



**Atlantic Coast Pipeline**

**Wetland and Waterbody Survey Report 2**

U.S. Army Corps of Engineers – Huntington District

**Prepared by:**



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**Atlantic Coast Pipeline  
Wetland and Waterbody Survey Report 2**

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## ACRONYMS

ACP	Atlantic Coast Pipeline
CFR	Code of Federal Regulations
D&D	Duncan & Duncan West, LLC
DTI	Dominion Transmission, Inc.
EPA	Environmental Protection Agency
ERM	Environmental Resources Management
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
ERMNWI	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	Upland Plants
USACE	U.S. Army Corps of Engineers
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

Environmental Resources Management (ERM), 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 ERM, 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 604.4 miles long, including 98.7 miles in West Virginia, 307.1 miles in Virginia, and 198.7 miles in North Carolina (Figure 1.0-1). The survey corridor includes areas within the U.S. Army Corps of Engineers (USACE) 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; Bath, 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: Southampton County, the City of Suffolk, the city of 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 second series of field surveys were conducted from June 2015 to October 2016 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 second wetland and waterbody report to be submitted to the Federal Energy Regulatory Commission and the U.S. Army Corps of Engineers.

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* (USACE, 1987), *the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)* (USACE, 2010a), the *USACE Regulatory Guidance Letter regarding Ordinary High Water Mark Identification* (USACE, 2005), and other applicable USACE 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, Appendix E includes U.S. Geological Survey (USGS) 7.5-Minute Topographic maps and aerial photography maps of each wetland and waterbody delineated during field surveys.

# Atlantic Coast Pipeline Wetland and Waterbody Survey Report



## 2.0 METHODS

Field surveys for the proposed pipeline were conducted within a 300-foot-wide survey corridor and within a 50-foot-wide survey corridor for proposed access roads. 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					
<b>Atlantic Coast Pipeline Project</b>					
<b>Wetland, Waterbody, Seep, and Non-Water Point Feature Naming Protocol</b>					
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, ...	Not Applicable
Seep	p (seep)	county code	crew letter (e.g., a, b, c)	001, 002, 003, ...	Not Applicable
Non-Water Point	no (non-water)	county code	crew letter (e.g., a, b, c)	001, 002, 003, ...	Not Applicable

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

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Note: Pocahontas County, West Virginia was not surveyed in 2014.



## 2.2 FIELD SURVEY

Field surveys were completed between June 2014 and October 2016. A wetland and waterbody delineation report was previously provided to the USACE in September 2015. This report includes the data previously submitted along with data recently collected. ERM 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, ERM surveyed in West Virginia, in addition to Greensville, Brunswick, Southampton Counties, and the Cities of Suffolk and Chesapeake 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. The GPS data is displayed in World Geodetic System (WGS) 1984 datum, which can be found in the corresponding feature tables and map set associated with this report. Data points were collected for all features, and polygons were created based on these points for wetlands and waterbodies.

### 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 USACE 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 define 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 sample point locations. In most cases, plant dominance was determined using the USACE “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 USACE 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 occur 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 USACE 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) as a part of documenting 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 USACE 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, 2015, and 2016 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 USACE 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 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, due to 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.

### **2.2.4 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. USACE 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**

Field surveys were completed between June 2014 and October 2016. A wetland and waterbody delineation report was previously provided to the USACE in September 2015. This

report includes the data previously submitted along with data recently collected, including wetlands, waterbodies, seep points, and non-water points that were documented on accessible tracts within the ACP survey corridor. Appendix E identifies the tracts where surveys have been completed.

### **3.1 WETLANDS**

A total of 143 wetlands have been documented within the survey corridor along the proposed pipeline route in the USACE Huntington District in West Virginia during the field season. Table 3.1-1 identifies the state, county, approximate milepost, unique project wetland ID, Cowardin classification, latitude, and longitude of the wetlands delineated to date. Datasheets and photo pages for each wetland and upland sample point are provided in Appendix A.

### **3.2 WATERBODIES**

A total of 208 waterbodies have been documented within the survey corridor along the proposed pipeline route in the USACE Huntington District in West Virginia during the field season. Table 3.2-1 identifies the state, county, approximate milepost, unique project waterbody ID, USGS waterbody name, hydrologic regime, field estimated OHWM width (ft.), and field estimated bank-to-bank width (feet), latitude, and longitude of the waterbodies surveyed to date. 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 SEEP POINTS**

A total of 109 seep points were documented within the survey corridor along the proposed pipeline route in the USACE Huntington District in West Virginia during the field season. Table 3.3-1 identifies the state, county, approximate milepost, unique project seep point ID, latitude, and longitude. Datasheets and photo pages for each seep sampling point are provided in Appendix C.

### **3.4 NON-WATER POINTS**

A total of 8 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 USACE wetland data sheet was recorded and is also included in Appendix D. A table listing the non-water points is located in Table 3.4-1. Table 3.4-1 includes the state, county, approximate milepost, unique project non-water point ID, non-water point type (e.g., NWI, NHD, and aerial photography signature), 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 3.1-1 Atlantic Coast Pipeline Surveyed Wetlands				
Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
<b>MAIN LINE PIPELINE</b>				
<b>AP-1</b>				
West Virginia				
Randolph				
56.0	wrap009e	PEM	38.625523	-80.155313
56.0	wrap010e	PEM	38.624411	-80.154839
56.0	wrap011e	PEM	38.623889	-80.155169
56.1	wrap012e	PEM	38.622542	-80.155945
56.2	wrap013e	PEM	38.621244	-80.156300
56.2	wrae282s	PSS	38.618822	-80.169810
56.2	wrae282e	PEM	38.619022	-80.169922
56.3	wrap015e	PEM	38.618602	-80.156578
56.3	wrap017e	PEM	38.618106	-80.156268
56.3	wrap018e	PEM	38.618024	-80.155925
56.3	wrap016e	PEM	38.617981	-80.156726
56.4	wrap019e	PEM	38.617476	-80.156001
56.4	wrap020e	PEM	38.617272	-80.156519
56.4	wrap020s	PSS	38.616788	-80.156469
56.4	wrap021f	PFO	38.616299	-80.155929
56.4	wrap022e	PEM	38.616167	-80.156477
56.5	wrap023e	PEM	38.614895	-80.156375
56.5	wrap024s	PSS	38.614829	-80.155847
56.5	wrap025e	PEM	38.614290	-80.156100
56.7	wrap026e	PEM	38.611984	-80.155485
56.7	wrap027e	PEM	38.611638	-80.155353
56.7	wrap028e	PEM	38.611552	-80.155707
56.7	wrap029e	PEM	38.610612	-80.155895
56.8	wrap030e	PEM	38.610160	-80.156502
56.8	wrap031e	PEM	38.609417	-80.157056
56.8	wrae200e	PEM	38.609032	-80.156364
57.3	wrae280e	PEM	38.604758	-80.165890
57.3	wrac108e	PEM	38.604649	-80.171561
57.3	wrae201e	PEM	38.602492	-80.166084
57.4	wrae202e	PEM	38.601783	-80.166251
57.4	wrae203e	PEM	38.601509	-80.166249
57.4	wrae205e	PEM	38.600809	-80.165900
57.4	wrae204e	PEM	38.600404	-80.166316

