	36.634338	-76.872668
40.0	ssua006	UNT to Blackwater River	Intermittent	2.5	3.0	36.633761	-76.867599
40.1	ssua007	UNT to Blackwater River	Perennial	5.0	6.0	36.633316	-76.865399
40.2	ssua008	UNT to Blackwater River	Perennial	6.0	7.0	36.633739	-76.864355
55.0	ssup007	UNT to Pitchkettle Creek	Ephemeral	4.0	9.0	36.691459	-76.644258
55.2	ssup005	UNT to Pitch kettle Creek	Ephemeral	4.0	9.0	36.692584	-76.641729
56.6	ssup004	UNT to Lake Kilby	Perennial	3.0	5.0	36.705446	-76.622933
56.9	ssup006	Pitchkettle Creek	Perennial	50.0	55.0	36.707088	-76.617856
58.3	ssup001	UNT to Shingle Creek	Ephemeral	2.0	2.5	36.705042	-76.595765
58.3	osup001	Unnamed Pond	Non-flowing	na	na	36.704754	-76.595400
58.6	ssup003	UNT to Shingle Creek	Ephemeral	3.0	4.0	36.702660	-76.590596
58.7	ssup002	UNT to Shingle Creek	Ephemeral	3.0	4.0	36.702775	-76.589572
59.1	ssuo001	UNT to Shingle Creek	Perennial	7.0	9.0	36.702740	-76.582475
64.5	ssur001	UNT to Bernetts Mill	Perennial	30.0	15.0	36.750582	-76.516922
64.9	ssuo002	UNT to Bernetts Mill	Perennial	20.0	22.0	36.756659	-76.511998
64.9	ssuo003	UNT to Bernetts Mill	Perennial	8.0	10.0	36.755787	-76.514314
65.1	ssuo004	UNT to Bernetts Mill	Perennial	5.0	7.0	36.756630	-76.511788
65.1	osuo001	Unnamed Pond	Non-flowing	na	na	36.756844	-76.511519
67.6	ssuo005	UNT to East Ditch	Perennial	15.0	15.0	36.770979	-76.471451
NORTH CAROLINA							
Northampton							
0.3	snrh008	UNT to Jack's Swamp	Perennial	6.0	10.0	36.540921	-77.504912
1.3	snrc002	UNT to Jack's Swamp	Ephemeral	3.0	4.0	36.538926	-77.487271
1.5	snrc001	UNT to Jack's Swamp	Ephemeral	3.0	3.0	36.538437	-77.483297

TABLE 3.2-2 (cont'd)

Atlantic Coast Pipeline
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
3.6	snrp002	UNT to Cypress Creek	Intermittent	3.0	4.0	36.532340	-77.446342
4.2	snrp003	UNT to Cypress Creek	Intermittent	7.0	8.0	36.532532	-77.436330
5.9	snrp017	UNT to Cypress Creek	Perennial	7.0	8.0	36.524975	-77.406450
5.9	snrp016	UNT to Cypress Creek	Perennial	9.0	10.0	36.524856	-77.406350
6.5	snrp015	UNT to Cypress Creek	Intermittent	4.0	5.0	36.523583	-77.396163
6.6	snrp007	UNT to Cypress Creek	Perennial	4.0	5.0	36.526018	-77.394210
7.0	snrp006	UNT to Cypress Creek	Intermittent	5.0	7.0	36.527696	-77.388198
7.0	snrp005	UNT to Cypress Creek	Perennial	3.0	9.0	36.528328	-77.387447
7.1	snrp004	UNT to Cypress Creek	Intermittent	2.0	7.0	36.528958	-77.386101
7.8	snrb101	UNT to Cypress Creek	Ephemeral	2.0	4.0	36.531790	-77.374669
9.5	snrp014	UNT to Cypress Creek	Ephemeral	5.0	6.0	36.540044	-77.345386
9.5	snrp013	UNT to Cypress Creek	Ephemeral	5.0	6.0	36.539812	-77.345156
10.0	snrp001	Cypress Creek	Perennial	12.0	12.0	36.536669	-77.337576
10.8	snrr004	UNT to Meherrin River	Ephemeral	2.5	3.0	36.534263	-77.323750
11.6	snrp012	UNT to Meherrin River	Intermittent	4.0	7.0	36.542093	-77.312232
AP-4							
AP-5							
VIRGINIA							
Greensville							
0.2	sgrc103	UNT to Greensville Creek	Intermittent	5.0	8.0	36.728368	-77.642398
0.3	sgrc102	UNT to Greensville Creek	Perennial	7.0	10.0	36.727321	-77.643766
0.3	sgrc002	UNT to Greensville Creek	Intermittent	2.0	3.0	36.727324	-77.643782
0.7	sgrc101	UNT to Greensville Creek	Ephemeral	2.0	4.0	36.724062	-77.648977
0.8	sgrc100	UNT to Greensville Creek	Perennial	8.0	11.0	36.723094	-77.650840

TABLE 3.3-1

Atlantic Coast Pipeline
Non-tidal Ditches in Virginia (COE Norfolk District)

Facility/State/County	Unique ID	Latitude	Longitude
MAINLINE PIPELINES			
AP-1			
VIRGINIA			
Highland			
	dhic001	38.307789	-79.425301
Augusta			
	daub100	38.026749	-78.995041
Greensville			
	dgra001	36.742691	-77.652855
	dgra002	36.742195	-77.652534
	dgrc001	36.659103	-77.587379
Southampton			
	dsoa006	36.626648	-77.148071
	dsoc001	36.642735	-76.970566
	dsoc002	36.643799	-76.964432
	dsoa001	36.638935	-76.936554
	dsoa002	36.638893	-76.936462
	dsoa003	36.639378	-76.935387
	dsoa004	36.638138	-76.929176
	dsoa005	36.636387	-76.927727
Suffolk			
	dsua001	36.634529	-76.876122

TABLE 3.4-1

Atlantic Coast Pipeline
Seep Points

Facility/State/County/ Approximate Milepost	Unique ID	Latitude	Longitude
MAINLINE PIPELINES			
AP-1			
WEST VIRGINIA			
Upshur			
36.9	pupa009	38.879326	-80.183800
38.6	pupb004	38.862549	-80.167809
40.4	pupb102	38.848595	-80.146301
Randolph			
44.2	prab001	38.811150	-80.102020
45.7	prab101	38.793304	-80.097748
46.0	prab103	38.790722	-80.093079
46.3	prab102	38.785625	-80.094650
49.4	prab105	38.753681	-80.066597
50.1	prab113	38.743500	-80.062477
50.2	prab112	38.742928	-80.061325
50.4	prac002	38.740543	-80.059753
50.4	prac001	38.740406	-80.059914
51.2	prab114	38.733608	-80.050049
51.9	prab115	38.726105	-80.042625
56.9	prab116	38.682838	-79.982109
62.3	praa075	38.626377	-79.930092
62.3	praa073	38.628166	-79.927048
62.8	prab050	38.615444	-79.935585
65.2	praa050	38.604343	-79.905457
65.2	prab051	38.603676	-79.904411
65.6	prac051	38.608643	-79.901665
65.7	prac057	38.608669	-79.901123
65.7	prac056	38.608738	-79.900391
65.7	prac055	38.608810	-79.899818
65.7	prac054	38.608837	-79.899475
65.7	prac053	38.608891	-79.899429
65.7	prac052	38.608734	-79.899300
65.7	prac061	38.608234	-79.899612
65.8	prac058	38.608276	-79.898407
65.8	prac059	38.607979	-79.897606
65.9	prac060	38.607624	-79.897041
66.0	prab052	38.606350	-79.896355
66.1	prac062	38.605164	-79.894424

TABLE 3.4-1 (cont'd)

Atlantic Coast Pipeline
Seep Points

Facility/State/County/ Approximate Milepost	Unique ID	Latitude	Longitude
66.3	prac063	38.605839	-79.889664
66.4	prac064	38.606430	-79.889702
66.4	prac065	38.607388	-79.889793
66.5	prac066	38.608086	-79.890045
66.5	prac069	38.608696	-79.890007
66.5	prac068	38.608643	-79.889648
66.6	prac070	38.609394	-79.889870
66.6	prac071	38.609493	-79.889107
66.7	praa052	38.609444	-79.887711
66.7	praa053	38.609989	-79.886803
66.9	prac072	38.612560	-79.884743
67.1	praa056	38.614372	-79.882675
67.1	praa055	38.614788	-79.882690
67.2	praa057	38.614750	-79.882195
67.4	prac074	38.617722	-79.879036
67.4	prac073	38.617481	-79.878937
67.5	praa058	38.617584	-79.878342
67.5	praa059	38.617813	-79.878105
67.5	praa060	38.618015	-79.877373
67.7	prac081	38.617222	-79.874260
67.8	prac076	38.616611	-79.873825
67.8	praa063	38.615925	-79.873619
67.8	praa065	38.615635	-79.873283
68.7	praa068	38.606045	-79.862839
69.5	prac079	38.598778	-79.851837
Pocahontas			
72.3	ppoa001	38.587032	-79.810875
73.1	ppoa002	38.577358	-79.807175
73.2	ppoc010	38.577358	-79.805084
73.2	ppoc009	38.577332	-79.804855
73.2	ppoc008	38.577343	-79.804794
74.8	ppoc004	38.561302	-79.790916
77.3	ppob001	38.548153	-79.752029
78.6	ppoc006	38.535549	-79.735222
78.7	ppoc007	38.536171	-79.734322
79.1	ppoc001	38.537888	-79.726357
79.2	ppoc003	38.536751	-79.723846

TABLE 3.4-1 (cont'd)

Atlantic Coast Pipeline
Seep Points

Facility/State/County/ Approximate Milepost	Unique ID	Latitude	Longitude
VIRGINIA			
Highland			
85.3	phib002	38.474354	-79.666451
95.3	phia200	38.373894	-79.571037
96.7	phib100	38.370365	-79.548874
97.9	phib101	38.362648	-79.532516
107.7	phib102	38.299557	-79.433258
108.6	phic002	38.292366	-79.422234
108.6	phic001	38.292725	-79.422333
108.9	phic003	38.292511	-79.415421
Augusta			
114.0	paub100	38.280365	-79.341194
114.0	paub101	38.280342	-79.340843
116.3	paub102	38.280163	-79.301872
121.1	pauc001	38.288807	-79.221985
123.1	pauc002	38.289108	-79.189278
142.6	paub001	38.067200	-79.055717
Buckingham			
185.9	pbup002	37.651176	-78.703583
186.4	pbup001	37.645039	-78.699455
209.6	pbuk002	37.409721	-78.457283
209.6	pbuk001	37.409763	-78.457031
Prince Edward			
222.5	pped001	37.306286	-78.282188
223.3	ppea001	37.302071	-78.271042
Nottoway			
226.0	pnoa002	37.282005	-78.230484
231.8	pnoc001	37.245052	-78.138794
243.3	pnoa001	37.137417	-77.994705
244.0	pnod001	37.134243	-77.983086
Dinwiddie			
257.4	pdia001	37.039786	-77.836098

3.5 NON-WATER POINTS

A total of 176 non-water points were documented within the survey corridor along the proposed pipeline route in West Virginia, Virginia, and North Carolina during the field season. These areas were documented as upland habitat, although present on NWI maps, or as NHD waterbodies, or aerial photography signatures indicative of a wetland or waterbody. Photographs for the mapped NWI, NHD features, and aerial signatures that were documented as non-water points are provided in Appendix D. In addition, for NWI wetland areas determined to be upland, an appropriate COE wetland data sheet was recorded and is also included in Appendix D. A table listing the non-water points is located in Table 3.5-1. Table 3.5-1 includes the state, county, unique project non-water point ID, non-water point type (e.g., NWI, NHD, and aerial photography signature), approximate milepost, latitude, and longitude. Datasheets and photo pages for each non-water sample point associated with NWI polygons, as well as photo pages for non-water sample points from NHD and aerial photography are provided in Appendix D.

TABLE 3.5-1

Atlantic Coast Pipeline
Non-Water Points

Facility/State/ County/ Approximate Milepost	Unique ID	Non-Water Point Type	Latitude	Longitude
MAINLINE PIPELINES				
AP-1				
WEST VIRGINIA				
Lewis				
9.2	nolea001	NWI Poly	39.130091	-80.444085
Upshur				
26.6	noupa001	NHD Line	38.972998	-80.269214
28.4	noupa002	NHD Line	38.953664	-80.253203
28.6	noupb101	NHD Line	38.951685	-80.248567
29.3	noupb001	NHD Line	38.943543	-80.253019
29.4	noupb002	NWI Poly	38.942536	-80.254141
37.7	noupa003	NHD Line	38.871675	-80.176334
38.7	noupb050	NHD Line	38.869794	-80.164792
39.8	noupb102	NHD Line	38.856943	-80.154276
Randolph				
56.5	norab005	NWI Poly	38.687557	-79.985629
56.7	norab006	NHD Line	38.685183	-79.982952
59.3	norab001	NHD Line	38.651678	-79.971559
59.9	norab002	NHD Line	38.646064	-79.965008
59.9	norab003	NHD Line	38.645230	-79.963988
60.6	norab004	NWI Poly	38.636838	-79.961684
Pocahontas				
77.0	nopob001	NHD Line	38.552027	-79.755072
VIRGINIA				
Highland				
87.6	nohia001k*	Aerial Signature	38.452151	-79.644694
92.5	nohib102	NHD Line	38.396646	-79.606962
93.8	nohib106	NHD Line	38.381549	-79.592764
98.3	nohib103	NHD Line	38.358479	-79.529434

TABLE 3.5-1 (cont'd)

Atlantic Coast Pipeline
Non-Water Points

Facility/State/ County/ Approximate Milepost	Unique ID	Non-Water Point Type	Latitude	Longitude
99.0	nohia002k*	Aerial Signature	38.354860	-79.517977
99.0	nohib105	NHD Line	38.354928	-79.517863
103.1	nohib108	NHD Line	38.306653	-79.502810
105.6	nohib202	NHD Line	38.290882	-79.464107
105.8	nohib201	NHD Line	38.290959	-79.460574
106.3	nohib101	NHD Line	38.293273	-79.453222
Augusta				
114.0	noaub100	NWI Poly	38.280509	-79.340461
124.9	noaub001	NHD Line	38.272125	-79.168201
127.8	noaua007k*	Other	38.239664	-79.146444
127.9	noaub008	NHD Line	38.238475	-79.146479
128.1	noaua008k*	Other	38.235868	-79.145775
129.3	noaua052	NHD Line	38.218779	-79.145207
131.0	noaub017	NHD Line	38.196147	-79.147230
131.1	noaub009	NHD Line	38.193918	-79.148633
131.1	noaub010	NHD Line	38.193552	-79.148514
131.7	noaub011	NHD Line	38.188136	-79.155318
132.1	noaub012	NHD Line	38.182052	-79.615718
132.2	noaub005	Aerial Signature	38.180727	-79.158254
132.7	noaua011k*	Other	38.174480	-79.155976
132.8	noaub004	NHD Line	38.173178	-79.155377
132.9	noaua012k*	Other	38.171827	-79.154513
132.9	noaua013k*	Other	38.171286	-79.154345
132.9	noaua015k*	Other	38.170930	-79.154795
133.0	noaua014k*	Other	38.170585	-79.154060
133.0	noaub003	NHD Line	38.170196	-79.153841
137.5	noaub016	NHD Line	38.115226	-79.121192
140.2	noaua003k*	Other	38.087142	-79.089551
140.8	noaub006	NHD Line	38.080967	-79.082925
142.6	noaub007	Aerial Signature	38.067544	-79.057188
143.2	noaub014	NHD Line	38.061367	-79.048604
143.8	noaub013	NHD Line	38.056747	-79.039409
144.9	noaua005k*	Other	38.044667	-79.026868
144.9	noaua006k*	Other	38.044086	-79.026467
148.4	noaub101	NHD Line	38.028775	-78.977016
149.9	noaua051	NWI Poly	38.010683	-78.964872
152.7	noaua050	NHD Line	37.973413	-78.966063
Nelson				
179.3	nonea050	NHD Line	37.714780	-78.778714
181.1	nonec001	NHD Line	37.693610	-78.761948
181.3	nonea001k*	Other	37.690980	-78.760115
Buckingham				
204.7	nobul002	NWI Poly	37.461216	-78.512263
205.1	nobuc002	NWI Poly	37.454984	-78.511058
211.5	nobua001	NHD Line	37.388889	-78.436674
Cumberland				
212.9	nocuk001	Other	37.379106	-78.413632

TABLE 3.5-1 (cont'd)

Atlantic Coast Pipeline
Non-Water Points

Facility/State/ County/ Approximate Milepost	Unique ID	Non-Water Point Type	Latitude	Longitude
216.6	nocuk004	NHD Line	37.357565	-78.363854
218.1	nocuk003	NWI Poly	37.344907	-78.343626
218.8	nocua002	NHD Line	37.336392	-78.336152
219.2	nocuk002	NWI Poly	37.334069	-78.329998
Prince Edward				
221.2	nopek001	Other	37.318184	-78.298769
Nottoway				
226.0	nonok007	NHD Line	37.281978	-78.230716
226.4	nonok001	Other	37.276278	-78.225910
226.6	nonok002	NWI Poly	37.274589	-78.223899
227.3	nonok004	Other	37.271050	-78.212155
228.5	nonok005	Other	37.263680	-78.193745
245.5	nonol001	NWI Poly	37.127779	-77.957119
Dinwiddie				
250.3	nodic002	Other	37.114803	-77.876495
250.6	nodim001	NHD Line	37.112986	-77.872211
257.9	nodic001	NWI Poly	37.033205	-77.838999
Brunswick				
261.4	nobrc001	NHD Line	36.987075	-77.836045
263.6	nobra201	NHD Line	36.960058	-77.815072
264.2	nobra202	Aerial Signature	36.952946	-77.809041
282.0	nobrb001	NWI Poly	36.756200	-77.668213
Greensville				
283.3	nogra010	Other	36.742702	-77.652719
285.3	nogrc001	Other	36.720018	-77.629293
287.9	nogra005	NHD Line	36.689776	-77.604066
288.2	nogra001	NHD Line	36.687397	-77.602051
291.4	nogra002	NHD Line	36.647497	-77.576585
291.6	nogra003	NWI Poly	36.644952	-77.573990
292.2	nogra004	Aerial Signature	36.637057	-77.569003
292.3	nogra008	NWI Poly	36.635793	-77.568454
295.9	nogrp001	NHD Line	36.600217	-77.531980
296.2	nogra009	NWI Poly	36.596897	-77.530674
298.5	nogra017	NWI Poly	36.565622	-77.518489
299.2	nogrp002	NWI Poly	36.556656	-77.512747
288.2	nogra005	NHD Line	36.689776	-77.604066
288.4	nogra001	NHD Line	36.687397	-77.602051
291.7	nogra002	NHD Line	36.647497	-77.576585
291.9	nogra003	NWI Poly	36.644952	-77.573990
292.5	nogra004	Aerial Signature	36.637057	-77.569003
292.6	nogra008	NWI Poly	36.635793	-77.568454
AP-2				
NORTH CAROLINA				
Halifax				
10.1	nohlh005	NWI Poly	36.414415	-77.559445
14.4	nohlh003	Other	36.371272	-77.607274
18.5	nohlg001	NWI Poly	36.324001	-77.647055

