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June 21, 2018

SENT VIA ELECTRONIC MAIL

William T. Walker
Chief, Norfolk District Regulatory Branch
U.S. Army Corps of Engineers
Norfolk District
Fort Norfolk
803 Front Street
Norfolk, VA 23510-1011
William.T.Walker@usace.army.mil

RE: Request for Agency Revocation and/or Stay of Decision Verifying Atlantic Coast Pipeline Project Under Nationwide Permit 12 (NAO-2014-1749)

Dear Mr. Walker:

I write to you on behalf of the Sierra Club, the West Virginia Rivers Coalition, the West Virginia Highlands Conservancy, Appalachian Voices, and the Chesapeake Climate Action Network to request that the United States Army Corps of Engineers's Norfolk District suspend its February 9, 2018 verification of the Atlantic Coast Pipeline ("ACP") project under Nationwide Permit 12 ("NWP 12") (NAO-2014-1749), invoke the informal consultation process in 33 C.F.R. § 330.5(d), and ultimately revoke the verification because no portion of the ACP project may use NWP 12 under Note 2 to that Permit and 33 C.F.R. § 330.6(d) as a result of the inability of certain crossings located in the Huntington and Pittsburgh Districts to comply with NWP 12's condition in West Virginia limiting stream crossing duration to 72 hours. The district engineer is vested with the discretion to revoke an authorization under a NWP pursuant to 33 C.F.R. § 330.5(d)(1).

The West Virginia Department of Environmental Protection ("WVDEP") certified the reissuance of NWP 12 under Section 401 of the Clean Water Act on April 13, 2017, subject to several "special conditions" designed to protect water quality. Among those conditions is Special Condition C, which provides, in its entirety:

> Individual stream crossings must be completed in a continuous, progressive manner and within 72 hours during seasonal normal or below normal stream flow conditions. Crossings on the Ohio River, Kanawha River, New River, Monongahela River, and the Little Kanawha River, below the confluence with Hughes Rivers, are exempt from the 72-hour requirements. All stream activities shall be completed as rapidly as possible.

The Corps incorporated that condition into NWP 12 for projects in West Virginia pursuant to 33 U.S.C. § 1341(d) and 33 C.F.R. § 330.4(c)(2). Accordingly, NWP 12 in West Virginia, as issued by the Corps on May 17, 2017, includes an express condition that "[i]ndividual stream crossing must be completed . . . within 72 hours," except in certain streams not implicated by the ACP project. The Corps has taken the position in litigation involving the Mountain Valley Pipeline and NWP 12 that, aside from the condition requiring individual water quality certification for pipelines like the ACP project, the other special conditions that West Virginia imposed on the use of NWP 12 (in its NWP Certification) continue to apply.

At an August 13, 2015 pre-application meeting between representatives of ACP and staff from both the Huntington and Pittsburgh Districts, representatives of ACP informed the Corps that it would be able to complete stream crossings using the cofferdam method on rivers less than 100-feet wide in less than 72 hours, leading to the conclusion that stream crossings greater than 100-feet wide would require more than 72 hours to complete. Ex. 1 at 6. In September 2015, ACP made clear in supplements to its preconstruction notification ("PCN") to both the Huntington and Pittsburgh Districts that its stream-crossing duration estimates were contigent on whether blasting would be required at a particular crossing. Ex. 2 at 17; Ex. 3 at 16. In those same supplements, ACP again made clear that crossings of waterbodies greater than 100-feet wide would be completed in a timeframe somewhere between 48 hours and one year. Ex. 2 at 37; Ex. 3 at 36.

In the Huntington District, the ACP project's crossing of the Greenbrier River (Single Complete Project ID No. WV AP-1-134) cannot be completed within 72 hours, as required by Special Condition C of NWP 12 in West Virginia.[1] Accordingly, that crossing is ineligible for authorization under NWP 12, the Huntington District's verification of it was arbitrary and capricious, and the ACP project's verifications in all applicable Corps districts should be stayed and revoked.

The ACP project will cross the Greenbrier River in Pocahontas County at or around Milepost ("MP") 76.6 of the project. Ex. 4 at K-17. The width of that crossing is 177 feet at the centerline. *Id.* ACP has admitted that in-stream blasting will be required to complete the Greenbrier River crossing. *Id*.