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57.4	wrac104e	PEM	38.599505	-80.166017
57.7	wrae232e	PEM	38.593985	-80.184341
57.7	wrae233e	PEM	38.593586	-80.184991



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TABLE 3.1-1 (cont'd)				
<b>Atlantic Coast Pipeline Surveyed Wetlands</b>				
Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
57.7	wrae241e	PEM	38.592715	-80.186180
57.7	wrae230e	PEM	38.592320	-80.185351
57.7	wrae231e	PEM	38.592104	-80.185388
57.8	wrae278e	PEM	38.589766	-80.185099
57.8	wrae279e	PEM	38.590776	-80.185130
57.8	wrae267e	PEM	38.586875	-80.179437
57.8	wrae275e	PEM	38.587433	-80.181345
57.8	wrae266e	PEM	38.586952	-80.174886
57.8	wrae274e	PEM	38.587629	-80.174061
57.8	wrae273e	PEM	38.588240	-80.172458
57.8	wrae272e	PEM	38.588783	-80.170682
57.8	wrae265e	PEM	38.587042	-80.171396
57.8	wrae271e	PEM	38.588919	-80.169336
57.8	wrae270e	PEM	38.588823	-80.168129
57.8	wrae269e	PEM	38.588585	-80.166876
57.8	wrae235e	PEM	38.587193	-80.167637
57.9	wrae240e	PEM	38.590819	-80.162679
57.9	wrae239e	PEM	38.590565	-80.162405
58.0	wrae268e	PEM	38.587805	-80.164097
58.2	wrae238e	PEM	38.585556	-80.158848
58.2	wrae237e	PEM	38.584556	-80.158880
58.3	wrae236e	PEM	38.584197	-80.158882
58.4	wrae255e	PEM	38.582383	-80.156791
58.4	wrae256s	PSS	38.582151	-80.156026
58.5	wrae253s	PSS	38.581355	-80.154313
58.6	wrae252e	PEM	38.579193	-80.153107
58.7	wrae257s	PSS	38.578552	-80.151141
58.7	wrae234e	PEM	38.576430	-80.152590
58.7	wrae258e	PEM	38.577592	-80.149414
59.2	wrae260e	PEM	38.567883	-80.141024
59.6	wrae254e	PEM	38.562308	-80.136023
59.9	wrac106e	PEM	38.554604	-80.139830
60.3	wrae207e	PEM	38.546214	-80.136413
61.2	wrae209e	PEM	38.529641	-80.134445
61.4	wrae226e	PEM	38.528111	-80.132947
61.7	wrae225e	PEM	38.524735	-80.126991
62.2	wrae223e	PEM	38.517002	-80.121934
62.2	wrae222e	PEM	38.516308	-80.120820

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TABLE 3.1-1 (cont'd)				
<b>Atlantic Coast Pipeline Surveyed Wetlands</b>				
Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
62.4	wrae220s	PSS	38.513782	-80.120820
62.4	wrae221e	PEM	38.513854	-80.120292
62.4	wrae220e	PEM	38.513467	-80.120521
62.4	wrae219e	PEM	38.513188	-80.120151
62.6	wrae218e	PEM	38.513880	-80.116392
62.6	wrae217e	PEM	38.513940	-80.114438
62.8	wrae216e	PEM	38.512416	-80.110345
63.0	wrae261e	PEM	38.548147	-80.076854
63.0	wrae215f	PFO	38.511889	-80.107693
63.0	wrae289e	PEM	38.512164	-80.107101
63.0	wrae214e	PEM	38.510725	-80.107317
63.0	wrae214f	PFO	38.510708	-80.107487
63.1	wrac115e	PEM	38.509170	-80.108748
63.3	wrae212e	PEM	38.506957	-80.104620
63.3	wrae213f	PFO	38.506584	-80.104718
63.5	wrae211e	PEM	38.502909	-80.102165
63.8	wrae210e	PEM	38.500864	-80.095150
64.0	wrae242e	PEM	38.497749	-80.092321
Pocahontas				
67.0	wpoe213e	PEM	38.458509	-80.062862
68.7	wpoy013e	PEM	38.428217	-80.053554
69.2	wpoa422s	PSS	38.418195	-80.052129
69.2	wpoa421e	PEM	38.418482	-80.050258
69.3	wpoe007e	PEM	38.417603	-80.047550
70.0	wpoe006e	PEM	38.402831	-80.042326
70.4	wpoy003e	PEM	38.397064	-80.047746
70.4	wpoy002e	PEM	38.396646	-80.047313
70.4	wpoy001e	PEM	38.395973	-80.048127
70.5	wpoe003e	PEM	38.395243	-80.047231
71.0	wpoe002e	PEM	38.384499	-80.051995
71.0	wpoe215e	PEM	38.384328	-80.046675
71.5	wpoe001e	PEM	38.375822	-80.058315
71.6	wpoa405f	PFO	38.374721	-80.061369
71.7	wpoa406e	PEM	38.373830	-80.061421
71.7	wpoa423e	PEM	38.373387	-80.061084
71.7	wpoa404e	PEM	38.374039	-80.061955
71.7	wpoa403e	PEM	38.373660	-80.062287
71.9	wpoa413e	PEM	38.382398	-80.080878