TABLE 3.5-1 (cont'd)

Atlantic Coast Pipeline
Non-Water Points

Facility/State/ County/ Approximate Milepost	Unique ID	Non-Water Point Type	Latitude	Longitude
25.0	nohlb100	NHD Line	36.247001	-77.709276
27.2	nohlh002	NHD Line	36.221392	-77.731115
Nash				
34.0	nonag001	Other	36.145041	-77.795397
39.7	nonah001	NWI Poly	36.079773	-77.855802
40.3	nonah002	NWI Poly	36.073331	-77.862122
47.4	nonah004	Other	36.002207	-77.909843
63.2	nonao001	NWI Poly	35.814500	-78.036411
Wilson				
68.9	nowio001	NHD Poly	35.746137	-78.069368
70.5	nowio002	NHD Line	35.729263	-78.085241
Johnston				
88.8	nojop001	NWI Poly	35.536398	-78.246445
88.9	nojop002	NWI Poly	35.535083	-78.244796
93.8	nojob011	NHD Line	35.492261	-78.296880
94.7	nojob010	NHD Line	35.480072	-78.303422
94.7	nojob009	NHD Line	35.480133	-78.304402
95.3	nojob008	NHD Line	35.472044	-78.307104
101.5	nojob006	NHD Line	35.400606	-78.366218
101.8	nojob005	NHD Line	35.396143	-78.367386
101.8	nojob004	NHD Line	35.395987	-78.367374
101.9	nojob007	NWI Poly	35.393880	-78.367944
102.0	nojob003	NHD Line	35.392580	-78.136892
102.2	nojob002	NHD Line	35.390886	-78.370266
102.9	nojob001	NHD Line	35.383361	-78.376466
110.0	nojob100	NHD Line	35.303898	-78.442042
114.0	nojoo001	NHD Line	35.302373	-78.508691
Sampson				
115.4	nosao004	NHD Line	35.292358	-78.530724
115.5	nosao003	NHD Line	35.291573	-78.531518
115.6	nosao002	NHD Line	35.291128	-78.532239
116.0	nosao001	NHD Line	35.288067	-78.538760
118.9	nosao006	NHD Line	35.255892	-78.565007
119.0	nosao005	NHD Line	35.255709	-78.565968
119.3	nosao007	NHD Line	35.252508	-78.569193
Cumberland				
124.5	nocmo011	NHD Line	35.215479	-78.064722
132.3	nocmb101	NHD Line	35.163857	-78.750234
134.1	nocmo006	NHD Line	35.145053	-78.769548
134.1	nocmo010	NWI Poly	35.144867	-78.769404
135.5	nocmo004	NWI Poly	35.125631	-78.773744
138.0	nocmb001	NHD Line	35.094458	-78.757375
138.6	nocmp011	NHD Line	35.087908	-78.758116
139.4	nocmp003	NHD Line	35.078561	-78.760325
140.5	nocmp007	NHD Line	35.067911	-78.769749
146.3	nocmp006	NWI Poly	34.993262	-78.789559
146.8	nocmp009	NHD Line	34.990519	-78.797270

TABLE 3.5-1 (cont'd)

Atlantic Coast Pipeline
Non-Water Points

Facility/State/ County/ Approximate Milepost	Unique ID	Non-Water Point Type	Latitude	Longitude
147.2	nocmp008	NHD Line	34.985932	-78.800003
151.6	nocmc001	NWI Poly	34.938551	-78.835921
152.7	nocmp004	NHD Line	34.925673	-78.845339
152.7	nocmp005	NWI Poly	34.925217	-78.846648
Robeson				
161.2	norog002	NWI Poly	34.843099	-78.924029
161.8	noroh008	NHD Line	34.838647	-78.932246
166.2	noroc001	NHD Line	34.832879	-78.995689
167.0	noroc002	NHD Line	34.825219	-79.007651
170.3	norog001	NWI Poly	34.786989	-79.039294
174.8	noroh007	NWI Poly	34.759779	-79.099572
174.8	noroh006	NWI Poly	34.759546	-79.099971
176.0	noroh005	NHD Line	34.753846	-79.119659
176.3	noroh004	NHD Line	34.751324	-79.124321
177.9	noroh003	NWI Poly	34.730645	-79.136274
181.1	noroh002	NWI Poly	34.727593	-79.184154
181.9	noroh001	Other	34.723005	-79.196480
LATERAL PIPELINES				
AP-3				
NORTH CAROLINA				
Northampton				
5.6	nonrp005	NWI Poly	36.526136	-77.411411
9.2	nonrp004	NHD Line	36.538258	-77.351004
9.5	nonrp003	NHD Line	36.539901	-77.346237
11.4	nonrp001	NWI Poly	36.540987	-77.316525
11.6	nonrp002	NWI Poly	36.541757	-77.313114
VIRGINIA				
Southampton				
23.0	nosoa003	NHD Line	36.627967	-77.145179
23.0	nosoa002	NWI Poly	36.628274	-77.144948
29.6	nosol004	NHD Line	36.637615	-77.039316
29.7	nosol005	NWI Poly	36.636855	-77.038446
32.0	nosoa006	NWI Poly	36.629721	-77.000394
33.3	nosol006	NHD Line	36.639953	-76.980019
33.4	nosol007	NHD Line	36.640244	-76.978904
33.4	nosol008	NHD Line	36.640390	-76.978343
34.0	nosoc002	NHD Line	36.643118	-76.968609
34.1	nosoc003	NHD Line	36.643546	-76.967033
34.2	nosoc004	NHD Line	36.643691	-76.965575
36.1	nosol010	NWI Poly	36.639037	-76.933456
37.4	nosoa012	NHD Line	36.632863	-76.910300
38.2	nosoa009	NHD Line	36.629123	-76.897767
38.4	nosoa013	NHD Line	36.629569	-76.894919
Suffolk				
40.4	nosua002	Aerial Signature	36.636272	-76.860318
55.3	nosup002	NWI Poly	36.694049	-76.639491

*Note: A non-water point with a "k" at the end of the unique ID denotes a karst site.

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ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody and Wetland Delineation Report

APPENDIX A

Wetland Datasheets and Photo Pages

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

West Virginia

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Harrison County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Lewis County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Upshur County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Randolph County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Pocahontas County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Virginia

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Highland County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Augusta County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Nelson County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Buckingham County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Cumberland County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Prince Edward County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Nottoway County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Dinwiddie County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Brunswick County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Greensville County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

North Carolina

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Northampton County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Halifax County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Nash County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Wilson County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Johnston County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Sampson County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Cumberland County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Robeson County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

Virginia

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

Southampton County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

Greensville County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

City of Chesapeake

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

City of Suffolk

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

North Carolina

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

Northampton County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-4

Virginia

Brunswick County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

LATERAL PIPELINE

AP-5

Virginia

Greensville County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody and Wetland Delineation Report

APPENDIX B

Waterbody Datasheets and Photo Pages

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

West Virginia

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Harrison County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Lewis County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Upshur County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Randolph County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Pocahontas County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Virginia

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Highland County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Augusta County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Nelson County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Buckingham County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Cumberland County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Prince Edward County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Nottoway County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Dinwiddie County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Brunswick County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-1

Greensville County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

North Carolina

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Northampton County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Halifax County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Nash County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Wilson County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Johnston County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Sampson County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Cumberland County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

MAIN LINE PIPELINE

AP-2

Robeson County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

Virginia

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

Southampton County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

Greensville County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

City of Chesapeake

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

City of Suffolk

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

LATERAL PIPELINE

AP-3

North Carolina

Northampton County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

LATERAL PIPELINE

AP-4

Virginia

Brunswick County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

LATERAL PIPELINE

AP-5

Virginia

Greensville County

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody and Wetland Delineation Report

APPENDIX C

Seep Point Photo Pages

ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY

Waterbody and Wetland Delineation Report

APPENDIX D

Non-Water Point Datasheets and Photo Pages

DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT

Resource Report 2
Water Use and Quality

APPENDIX 2E
Wetland and Waterbody Delineation Reports – Supply Header Project

Supply Header Project

Wetland and Waterbody Survey Report 1

Prepared by:

NATURAL RESOURCE GROUP
an ERM Group company

September 2015

Supply Header Project
Wetland and Waterbody Survey Report 1

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 METHODS 3
2.1 DESKTOP REVIEW 3
2.2 FIELD SURVEY 4
2.2.1 Wetlands 4
2.2.1.1 Hydrophytic Vegetation 4
2.2.1.2 Wetland Hydrology 5
2.2.1.3 Hydric Soils 6
2.2.1.4 Cowardin Classification 6
2.2.2 Waterbodies 7
2.2.2.1 Regime Classification 7
2.2.3 Non-tidal Ditches 8
2.2.4 Seep Points 8
2.2.5 Non-Water Points 8
3.0 RESULTS AND FINDINGS 9
3.1 Wetlands 9
3.2 Waterbodies 9
3.3 Non-tidal Ditches 9
3.4 Seep Points 9
3.5 Non-Water Points 9
4.0 REFERENCES 16

LIST OF TABLES

Table 2-1 Wetland, Waterbody, Seep, and Non-Water Point Feature Naming Protocol 3
Table 2-2 Survey Corridor County Codes 4
Table 3.1-1 Wetland Inventory 10
Table 3.2-1 Waterbody Inventory 11

LIST OF FIGURES

Figure 1-1 Project Overview Map. 2

APPENDICES

Appendix A Wetland Datasheets and Photo Pages
Appendix B Waterbody Datasheets and Photo Pages

ACRONYMS

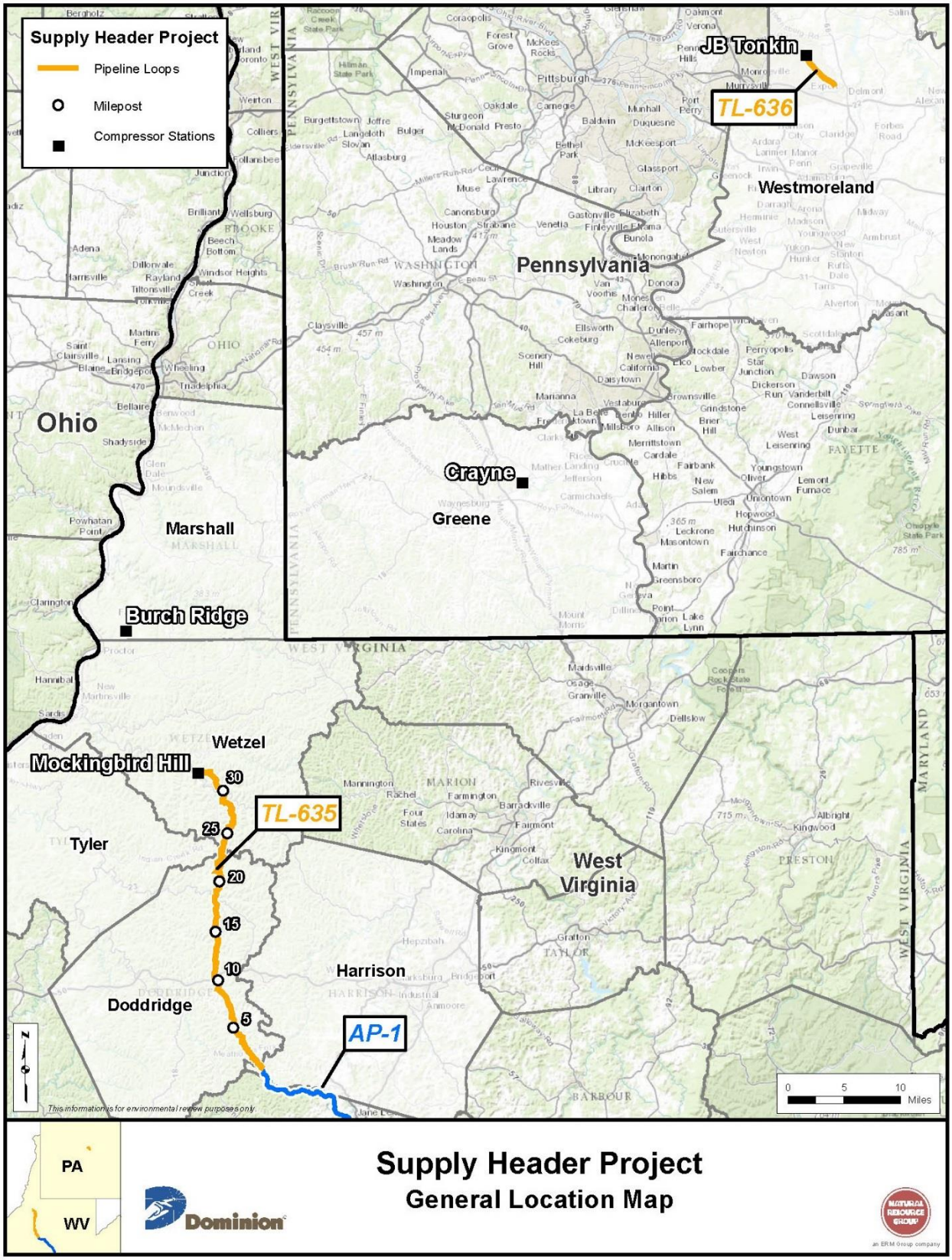
ACP	Atlantic Coast Project
CFR	Code of Federal Regulations
COE	U.S. Army Corps of Engineers
D&D	Duncan & Duncan West, LLC
DTI	Dominion Transmission, Inc.
EPA	Environmental Protection Agency
FAC	Facultative Plants
FACU	Facultative Upland Plants
FACW	Facultative Wetland Plants
GPS	Global Positioning System
NHD	National Hydrography Dataset
NRCS	Natural Resource Conservation Service
NRG	Natural Resource Group, LLC
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OBL	Obligate Plants
OHWM	Ordinary High Water Mark
PEM	Palustrine System Emergent Wetland Class
PFO	Palustrine System Forested Wetland Class
PSS	Palustrine System Scrub-Shrub Wetland Class
SHP	Supply Header Project
TOB	top of bank
UPL	Uplands Plants
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

Natural Resource Group, LLC (NRG), on behalf of Dominion Transmission, Inc. (DTI), conducted wetland and waterbody surveys for the proposed Supply Header Project (SHP). Surveys were completed by contracted staff from Duncan & Duncan WEST, LLC (D&D). This report presents results of the wetland and waterbody field surveys that were completed in West Virginia and Pennsylvania for the SHP. The survey area consists of a 300-foot-wide corridor approximately 37.5 miles long, including 33.6 miles in West Virginia and 3.9 miles in Pennsylvania (Figure 1.0-1). The survey corridor includes areas within the U.S. Army Corps of Engineers (COE) Pittsburgh and Huntington Districts.

Wetland and waterbody surveys were conducted along the proposed mainlines TL-635 and TL-636, the Mockingbird Hill, and JB Tonkin Compressor Stations, and all associated access roads, contractor yards, and impoundment areas. The following counties were surveyed along TL-635 and the Mockingbird Hill Compressor Station: Harrison, Dodge, Tyler, and Wetzel Counties in West Virginia. Westmoreland County in Pennsylvania was surveyed for TL-636 and JB Tonkin Compressor Station. The first series of field surveys were conducted from October 2014 to July 2015, and will continue until the wetland and waterbody surveys are complete on available land parcels along the proposed pipeline routes. This report serves as the first wetland and waterbody report to be submitted to the Federal Energy Regulatory Commission.

This report provides an assessment of wetlands, rivers, streams, open waterbodies (e.g., ponds), and seep points documented within the survey corridor based on qualified wetland biologists' best professional judgment and interpretation of the *U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual* (COE, 1987), *the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)* (COE, 2010), the *COE Regulatory Guidance Letter regarding Ordinary High Water Mark Identification* (COE, 2005), and other applicable COE guidance documents and regulations. The report also documents observations made at "non-water points" where desktop data indicated a wetland or waterbody may be present but upon field inspection requisite wetland parameters or discernable evidence of waterbody morphological characteristics were not present. The wetland and waterbody delineation report included with the 404/401 permit applications includes data specific to the jurisdiction of the permit under review. Please refer to figures within the permit application for relevant location information for the wetlands and waterbodies documented in the report. Specifically, Figure Set 3 includes U.S. Geological Survey (USGS) 7.5-Minute Topographic maps and Figure Set 4 includes aerial photography maps each with illustrated wetlands and waterbodies delineated during field surveys.


Supply Header Project
Pipeline Loops
Milepost
Compressor Stations
JB Tonkin
TL-636
Westmoreland
Pennsylvania
Crayne
Greene
Ohio
Marshall
Burch Ridge
Wetzel
Mockingbird Hill
30
25
20
15
10
5
TL-635
Tyler
West Virginia
Harrison
Doddridge
AP-1
0 5 10 Miles
This information is for environmental review purposes only
PA
WV
Dominion
Supply Header Project
General Location Map

2.0 METHODS

Prior to conducting field surveys, a review of high resolution aerial photographic resources and other desktop data (e.g., National Wetland Inventory, soils maps, USGS maps) was conducted prior to field surveys. These resources were used both prior to and during field surveys to identify potential wetland or waterbody areas that may be present within the survey corridor.

Field surveys for the proposed pipeline were conducted within a 300-foot-wide survey corridor and proposed access roads were conducted within a 50-foot-wide survey corridor. The survey area was evaluated to determine the presence of water features including wetlands, waterbodies (streams and open waterbodies), non-tidal ditches, and seep points. Data were also collected to document a lack of water features where desktop data indicated water features may be present; these are referred to as non-water points.

Accessible tracts within the survey corridor were evaluated to determine the presence or absence of water features, including wetlands, waterbodies (streams and open waterbodies), seep points, and non-water points. Specific naming conventions were followed during field surveys in order to catalog each feature type collected. Tables 2-1 and 2-2 describe the unique naming conventions for these features.

TABLE 2-1

Supply Header Project
Wetland, Waterbody, Seep, and Non-Water Point Feature Naming Protocol

Water Feature Type	Polygon/Line	County	Field Crew Letter	Feature Number	Special Designation
Wetland	w (wetland)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	f, e, s (PFO, PEM, PSS wetlands)
Waterbody	s (stream) o (open waterbody)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	p, i, e (change in stream morphology to perennial, intermittent, or ephemeral)
Non-tidal Ditch	d (ditch)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	
Seep	p (seep)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	
Non-Water Point	no (non-water)	county code	crew letter (e.g., a, b, c)	001, 002, 003, …	

2.1 DESKTOP REVIEW

Several sources of information were used to complete a "desktop" review of survey areas for potential wetlands and waterbodies prior to conducting field surveys. Biologists utilized high resolution aerial photography, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data, U.S. Department of Agriculture oil Survey Geographical Database, the USGS National Hydrography Dataset (NHD), and USGS Topographic Maps. The evaluation prior to field survey allowed crews to identify areas of high probability for wetlands or waterbodies in planning and preparation for field survey.