Because the Greenbrier River crossing is well over 100-feet wide, and because blasting will be required to complete it, ACP will be unable to complete that crossing in 72 hours. ACP has chosen the time-consuming cofferdam method to cross the Greenbrier River, making clear that ACP cannot divert flow in one-half of the Greenbrier, blast the riverbed, bury its pipeline, and repeat the process on the other side of the river within 72 hours. Accordingly, ACP's Greenbrier River crossing is ineligible for authorization under NWP 12.

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[1] Other stream crossings may not be completed with 72 hours as well, based on the 116 stream crossings in West Virginia that require blasting to complete. See Ex. 4.

In the Pittsburgh District, the ACP's crossings of the West Fork River (Single Complete Project ID No. WV AP-1-019) and the Buckhannon River (Single Complete Project ID No. WV AP-1-079) cannot be completed within 72 hours, as required by Special Condition C of NWP 12 in West Virginia. Accordingly, those crossings are ineligible for authorization under NWP 12, the Pittsburgh District's verification of them was arbitrary and capricious, and the ACP project's verifications in all applicable Corps districts should be stayed and revoked.

The ACP project will cross the West Fork River in Lewis County at or around MP 8.2 of the project. Ex. 4 at K-2. The width of that crossing is 91 feet at the centerline. *Id.* The ACP project will cross the Buckhannon River in Upshur County at or around MP 31.7. *Id.* at K-5. The width of that crossing is 89 feet at the centerline. *Id.* ACP has admitted that in-stream blasting will be required to complete both the West Fork and Buckhannon River crossings. *Id*. at K-2, K-5.

Because the crossings of the West Fork and Buckhannon Rivers are nearly 100-feet wide, and because blasting will be required to complete them, ACP will be unable to complete them within 72 hours. That is made even more clear by the time-consuming cofferdam method that ACP has chosen to implement at those crossings. A similar pipeline—the Mountain Valley Pipeline—will take two to three days to install cofferdams on one-half of similarly sized rivers. It defies common sense to conclude that ACP would be able to install cofferdams on one-half of the West Fork and Buckhannon Rivers, blast trenches in the riverbeds, install the pipeline halfway across those rivers, backfill the trenches and restore the riverbeds, and repeat that process on the other side of the rivers within 72 hours.

Further supporting that conclusion is a recent submission by ACP to the Federal Energy Regulatory Commission ("FERC"). ACP's submission of a waiver of time-of-year-restrictions by the West Virginia Department of Natural Resources on in-stream construction activities indicates that the duration of in-stream impacts from construction of the West Fork River crossing will be **5 days**. Ex. 5 at 2.[2] Accordingly, ACP's West Fork and Buckhannon River crossings are ineligible for authorization under NWP 12.

As a result of ACP's inability to meet the terms and conditions of NWP 12 in West Virginia at its Greenbrier, West Fork, and Buckhannon River crossings, no portion of the project—not a single crossing—can be authorized under NWP 12. Thus, the Norfolk District must revoke its February 9, 2018 verification of the ACP project under NWP 12 in its entirety. The Corps' regulations require this result.

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[2] That same submission identifies 20 stream crossings with in-stream impact durations greater than three days, indicating that additional stream crossings may be ineligible for NWP 12. Ex. 5. In a separate submission to FERC related to ACP's Rights-of-Entry from the West Virginia Department of Natural Resources, ACP reiterates that the duration of in-stream impacts from one of those crossings—an Unnamed Tributary to Trubie Run in Upshur County, West Virginia—will be five days. Ex. 6 at 8, 14.