Atlantic Coast Pipeline  
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TABLE 3.1-1 (cont'd)

**Atlantic Coast Pipeline  
Surveyed Wetlands**

Facility/State/County/ Approximate Milepost	Unique ID	Cowardin Classification	Latitude	Longitude
71.9	wpoa414e	PEM	38.382772	-80.082603
71.9	wpoa410e	PEM	38.375763	-80.076823
71.9	wpoa411e	PEM	38.377774	-80.077479
71.9	wpoa415e	PEM	38.382481	-80.084348
71.9	wpoa416e	PEM	38.377966	-80.087814
72.0	wpoa418e	PEM	38.371760	-80.086533
72.2	wpoc105f	PFO	38.365675	-80.064737
74.6	wpoe219e	PEM	38.346058	-80.012458
74.6	wpoc109e	PEM	38.345949	-80.011356
75.2	wpoe216e	PEM	38.334114	-80.004003
75.2	wpoe217e	PEM	38.335105	-80.002608
75.5	wpoc100e	PEM	38.333704	-79.996386
75.6	wpoc101e	PEM	38.333181	-79.994832
75.7	wpoc102e	PEM	38.335100	-79.989174
76.2	wpoc103e	PEM	38.337376	-79.978968
76.4	wpoc104e	PEM	38.337025	-79.972653
76.4	wpoc106e	PEM	38.336336	-79.971990
76.5	wpoc107s	PSS	38.335654	-79.971605
76.5	wpoc108s	PSS	38.336098	-79.971076
79.1	wpoe008e	PEM	38.320063	-79.912455
79.2	wpoe009s	PSS	38.319460	-79.912884
80.8	wpoa401e	PEM	38.303843	-79.875796
81.0	wpoe011e	PEM	38.302103	-79.873297
81.0	wpoy007e	PEM	38.164910	-79.977453
81.0	wpoy005e	PEM	38.165303	-79.975511
81.0	wpoy004e	PEM	38.169378	-79.971912
81.0	wpoy008e	PEM	38.168387	-79.976069
81.0	wpoy009e	PEM	38.170663	-79.973596
81.0	wpoe214e	PEM	38.192150	-79.951868
81.1	wpoe010e	PEM	38.300638	-79.870698
82.0	wpoa402f	PFO	38.302075	-79.847145
82.7	wpoa400e	PEM	38.295892	-79.834260

Notes: PEM = palustrine emergent; PFO = palustrine forested; PSS = palustrine scrub-shrub

Atlantic Coast Pipeline  
Wetland and Waterbody Survey Report

TABLE 3.2-1

**Atlantic Coast Pipeline  
Surveyed Waterbodies**

Facility/State/County/ Approximate Milepost	Unique ID	U.S. Geological Survey Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
<b>MAINLINE PIPELINES</b>							
<b>AP-1</b>							
<b>WEST VIRGINIA</b>							
56.0	srp003	UNT to Left Fork Buckhannon River	Intermittent	2.0	18.0	38.625499	-80.155607
56.1	srp004	UNT to Left Fork Buckhannon River	Intermittent	3.0	10.0	38.623880	-80.155892
56.1	srp005	UNT to Left Fork Buckhannon River	Intermittent	1.0	3.0	38.622414	-80.155313
56.1	srp006	UNT to Left Fork Buckhannon River	Intermittent	3.0	15.0	38.622193	-80.156270
56.1	srp007	UNT to Left Fork Buckhannon River	Intermittent	2.0	5.0	38.621858	-80.155801
56.2	srp008	UNT to Left Fork Buckhannon River	Intermittent	1.0	8.0	38.621397	-80.156297
56.3	srae136	UNT to Left Fork Buckhannon River	Intermittent	3.0	6.0	38.619161	-80.156333
56.3	orap001	Unnamed Pond	Non-flowing	NA	NA	38.619047	-80.155945
56.3	srp009	UNT to Left Fork Buckhannon River	Intermittent	3.0	8.0	38.618966	-80.155757
56.3	srae135	UNT to Left Fork Buckhannon River	Intermittent	2.0	4.0	38.618790	-80.156733
56.4	srae198	UNT to Sugar Creek	Perennial	4.0	10.0	38.616407	-80.166015
56.5	srp010	UNT to Back Fork Elk River	Intermittent	3.0	20.0	38.615666	-80.156095
56.5	srae197	UNT to Sugar Creek	Intermittent	3.0	10.0	38.615286	-80.165664
56.5	srp011	UNT to Back Fork Elk River	Intermittent	3.0	10.0	38.614387	-80.155510
56.7	orae119	Unnamed Pond	Non-flowing	NA	NA	38.612673	-80.164213
56.7	srae103	UNT to Back Fork Elk River	Intermittent	4.0	15.0	38.610103	-80.156133
57.0	srae100	UNT to Back Fork Elk River	Intermittent	4.0	20.0	38.605617	-80.158757
57.1	srac108	UNT to Left Fork Back Fork Elk River	Intermittent	10.0	15.0	38.607454	-80.163417
57.1	srae101	UNT to Back Fork Elk River	Intermittent	12.0	30.0	38.604604	-80.162271
57.2	orae118	Unnamed Pond	Non-flowing	NA	NA	38.609939	-80.165751
57.2	srae102	UNT to Back Fork Elk River	Intermittent	2.0	8.0	38.603632	-80.164233
57.3	srac109	Mitchell Run	Intermittent	2.0	6.0	38.605096	-80.172396
57.3	srac110	Mitchell Run	Perennial	8.0	12.0	38.603801	-80.173359
57.3	srac111	UNT to Mitchell Run	Intermittent	6.0	10.0	38.603348	-80.173361
57.4	srae174	UNT to Mitchell Run	Ephemeral	2.0	4.0	38.602351	-80.173403
57.4	srae173	UNT to Mitchell Run	Intermittent	2.0	4.0	38.602207	-80.173484
57.4	srae172	UNT to Mitchell Run	Ephemeral	2.0	4.0	38.600404	-80.173706