TABLE 2-2

Supply Header Project
Survey Corridor County Codes

Facility Type/State	County	County Code
TL-635		
West Virginia	Harrison	ha
	Doddridge	do
	Tyler	ty
	Wetzel	wz
TL-636		
Pennsylvania	Westmoreland	wm

2.2 FIELD SURVEY

The first series of field surveys for the SHP were conducted by D&D from October 2014 to July 2015 in multiple counties throughout West Virginia and Pennsylvania. Wetland boundaries, waterbody thalweg or banks, data collection points, open waterbody boundaries, seep points, and non-water points were surveyed using a Trimble® 6000 series GeoXH model global positioning system (GPS) unit. The field data collection settings within the GPS units used available satellites to capture location data. Note that while the GPS data collected during survey provides reasonably accurate spatial information regarding the wetlands, open waterbodies, seep points, and non-water points delineated, typically one-meter accuracy with sufficient satellite reception, it does not constitute the same accuracy as a professional land survey.

2.2.1 Wetlands

The delineation of wetlands was conducted using the method described in the 1987 Manual, along with either of the Regional Supplements. The wetland boundaries were delineated using the routine onsite determination method described in the Regional Supplements and utilizing *the National Wetland Plant List: 2014 (NWPL)* (Lichvar et al., 2012; Federal Register, 2012) for determination of plant indicator status, and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979) to classify wetlands. According to the COE 1987 Wetland Manual, three criteria or parameters are considered during a wetland delineation, and for a plant community to be considered a wetland it must have: a predominance of hydrophytic vegetation, indications of wetland hydrology, and the presence of hydric soils under normal circumstances (i.e., where naturally problematic conditions or disturbances are absent). Wetland data sheets were completed at sample points within each wetland community type (i.e., Cowardin classification) making up the wetland or wetland complex, along with a minimum of one corresponding upland community sample point.

2.2.1.1 Hydrophytic Vegetation

The 1987 Manual and NWPL defines the wetland indicator status of plants as follows:

- Obligate Wetland Plants (OBL): almost always occur in wetlands (estimated probability >99 percent) in wetlands under natural conditions. With few

exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface. These plants are of four types: submerged, floating, floating-leaved, and emergent.

- Facultative Wetland Plants (FACW): usually occur in wetlands (estimated probability >67 percent to 99 percent), but may occur in non-wetlands. These plants predominantly occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.
- Facultative Plants (FAC): occur in wetlands and uplands (estimated probability 33 percent to 99 percent within wetlands). These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH and elevation. They have a wide tolerance of soil moisture conditions.
- Facultative Upland Plants (FACU): usually occur in uplands, but many occur in wetlands (estimated probability 1 percent to <33 percent in wetlands). These plants predominantly occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.
- Upland Plants (UPL): almost never occur in wetlands (estimated probability <1 percent). These plants occupy mesic to xeric upland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

Dominant vegetation was assessed for each stratum present (tree, sapling/shrub, woody vine, and herbaceous) at a sample point location. In most cases, plant dominance was determined using the COE "50/20 Rule" in which species from each stratum that individually or collectively make up more than 50 percent of the total cover in each stratum, plus any other species that account for at least 20 percent of the total cover in the stratum are determined to be dominant species. The hydrophytic vegetation criterion is met when greater than 50 percent of the dominant plant species are classified as OBL, FACW, or FAC. Vegetation information was recorded on the appropriate COE data forms.

2.2.1.2 Wetland Hydrology

Hydrology is influenced by many variables, including: seasonal and long-term rainfall patterns, local geology, topography, soil type, local water table conditions, and drainage. According to the 1987 Manual and Regional Supplements, wetland hydrology is present if 14 or more consecutive days of inundation or water saturation within 12 inches of the soil surface occurs during the growing season at a minimum frequency of 5 years in 10.

Indicators of wetland hydrology provide evidence that a site has a persistent wetland hydrologic regime. The Regional Supplements both provide a list of hydrology indicators that include primary and secondary indicators, which are grouped as:

- Observation of Surface Water or Saturated Soils
- Evidence of Recent Inundation

- Evidence of Current and Recent Soil Saturation
- Evidence of Other Site Conditions or Data

One primary indicator or two secondary indicators are required to confirm that wetland hydrology is present or occurs at some time during the growing season. Field observations of hydrology were made at each vegetation community sample point. Examples of key indicators observed include presence of water above the ground surface, high water table within the hole dug for soil observations, saturated soil in the upper portion of the soil profile, water-stained leaves, drainage patterns as evidence of water presence, and the geomorphic position of the vegetation community and sample point location. Hydrology information was recorded on the appropriate COE data sheets.

2.2.1.3 Hydric Soils

The 1987 Manual defines hydric soils as soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

Hydric soils are characterized by specific morphological characteristics developed in the soil profile over time due to reduction of iron, manganese, and sulfur under saturated and anaerobic conditions (U.S. Department of Agriculture [USDA] Natural Resource Conservation Service [NRCS], 2010). The hydric soil indicators described in the Regional Supplements are a subset of hydric soil indicators described in *Field Indicators of Hydric Soils in the United States, Version 7.0 (2010)*. The *Munsell Book of Soil Color Charts (2014)* was utilized to determine soil matrix and mottle colors (redoximorphic features) and record soil profile descriptions. The soils were observed and documented at representative sample point locations in both wetland communities and adjacent upland communities to help establish the wetland boundary. Soil profile descriptions were recorded on the appropriate COE data sheets.

2.2.1.4 Cowardin Classification

The Cowardin Classification was developed in 1979 to classify a variety of wetland habitats. The Cowardin Classification divides wetlands into five systems, including: Marine, Estuarine, Riverine, Lacustrine, and Palustrine. These represent the five major landscape settings. The classification system further divides wetland communities into systems and classes. The 2014 and 2015 surveys were conducted in inland wetlands, and descriptions of the common Cowardin Classification community types are described in the bullets below.

- Palustrine System Emergent Wetland Class (PEM): A PEM wetland is defined as a non-tidal wetland characterized by erect, rooted, hydrophytic herbaceous species. These wetland habitats are often dominated by perennial plants, where the vegetation is present for the majority of the growing season (Cowardin, 1979).
- Palustrine Forested Wetland Class (PFO): A PFO wetland is defined as a non-tidal wetland characterized by dominant woody vegetation that is greater than 20 feet tall, with an understory of small trees and shrubs, as well as an herbaceous layer (Cowardin, 1979).

- Palustrine System Scrub-Shrub Wetland Class (PSS): A PSS wetland is defined as a non-tidal wetland consisting of woody vegetation that is less than 20 feet tall, including shrubs, young trees, and stunted trees or shrubs (Cowardin, 1979).

Each wetland delineated was assigned a Cowardin class. For wetland complexes, or wetlands that are comprised of more than one wetland plant community (i.e., Cowardin class) a sample point was established and observations recorded to document each community. Unique wetland IDs and separate polygons were established based on the wetland community present within the complex. The field crews in 2014 and 2015 collected wetland information for PEM, PFO, and PSS wetlands.

2.2.2 Waterbodies

Waterbodies documented during field survey were categorized as 1) linear or flowing waterbodies such as streams and rivers, and assigned a unique ID starting with an "s" or 2) non-flowing open waterbodies such as ponds and lakes which were assigned a unique ID starting with an "o". Linear or flowing waterbodies were identified as landscape features with a channel that include a bed and a bank in a concave landscape position where water flow has resulted in a feature that possesses an ordinary high water mark (OHWM). Based on evidence of flow regime at the time of survey linear waterbodies were attributed a flow regime, according to the definitions provided by the COE for the Nationwide Permit Program in Code of Federal Regulations (CFR) 33 Part 330 (Federal Register, 1993). Similarly non-flowing, open waterbody features were assigned a Cowardin hydrology regime based on observations recorded at the time of survey. Definitions of these flow regimes and hydrology regimes are included below.

2.2.2.1 Regime Classification

Water regime classification is defined by its flow duration. The following regime classifications are described below as defined by the CFR 33 Part 330 ruling:

- Perennial Stream: A perennial stream has flowing water year round during a typical year. The water table is located above the stream bed for most of the year, and groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
- Intermittent Stream: An intermittent stream has flowing water during most times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water, and runoff from rainfall is a supplemental source of water for stream flow.
- Ephemeral Stream: An ephemeral stream has flowing water only during and for a short duration after precipitation events. Ephemeral stream beds are located above the water table year round, therefore, groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Non-flowing or open waterbodies were documented based on the evidence of inundation/saturation at the time of surveys, utilizing one of four categories based on the

USFWS's *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979) including the following:

- Non-flowing: Water covers the land surface throughout the year in all years.
- Semi-Non-flowing: Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface
- Seasonally flooded: Surface water is present for extended periods especially early in the growing season, but is absent by the end of the season in most years. When surface water is absent, the water table is often near the land surface.
- Temporarily flooded: Surface water is present for brief periods during the growing season, but the water table usually lies well below the soil surface for most of the season.

2.2.3 Non-tidal Ditches

Field crews documented ditches that had an OHWM, bed and bank, and/or were connected to waters of the United States. Additionally, the ditches documented by the field review contained one or more of the following characteristics, in accordance with Draft Guidance provided by the Environmental Protection Agency (EPA, 2015):

- Standing or flowing water
- A link to two or more waters of the United States.
- Drain wetlands or waterbodies that can be linked to waters of the United States.
- Excavated within waters of the United States.
- A relocated, channelized, and/or straightened tributary

Ditches that exhibited wetland characteristics were classified as wetlands if they met the criteria specified in the Manual or applicable Regional Supplement.

2.2.4 Seep Points

Seep points are defined as small areas where groundwater saturates the soil surface on steep slopes or along sidehill cuts or banks. Seeps do not meet the definition of either a waterbody, due to lack of OHWM, top of bank (TOB), or a wetland, lacking the three wetland parameters (hydrology, vegetation, soils). One example of where a seep point would likely be found would be a road cut. Seep points were reviewed and documented on a case-by-case basis by wetland biologists. Where seep points were observed a GPS data point was taken along with corresponding photos of the area.

2.2.5 Non-Water Points

Non-water points were collected to document areas mapped as NWI polygons or NHD lines that did not meet the required criteria of wetlands or waterbodies (i.e., upland habitat). Observations were recorded, photographs were taken, and a GPS point was recorded at each non-water point to document that wetland biologists visited the point and determined that a wetland or waterbody was not present. COE wetland delineation forms were used to record information

for non-water points located within NWI wetlands polygons. Documentation of non-water points provides a record to demonstrate that areas mapped as NWI and NHD, or areas with an aerial photography signature indicative of wetland conditions, which from a desktop may be assumed to be aquatic, were visited by wetland biologists and determined to lack the requisite indicators of a wetland or waterbody.

3.0 RESULTS AND FINDINGS

The following sections present the results of water resources survey from October 2014 through July 2015 on the SHP, including wetlands, waterbodies, seep points, and non-water points that were documented on accessible tracts within the SHP survey corridor.

3.1 WETLANDS

A total of 32 wetlands have been documented within the survey corridor along the proposed pipeline route in West Virginia and Pennsylvania during the field season. A table listing the delineated wetlands is located in Table 3.1-1. Table 3.1-1 includes the state, county, unique project wetland ID, Cowardin classification, approximate milepost, latitude, and longitude. Datasheets and photo pages for each wetland and upland sample point are provided in Appendix A.

3.2 WATERBODIES

A total of 121 waterbodies have been documented within the survey corridor along the proposed pipeline route in West Virginia and Pennsylvania during the field season. A table listing delineated waterbodies is located in Table 3.2-1. Table 3.2-1 includes the state, county, unique project waterbody ID, USGS waterbody name, hydrologic regime, field estimated OHWM width (ft.), and field estimated bank-to-bank width (feet), approximate milepost, latitude, and longitude. Datasheets and photo pages for each waterbody sample point are provided in Appendix B.

3.3 NON-TIDAL DITCHES

No ditches were documented within the survey corridor along the proposed pipeline route in West Virginia and Pennsylvania.

3.4 SEEP POINTS

No seep points were documented within the survey corridor along the proposed pipeline route in West Virginia and Pennsylvania.

3.5 NON-WATER POINTS

No non-water points were documented within the survey corridor along the proposed pipeline route in West Virginia and Pennsylvania.

TABLE 3.1-1

Supply Header Project
Wetland Inventory

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
TL-635				
West Virginia				
Harrison				
0.0	whag004e	PEM	39.1711597423808	-80.5600992438877
0.1	whag001e	PEM	39.1721393579212	-80.5619293990117
0.4	whag002e	PEM	39.1756962964447	-80.5654937245151
Doddridge				
0.8	wdog001e	PEM	39.1795142520337	-80.5696700825545
1.3	wdog005e	PEM	39.1849075004034	-80.5747112374906
1.4	wdoh003e	PEM	39.1854890882663	-80.5753431401437
2.9	wdog006f	PFO	39.2013362321335	-80.5912926782501
4.6	wdog007e	PEM	39.2194188369127	-80.6047289753750
5.1	wdog008f	PFO	39.2249888472820	-80.6087531326721
7.7	wdoj001s	PSS	39.2564130881448	-80.6226827032722
10.6	wdog009e	PEM	39.2884076760306	-80.6400779484888
12.2	wdog010f	PFO	39.3100923589099	-80.6389966094290
12.9	wdog011e	PEM	39.3185233926005	-80.6374871666560
14.1	wdoh006f	PFO	39.3353144526154	-80.6357680909585
15.1	wdog003e	PEM	39.3486759979391	-80.6383020467617
19.0	wdoh005e	PEM	39.4007484578873	-80.6382777812322
20.7	wdog012s	PSS	39.4191850133613	-80.6292430028825
Tyler				
None Identified				
Wetzel				
24.8	wwzg003f	PFO	39.4701797671392	-80.6201540786039
25.9	wwzh021e	PEM	39.4770650054119	-80.6043704258715
25.9	wwzh022e	PEM	39.4761140415509	-80.6002617156922
26.2	wwzh020e	PEM	39.4867119572151	-80.6136930148013
26.8	wwzg004f	PFO	39.4941827736614	-80.6068498008921
TL-636				
Pennsylvania				
Westmoreland				
0.2	wwmh012f	PFO	40.4253265676696	-79.5937998332657
0.6	wwmh001f	PFO	40.4294960198917	-79.6006394801935
0.7	wwmh001f	PFO	40.4296412578112	-79.6007430355412
1.2	wwmh002e	PEM	40.4330644395070	-79.6092591167805
1.3	wwmh002e	PEM	40.4341094348971	-79.6106072005217
1.9	wwmh007e	PEM	40.4408612173111	-79.6192503762113
2.6	wwmh003f	PFO	40.4478566206251	-79.6279818503258
2.9	wwmh008e	PEM	40.4504207257220	-79.6311135129026
2.9	wwmh009e	PEM	40.4510617698231	-79.6316585447007
3.2	wwmh010f	PFO	40.4532326030784	-79.6344216791762
3.6	wwmh011f	PFO	40.4594885736349	-79.6385750988932
3.8	wwmh006e	PEM	40.4609615939800	-79.6393562606762

TABLE 3.2-1

Supply Header Project
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
TL-635							
West Virginia							
Harrison							
0.0	shag004	Tanner Fork	Perennial	7	8	39.1717981949212	-80.5594775390099
0.2	shag002	UNT to Tanner Fork	Perennial	2	4	39.1733930801517	-80.5630961162385
0.3	shag001	UNT to Tanner Fork	Perennial	4	8	39.1738921086314	-80.5639946289539
Doddridge							
0.8	sdog002	UNT to Dry Fork	Intermittent	2	4	39.1793341661117	-80.5694691367589
0.8	sdog001	UNT to Dry Fork	Perennial	8	14	39.1796218131410	-80.5694749220368
0.9	sdoj009	Dry Fork	Perennial	4	8	39.1814463941335	-80.5663411729505
0.9	sdoj010	UNT to Dry Fork	Perennial	5	10	39.1813413052186	-80.5669658408989
1.3	sdoh004	Dry Fork	Perennial	8	15	39.1846362114789	-80.5750726403342
1.4	sdoh003	UNT to Dry Fork	Perennial	4	6	39.1868936842610	-80.5755814364759
2.1	sdog014	Meathouse Fork	Perennial	25	30	39.1923054569542	-80.5832285648179
2.9	sdog015	Johnson Fork	Perennial	6	20	39.2012590379660	-80.5913798830457
2.9	sdog016	UNT to Johnson Fork	Perennial	4	15	39.2012858430023	-80.5918203495419
3.9	sdog017	UNT to Indian Fork	Intermittent	4	10	39.2128858121528	-80.5973589926560
4.0	sdog018	UNT to Indian Fork	Perennial	12	18	39.2137527533462	-80.5980658317486
4.0	sdog019	UNT to Indian Fork	Intermittent	4	6	39.2140490569599	-80.5987862660052
4.6	sdog020	UNT to Indian Fork	Perennial	8	11	39.2191771021994	-80.6050660369749
5.0	sdoj008	Indian Fork	Perennial	15	20	39.2239722785481	-80.6048335304591
5.1	sdog021	UNT to Indian Fork	Intermittent	4	5	39.2246381792232	-80.6083704150684
5.1	sdog022	UNT to Indian Fork	Perennial	8	12	39.2249954234450	-80.6090862383569
5.1	sdoj007	Indian Fork	Perennial	6	15	39.2264325073359	-80.6042391960318
7.8	sdoj005	Buffalo Calf Fork	Perennial	10	18	39.2576569388942	-80.6227150576281
7.8	sdog033	Buffalo Calf Fork	Perennial	10	15	39.2593984038482	-80.6192544443877
7.9	sdog034	UNT Buffalo Calf Ford	Perennial	6	10	39.2598654826237	-80.6191152808671
7.9	sdoj004	UNT to Buffalo Calf Fork	Perennial	4	12	39.2615158695216	-80.6186385036881
8.9	sdog023	UNT to Buffalo Calf Fork	Perennial	8	12	39.2704071211765	-80.6302823737493
9.4	sdog024	Long Run	Perennial	25	30	39.2767907151098	-80.6335016237316

TABLE 3.2-1 (cont'd)