The Corps' regulations codified at 33 C.F.R. § 330.6(d) address when an NWP may be combined with individual permits and when a project that requires an individual permit is prohibited from using an NWP for any portion of that project. The regulations provide that:

> portions of a larger project may proceed under the authority of the NWPs while the [District Engineer] evaluates an individual permit application for other portions of the same project, but ***only if*** the portions of the project qualifying for NWP authorization **would have independent utility and are able to function or meet their purpose independent of the total project. When the functioning or usefulness of a portion of the total project qualifying for an NWP is dependent on the remainder of the project, such that its construction and use would not be fully justified even if the Corps were to deny the individual permit, the NWP does not apply and all portions of the project must be evaluated as part of the individual permit process.**

33 C.F.R. § 330.6(d) (emphasis added). When the Corps promulgated that regulation, it explained its import this way: "In cases where the NWP activity cannot function independently or meet its purpose without the total project, the NWPs do not apply and all portions of the project requiring a Department of the Army permit must be evaluated as an individual permit." 56 Fed. Reg. 14598, 14599 (Apr. 10, 1991).

None of the ACP project's 1,669 waterbody crossings have independent utility. The usefulness of each crossing is entirely dependent on the rest of the crossings in order to fulfill the ACP project's express purpose to connect natural gas demand areas in Virginia and North Carolina with supply areas in the Appalachian region. An individual stream crossing has no independent utility; each is dependent on the others to construct the pipeline and carry natural gas from the supply areas to the demand areas. Accordingly, the ACP project's individual stream crossings cannot satisfy the plain meaning of the terms of 33 C.F.R. §330.6(d), and an individual permit is required for all crossings. *Crutchfield v. U.S.A.C.O.E.*, 154 F. Supp. 2d 878, 896 (E.D. Va. 2001).

That is precisely the conclusion mandated by the Corps' addition of Note 2 in NWP 12 in 2017, and its explanation for that inclusion. Note 2 expressly provides that "[u]tility line activities must comply with 33 CFR 330.6(d)." In the preamble to the 2017 reissuance of the NWPs, and the addition of Note 2 to NWP 12, the Corps responded to multiple comments regarding Note 2. 82 Fed. Reg. 1860, 1888-89 (Jan. 6, 2017). The Corps received multiple comments "object[ing] to the proposed Note 2, stating that only the crossings of waters of the United States that do not qualify for NWP authorization should be evaluated through the individual permit process, allowing the remaining crossings to be authorized by NWP 12." *Id.* at 1888. In response, the Corps rejected the commenters' contentions and made clear that:

> Note 2 is based on the NWP regulations that were published in the Federal Register on November 22, 1991 (56 FR 59110), and represent long-standing practices in the NWP program. Those regulations include the definition of "single and complete project" at 33 CFR 330.2(i) and the provision on combining NWPs with individual permits at 33 CFR 330.6(d). ...
>
> If one or more crossings of waters of the United States for a proposed utility line do not qualify for authorization by NWP then the utility line would require an individual permit because of 33 CFR 330.6(d). ... In these circumstances, the project proponent also has the option of relocating or redesigning the crossings of waters of the Untied States that does [sic] not qualify for NWP authorization so that all of the utility line crossings could qualify for NWP authorization.

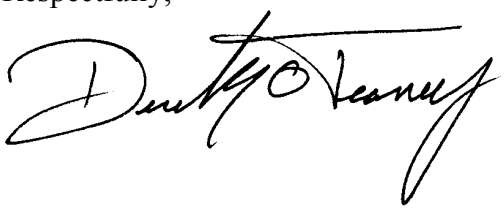
Id.

The Corps also sought to reassure commenters concerned that Note 2 "would allow utility line proponents to break up large utility lines into separate projects and prevent them from being evaluated under the individual permit process." *Id.* The Corps responded this way: "The purpose of Note 2 is to prevent the situations the commenters opposing the proposed note are concerned about, to ensure that utility lines with one or more crossings that do not qualify for NWP authorization are evaluated under the individual permit process." *Id.*

The Corps' independent utility regulation at 33 C.F.R. §330.6(d), its interpretation of that regulation when it promulgated it, Note 2 to NWP 12, and the Corps' explanation of Note 2 in the preamble to the 2017 NWPs all point unmistakably to one conclusion: if even one waterbody crossing for a natural gas pipeline is ineligible for NWP 12, then that pipeline's proponent may not lawfully use NWP 12 for any of its stream crossings. As explained above, at least three of the ACP project's river crossing are ineligible for NWP 12 because they will take too long to construct. Consequently, none of the ACP project's waterbody crossings are eligible for NWP 12 coverage. That conclusion is supported by the U.S. Court of Appeals for the Fourth Circuit's recent stay of the Huntington District's NWP 12 verification of the Mountain Valley Pipeline in its entirety based on violations of Special Condition C at four crossings. Ex. 7.