Atlantic Coast Pipeline  
Wetland and Waterbody Survey Report

TABLE 3.2-1 (cont'd)

**Atlantic Coast Pipeline  
Surveyed Waterbodies**

Facility/State/County/ Approximate Milepost	Unique ID	U.S. Geological Survey Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
57.4	srae171	UNT to Mitchell Run	Ephemeral	2.0	4.0	38.599510	-80.174020
57.5	srae170	UNT to Mitchell Run	Ephemeral	2.0	4.0	38.597665	-80.174496
57.6	srae168	UNT to Mitchell Run	Intermittent	6.0	10.0	38.596235	-80.181276
57.6	srae167	UNT to Mitchell Run	Intermittent	7.0	15.0	38.596186	-80.181733
57.6	srae165	UNT to Mitchell Run	Intermittent	5.0	10.0	38.595931	-80.183371
57.6	srae166	UNT to Mitchell Run	Ephemeral	2.0	4.0	38.595845	-80.182592
57.6	srae164	UNT to Mitchell Run	Intermittent	2.0	5.0	38.595784	-80.183591
57.6	srae163	UNT to Mitchell Run	Intermittent	9.0	15.0	38.595696	-80.183707
57.6	srae169	UNT to Mitchell Run	Ephemeral	2.0	4.0	38.595504	-80.180150
57.6	srae162	UNT to Mitchell Run	Intermittent	2.0	4.0	38.595122	-80.184538
57.6	srae161	UNT to Mitchell Run	Intermittent	7.0	14.0	38.594186	-80.185402
57.6	srae160	UNT to Mitchell Run	Intermittent	7.0	14.0	38.594105	-80.185478
57.7	srae155	UNT to Mitchell Run	Ephemeral	2.0	4.0	38.593803	-80.184529
57.7	srae156	UNT to Mitchell Run	Intermittent	5.0	10.0	38.593570	-80.185002
57.7	srae154	UNT to Mitchell Run	Ephemeral	2.0	4.0	38.593151	-80.184378
57.7	srae153	UNT to Mitchell Run	Intermittent	3.0	6.0	38.592576	-80.184983
57.7	srae148	Mitchell Run	Perennial	20.0	30.0	38.592488	-80.184997
57.8	srae196	Back Fork Elk River	Perennial	40.0	50.0	38.586870	-80.171278
58.1	srae195	UNT to Back Fork Elk River	Intermittent	5.0	10.0	38.586083	-80.166240
58.1	srae194	UNT to Back Fork Elk River	Ephemeral	2.0	4.0	38.584431	-80.164731
58.1	srae193	UNT to Back Fork Elk River	Intermittent	2.0	4.0	38.584017	-80.164379
58.2	srae158	UNT to Back Fork Elk River	Intermittent	5.0	10.0	38.585537	-80.158891
58.2	srae159	Back Fork Elk River	Perennial	30.0	50.0	38.585460	-80.159119
58.2	srae192	UNT to Back Fork Elk River	Ephemeral	2.0	4.0	38.583426	-80.163559
58.2	srae157	Hewitt Fork	Perennial	20.0	30.0	38.585267	-80.158864
58.2	srae191	UNT to Back Fork Elk River	Intermittent	2.0	4.0	38.583165	-80.162938
58.3	srae189	UNT to Hewett Fork	Ephemeral	2.0	4.0	38.582694	-80.156838
58.4	srae190	UNT to Back Fork Elk River	Intermittent	7.0	10.0	38.581603	-80.159695
58.7	srae186	UNT to Hewett Fork	Intermittent	5.0	8.0	38.578291	-80.150622
59.4	srac106	UNT to Hickorylick Run	Intermittent	5.0	10.0	38.560527	-80.150569
59.6	srae185	UNT to Hewett Fork	Intermittent	2.0	8.0	38.562544	-80.136205
59.6	srae184	UNT to Hewett Fork	Intermittent	4.0	12.0	38.562169	-80.135929
59.7	srae183	UNT to Hewett Fork	Intermittent	3.0	12.0	38.560908	-80.135942
59.7	srac105	UNT to Hickorylick Run	Ephemeral	2.0	8.0	38.557064	-80.142202
60.7	srae110	UNT to Valley Fork	Intermittent	6.0	12.0	38.539872	-80.136620
60.7	srae111	Valley Fork	Perennial	50.0	60.0	38.539618	-80.136405
60.7	srae112	UNT to Valley Fork	Intermittent	7.0	10.0	38.539385	-80.136317
60.7	srae188	Valley Fork	Perennial	35.0	60.0	38.539066	-80.132508
60.7	srae118	UNT to Valley Fork	Ephemeral	3.0	10.0	38.538155	-80.136612

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TABLE 3.2-1 (cont'd)