Supply Header Project
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
9.4	sdoj003	UNT to Long Run	Perennial	4	8	39.2779250125911	-80.6345625959326
10.6	sdog025	Buckeye Run	Perennial	16	18	39.2883699258764	-80.6405817574079
10.6	sdog026	UNT to Buckeye Run	Perennial	10	15	39.2889555189440	-80.6408468201153
11.2	sdoj002	UNT to Buckeye Run	Perennial	6	12	39.2969933163056	-80.6339032198545
11.7	sdoj001	UNT to Buckeye Run	Intermittent	4	6	39.3029288923384	-80.6350566918429
12.9	sdog027	UNT to Flint Run	Perennial	6	12	39.3190328469788	-80.6372331374129
12.9	sdog028	Flint Run	Perennial	10	18	39.3198058316784	-80.6398544684212
12.9	sdoh018	UNT to Flint Run	Perennial	2	4	39.3198058316784	-80.6398544684212
13.5	sdoh019	UNT to Flint Run	Perennial	4	8	39.3263333959491	-80.6317600260422
14.1	sdoh020	UNT to Right Hand Fork	Perennial	4	8	39.3349177288103	-80.6365879873817
14.1	sdog007	UNT to Righthand Fork East Run	Perennial	7	15	39.3351922512169	-80.6381126661094
14.2	sdoh021	UNT to Big Battle Run	Perennial	6	10	39.3390601166275	-80.6252855455055
14.2	sdog029	UNT to Right Hand Fork East Run	Intermittent	3	5	39.3366521614564	-80.6350302654926
15.1	sdog008	UNT to Big Battle Run	Perennial	5	10	39.3487067713688	-80.6382240555522
15.2	sdog009	UNT to Big Battle Run	Perennial	2	6	39.3492952816293	-80.6381706334923
15.5	sdoh022	Big Battle Run	Perennial	15	20	39.3518760316505	-80.6262475829794
15.6	sdoh009	UNT to Big Battle Run	Perennial	5	10	39.3552772740200	-80.6369842079739
15.8	sdoh008	UNT to Big Battle Run	Perennial	5	6	39.3566260959702	-80.6374741615198
15.8	sdog030	UNT to Big Battle Run	Intermittent	3	5	39.3570831063438	-80.6375423677276
16.3	sdoh023	Big Battle Run	Perennial	15	20	39.3639238919874	-80.6224673743344
16.3	sdoh024	UNT to Big Battle Run	Perennial	4	8	39.3641019479621	-80.6233002638366
17.8	sdoh017	Little Battle Run	Perennial	10	25	39.3816531319827	-80.6391072353384
17.8	sdoh010	Little Battle Run	Perennial	6	20	39.3834668942224	-80.6377669996873
18.5	sdoh012	Mcelroy Creek	Perennial	55	70	39.3925604972283	-80.6385334013473
18.6	sdog031	UNT to Mcelroy Creek	Perennial	6	8	39.3931571113098	-80.6375757841513
18.6	sdoh012	Mcelroy Creek	Perennial	55	70	39.3931571113098	-80.6375757841513
19.0	sdoh016	Franks Run	Perennial	10	20	39.4005740297308	-80.6385144198520
19.5	sdoh015	UNT to Talkington Fork	Perennial	8	15	39.4029666845602	-80.6238517350626
20.6	sdog032	Franks Run	Perennial	20	30	39.4191050829912	-80.6289837157983
20.7	sdoh014	UNT to Franks Run	Intermittent	3	6	39.4201285717115	-80.6283952802131

TABLE 3.2-1 (cont'd)

Supply Header Project
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
21.9	sdoh013	UNT to Broad Run	Intermittent	4	6	39.4357511560731	-80.6400479138970
Tyler							
23.1	styg001	UNT to Indian Creek	Intermittent	5	10	39.4480806587556	-80.6283085876860
23.1	styg002	Indian Creek	Perennial	15	18	39.4482713298349	-80.6285258379947
Wetzel							
24.8	swzg024	UNT to Buffalo Run	Perennial	15	20	39.4702343511552	-80.6200516326166
24.8	swzh025	UNT to Buffalo Run	Perennial	8	15	39.4712453003019	-80.6212316358339
24.8	swzh023	UNT to Buffalo Run	Perennial	4	7	39.4710989801303	-80.6209888594502
24.8	swzh024	UNT to Buffalo Run	Perennial	4	7	39.4714575010673	-80.6214081451411
24.8	swzh022	UNT to Buffalo Run	Perennial	3	5	39.4740304522445	-80.6249927436145
24.8	swzh026	UNT to Buffalo Run	Perennial	3	5	39.4733887339607	-80.6243429254817
25.4	swzg025	UNT to Buffalo Run	Perennial	4	8	39.4776430195242	-80.6152717342148
25.4	swzg026	UNT to Buffalo Run	Perennial	12	18	39.4778671241272	-80.6155952940466
25.4	swzh014	UNT to Arches Fork	Perennial	6	10	39.4772295234065	-80.5980576211085
25.4	swzh017	UNT to Arches Fork	Perennial	3	5	39.4762493503538	-80.5992429921019
25.4	swzh018	UNT to Arches Fork	Intermittent	4	6	39.4767194021206	-80.5973097800416
25.4	swzh019	UNT to Arches Fork	Perennial	8	10	39.478390970376	-80.5950240929077
25.4	swzh020	UNT to Arches Fork	Perennial	8	10	39.4784950880634	-80.5931878140522
25.4	swzh021	Arches Fork	Perennial	25	35	39.4781433906805	-80.5915440152089
25.4	swzh012	UNT to Buffalo Run	Intermittent	6	8	39.4781545551008	-80.6185865079812
25.4	swzh010	UNT to Buffalo Run	Perennial	9	15	39.4785846896245	-80.6192045715263
25.5	swzh010	UNT to Buffalo Run	Perennial	9	15	39.4795949686080	-80.6206223273665
25.5	swzh011	UNT to Buffalo Run	Intermittent	6	10	39.4799746745819	-80.6206624569116
25.6	swzh008	UNT to Buffalo Run	Intermittent	4	6	39.4863488645669	-80.6209377730594
25.6	swzh009	UNT to Buffalo Run	Intermittent	2	4	39.4863104298311	-80.6207566759670
25.7	swzh002	UNT to Buffalo Run	Perennial	8	12	39.4862820901257	-80.6186484561568
25.9	swzh013	UNT to Buffalo Run	Intermittent	3	5	39.4766299398796	-80.6056452961953

TABLE 3.2-1 (cont'd)

Supply Header Project
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
25.9	swzh015	UNT to Arches Fork	Perennial	8	10	39.4767878235585	-80.6055226472679
25.9	swzh016	UNT to Arches Fork	Perennial	6	8	39.4768354428858	-80.6023285459362
26.2	swzh003	UNT to Buffalo Run	Perennial	2	5	39.4863428129311	-80.6147423414584
26.2	swzh004	UNT to Buffalo Run	Perennial	2	4	39.4863322899036	-80.6152400101526
26.2	swzh005	UNT to Buffalo Run	Perennial	3	5	39.4866155041490	-80.6137975838868
26.2	swzh006	UNT to Buffalo Run	Intermittent	3	6	39.4880534552527	-80.6127404191311
26.2	swzh007	UNT to Buffalo Run	Intermittent	2	4	39.4881153602020	-80.6126469212870
26.8	swzg028	UNT to Carpenter Run	Perennial	8	12	39.4938424899050	-80.6064592766154
26.9	swzg027	Carpenter Run	Perennial	15	18	39.4943374897743	-80.6069035638397
29.0	swzh001	UNT to Buffalo Run	Intermittent	3	5	39.5159150263605	-80.6391091162244
29.4	swzh028	Fishing Creek	Perennial	70	90	39.5198694845987	-80.6239381629173
29.5	swzh027	UNT to Fishing Creek	Perennial	4	8	39.5202341691346	-80.6233746195156
29.5	swzg014	UNT to South Fork Fishing Creek	Perennial	3	5	39.5209185354097	-80.6230531411653
29.7	swzg016	UNT to South Fork Fishing Creek	Intermittent	4	6	39.5236334530496	-80.6228646284912
29.7	swzg015	UNT to South Fork Fishing Creek	Intermittent	3	5	39.5236550804228	-80.6231628359741
29.7	swzg017	UNT to South Fork Fishing Creek	Perennial	4	6	39.5241554368393	-80.623014329409
29.7	swzg018	South Fork Fishing Creek	Perennial	45	60	39.5265011328912	-80.6234816627934
30.9	swzg019	Richwood Run	Perennial	15	20	39.5338859516341	-80.6343540988022
30.9	swzg020	UNT to Richwood Run	Perennial	3	5	39.5339172033404	-80.6347684814533
31.9	swzg021	Upper Run	Perennial	20	30	39.5443987497206	-80.6393337990516
32.2	swzg022	UNT to Upper Run	Perennial	15	18	39.5484648901676	-80.6448413285107
33.2	swzg023	Lower Run	Perennial	7	14	39.5523465023387	-80.6577507431255
33.4	swzg008	Lower Run	Perennial	14	20	39.5501108788325	-80.6611922434563
33.5	swzg009	UNT to Lower Run	Perennial	15	20	39.5524078586643	-80.6616342022362
33.5	swzg008	Lower Run	Perennial	14	20	39.5500641036832	-80.6617046764219
33.5	swzg003	South Fork Fishing Creek	Perennial	120	150	39.5503409368466	-80.6697778011208

TABLE 3.2-1 (cont'd)

Supply Header Project
Waterbody Inventory

Facility/State/ County/ Approximate Milepost	Unique ID	USGS Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
33.5	swzg004	UNT to South Fork Fishing Creek	Perennial	6	10	39.5476290313661	-80.6674667329174
TL-636							
Pennsylvania							
Westmoreland							
0.2	swmh002	UNT to Turtle Creek	Perennial	5	7	40.4256194295263	-79.5938036878563
0.2	swmh001	UNT to Turtle Creek	Perennial	3	6	40.4246553849002	-79.5978463239672
0.5	swmh001	UNT to Turtle Creek	Perennial	3	6	40.4239428950187	-79.6016011497773
0.7	swmh003	UNT to Turtle Creek	Perennial	3	5	40.4296380136157	-79.6006253571047
1.2	swmh004	UNT to Kemerer Hollow	Perennial	4	8	40.4339717856692	-79.6105601276734
1.4	swmh005	Kemerer Hollow	Perennial	4	8	40.4346663145257	-79.6117141834835
1.7	swmh012	UNT to Kemerer Hollow	Perennial	1	10	40.4376884466757	-79.6162735163807
1.9	swmh013	UNT to Kemerer Hollow	Perennial	5	10	40.4408025125325	-79.6190444035428
2.5	swmh006	UNT to Steels Run	Perennial	4	8	40.4464247413319	-79.6262876179098
2.6	swmh007	Steels Run	Perennial	6	10	40.4480418510385	-79.6277784475133
2.6	owmh001	Unnamed pond	Perennial	na	na	40.4478735936819	-79.6276178052457
2.7	swmh008	UNT to Steels Run	Perennial	2	3	40.4488460016674	-79.6286836208999
2.9	swmh014	UNT to Steels Run	Perennial	4	8	40.4529233917312	-79.6339882048317
2.9	owmh002	Unnamed pond	Perennial	na	na	40.4510793541902	-79.6324995561128
3.3	swmh016	UNT to Steel's Run	Intermittent	2	4	40.4557676297418	-79.6350443216715
3.6	swmh015	UNT to Haymakers Run	Perennial	5	8	40.4593731937649	-79.6385927916215
3.8	swmh011	UNT to Haymakers Run	Perennial	3	8	40.4613229149341	-79.639525114389

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SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Wetland and Waterbody Delineation Report

APPENDIX A

Wetland Datasheets and Photo Pages

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

TL-635

Harrison County

West Virginia

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

TL-635

Doddridge County

West Virginia

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

TL-635

Wetzel County

West Virginia

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Wetland Datasheets and Photo Pages

TL-636

Westmoreland County

Pennsylvania

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Wetland and Waterbody Delineation Report

APPENDIX B

Waterbody Datasheets and Photo Pages

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

TL-635

Harrison County

West Virginia

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

TL-635

Doddridge County

West Virginia

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

TL-635

Tyler County

West Virginia

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

TL-635

Wetzel County

West Virginia

SUPPLY HEADER PROJECT ENVIRONMENTAL SURVEY

Waterbody Datasheets and Photo Pages

TL-636

Westmoreland County

Pennsylvania

ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE

and

DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT

Resource Report 2
Water Use and Quality

APPENDIX 2F
Site-Specific Drawings for Major Waterbodies Crossed by the Atlantic Coast Pipeline

LEGEND

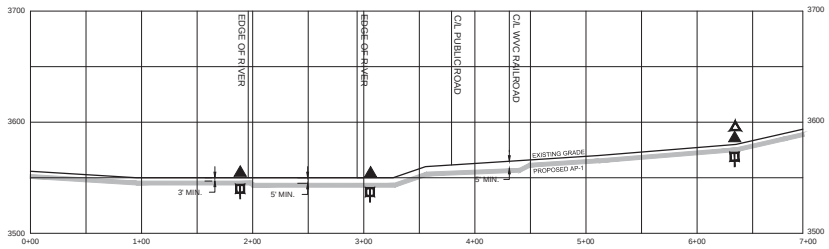
- PERMANENT RIGHT-OF-WAY
- TEMPORARY RIGHT-OF-WAY
- TOPSOIL SEGRAGATION AREA
- EXTRA WORK SPACE
- WETLAND
- STREAM
- LIMITS OF DISTURBANCE
- CONTOUR
- SILT FENCE
- SILT SOCK
- ROCK CONSTRUCTION ENTRANCE
- TRENCH PLUG
- WATER BAR
- TEMPORARY SLOPE BREAKER

WATERBODY IMPACT		
WATERBODY #	TEMP. IMPACT	PERMANENT IMPACT
NHD WATERBODY	0.28 ACRES	0.0 ACRES

WATERBODY IMPACT

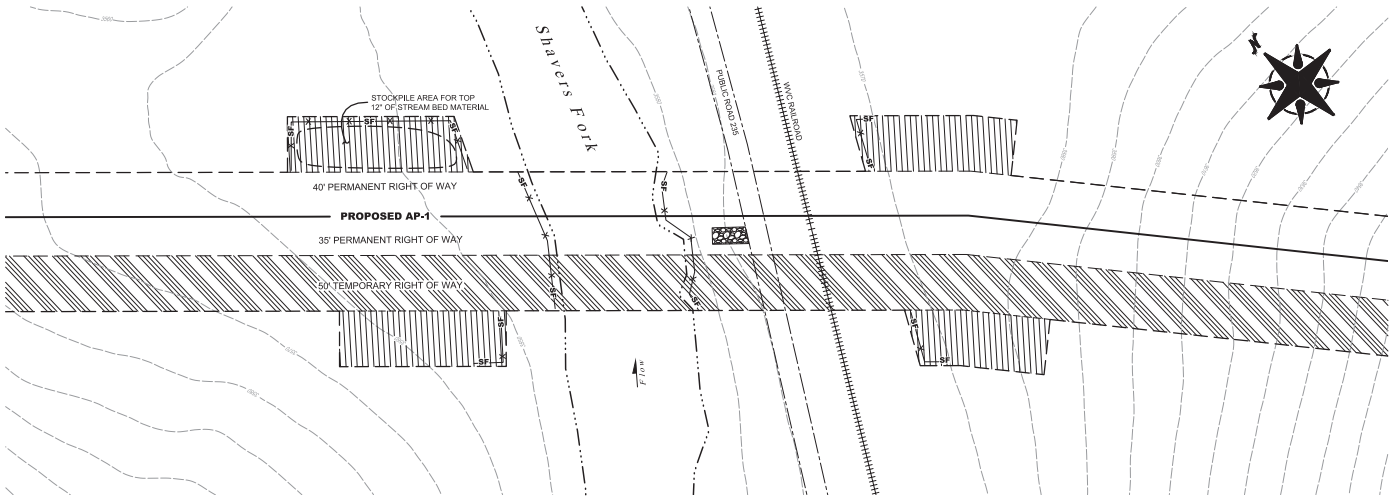
WATERBODY CONSTRUCTION NOTES:

1. CROSSING TO BE COMPLETED VIA THE USE OF A COFFERDAM.
2. CONSTRUCTION TO BE PREFORMED IN LOW FLOW PERIODS. FLOW SHALL BE MAINTAINED AT ALL TIMES.
3. RIP RAP (OR OTHER NON-ERODIBLE MATERIALS) TO BE PLACED IN SEMICIRCLE ALONG SIDE OF STREAM.
4. DISCHARGE ALL WATER THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE.
5. STABILIZE WATER WATERBODY BANKS AND INSTALL TEMPORARY SEDIMENT BARRIERS WITHIN 24-HOURS OF COMPLETING IN-STREAM CONSTRUCTION ACTIVITIES.
6. RETURN ALL WATERBODY BANKS TO PRE-CONSTRUCTION CONTOURS OR TO A STABLE ANGLE OF REPOSE AS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
7. INSTALL TRENCH PLUGS AND WATERBARS AS DIRECTED BY THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN ON BOTH SIDES OF THE WATERWAY, AND AS DEPICTED. ON THIS PLAN.
8. PIPELINE SHALL BE WEIGHTED WITH CONCRETE COATING IN THE RIVER CROSSING TO ACHIEVE NEGATIVE BUOYANCY.



STREAM CROSSING PROFILE

SCALE:1"=50'



PLAN VIEW

SCALE:1"=50'

GENERAL NOTES AND COMMENTS:

REFERENCE

ELEVATION DATA FROM THE USGS GIS DATA CLEARING HOUSE.

PIPELINE SURVEY INFORMATION PROVIDED BY GAI CONSULTANTS.

STREAM AND WETLAND DATA COLLECTED BY NATIONAL RESOURCE GROUP, LLC.