The foregoing discussion presents serious objections to the Norfolk District's verification of the ACP project. Under 33 C.F.R. § 330.5(d), the District Engineer may revoke an NWP verification based on significant objections. Accordingly, we respectfully request that the Norfolk District suspend its February 9, 2018 verification of the ACP project under NWP 12, invoke the informal consultation procedures under 33 C.F.R. § 330.5(d)(2), and ultimately revoke the verification based on ACP's inability to comply with the terms and conditions of NWP 12 and the Corps' regulations. Because construction of the ACP project is ongoing, we request that the Corps suspend the verification in its entirety within seven days of the date of this letter.

Respectfully,



Derek O. Teaney
Counsel for Sierra Club, West Virginia Rivers Coalition, West Virginia Highlands Conservancy, Appalachian Voices, and Chesapeake Climate Action Network

cc (via electronic mail) J. David Gunter II (U.S. D.O.J.)

EXHIBIT 1

From:	Sandra H Williams (Services - 6)
To:	Gibson, Steven W NAO; Walker, William T (Tom) NAO; Kube, Peter R NAO; Fannin, Adam E LRH; Gibby, Jean B SAW; Hatten, Michael E LRH; Kochenbach, Karen A LRP; Shaffer, Joshua D LRP; Chubb, Suzanne L LRD; Greer, Emily C SAW; Taylor, Alani LRP; Colin P Olness (Energy - 2); Molly P Plautz (Services - 6); Robert M Bisha (Services - 6); William A Scarpinato (Services - 6); Kevin Bowman
Cc:	Mullins, Ginger LRH; Brown, Craig J SAW; Linda Morrison; Spencer Trichell; Montone, Michael G. SAD; Carolyn H Morrison (Services - 2); McLendon, Scott C SAW; Carson, Christopher L LRH; Hans, Scott A LRP
Subject:	[EXTERNAL] ACP/SHP Pre-Application Meeting Minutes for your file.
Date:	Thursday, August 27, 2015 6:01:48 PM
Attachments:	USACE ACP_SHP Preapplication Meeting Minutes August 13 2015.pdf

Attached please find the minutes of the ACP/SHP Pre-Application meeting your file. These minutes represent the combined notes of Jean Gibby and Dawson and Associates.

Respectfully,

Sandy Williams, PWS

Environmental Projects Advisor - ACP

Dominion Environmental Business Support

5000 Dominion Boulevard

Glen Allen, VA 23060

(804) 273-3472 office

(804) 517-1634 cell

EXHIBIT 1

ATLANTIC COAST PROJEC

DRAFT PROJECT MEETING MINUTES

MEETING WITH (COMPANY/AGENCY):

U.S. Army Corps of Engineers (USACE) – ACP/SHP Pre-Application Meeting

DATE:	LOCATION:
August 13, 2015	USACE Norfolk District Office, Norfolk, VA

ATTENDEES AND THEIR AFFILIATION:

James (Jim) Haggerty, Regulatory Program Manager – USACE North Atlantic Division
Suzanne Chubb, Regulatory Program Manager – USACE Great Lakes and Ohio River Division *
Tom Walker, Chief, Regulatory Branch - USACE Norfolk District
Jean Gibby, Chief, Raleigh Regulatory Field Office – USACE Wilmington District*
Peter Kube, Chief, Eastern Virginia Regulatory Section (EVRS) - USACE Norfolk District
Karen Kochenbach, Regulatory Section Chief, USACE Pittsburgh District*
Adam Fannin, Regulatory Project Manager, Energy Resource Branch – USACE Huntington District*
Michael Hatten, Regulatory Project Manager, Energy Resource Branch – USACE Huntington District*
Alani Taylor, Regulatory Specialist – USACE Pittsburgh District*
Steve Gibson, Regulatory Specialist, EVRS, Project Manager, ACP – USACE Norfolk District
Emily Greer, Regulatory Specialist – USACE Wilmington District*
Josh Shaffer, Senior Regulatory Specialist - USACE Pittsburgh District*
Kevin Bowman, Environmental Protection Specialist – FERC*
Robert Bisha, Director, Environmental ACP – Dominion
Colin Olness, PE, Construction ACP – Dominion contractor
Molly Plautz, Manager, Federal Affairs – Dominion*
Ann Loomis, Senior Policy Advisor, Federal Affairs - Dominion
Spencer Trichell, ACP Permitting – NRG – Dominion contractor
Wade Hammer, ACP Permitting – NRG – Dominion contractor
Mark Cline, ACP Permitting – NRG –Dominion contractor*
Linda Morrison, Senior Advisor, USACE Corps Process – Dawson & Associates, Inc. - Dominion contractor*