**Atlantic Coast Pipeline  
Surveyed Waterbodies**

Facility/State/County/ Approximate Milepost	Unique ID	U.S. Geological Survey Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
60.8	srae119	UNT to Valley Fork	Ephemeral	2.0	6.0	38.537448	-80.135887
60.8	srae187	UNT to Valley Creek	Intermittent	8.0	14.0	38.537478	-80.131277
60.9	srae120	UNT to Valley Fork	Ephemeral	6.0	8.0	38.535938	-80.135587
61.0	srae121	UNT to Valley Fork	Ephemeral	5.0	15.0	38.533106	-80.134634
61.1	srae122	UNT to Valley Fork	Ephemeral	2.0	15.0	38.532300	-80.134576
61.2	srae123	UNT to Valley Fork	Intermittent	8.0	20.0	38.531027	-80.134014
61.3	srae134	UNT to Elk River	Intermittent	5.0	30.0	38.529108	-80.134470
61.4	srae133	UNT to Elk River	Intermittent	8.0	30.0	38.527927	-80.132649
61.4	srae132	UNT to Elk River	Intermittent	3.0	6.0	38.527984	-80.132432
61.7	orae113	Unnamed Pond	Non-flowing	NA	NA	38.524082	-80.126029
62.0	srae131	UNT to Elk River	Intermittent	4.0	6.0	38.520578	-80.123311
62.0	srae130	UNT to Elk River	Intermittent	6.0	20.0	38.519461	-80.122661
62.2	srae129	UNT to Elk River	Intermittent	2.0	6.0	38.516901	-80.121295
62.2	srae128	UNT to Elk River	Ephemeral	2.0	10.0	38.516269	-80.121236
62.2	srae127	UNT to Elk River	Intermittent	2.0	4.0	38.515985	-80.120359
62.4	srae126	UNT to Elk River	Intermittent	2.0	8.0	38.513681	-80.120975
62.9	srae125	UNT to Rough Gap Run	Ephemeral	2.0	8.0	38.511925	-80.109694
62.9	orae112	Unnamed Pond	Non-flowing	NA	NA	38.512288	-80.108117
63.0	srae206	UNT to Elkwater Fork	Intermittent	6.0	20.0	38.549076	-80.076693
63.0	orae120	Unnamed pond	Non-flowing	NA	NA	38.512578	-80.107383
63.2	srac159e	UNT to Falling Spring Run	Ephemeral	2.0	8.0	38.506922	-80.109395
63.2	srac159i	UNT to Falling Spring Run	Intermittent	4.0	8.0	38.506604	-80.110241
63.2	srac158	UNT to Falling Spring Run	Intermittent	6.0	15.0	38.506112	-80.111829
63.3	srac157	UNT to Falling Spring Run	Ephemeral	3.0	6.0	38.504225	-80.114624
63.4	srac156	UNT to Falling Spring Run	Intermittent	6.0	15.0	38.496163	-80.114074
63.5	sray001	UNT to Falling Spring Run	Intermittent	3.0	5.0	38.483092	-80.113955
63.6	srac133	UNT to Falling Spring Run	Ephemeral	4.0	6.0	38.485407	-80.108250
63.7	srac134	Falling Spring Run	Perennial	20.0	35.0	38.486120	-80.106817
63.7	srac136	Falling Spring Run	Perennial	12.0	25.0	38.486068	-80.105383
63.8	srac155 <sup>a</sup>	UNT to Falling Spring Run	Ephemeral	3.0	6.0	38.496823	-80.099006
63.8	srae175	UNT to Falling Spring Run	Intermittent	2.0	4.0	38.497525	-80.098437
63.8	srac138	UNT to Falling Spring Run	Intermittent	3.0	15.0	38.486857	-80.100358
63.9	srac139	UNT to Falling Spring Run	Intermittent	10.0	15.0	38.487148	-80.099121
67.5	spoe018	UNT to Dry Fork	Ephemeral	1.0	2.0	38.450045	-80.056724
69.1	spoe046	Big Spring Fork	Perennial	16.0	35.0	38.417841	-80.059250
69.2	spoe007	Big Spring Fork	Perennial	20.0	35.0	38.419448	-80.048935

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TABLE 3.2-1 (cont'd)

**Atlantic Coast Pipeline  
Surveyed Waterbodies**

Facility/State/County/ Approximate Milepost	Unique ID	U.S. Geological Survey Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
69.2	spoa442	UNT to Big Spring Fork	Intermittent	3.0	6.0	38.418350	-80.051419
69.3	spoe006	UNT to Big Spring Fork	Intermittent	5.0	8.0	38.417687	-80.047736
69.3	spoe022	Big Spring Fork	Perennial	35.0	55.0	38.417686	-80.042405
69.6	spoe045	Mill Run	Intermittent	8.0	30.0	38.410316	-80.054848
70.3	spoy004	UNT to Mill Run	Intermittent	5.0	9.0	38.398667	-80.045551
70.3	spoe044	Mill Run	Intermittent	12.0	20.0	38.401398	-80.054135
70.4	spoe043	UNT to Mill Run	Intermittent	5.0	10.0	38.398889	-80.055537
70.4	spoe040	UNT to Mill Run	Intermittent	10.0	30.0	38.397523	-80.056555
70.4	spoe041	UNT to Mill Run	Ephemeral	2.0	4.0	38.398195	-80.056251
70.4	spoe042	UNT to Mill Run	Ephemeral	1.0	3.0	38.398527	-80.055659
70.4	spoy003	UNT to Mill Run	Intermittent	7.0	15.0	38.397302	-80.048268
70.4	spoe039	UNT to Mill Run	Intermittent	3.0	8.0	38.396344	-80.056235
70.4	spoe038	UNT to Mill Run	Intermittent	4.0	20.0	38.396033	-80.056528
70.4	spoy002	UNT to Mill Run	Ephemeral	4.0	8.0	38.397009	-80.048268
70.4	spoy001	UNT to Mill Run	Intermittent	3.0	5.0	38.396656	-80.047960
70.5	spoy006	UNT to Mill Run	Intermittent	3.0	5.0	38.394088	-80.050622
70.5	spoe037	UNT to Mill Run	Intermittent	8.0	30.0	38.394634	-80.056205
70.5	spoe036	UNT to Mill Run	Ephemeral	2.0	7.0	38.394493	-80.056076
70.5	spoy007	UNT to Mill Run	Ephemeral	1.0	3.0	38.393915	-80.050653
70.5	spoe035	UNT to Mill Run	Intermittent	4.0	10.0	38.394323	-80.055822
70.5	spoy009	UNT to Mill Run	Intermittent	2.0	50.0	38.393502	-80.051042
70.5	spoy011	UNT to Mill Run	Intermittent	6.0	10.0	38.393303	-80.052406
70.5	spoe034	UNT to Mill Run	Intermittent	4.0	15.0	38.393695	-80.054132
70.6	spoe005	UNT to Big Spring Fork	Ephemeral	2.0	4.0	38.392857	-80.047552
70.8	spoe004	UNT to Big Spring Fork	Intermittent	5.0	30.0	38.388983	-80.048374
70.8	spoe031	UNT to Big Spring Fork	Ephemeral	5.0	10.0	38.387050	-80.047948
71.0	spoe003	UNT to Big Spring Fork	Ephemeral	2.0	20.0	38.385086	-80.051349
71.0	spoe028	UNT to Big Spring Fork	Intermittent	4.0	20.0	38.384664	-80.047068
71.0	spoe027	UNT to Big Spring Fork	Intermittent	2.0	3.0	38.384315	-80.046676
71.0	spoe029	UNT to Big Spring Fork	Ephemeral	2.0	3.0	38.384317	-80.049021
71.1	spoe030	UNT to Big Spring Fork	Ephemeral	3.0	5.0	38.383447	-80.044656
71.1	spoe026	UNT to Big Spring Fork	Intermittent	4.0	10.0	38.381777	-80.044771
71.7	spoe002	UNT to Clover Creek	Ephemeral	2.0	15.0	38.373679	-80.061496
71.8	spoe001	UNT to Clover Creek	Ephemeral	4.0	12.0	38.372497	-80.063225
71.9	spoa418	UNT to Slaty Fork	Ephemeral	3.0	6.0	38.373032	-80.070229
71.9	spoa425	UNT to Slaty Fork	Intermittent	3.0	4.0	38.377753	-80.077480
71.9	spoa422	UNT to Slaty Fork	Ephemeral	2.0	4.0	38.375748	-80.076718