MAPPING DATUM-WV STATE PLANE SOUTH-NAD 83
CONTOUR INTERVAL - 10 FEET

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.
1	7/13/15	ARC	ISSUED FOR REVIEW		

SEAL

DRAWN:	RRC/RLR	7/8/15
CHECKED:	RVS / DLM	7/8/15
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS SHOWN	

Atlantic Coast Pipeline, LLC

445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

TITLE: AP-1 SITE SPECIFIC PLAN FOR SHAVERS FORK

DISTRICT: CHEAT BRIDGE | COUNTY: RANDOLPH | STATE: WV

DWFILE: DOM/ACP/Site Specific/Shavers Fork

GROUP	DWG. NO.	REV.
	1	A

2F-1

ATLANTIC COAST PIPELINE PROJECT

PLAN AND PROFILE
42-INCH PIPELINE CROSSING OF THE JAMES RIVER (PRIMARY)
BY HORIZONTAL DIRECTIONAL DRILLING

LOCATION:	BUCKINGHAM & NELSON COUNTIES, VIRGINIA	DRAWING LABEL	REVISION
DRAWN	KMN	DATE	05/21/15	CHECKED	JSP	APPROVED	JSP	SCALE	SHOWN FOR D-SIZED PLOT	JAMES PRIMARY	P1

NO.	DATE	REVISION DESCRIPTION	BY	CHKD	APP.
P1	06/26/15	EXTEND DESIGN TO INCLUDE RAILROAD, ADD WORKSPACE	JSP	ACM	JSP

John D. Hair, P.E.
Consulting Engineer
2424 East 21st Street
Suite 550
Tulsa, Oklahoma 74114

PRELIMINARY

PROJECT NO.
Dominion\1508

MILE POST
AP1-180

LEGEND

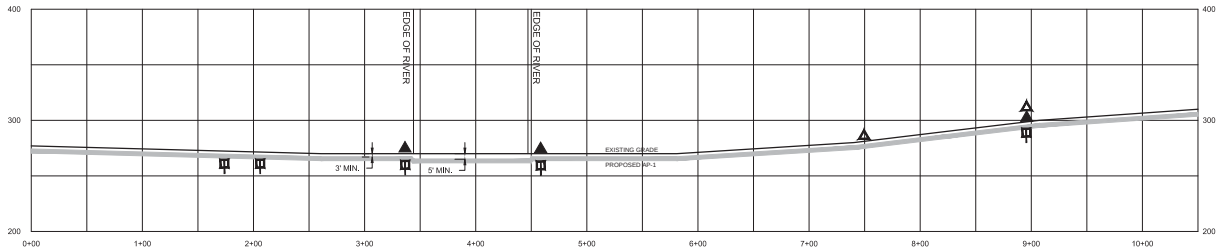
- PERMANENT RIGHT-OF-WAY
- TEMPORARY RIGHT-OF-WAY
- TOPSOIL SEGRAGATION AREA
- EXTRA WORK SPACE
- WETLAND
- STREAM
- LIMITS OF DISTURBANCE
- CONTOUR
- SILT FENCE
- SILT SOCK
- ROCK CONSTRUCTION ENTRANCE
- TRENCH PLUG
- WATER BAR
- TEMPORARY SLOPE BREAKER

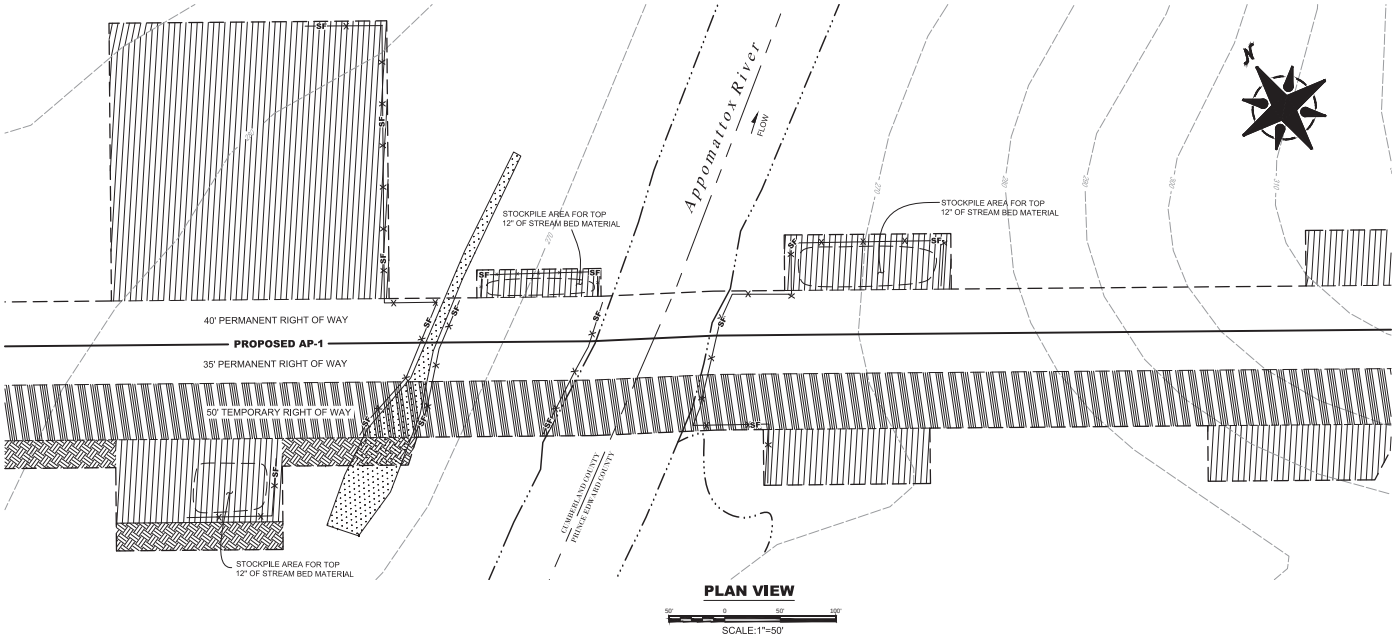
WATERBODY IMPACT		
WATERBODY #	TEMP. IMPACT	PERMANENT IMPACT
SCUK011	0.22 ACRES	0.0 ACRES

WATERBODY IMPACT

WATERBODY CONSTRUCTION NOTES:

1. CROSSING TO BE COMPLETED VIA THE USE OF A COFFERDAM.
2. CONSTRUCTION TO BE PREFORMED IN LOW FLOW PERIODS. FLOW SHALL BE MAINTAINED AT ALL TIMES.
3. RIP RAP (OR OTHER NON-ERODIBLE MATERIALS) TO BE PLACED IN SEMICIRCLE ALONG SIDE OF STREAM.
4. DISCHARGE ALL WATER THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE.
5. STABILIZE WATER WATERBODY BANKS AND INSTALL TEMPORARY SEDIMENT BARRIERS WITHIN 24-HOURS OF COMPLETING IN-STREAM CONSTRUCTION ACTIVITIES.
6. RETURN ALL WATERBODY BANKS TO PRE-CONSTRUCTION CONTOURS OR TO A STABLE ANGLE OF REPOSE AS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
7. INSTALL TRENCH PLUGS AND WATERBARS AS DIRECTED BY THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN ON BOTH SIDES OF THE WATERWAY, AND AS DEPICTED. ON THIS PLAN.
8. PIPELINE SHALL BE WEIGHTED WITH PIPESAK OR APPROVED EQUAL IN RIVER CROSSING TO ACHIEVE NEGATIVE BUOYANCY.





PLAN VIEW

SCALE:1"=50'

GENERAL NOTES AND COMMENTS:

REFERENCE

ELEVATION DATA FROM THE USGS GIS DATA CLEARING HOUSE.

PIPELINE SURVEY INFORMATION PROVIDED BY GAI CONSULTANTS.

STREAM AND WETLAND DATA COLLECTED BY NATIONAL RESOURCE GROUP, LLC.

MAPPING DATUM-VA STATE PLANE SOUTH-NAD 83
CONTOUR INTERVAL - 10 FEET

SYM.	DATE	BY	REVISION INFORMATION
1	7/13/15	RRC	ISSUED FOR REVIEW

PROJECT/TASK APP.

SEAL

DRAWN:	RRC/RLR	7/13/15
CHECKED:	RVS / DLM	7/13/15
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS SHOWN	

Atlantic Coast Pipeline, LLC

445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

TITLE: AP-1 SITE SPECIFIC PLAN FOR APPOMATTOX RIVER

DISTRICT:	COUNTY: CUMBERLAND	STATE: VA	GROUP	DWG. NO.	REV.
				1	A

DWGFILE: DOM/ACP/Site Specific/Appomattox River

2F-3

LEGEND

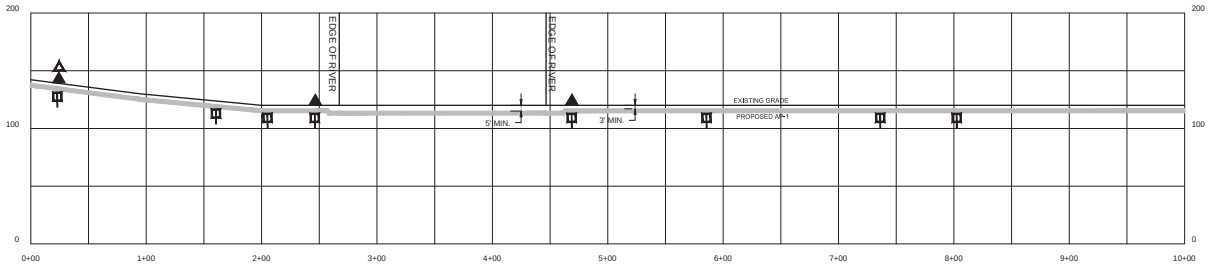
- PERMANENT RIGHT-OF-WAY
- TEMPORARY RIGHT-OF-WAY
- TOPSOIL SEGRAGATION AREA
- EXTRA WORK SPACE
- WETLAND
- STREAM
- LIMITS OF DISTURBANCE
- CONTOUR
- SILT FENCE
- SILT SOCK
- ROCK CONSTRUCTION ENTRANCE
- TRENCH PLUG
- WATER BAR
- TEMPORARY SLOPE BREAKER

WATERBODY IMPACT		
WATERBODY #	TEMP. IMPACT	PERMANENT IMPACT
SGRA007	0.48 ACRES	0.0 ACRES

WATERBODY IMPACT

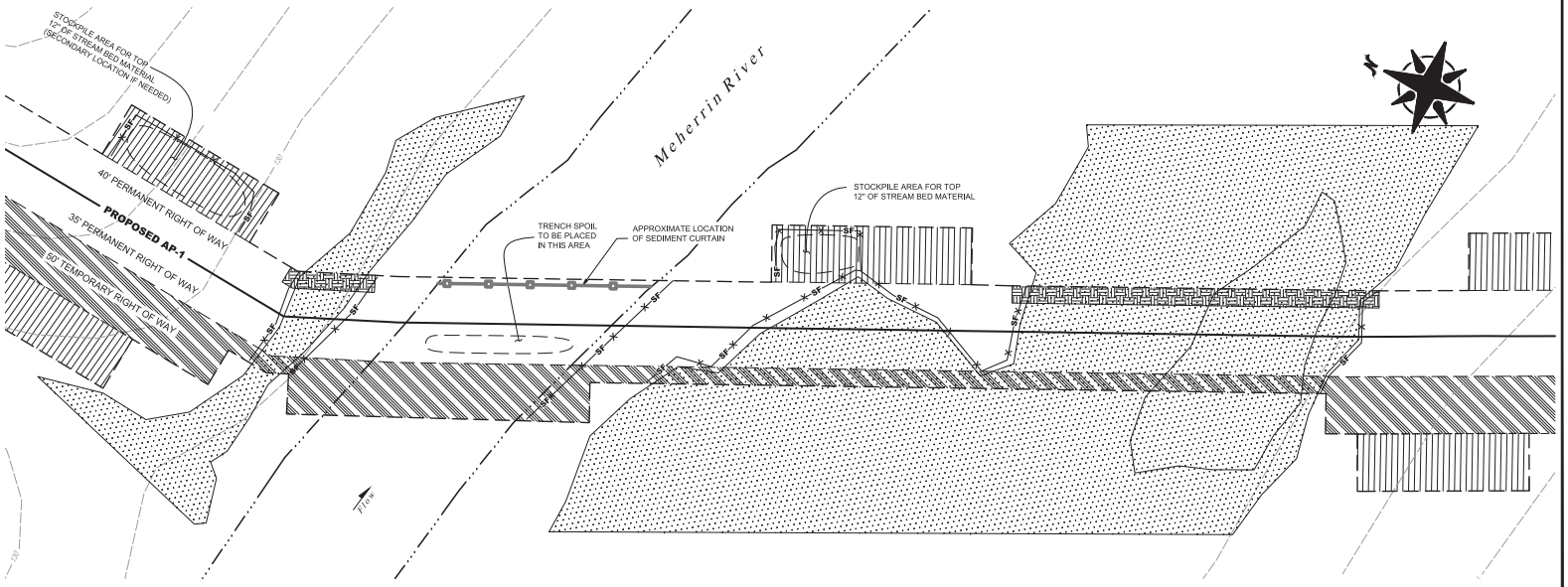
WATERBODY CONSTRUCTION NOTES:

1. CONSTRUCTION TO BE AN OPEN CUT WET CROSSING.
2. LIMIT USE EQUIPMENT OPERATING IN THE WATERBODY TO THAT NEEDED TO CONSTRUCT THE CROSSING.
3. WHILE OPEN CUTTING IN THE WATERWAY, KEEP EXCAVATION AS CLOSE TO THE BOTTOM OF THE WATERBODY AS POSSIBLE. USE A SMOOTH MOTION AND PLACE THE SEDIMENT ON THE BOTTOM OF THE STREAM. AVOID DROPPING THE MATERIAL AS MUCH AS POSSIBLE.
4. A SEDIMENT CURTAIN SHALL BE USED IN STREAM ON THE DOWNSTREAM SIDE OF THE WORK AREA.
5. STABILIZE WATER WATERBODY BANKS AND INSTALL TEMPORARY SEDIMENT BARRIERS WITHIN 24-HOURS OF COMPLETING IN-STREAM CONSTRUCTION ACTIVITIES.
6. RETURN ALL WATERBODY BANKS TO PRE-CONSTRUCTION CONTOURS OR TO A STABLE ANGLE OF REPOSE AS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
7. INSTALL TRENCH PLUGS AND WATERBARS AS DIRECTED BY THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN ON BOTH SIDES OF THE WATERWAY, AND AS DEPICTED. ON THIS PLAN.
8. THE TRAVEL LANE SHALL BE CLEARED WITH SUBSOIL EXCAVATED FROM PIPELINE TRENCH ONLY.
9. PIPELINE SHALL BE WEIGHTED WITH PIPESAK OR APPROVED EQUAL IN RIVER CROSSING TO ACHIEVE NEGATIVE BUOYANCY.



STREAM CROSSING PROFILE

SCALE:1"=50'



PLAN VIEW

SCALE:1"=50'

GENERAL NOTES AND COMMENTS:

REFERENCE

ELEVATION DATA FROM THE USGS GIS DATA CLEARING HOUSE.

PIPELINE SURVEY INFORMATION PROVIDED BY GAI CONSULTANTS.

STREAM AND WETLAND DATA COLLECTED BY NATIONAL RESOURCE GROUP, LLC.

MAPPING DATUM-VA STATE PLANE SOUTH-NAD 83
CONTOUR INTERVAL - 10 FEET

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.
1	7/13/15	RRC	ISSUED FOR REVIEW		

SEAL

DRAWN:	RRC/RLR	7/13/15
CHECKED:	RVS / DLM	7/13/15
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS SHOWN	

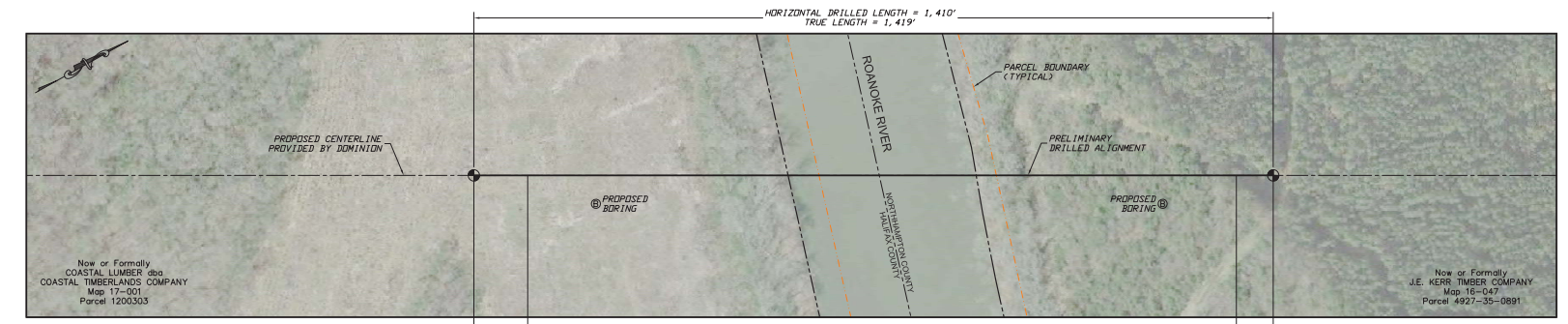
Atlantic Coast Pipeline, LLC

445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

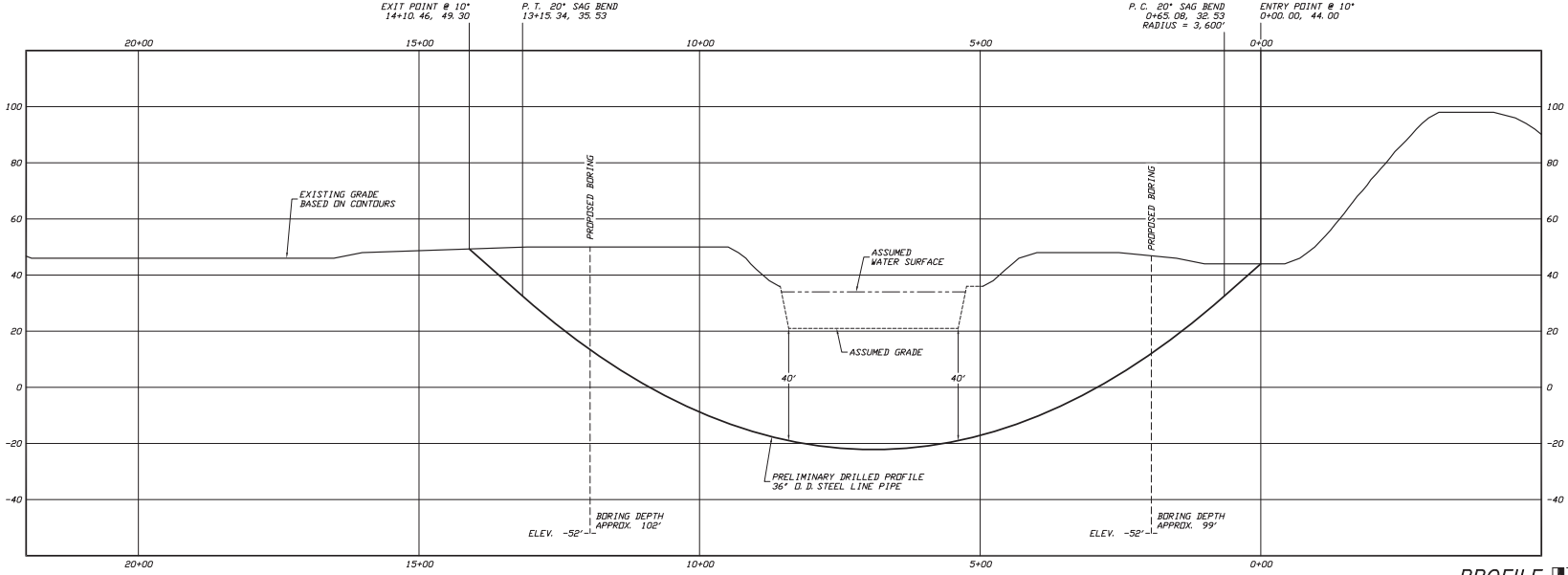
TITLE: AP-1 SITE SPECIFIC PLAN FOR MEHERRIN RIVER

DISTRICT:	COUNTY: GREENSVILLE	STATE: VA	GROUP	DWG. NO.	REV.
DIRFILE: DOM/ACP/Site Specific/Meherrin River				1	A

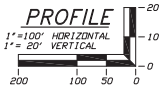
2F-4



PLAN
SCALE: 1"=100'



PROFILE
SCALE: 1"=100' HORIZONTAL
1"= 20' VERTICAL



GENERAL LEGEND
DRILLED PATH ENTRY/EXIT POINT

ATLANTIC COAST PIPELINE PROJECT

PLAN AND PROFILE
36-INCH PIPELINE CROSSING OF THE ROANOKE RIVER
BY HORIZONTAL DIRECTIONAL DRILLING

LOCATION:	HALIFAX & NORFOLK COUNTIES, NORTH CAROLINA	DRAWING LABEL:	REVISION
DRAWN	DATE	CHECKED	APPROVED	SCALE: SHOWN FOR	DRAWING LABEL:	REVISION
KMN	05/22/15	JSP	JSP	22"x34" PLOT	ROANOKE	P0

NO.	DATE	REVISION DESCRIPTION	BY	CHK'D	APP.