PREPARED BY:

L. Morrison, J. Gibby

MEETING MINUTES:

Meeting Purpose:

Objective 1: Introduce the USACE District PDT to key Dominion personnel and describe the ACP/SHP (Include alignment).
Objective 2: Develop ACP's understanding of the PDT process and procedures the USACE will use to manage the permit from application to decision.
Objective 3: Confirm the specific permit applications that need to be submitted to Pittsburgh District, the State of Pennsylvania through PASPGP-4, and Huntington District.
Objective 4: Clarify topics for the permit application process.
Objective 5: As necessary, provide discussion on other permit issues specific to each District.
Objective 6: Provide details on major proposed crossings within Wilmington and Norfolk Districts and discuss how best to address these crossings and any associated mitigation requirements in the permit applications.

Opening Remarks:

a. Dominion - Bob Bisha outlined what Dominion hopes to get out of the session today:

(1) A lot of discussions both in the office and the field to date and we appreciate the work and commitment from all.
(2) We believe these projects are important to all (Dominion, the USACE, the FERC, and the public).
(3) Getting closer to filing the application submittals, planning to submit filings with FERC and permit applications to other Federal and State Agencies at about the same time. Want to identify all requirements to complete application submittals for easy processing.
(4) Would like to understand the PDT process and communication going forward.
Dominion has brought on D&A to help coordination and communications with the USACE and NRG to develop and prepare permit and certificate applications to regulatory agencies and FERC respectively.
(5) Dominion wants to ensure they do all possible to stay on schedule as it is very important with the linkage to customers they've already brought on board.

b. NAD - Jim Haggerty began the meeting by discussing the meeting objectives:

(1) Objective 1: Introduce the USACE District PDT to key Dominion personnel and describe the ACP/SHP (Include alignment). Jim advised that all members of the PDT are on board and the PDT was set up to get us to where we are here today; providing the framework to get the project on the right path. Now the focus for communications needs to be between Dominion and the District Project Managers (PMs). Each District has a principal project manager and three Districts have backups:

(a) NAO – Steve Gibson (primary); no backup designated
(b) LRP – Josh Shaffer (primary); Alani Taylor (backup)
(c) LRH – Adam Fannin (primary); Chris Carson (backup)
(d) SAW – Craig Brown (primary); Emily Greer (backup)

(2) Objective 2: Develop ACP's understanding of the PDT process and procedures the USACE will use to manage the permit from application to decision. We are now transitioning from the planning and policy phase to the execution phase; this is where "the rubber meets the road." The PDT was developed to steer this project down the right path; the challenge here is having four Districts, across three Divisions, working together on a single project of this magnitude; while they have worked together in some respects, all four Districts haven't coordinated on a project of such a scale. In addition, there are three Divisions. Flow of information may be a challenge, so it will be important to monitor this and follow-up frequently. The PMs will be the ones processing the applications, so it's important to build good relationships with them. Now that we are at the project level, we should focus the communication at the PM level to make sure that all the applicable regulations and statutes are met.
(3) Objective 3: Confirm the specific permit applications that need to be submitted to Pittsburgh District, the State of Pennsylvania through PASPGP-4, and Huntington District.

(a) LRP - It is likely that LRP will want three permit applications:

(i) One for SHP in Pennsylvania - PASPGP-4, if it is authorized as Category 1, then the state/local conservation districts will grant the Federal authorization and it is likely the USACE will never see the application.