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TABLE 3.2-1 (cont'd)

**Atlantic Coast Pipeline  
Surveyed Waterbodies**

Facility/State/County/ Approximate Milepost	Unique ID	U.S. Geological Survey Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
71.9	spoa423	UNT to Slaty Fork	Ephemeral	3.0	6.0	38.377360	-80.077274
71.9	spoa424	UNT to Slaty Fork	Intermittent	2.0	9.0	38.377616	-80.077457
71.9	spoa427	UNT to Slaty Fork	Intermittent	5.0	10.0	38.380063	-80.086451
71.9	spoa428	UNT to Slaty Fork	Perennial	5.0	12.0	38.378066	-80.087791
71.9	spoa421	UNT to Slaty Fork	Ephemeral	4.0	8.0	38.373643	-80.075810
71.9	spoa429	UNT to Slaty Fork	Intermittent	3.0	6.0	38.377730	-80.088297
72.0	spoa420	UNT to Slaty Fork	Intermittent	7.0	13.0	38.372874	-80.075858
72.0	spoa439	UNT to Slaty Fork	Intermittent	6.0	15.0	38.372118	-80.089829
72.0	spoa440	UNT to Slaty Fork	Intermittent	2.0	12.0	38.371847	-80.088972
72.0	spoa441	UNT to Slaty Fork	Perennial	9.0	20.0	38.371667	-80.088814
72.0	spoa434	UNT to Slaty Fork	Intermittent	2.0	10.0	38.371545	-80.086637
72.0	spoa435	UNT to Slaty Fork	Intermittent	2.0	12.0	38.371443	-80.087974
72.0	spoa436	UNT to Slaty Fork	Perennial	9.0	20.0	38.372079	-80.087993
72.0	spoa437	UNT to Slaty Fork	Intermittent	2.0	10.0	38.372317	-80.089389
72.0	spoa438	UNT to Slaty Fork	Intermittent	2.0	12.0	38.372520	-80.090280
72.0	spoa430	UNT to Slaty Fork	Intermittent	2.0	8.0	38.373488	-80.087047
72.0	spoa431	UNT to Slaty Fork	Intermittent	2.0	8.0	38.372814	-80.086438
72.0	spoa432	UNT to Slaty Fork	Intermittent	5.0	10.0	38.372686	-80.086330
72.0	spoa433	UNT to Slaty Fork	Intermittent	2.0	8.0	38.372081	-80.086403
72.2	spoc105	UNT to Clover Creek	Intermittent	3.0	8.0	38.365119	-80.064669
72.3	spoc111	UNT to Clover Creek	Intermittent	8.0	15.0	38.367940	-80.058401
72.4	spoc110	UNT to Clover Creek	Ephemeral	2.0	8.0	38.366085	-80.057888
72.5	spoc109	UNT to Clover Creek	Ephemeral	2.0	8.0	38.358685	-80.058721
72.8	spoc107	UNT to Clover Creek	Ephemeral	3.0	15.0	38.359171	-80.052163
72.8	spoc106	UNT to Clover Creek	Perennial	18.0	30.0	38.358741	-80.051366
74.6	spoe048	Clover Creek	Perennial	30.0	60.0	38.348700	-80.008500
74.6	spoc120	UNT to Clover Creek	Perennial	10.0	15.0	38.345398	-80.011498
75.2	spoe032	UNT to Clover Creek	Intermittent	8.0	15.0	38.334016	-80.004059
75.2	spoe033	UNT to Clover Creek	Ephemeral	2.0	5.0	38.335514	-80.003058
75.5	spoc101	Clover Creek	Perennial	30.0	40.0	38.333797	-79.995751
75.5	spoc102	UNT to Clover Creek	Intermittent	6.0	8.0	38.333700	-79.995544
75.6	spoc103	Clover Creek	Perennial	30.0	40.0	38.332813	-79.993525
76.0	spoc104	Glade Run	Perennial	14.0	20.0	38.337470	-79.983243
76.5	spoc119	UNT to Greenbrier River	Ephemeral	2.0	5.0	38.335697	-79.971516
76.6	spoc118	Greenbrier River	Perennial	170.0	200.0	38.334310	-79.968506
76.7	spoe049	UNT to Greenbrier River	Ephemeral	1.0	3.0	38.335415	-79.965028
76.8	spoe050	UNT to Greenbrier River	Ephemeral	5.0	10.0	38.329406	-79.966080
76.9	spoe012	UNT to Laurel Run	Intermittent	8.0	18.0	38.332027	-79.962228
77.1	spoe051	UNT to Greenbrier River	Ephemeral	4.0	20.0	38.326505	-79.954209
77.1	spoe052	UNT to Greenbrier River	Ephemeral	4.0	8.0	38.325740	-79.954532
77.3	spoe008	UNT to Mile Branch	Intermittent	5.0	8.0	38.332144	-79.952081
77.3	spoe009	Mile Branch	Perennial	15.0	25.0	38.331405	-79.951171