Jeffrey S. Puckett, P.E.
Consulting Engineer
2424 East 21st Street
Suite 550
Tulsa, Oklahoma 74114

PRELIMINARY

PROJECT NO.
Dominion\1508

SHEET NO.
AP2-302

LEGEND

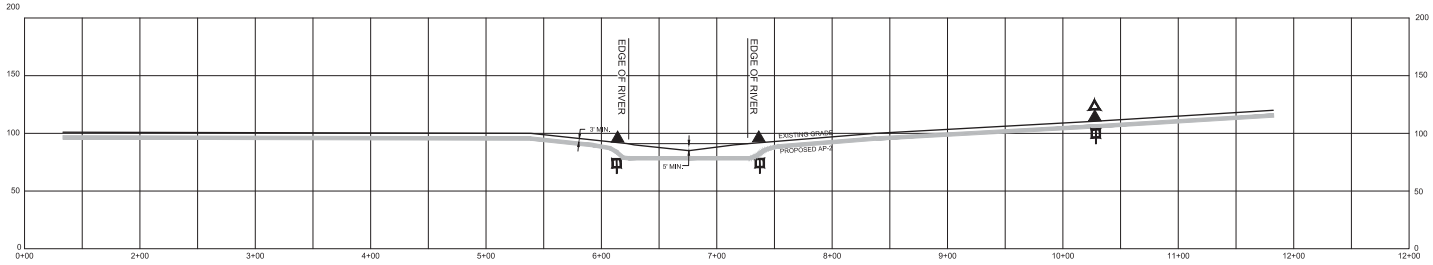
- PERMANENT RIGHT-OF-WAY
- TEMPORARY RIGHT-OF-WAY
- TOPSOIL SEGRAGATION AREA
- EXTRA WORK SPACE
- WETLAND
- STREAM
- LIMITS OF DISTURBANCE
- CONTOUR
- SILT FENCE
- SILT SOCK
- ROCK CONSTRUCTION ENTRANCE
- TRENCH PLUG
- WATER BAR
- TEMPORARY SLOPE BREAKER

WATERBODY IMPACT		
WATERBODY #	TEMP. IMPACT	PERMANENT IMPACT
SNAG001	0.26 ACRES	0.0 ACRES

WATERBODY IMPACT

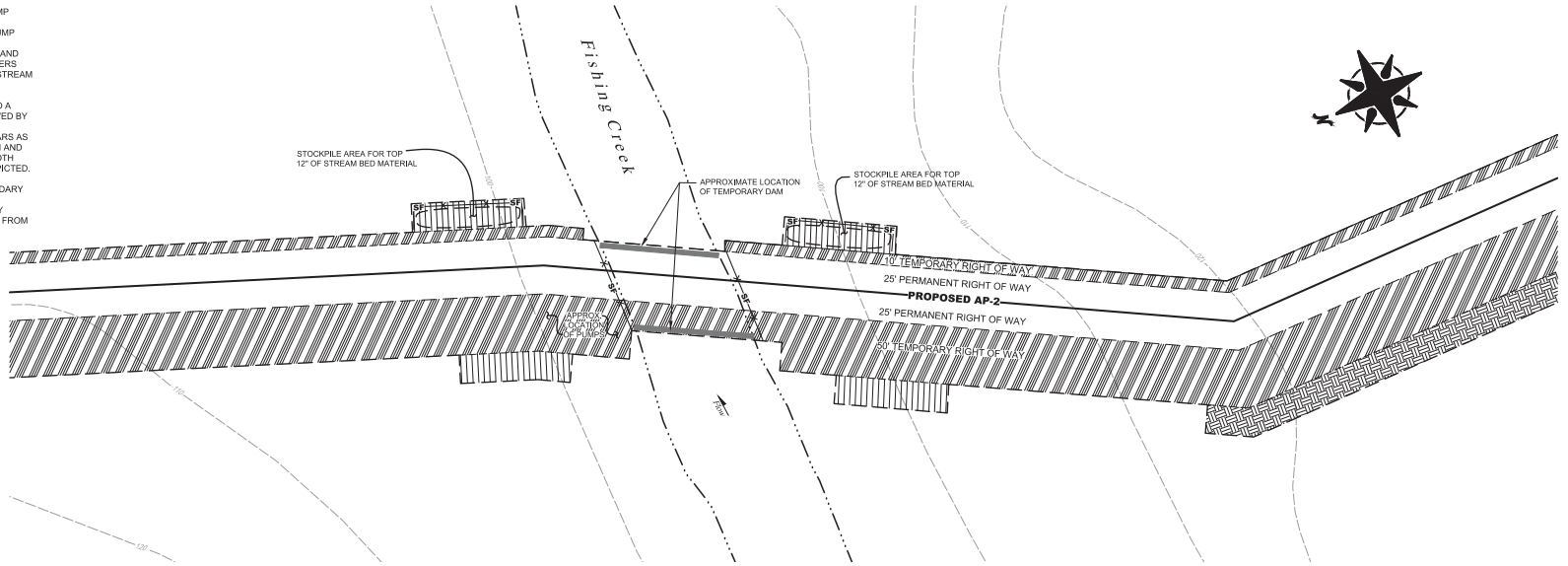
WATERBODY CONSTRUCTION NOTES:

1. CROSSING TO BE COMPLETED VIA THE DAM AND PUMP METHOD.
2. SUFFICIENT PUMPS TO MAINTAIN 1.5 TIMES THE FLOW PRESENT IN THE STREAM DURING CONSTRUCTION.
3. MAINTAIN ONE BACKUP PUMP ON SITE.
4. DAMS CONSTRUCTED WITH MATERIALS THAT PREVENT SEDIMENT AND OTHER POLLUTANTS FROM ENTERING THE WATERBODY (E.G. SANDBAGS OR CLEAN GRAVEL WITH PLASTIC LINER.
5. SCREENS SHALL BE INSTALLED ON PUMP INTAKES.
6. STREAMBED SCOUR PREVENTED AT PUMP DISCHARGE.
7. STABILIZE WATER WATERBODY BANKS AND INSTALL TEMPORARY SEDIMENT BARRIERS WITHIN 24-HOURS OF COMPLETING IN-STREAM CONSTRUCTION ACTIVITIES.
8. RETURN ALL WATERBODY BANKS TO PRE-CONSTRUCTION CONTOURS OR TO A STABLE ANGLE OF REPOSE AS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
9. INSTALL TRENCH PLUGS AND WATERBARS AS DIRECTED BY THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN ON BOTH SIDES OF THE WATERWAY, AND AS DEPICTED. ON THIS PLAN.
10. PUMPS SHALL BE INSTALLED IN SECONDARY CONTAINMENT.
11. FUEL SHALL BE STORED IN SECONDARY CONTAINMENT AND AT LEAST 100 FEET FROM WATERBODY.



STREAM CROSSING PROFILE

SCALE:1"=50'



PLAN VIEW

SCALE:1"=50'

GENERAL NOTES AND COMMENTS:

REFERENCE

ELEVATION DATA FROM THE USGS GIS DATA CLEARING HOUSE.

PIPELINE SURVEY INFORMATION PROVIDED BY GAI CONSULTANTS.

STREAM AND WETLAND DATA COLLECTED BY NATIONAL RESOURCE GROUP, LLC.

MAPPING DATUM-NC STATE PLANE - NAD 83
CONTOUR INTERVAL - 10 FEET

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.
A	7/13/15	RLR	ISSUED FOR REVIEW		

SEAL

DRAWN:	RRC/RLR	7/13/15
CHECKED:	RVS / DLM	7/13/15
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS SHOWN	

Atlantic Coast Pipeline, LLC

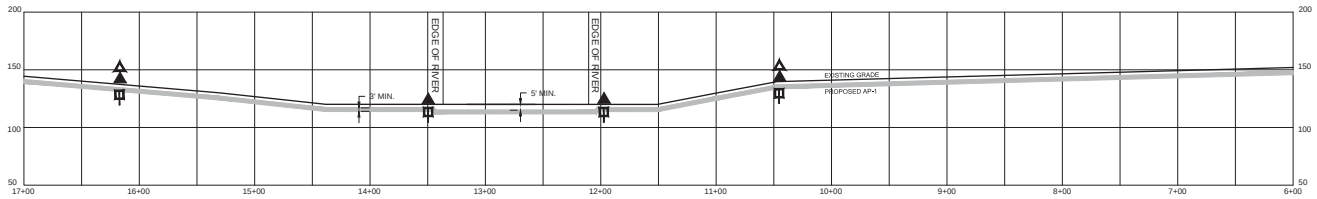
445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

TITLE: AP-2 SITE SPECIFIC PLAN FOR FISHING CREEK

DISTRICT:	COUNTY: NASH	STATE: NC	GROUP	DWG. NO.	REV.
DIRFILE: DOM/ACP/Site Specific/Tar River				1	A

LEGEND

- PERMANENT RIGHT-OF-WAY
- TEMPORARY RIGHT-OF-WAY
- TOPSOIL SEGREGATION AREA
- EXTRA WORK SPACE
- WETLAND
- STREAM
- LIMITS OF DISTURBANCE
- CONTOUR
- SILT FENCE
- SILT SOCK
- ROCK CONSTRUCTION ENTRANCE
- TRENCH PLUG
- WATER BAR
- TEMPORARY SLOPE BREAKER



STREAM CROSSING PROFILE

50' 0 50' 100'

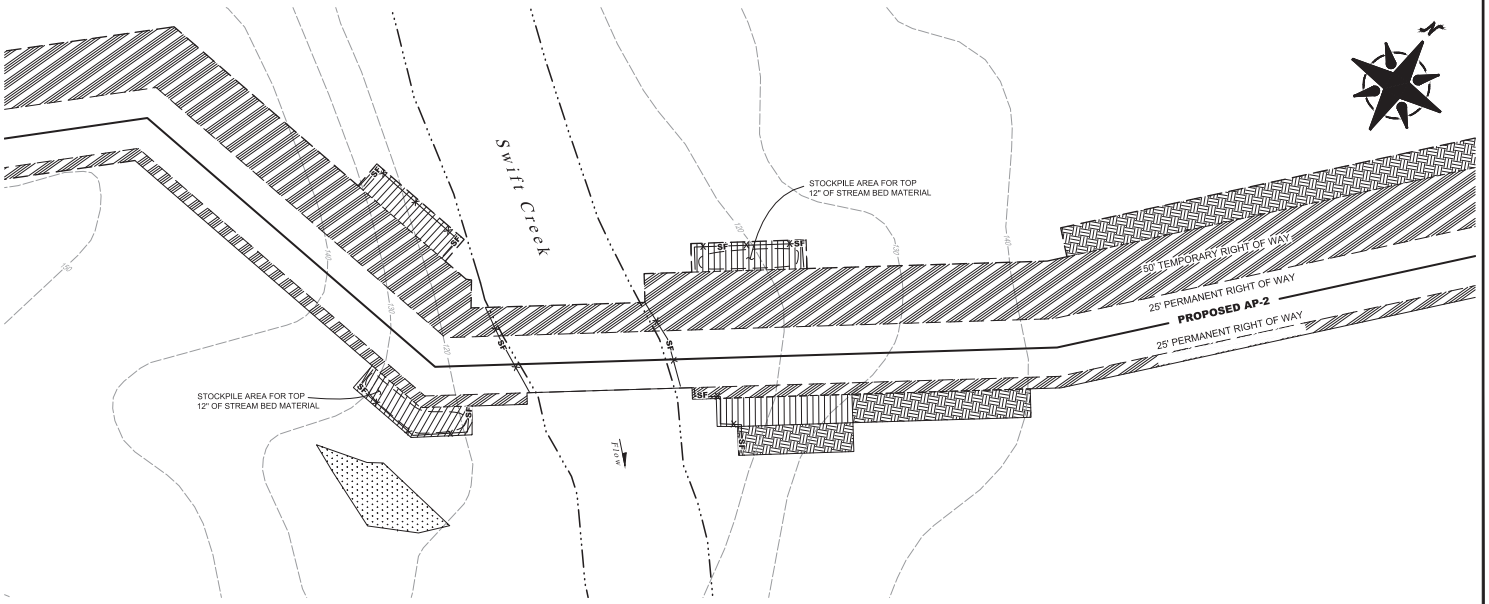
SCALE:1"=50'

WATERBODY IMPACT		
WATERBODY #	TEMP. IMPACT	PERMANENT IMPACT
SNAH003	0.22 ACRES	0.0 ACRES

WATERBODY IMPACT

WATERBODY CONSTRUCTION NOTES:

1. CROSSING TO BE COMPLETED VIA THE USE OF A COFFERDAM.
2. CONSTRUCTION TO BE PREFORMED IN LOW FLOW PERIODS. FLOW SHALL BE MAINTAINED AT ALL TIMES.
3. RIP RAP (OR OTHER NON-ERODIBLE MATERIALS) TO BE PLACED IN SEMICIRCLE ALONG SIDE OF STREAM.
4. DISCHARGE ALL WATER THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE.
5. STABILIZE WATER WATERBODY BANKS AND INSTALL TEMPORARY SEDIMENT BARRIERS WITHIN 24-HOURS OF COMPLETING IN-STREAM CONSTRUCTION ACTIVITIES.
6. RETURN ALL WATERBODY BANKS TO PRE-CONSTRUCTION CONTOURS OR TO A STABLE ANGLE OF REPOSE AS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
7. INSTALL TRENCH PLUGS AND WATERBARS AS DIRECTED BY THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN ON BOTH SIDES OF THE WATERWAY, AND AS DEPICTED ON THIS PLAN.
8. PIPELINE SHALL BE WEIGHTED WITH PIPESAK OR APPROVED EQUAL IN RIVER CROSSING TO ACHIEVE NEGATIVE BUOYANCY.



PLAN VIEW

50' 0 50' 100'

SCALE:1"=50'

GENERAL NOTES AND COMMENTS:

REFERENCE

ELEVATION DATA FROM THE USGS GIS DATA CLEARING HOUSE.

PIPELINE SURVEY INFORMATION PROVIDED BY GAI CONSULTANTS.

STREAM AND WETLAND DATA COLLECTED BY NATIONAL RESOURCE GROUP, LLC.

MAPPING DATUM-NC STATE PLANE-NAD 83
CONTOUR INTERVAL - 10 FEET

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.
1	7/8/15	RRC	ISSUED FOR REVIEW		

SEAL

DRAWN:	RRC/RLR	7/13/15
CHECKED:	RVS / DLM	7/13/15
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS SHOWN	

Atlantic Coast Pipeline, LLC

445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

TITLE: AP-2 SITE SPECIFIC PLAN FOR SWIFT CREEK

DISTRICT:	COUNTY:	STATE:	GROUP	DWG. NO.	REV.
RED OAK	NASH	NC		1	A

DIRFILE: DOM/ACP/Site Specific/Swift Creek

2F-7

LEGEND

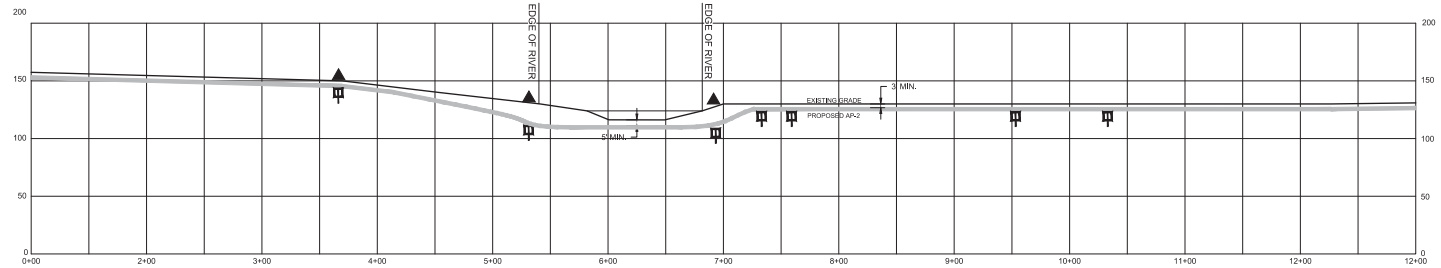
- PERMANENT RIGHT-OF-WAY
- TEMPORARY RIGHT-OF-WAY
- TOPSOIL SEGRAGATION AREA
- EXTRA WORK SPACE
- WETLAND
- STREAM
- LIMITS OF DISTURBANCE
- CONTOUR
- SILT FENCE
- SILT SOCK
- ROCK CONSTRUCTION ENTRANCE
- TRENCH PLUG
- WATER BAR
- TEMPORARY SLOPE BREAKER

WATERBODY IMPACT		
WATERBODY #	TEMP. IMPACT	PERMANENT IMPACT
SNAO011	0.22 ACRES	0.0 ACRES

WATERBODY IMPACT

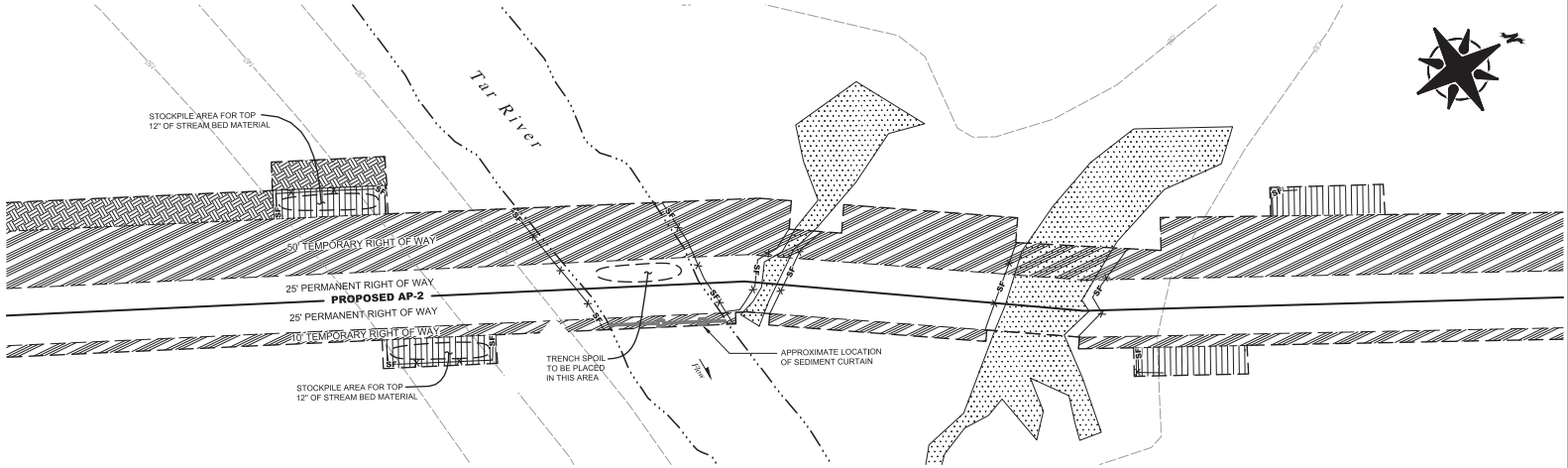
WATERBODY CONSTRUCTION NOTES:

1. CONSTRUCTION TO BE AN OPEN CUT WET CROSSING.
2. LIMIT USE EQUIPMENT OPERATING IN THE WATERBODY TO THAT NEEDED TO CONSTRUCT THE CROSSING.
3. WHILE OPEN CUTTING IN THE WATERWAY, KEEP EXCAVATION AS CLOSE TO THE BOTTOM OF THE WATERBODY AS POSSIBLE. USE A SMOOTH MOTION AND PLACE THE SEDIMENT ON THE BOTTOM OF THE STREAM. AVOID DROPPING THE MATERIAL AS MUCH AS POSSIBLE.
4. A SEDIMENT CURTAIN SHALL BE USED IN STREAM ON THE DOWNSTREAM SIDE OF THE WORK AREA.
5. STABILIZE WATER WATERBODY BANKS AND INSTALL TEMPORARY SEDIMENT BARRIERS WITHIN 24-HOURS OF COMPLETING IN-STREAM CONSTRUCTION ACTIVITIES.
6. RETURN ALL WATERBODY BANKS TO PRE-CONSTRUCTION CONTOURS OR TO A STABLE ANGLE OF REPOSE AS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
7. INSTALL TRENCH PLUGS AND WATERBARS AS DIRECTED BY THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN ON BOTH SIDES OF THE WATERWAY, AND AS DEPICTED ON THIS PLAN.
8. THE TRAVEL LANE SHALL BE CLEARED WITH SUBSOIL EXCAVATED FROM PIPELINE TRENCH ONLY.
9. PIPELINE SHALL BE WEIGHTED WITH PIPESAK OR APPROVED EQUAL IN RIVER CROSSING TO ACHIEVE NEGATIVE BUOYANCY.