(ii) One for SHP in West Virginia.

(iii) One for ACP in West Virginia.

(iv) If permit applicants are different (SHP/ACP in West Virginia), it's recommended that separate permits are submitted even if they are not projects of independent utility.

(b) LRH - Will want two permit applications:

(i) One for the SHP in their area of responsibility
(ii) One for the ACP in their area of responsibility

(c) NAO and SAW - Will want one Joint permit application each.

ACP/SHP Overview:

a. Dominion and All. Bob Bisha, Linda Morrison, and Colin Olness provided an overview of the project to date.

(1) Dominion expects to have about 80% of the field data at the time of initial permit application as they are still exploring route alternatives and still lack access to some areas.

(2) Approach is no net loss to streams and wetlands and routing has been to avoid wetlands. For the pipeline, there are no permanent losses; still identifying whether any losses may be for the access roads and the compressor stations. Do not have any significant areas for permanent losses and still have to do delineations on re-routes; finishing touches on access roads and will do it in a manner to not have permanent jurisdictional impacts.

(3) Compressor Site I - Compressor Site 1 should be below 0.5 acre threshold and stream channel threshold. Involves an access road, specifically expansion of an existing road crossing over a stream, and looking at a bridge or a box culvert.

(4) Just pointing out the main issues and at the terminus in Chesapeake, VA, need a metering station and goal is still to have minimal impacts.

(5) Further explained that the access roads investigation:

(a) Focused on using existing roads, which need improvement. If some needing improvement would need too much and would exceed permits thresholds, then would try a different approach.

(b) About 95% completed and done with minimal impacts but still have more refinements to make as some of the information is being done remotely and needs to be field verified.

(c) If there is an engineering constraint, if there wasn't a reroute to avoid the wetland, there is a statement in the resource reports and applications.

(d) Land owner could continue to use the access road in the manner that it was used previously and not for a new use; and

(e) Operations and maintenance will still have to utilize the road and the owner maintains their normal uses.

b. Spencer Trichell began the webinar presentation and discussion.

(1) LRP - Not much of SHP in LRP. ACP - 42" extends until NC (Northampton) and get to AP-3-there are 3 laterals here; Greensville 1.5 mile and Brunswick (less than 0.5 mile) to supply existing and power generating plant under consideration; AP-3-starts in Northampton County and

goes to coast of VA (route change that resulted in about 13 miles in NC); AP-2-starts at Compressor Station #2 in Northampton Co and runs S to near Pembroke in Robeson County.

(2) Question: Can applications be submitted with desktop/surrogate data? YES. FERC prefers that the data submitted in the USACE's applications match their data, to ensure communications flow freely and accurately.

(3) Question: What is the process for submitting supplemental information? Align as closely as possible with FERC processes.

(a) LRP - Be sure revisions are correctly dated for tracking purposes. Only addenda are needed for new data.
(b) LRH – If changes are drastic, submit a complete new package; if not drastic, addenda are fine.
(c) SAW – Only submit new data addendums unless changes are drastic; then, submit complete package with new data incorporated.
(d) NAO – Since most of the changes will likely be in NAO, a complete new set of data is requested.

Linda advised that we will coordinate with PMs before Dominion submits any addendums.

(4) Question: Will initial application be filled in or have blanks in data? The bulk of the desktop/surrogate data sets are in Virginia which will be filled in. Expected changes will not change the alignment; some of the field data is expected to change once Dominion gets access to the properties. Ensure coordination with the Districts prior to submitting data addenda to ensure proper method is used.

(5) Question: Do the landowners continue to use access roads in the same manner post-easement as opposed to pre-easement? Yes, for the same purposes as previous to the easements; plus, additional operations and maintenance (O&M) access for the permittee. Landowners retain control of the property.

(6) Question: ROW Typical Cross Section Work Space? ROW work space varies based on condition of forested or agriculture land; if agriculture land, the topsoil has to be segregated and stored separately.

(a) 42" pipe the ROW is 125' of work space in non-agricultural land.
(b) 42" pipe in agricultural lands add another 25' for total 150' of work space.
(c) 42" pipe in wetlands – 75' of work space total.
(d) 36' pipe - 110' ROW work space in non-agricultural lands.
(e) Pipe Depth – Upland minimal depth of 3', 5' in agricultural lands.