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TABLE 3.2-1 (cont'd)

**Atlantic Coast Pipeline  
Surveyed Waterbodies**

Facility/State/County/ Approximate Milepost	Unique ID	U.S. Geological Survey Name	Hydrologic Regime	OHWM Width (feet)	Bank to Bank Width (feet)	Latitude	Longitude
77.3	spoe053	UNT to Greenbrier River	Ephemeral	2.0	4.0	38.319053	-79.950449
77.9	spoe054	UNT to Greenbrier River	Ephemeral	2.0	4.0	38.316594	-79.950566
78.1	spoe055	UNT to Greenbrier River	Ephemeral	2.0	4.0	38.315075	-79.948988
78.1	spoe056	UNT to Little Thorny Creek	Ephemeral	3.0	6.0	38.313240	-79.951043
78.1	spoe057	UNT to Little Thorny Creek	Ephemeral	3.0	6.0	38.311795	-79.950983
78.1	spoe059	Little Thorny Creek	Perennial	35.0	35.0	38.306061	-79.943491
78.1	opoe003	Seneca Lake	Non-flowing	NA	NA	38.306050	-79.943000
78.1	spoc113	UNT to Thorn Creek	Ephemeral	8.0	15.0	38.300257	-79.933163
79.1	opoe001	Unnamed Pond	Non-flowing	NA	NA	38.320465	-79.912735
79.3	spoe013	Thomas Creek	Perennial	12.0	30.0	38.318785	-79.909615
79.3	spoe014	Powder Lick Run	Intermittent	8.0	15.0	38.318145	-79.909226
79.8	spoe010	UNT to Thomas Creek	Intermittent	6.0	10.0	38.314903	-79.898842
79.8	spoe011	UNT to Thomas Creek	Intermittent	5.0	10.0	38.314621	-79.897571
80.9	spoe019	UNT to Sugar Camp Run	Intermittent	3.0	12.0	38.302601	-79.875312
81.0	spoe016	UNT to Sugar Camp Run	Intermittent	3.0	7.0	38.301242	-79.873191
81.0	opoe002	Unnamed Pond	Non-flowing	NA	NA	38.299937	-79.871879
81.1	spoe015	UNT to Sugar Camp Run	Intermittent	5.0	10.0	38.300178	-79.869372
81.2	spoa408	UNT to Sugar Camp Run	Intermittent	5.0	9.0	38.292735	-79.870727
81.5	spoa402	UNT to Sugar Camp Run	Intermittent	4.0	10.0	38.302328	-79.860417
81.9	spoa410	UNT to Sugar Camp Run	Ephemeral	1.0	3.0	38.300430	-79.851672
82.0	spoa400	UNT to Shock Run	Perennial	12.0	16.0	38.301710	-79.847513
82.0	spoa401	UNT to Shock Run	Intermittent	4.0	10.0	38.302081	-79.846969
83.5	spoa407	UNT to Knapp Creek	Intermittent	2.0	5.0	38.303897	-79.818065
83.8	spoa406	UNT to Knapp Creek	Intermittent	2.0	5.0	38.300867	-79.811655
84.1	spoa405	UNT to Knapp Creek	Intermittent	5.0	9.0	38.297388	-79.806428
84.1	spoa404	UNT to Knapp Creek	Perennial	8.0	15.0	38.297501	-79.806100
84.4	spoa403	UNT to Knapp Creek	Intermittent	3.0	6.0	38.294735	-79.804999

<sup>a</sup> SRAC155 crosses both USACE Pittsburgh and Huntington Districts.

Notes: NA = Not applicable; OHWM = Ordinary High Water Mark; UNT = Unnamed Tributary

Atlantic Coast Pipeline  
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TABLE 3.3-1

**Atlantic Coast Pipeline  
Seep Points**

Facility/State/County/ Approximate Milepost	Unique ID	Latitude	Longitude
<b>MAINLINE PIPELINES</b>			
<b>AP-1</b>			
<b>WEST VIRGINIA</b>			
Randolph			
56.0	prap011	38.623993	-80.154861
56.0	prap012	38.623764	-80.154984
56.1	prap009	38.623043	-80.155457
56.2	prae131	38.620651	-80.156372
56.3	prae134	38.619293	-80.156441
56.3	prae133	38.618935	-80.156563
56.3	prae132	38.618637	-80.156769
56.4	prap014	38.617233	-80.156555
56.4	prap015	38.616711	-80.156593
56.4	prap016	38.616634	-80.156609
56.4	prap017	38.616226	-80.156517
56.5	prap018	38.615582	-80.156517
56.5	prap020	38.615192	-80.156525
56.5	prap019	38.614922	-80.156464
56.5	prap021	38.614429	-80.156288
56.5	prap022	38.614342	-80.156250
56.6	prap023	38.613651	-80.155960
56.9	prap024	38.608044	-80.156998
56.9	prap025	38.607635	-80.156555
57.0	prae100	38.606197	-80.158852
57.0	prae101	38.606148	-80.158943
57.2	prae102	38.604515	-80.162621
57.3	prae104	38.603615	-80.165558
57.6	prae143	38.596256	-80.181366
57.7	prae142	38.592789	-80.186417
57.7	prae138	38.592838	-80.184723
57.7	prac107	38.593624	-80.165703
58.3	prae141	38.584171	-80.158829
58.3	prae140	38.583920	-80.158371
58.6	prae148	38.579178	-80.153152
58.7	prae139	38.576405	-80.152527
59.3	prac106	38.565937	-80.144913
60.8	prae118	38.537182	-80.135460
60.8	prae117	38.537086	-80.135582
60.8	prae119	38.536819	-80.135948
60.8	prae120	38.536655	-80.135933
60.9	prae121	38.536041	-80.135406
60.9	prae122	38.534962	-80.135666