STREAM CROSSING PROFILE

SCALE:1"=50'



PLAN VIEW

SCALE:1"=50'

GENERAL NOTES AND COMMENTS:

REFERENCE

ELEVATION DATA FROM THE USGS GIS DATA CLEARING HOUSE.

PIPELINE SURVEY INFORMATION PROVIDED BY GAI CONSULTANTS.

STREAM AND WETLAND DATA COLLECTED BY NATIONAL RESOURCE GROUP, LLC.

MAPPING DATUM-NC STATE PLANE - NAD 83
CONTOUR INTERVAL - 10 FEET

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.
1	7/13/15	RRC	ISSUED FOR REVIEW		

SEAL

DRAWN:	RRC/RLR	7/13/15
CHECKED:	RVS / DLM	7/13/15
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS SHOWN	

Atlantic Coast Pipeline, LLC
445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

TITLE: AP-2 SITE SPECIFIC PLAN FOR TAR RIVER

DISTRICT:	COUNTY: NASH	STATE: NC	GROUP	DWG. NO.	REV.
				1	A

DIRFILE: DOM/ACP/Site Specific/Tar River

LEGEND

- PERMANENT RIGHT-OF-WAY
- TEMPORARY RIGHT-OF-WAY
- TOPSOIL SEGRAGATION AREA
- EXTRA WORK SPACE
- WETLAND
- STREAM
- LIMITS OF DISTURBANCE
- CONTOUR
- SILT FENCE
- SILT SOCK
- ROCK CONSTRUCTION ENTRANCE
- TRENCH PLUG
- WATER BAR
- TEMPORARY SLOPE BREAKER

WATERBODY IMPACT		
WATERBODY #	TEMP. IMPACT	PERMANENT IMPACT
SJOB105	0.27 ACRES	0.0 ACRES

WATERBODY IMPACT

WATERBODY CONSTRUCTION NOTES:

1. CONSTRUCTION TO BE AN OPEN CUT WET CROSSING.
2. LIMIT USE EQUIPMENT OPERATING IN THE WATERBODY TO THAT NEEDED TO CONSTRUCT THE CROSSING.
3. WHILE OPEN CUTTING IN THE WATERWAY, KEEP EXCAVATION AS CLOSE TO THE BOTTOM OF THE WATERBODY AS POSSIBLE. USE A SMOOTH MOTION AND PLACE THE SEDIMENT ON THE BOTTOM OF THE STREAM. AVOID DROPPING THE MATERIAL AS MUCH AS POSSIBLE.
4. A SEDIMENT CURTAIN SHALL BE USED IN STREAM ON THE DOWNSTREAM SIDE OF THE WORK AREA.
5. STABILIZE WATER WATERBODY BANKS AND INSTALL TEMPORARY SEDIMENT BARRIERS WITHIN 24-HOURS OF COMPLETING IN-STREAM CONSTRUCTION ACTIVITIES.
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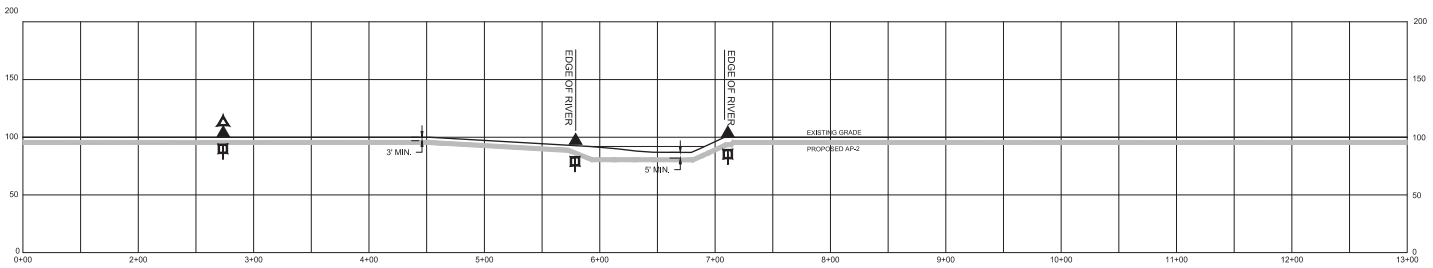
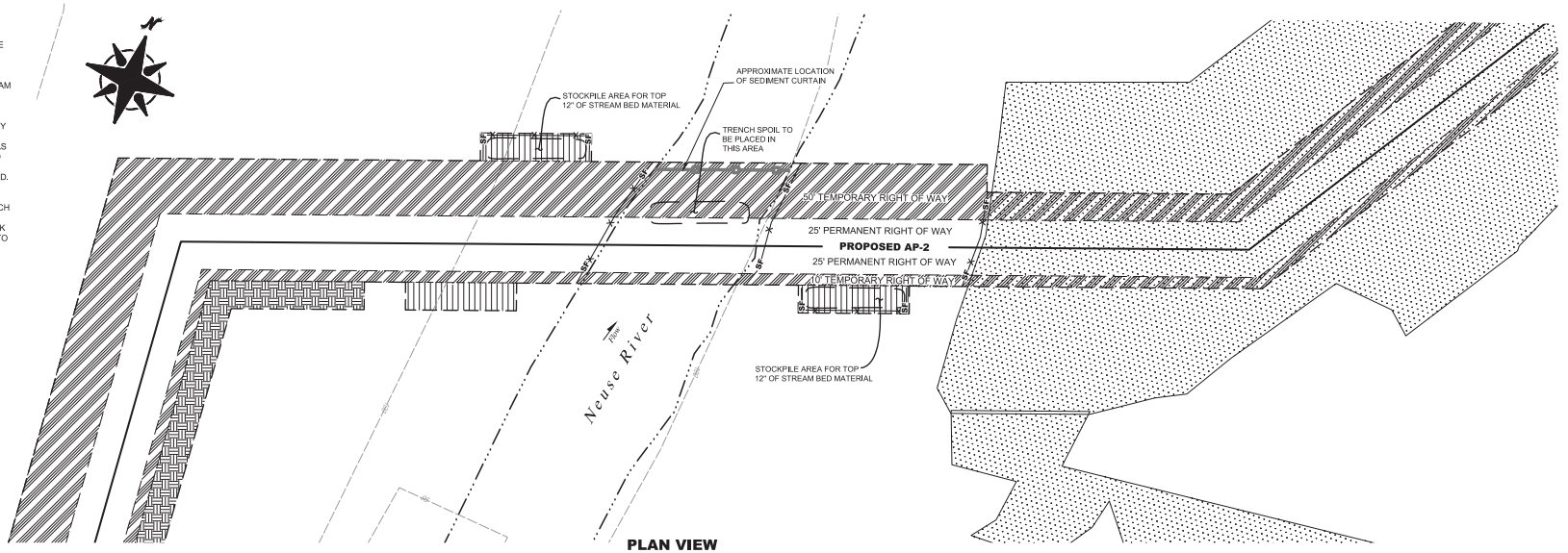
8. THE TRAVEL LANE SHALL BE CLEARED WITH SUBSOIL EXCAVATED FROM PIPELINE TRENCH ONLY.
9. PIPELINE SHALL BE WEIGHTED WITH PIPESAK OR APPROVED EQUAL IN RIVER CROSSING TO ACHIEVE NEGATIVE BUOYANCY.



STREAM CROSSING PROFILE

SCALE:1"=50'



PLAN VIEW

SCALE:1"=50'

GENERAL NOTES AND COMMENTS:

REFERENCE

ELEVATION DATA FROM THE USGS GIS DATA CLEARING HOUSE.

PIPELINE SURVEY INFORMATION PROVIDED BY GAI CONSULTANTS.

STREAM AND WETLAND DATA COLLECTED BY NATIONAL RESOURCE GROUP, LLC.

MAPPING DATUM-NC STATE PLANE - NAD 83
CONTOUR INTERVAL - 5 FEET

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.
1	7/13/15	RRC	ISSUED FOR REVIEW		

SEAL:

DRAWN:	RRC /RLR	7/13/15
CHECKED:	RVS / DLM	7/13/15
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS SHOWN	

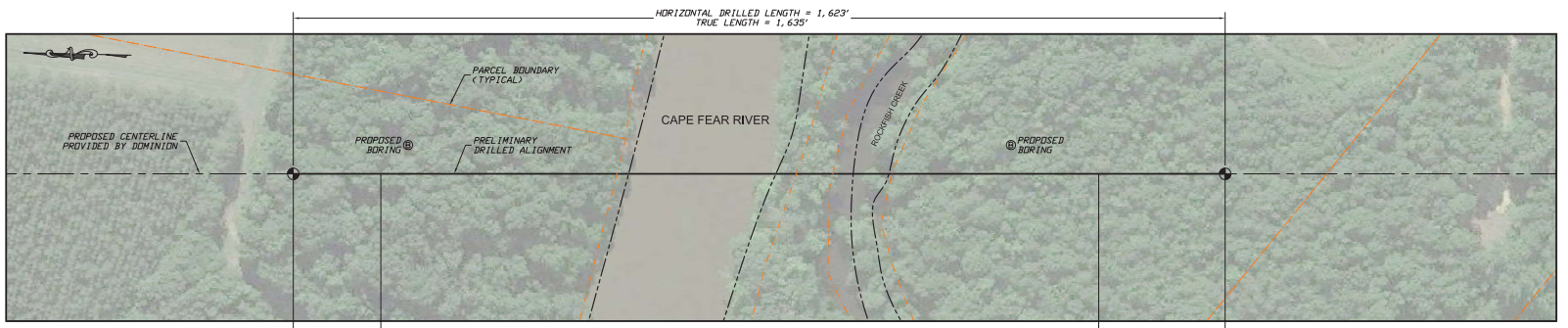
Atlantic Coast Pipeline, LLC

445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

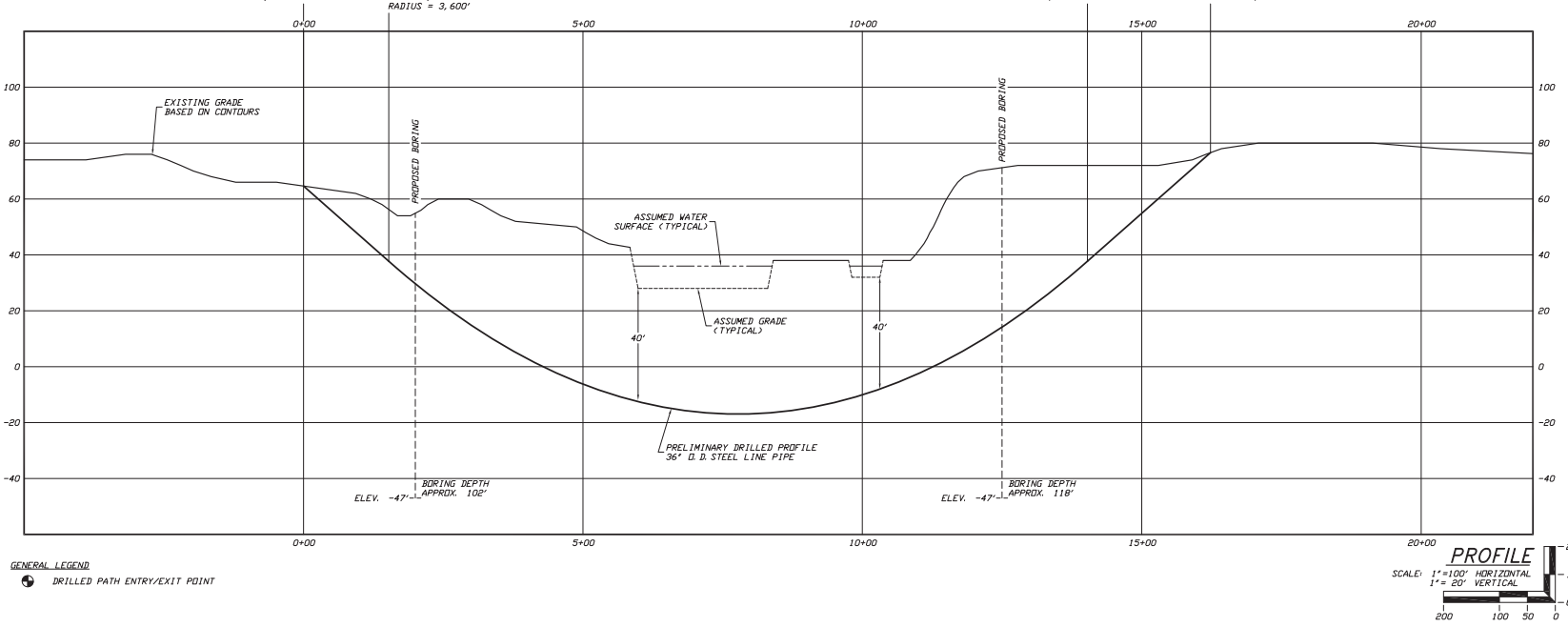
TITLE: AP-2 SITE SPECIFIC PLAN FOR NEUSE RIVER

DISTRICT:	COUNTY: JOHNSTON	STATE: NC	GROUP	DWG. NO.	REV.
				1	A

DIR/FILE: DOM/ACP/Site Specific



PLAN
SCALE: 1"=100'



PROFILE
SCALE: 1"=100' HORIZONTAL
1"= 20' VERTICAL

GENERAL LEGEND
DRILLED PATH ENTRY/EXIT POINT

ATLANTIC COAST PIPELINE PROJECT

PLAN AND PROFILE
36-INCH PIPELINE CROSSING OF THE CAPE FEAR RIVER
BY HORIZONTAL DIRECTIONAL DRILLING

LOCATION:	CUMBERLAND COUNTY, NORTH CAROLINA	DRAWING LABEL	REVISION
DRAWN	KMN	CHECKED	JSP
DATE	05/22/15	APPROVED	JSP
		SCALE	SHOWN FOR D-SIZED PLOT

NO.	DATE	REVISION DESCRIPTION	BY	CHKD	APP.