Atlantic Coast Pipeline  
Wetland and Waterbody Survey Report

TABLE 3.3-1 (cont'd)

**Atlantic Coast Pipeline  
Seep Points**

Facility/State/County/ Approximate Milepost	Unique ID	Latitude	Longitude
61.2	prae123	38.530899	-80.134094
61.4	prae129	38.527824	-80.132454
61.4	prae127	38.527939	-80.132339
61.4	prae128	38.527988	-80.132225
62.0	prae126	38.520454	-80.123047
62.0	prae125	38.519382	-80.122231
63.0	prae402	38.549076	-80.076721
63.2	prac138	38.505882	-80.113045
63.2	prac139	38.506222	-80.111343
63.3	prac137	38.504448	-80.114586
63.6	prac136	38.497623	-80.102470
63.7	prac125	38.485527	-80.107277
63.7	prac126	38.486126	-80.105499
63.8	prae145	38.497639	-80.097176
63.8	prae144	38.497452	-80.096733
63.9	prac127	38.487045	-80.099190
66.7	ppoe013	38.462559	-80.060684
67.0	ppoe014	38.457268	-80.061043
67.9	ppoe111	38.441765	-80.057213
69.2	ppoe008	38.418728	-80.048111
69.3	ppoe007	38.416828	-80.047081
70.2	ppoy003	38.398792	-80.045013
70.4	ppoe016	38.398384	-80.055748
70.4	ppoy002	38.397259	-80.048172
70.5	ppoe004	38.393852	-80.047607
70.8	ppoe003	38.388912	-80.049164
70.8	ppoe002	38.388027	-80.050453
71.2	ppoc111	38.376656	-80.043625
71.3	ppoc110	38.375763	-80.048683
71.4	ppoc109	38.373535	-80.052238
71.4	ppoc108	38.373222	-80.054016
71.7	ppoa418	38.373970	-80.061455
71.7	ppoe001	38.373779	-80.061447
71.9	ppoa422	38.382805	-80.082802
71.9	ppoa423	38.382702	-80.082451
71.9	ppoa421	38.379124	-80.079147
71.9	ppoa420	38.377449	-80.077461
72.0	ppoa438	38.371918	-80.089226
72.0	ppoa432	38.371361	-80.087982
72.0	ppoa433	38.371704	-80.087921
72.0	ppoa434	38.372292	-80.089066

Atlantic Coast Pipeline  
Wetland and Waterbody Survey Report

TABLE 3.3-1 (cont'd)

**Atlantic Coast Pipeline  
Seep Points**

Facility/State/County/ Approximate Milepost	Unique ID	Latitude	Longitude
72.0	ppoa435	38.372402	-80.089737
72.0	ppoa436	38.372421	-80.090012
72.0	ppoa437	38.372463	-80.090172
72.0	ppoa426	38.373539	-80.087219
72.0	ppoa427	38.373268	-80.086792
72.0	ppoa428	38.372364	-80.086311
72.0	ppoa431	38.371292	-80.087997
72.0	ppoa430	38.369583	-80.087921
72.0	ppoc101	38.369205	-80.067024
72.4	ppoc107	38.365913	-80.057899
72.5	ppoc105	38.360813	-80.058830
72.5	ppoc106	38.360924	-80.058533
72.7	ppoc102	38.356773	-80.053917
73.7	ppoc120	38.346741	-80.034393
74.6	ppoc122	38.345631	-80.011124
76.2	ppoa415	38.338001	-79.977203
80.9	ppoe112	38.302723	-79.875221
81.3	ppoa406	38.300289	-79.866287
81.5	ppoa404	38.301880	-79.861069
81.5	ppoa405	38.301987	-79.860283
81.9	ppoa417	38.300465	-79.851601
82.0	ppoa401	38.301662	-79.847427
83.4	ppoa414	38.303883	-79.819252
83.5	ppoa413	38.303898	-79.818146
83.7	ppoa412	38.302109	-79.816246
83.8	ppoa411	38.300922	-79.813576
83.8	ppoa410	38.300949	-79.812859
83.8	ppoa409	38.300907	-79.811699
83.8	ppoa408	38.300262	-79.810768
84.1	ppoa407	38.297398	-79.806458

TABLE 3.4-1				
<b>Atlantic Coast Pipeline Non-Water Points</b>				
Facility/State/County/ Approximate Milepost	Unique ID	Non-Water Point Type	Latitude	Longitude
<b>MAINLINE PIPELINES</b>				
<b>AP-1</b>				
<b>WEST VIRGINIA</b>				
<b>Randolph</b>				
58.3	norae030	Other	38.583606	-80.158303
59.2	norae031	NHD Line	38.567536	-80.140645
59.8	norac102	Other	38.555668	-80.136931
63.0	norae032	NHD Line	38.548908	-80.076776
63.5	norae072	NWI Poly	38.502494	-80.102429
<b>Pocahontas</b>				
74.6	nopoe300	NHD Line	38.346031	-80.0119423
74.6	nopoe301	NHD Line	38.348279	-80.0085083
75.0	nopoc100	NHD Line	38.337277	-80.0082802
Notes: NHD = National Hydrography Dataset; NWI = National Wetlands Inventory				

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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**

**Randolph County**

**ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY**

**Wetland Datasheets and Photo Pages**

**MAIN LINE PIPELINE**

**AP-1**

**Pocahontas County**

**ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY**

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**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**

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**MAIN LINE PIPELINE**

**AP-1**

**Randolph County**

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**Waterbody Datasheets and Photo Pages**

**MAIN LINE PIPELINE**

**AP-1**

**Pocahontas County**

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**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**



**ATLANTIC COAST PIPELINE ENVIRONMENTAL SURVEY**

**Waterbody and Wetland Delineation Report**

**APPENDIX E**

**U.S. Geological Survey (USGS) 7.5-Minute Topographic and Aerial Photography Maps**