Jeffrey S. Puckett, P.E.
Consulting Engineer
2424 East 21st Street
Suite 550
Tulsa, Oklahoma 74114

PROJECT NO.
Dominion\1508

MILE POST
AP2-441

PRELIMINARY

LEGEND

- PERMANENT RIGHT-OF-WAY
- TEMPORARY RIGHT-OF-WAY
- TOPSOIL SEGREGATION AREA
- EXTRA WORK SPACE
- WETLAND
- STREAM
- LIMITS OF DISTURBANCE
- CONTOUR
- SILT FENCE
- SILT SOCK
- ROCK CONSTRUCTION ENTRANCE
- TRENCH PLUG
- WATER BAR
- TEMPORARY SLOPE BREAKER

WATERBODY IMPACT		
WATERBODY #	TEMP. IMPACT	PERMANENT IMPACT
SGRB200	0.19 ACRES	0.0 ACRES

WATERBODY IMPACT

WATERBODY CONSTRUCTION NOTES:

1. CONSTRUCTION TO BE AN OPEN CUT WET CROSSING.
2. LIMIT USE EQUIPMENT OPERATING IN THE WATERBODY TO THAT NEEDED TO CONSTRUCT THE CROSSING.
3. WHILE OPEN CUTTING IN THE WATERWAY, KEEP EXCAVATION AS CLOSE TO THE BOTTOM OF THE WATERBODY AS POSSIBLE. USE A SMOOTH MOTION AND PLACE THE SEDIMENT ON THE BOTTOM OF THE STREAM. AVOID DROPPING THE MATERIAL AS MUCH AS POSSIBLE.
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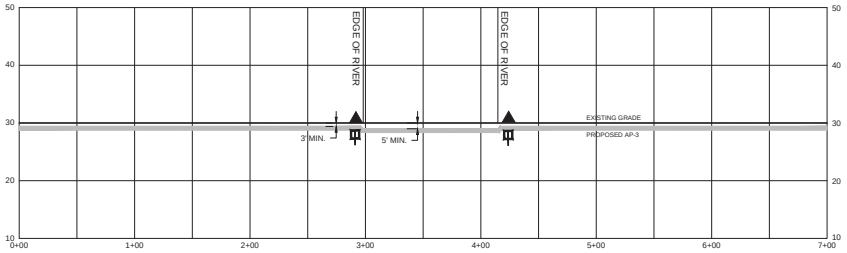
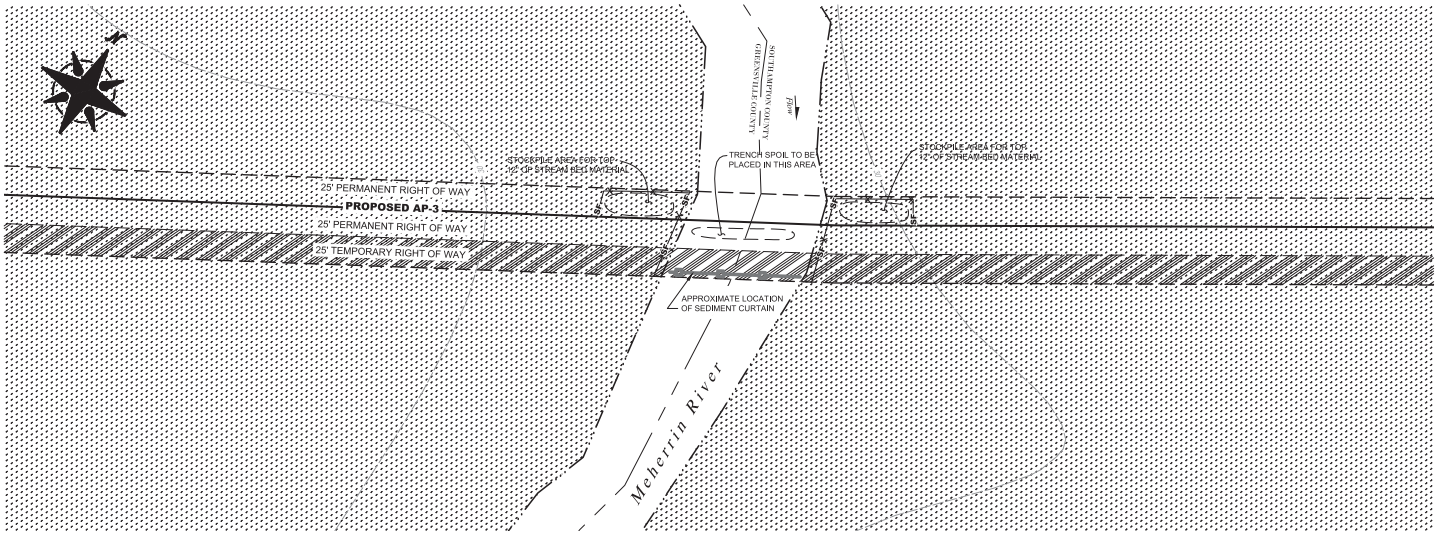
9. PIPELINE SHALL BE WEIGHTED WITH PIPESAK OR APPROVED EQUAL IN RIVER CROSSING TO ACHIEVE NEGATIVE BUOYANCY.





PLAN VIEW

50' 0 50' 100'

SCALE:1"=50'

GENERAL NOTES AND COMMENTS:

REFERENCE

ELEVATION DATA FROM THE USGS GIS DATA CLEARING HOUSE.

PIPELINE SURVEY INFORMATION PROVIDED BY GAI CONSULTANTS.

STREAM AND WETLAND DATA COLLECTED BY NATIONAL RESOURCE GROUP, LLC.

MAPPING DATUM-VA STATE PLANE SOUTH-NAD 83
CONTOUR INTERVAL - 10 FEET

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.
1	7/13/15	RRC	ISSUED FOR REVIEW		

SEAL

DRAWN:	RRC/RLR	7/13/15
CHECKED:	RVS / DLM	7/13/15
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS SHOWN	

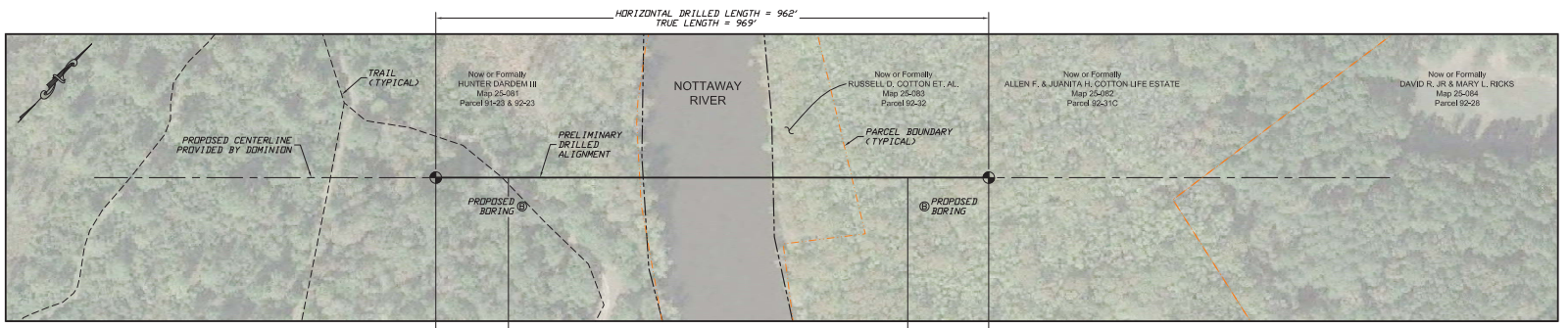
Atlantic Coast Pipeline, LLC

445 West Main St. Clarksburg, West Virginia 26301 / Phone: (304) 623-8000

TITLE: AP-3 SITE SPECIFIC PLAN FOR MEHERRIN RIVER

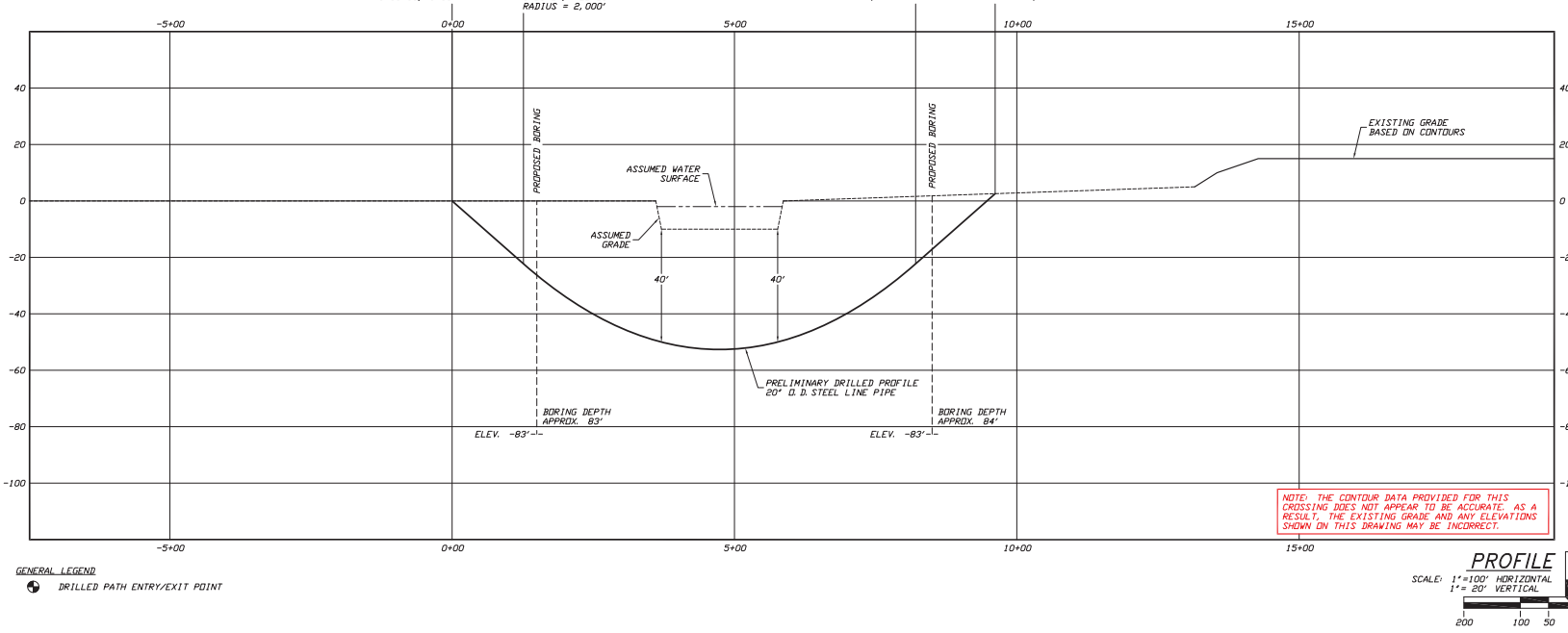
DISTRICT:	COUNTY: GREENSVILLE	STATE: VA	GROUP	DWG. NO.	REV.
DIRFILE: DOM/ACP/Site Specific/Meherrin River AP-3				1	A

2F-11



PLAN

SCALE: 1"=100'



PROFILE

SCALE: 1"=100' HORIZONTAL
1"= 20' VERTICAL

20
10
0
200
100
50
0

GENERAL LEGEND

DRILLED PATH ENTRY/EXIT POINT

ATLANTIC COAST PIPELINE PROJECT

PLAN AND PROFILE
20-INCH PIPELINE CROSSING OF THE NOTTAWAY RIVER
BY HORIZONTAL DIRECTIONAL DRILLING

LOCATION	SOUTHAMPTON COUNTY, VIRGINIA				DRAWING LABEL	NOTTAWAY
DRAWN	KMN	DATE	06/04/15	CHECKED JSP	APPROVED JSP	SCALE SHOWN FOR D-SIZED PLOT	REVISION P0

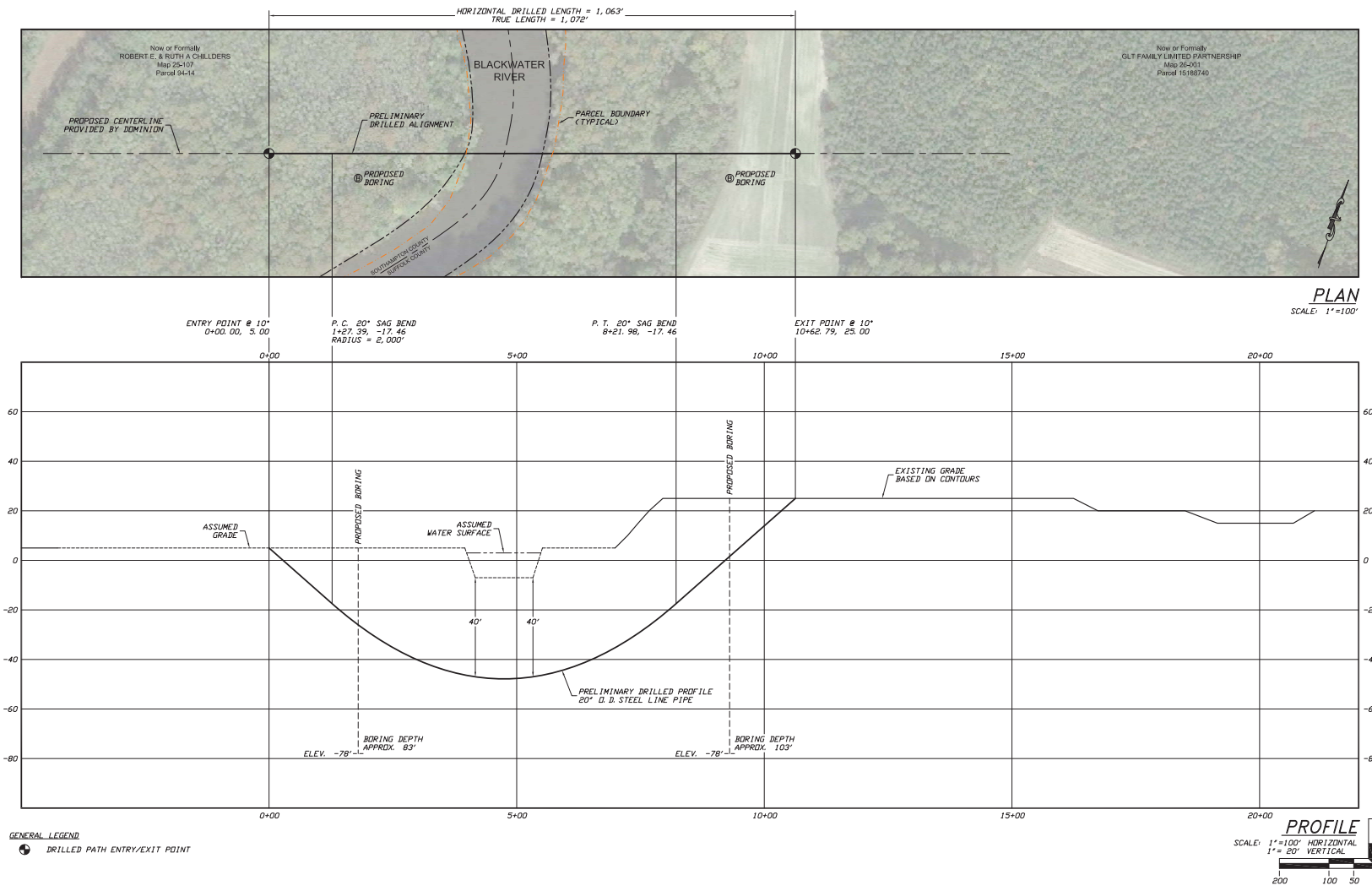
NO.	DATE	REVISION DESCRIPTION	BY	CHKD	APP

PRELIMINARY

John D. Hair, P.E.
Consulting Engineer
2424 East 21st Street
Suite 450
Tulsa, Oklahoma 74114

PROJECT NO.
Dominion\1508

MILE POST
AP3-033



ATLANTIC COAST PIPELINE PROJECT

PLAN AND PROFILE
20-INCH PIPELINE CROSSING OF THE BLACKWATER RIVER
BY HORIZONTAL DIRECTIONAL DRILLING

LOCATION:	SOUTHAMPTON & SUFFOLK COUNTIES, VIRGINIA	DRAWING LABEL	REVISION
DRAWN	KMN	DATE	06/05/15	CHECKED	JSP	APPROVED	JSP	SCALES SHOWN FOR D-SIZED PLOT	BLACKWATER	P0

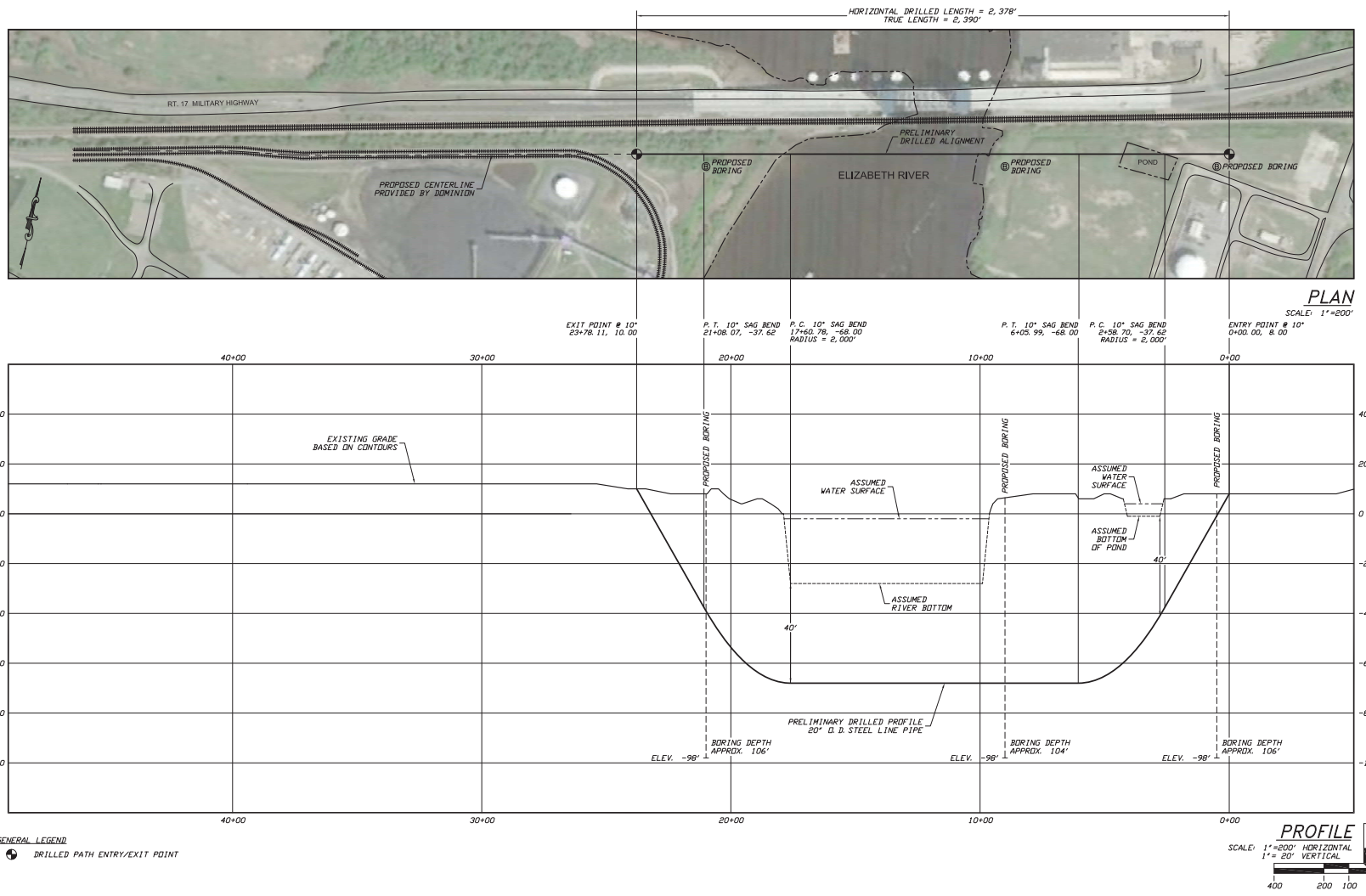
NO.	DATE	REVISION DESCRIPTION	BY	CHK'D	APP.

PRELIMINARY

John D. Hair, P.E.
Consulting Engineer
2424 East 21st Street
Suite 550
Tulsa, Oklahoma 74114

PROJECT NO.
Dominion\1508

MILE POST
AP3-039



ATLANTIC COAST PIPELINE PROJECT

PLAN AND PROFILE

20-INCH PIPELINE CROSSING OF THE ELIZABETH RIVER (PRIMARY) BY HORIZONTAL DIRECTIONAL DRILLING

LOCATION	DRAWN	DATE	CHECKED	APPROVED	SCALE	DRAWING LABEL	REVISION
PORTSMOUTH COUNTY, VIRGINIA	KMN	06/29/15	JSP	JSP	SHOWN FOR D-SIZED PLOT	ELIZABETH PRIMARY	P0

NO.	DATE	REVISION DESCRIPTION	BY	CHKD	APP

PRELIMINARY

John D. Hair, P.E.
Consulting Engineer
2424 East 21st Street
Suite 450
Tulsa, Oklahoma 74114

PROJECT NO.
Dominion\1508

MILE POST
AP3-077