(7) Question: Describe Additional Temporary Work Space (ATWS)?

(a) ATWS – Storage of construction materials. FERC requires location be in uplands 50' from wetland and/or waterbody, except where the adjacent area consists of cropland or other disturbed land.
(b) Logistical constraints can allow requesting a variance from FERC after Certificate issued, or identified for consideration in the FERC application.
(c) Smaller pipes would have similar setbacks.

(8) Question: What is the typical depth of the pipeline? The typical depth is 3 feet; 5 feet in agricultural areas.

(9) Methods of isolation for cutting crossings:

(a) Dam and Pump: used for low flow, <10' streams; complete in less than 24 hours.

Cofferdam/Flume method: used for medium flow, 10'-100' streams/rivers; complete in less than 72 hours.

(b) Horizontal Directional Drilling (HDD): for deeper streams and rivers with a minimum crossing length of approximately 2,200' due to equipment limitations; requires greater than 72 hours.

(c) Conventional boring is not a recommended option when working around waters (rivers, streams, etc.) due to the risk of intrusion of the waterway into the excavation (catastrophic failure).

(10) Question: How will crossings under railroads and interstates be performed? This will be performed with conventional boring for a maximum crossing length of approximately 400'.

(11) Conventional Boring Discussion. Steve Gibson stated that Dominion needs to keep in mind conventional boring for problematic areas, in regard to species and length considerations (when HDD cannot be used [i.e., crossing less than 2,200']. Dewatering methods may be necessary in such areas.

(12) Question: When can the applicant remove erosion/sedimentation control devices? Typically, 70% cover is required before removing ECDs/SCDs.

(13) Question: Will stream channel riprap be flush with the stream bed? SAW advised of need to make sure that excavated substrate from the stream channel be returned flush with the stream bed following pipe installation, or it will be considered a permanent loss under NWP #12, possibly requiring mitigation unless material can be removed and restored to original grade of stream channel under NWP conditions. Restoring to pre-construction contours applies to stream channels as well as other waters of the US in all Districts. [NWP 12 - Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States.] This is consistent with restoration procedures.

(14) After Construction in ROW Discussion.

(a) Center 10' over pipeline - once every 3 yrs. by hand the 10' center over the pipe is maintained in order to be able to flyover and see the 10 foot area clear of trees and shrubs.

(b) 10' on either side of center 10' (for a total of 30') – don't allow tree regrowth.

(c) Outside 30' on either side of pipeline – Allowed to regrow with no restrictions - no vegetation maintained by Dominion.

Mitigation:

a. Mitigation Bank Sites:

(1) Steve Gibson indicated that the Mitigation Banking maps with HUC-8 outlines appeared to be incomplete; make sure Dominion explores all mitigation banking options. He mentioned that Jean Richardson can provide information for NAO.

(2) Jean Gibby stated that the maps were a good representation of the mitigation banks in North Carolina; some new ones are in development so ensure that Dominion checks back prior to final application submittal since they may be online by then. She said she will get with Mickey.

(3) If there is not a bank service area within the HUC 8 for a crossing, it is the applicant's call on whether to seek a bank in a different watershed or use in-lieu fee.

b. Converting from palustrine scrub shrub (PSS) to emergent wetlands requires mitigation. NAO and SAW are meeting early September to discuss mitigation requirements for these projects and will advise Dominion following that meeting. Each District will identify its requirements for mitigation including for conversion.

c. Mitigation ratios are determined by each District. They may differ among Districts.

d. For NAO, Palustrine forested wetlands (PFO) that have been clear cut:

(1) Assume PFO for the area if it has been clear cut in the past 2-3 years, and remains in a PSS and/or emergent state.
(2) Assume PSS for the area if it was last clear cut 5-7 years ago, and remains in a PSS and/or emergent state.

e. Landowner easements regarding forested area removal:

(1) ROW Property Owner Discussion – There is a process for property owner negotiations on how the ROW area will be restored and maintained after construction is completed. When Dominion negotiates with landowners, some may like the disturbed areas replanted in trees and some may like the area kept clear.
(2) If the landowner easement does not preclude harvesting of the forested area, then it may not meet the Regional Conditions for SAW for use of Nationwide Permit (NWP) #12.
(3) Jean Gibby is going to take the matter back to the District and provide an answer back to Dominion on or about 7 September including whether or not purchase of credits will satisfy the Regional Condition for use of NWP 12.
(4) If the purchase of mitigation bank credits does satisfy the regional condition, then it is estimated to increase the mitigation needed from over 100 acres to over 400 acres of conversion impacts. Alternatively, Dominion may seek to modify landowner easements to prohibit harvesting of timber in the replanted/restored areas.
(5) SAW requires that the conversion/restoration be monitored for seven years to ensure it remains in compliance with permit terms and conditions.
(6) Need to follow up on this issue with all four Districts.
(7) Kevin Bowman stated that for FERC permanent right of way maintenance, there is not an automatic requirement for planting.
(8) Jean Gibby referenced conditions 4.3.8 and 4.3.9 of the SAW Regional Conditions from 2012 as the two conditions that are in discussion here.

FERC comments regarding coordination:

a. Draft Resource Reports - FERC has issued comments on Dominion's draft resource reports; USACE, EPA, FWS, and DNR have all provided comments and FERC staff is reviewing them.

b. Extra plans (ESA, SPCC, etc.) have been requested from Dominion for inclusion in the final resource reports. Staff is currently reviewing them and comments should come out in the next week to Dominion and the USACE.

c. Coordination of comments with agencies - upon receipt of final version of resource reports and application, FERC will reach out to all appropriate agencies.

d. Section 7 - FERC, as the lead agency, has an MOA with the USACE and USFWS, and will hold a pre-meeting with FWS before the final application to establish the scope of the Biological Assessment (BA) for both the consultation and the EIS. The scope may change with the submission of final survey data and all permits construction ER and additional offsite areas should be included as well; if they aren't in the EIS there could be a hiccup down the road. Because FERC has authority over the entire project, this BA should meet the requirements for all other agencies. They must ensure that they update it with offsite USACE mitigation areas in order to update the EIS. If this is not done, it may require a separate review of those sites by the USACE.

e. Migratory Bird Rule - Dominion is preparing a migratory bird plan as part of the application and since there is not incidental take for migratory birds, replanting of trees, work windows and etc. are part of the plan. Once the Migratory Bird Plan is submitted, FERC will coordinate with the FWS to make an acceptability determination.

f. Section NHPA 106 Tribal - FERC issued a notice of intent (NOI) in February and mailed it to all federally recognized tribes. Individual letters were also sent to those tribes who have an established interest in the project area. No responses have been received to date. Dominion has also sent letters to the tribes with an interest in the project area and has received no responses to date.

g. Section 106 NHPA General – Dominion is completing survey for filing with application. FERC initiated NOI to SHPOs – official undertaking when the application is filed. If an area is deemed eligible for the National Historic Register, avoidance of the area is the first solution sought. If this is not possible, FERC will engage with the applicant to explore other alternatives including further studies. FERC sent notice to "federally recognized" tribes in the area and followed up with letters but no response to date. Tribes have not come to the table to discuss the project with FERC; typically don't want to coordinate, or will wait to see the report prior to finalization of the corridor. Dominion also sent letters to the tribes and has not received any response to date.

h. The draft EIS (DEIS) is expected around Christmas time.

i. Question: How many Public Hearings are you looking at for DEIS? There were ten public scoping meetings and the same number is expected for the DEIS. FERC is currently reworking their public input process, so public meetings may be in a different format including limited speaking time, alternate days at one site, etc.

j. Public Hearings for the DEIS should occur in early winter; January/February timeframe.

k. There are two areas for comments by the USACE coming up: the resource reports (mid-September) and the administrative draft DEIS (Preliminary DEIS) prior to issuance for public comment.

Comments for LRP and LRH prior to departing call:

a. Mike Hatten requested a webinar including LRH with the upcoming Pre-Application Meeting with LRP to discuss the approach to the areas on West Virginia.

b. Jim Haggerty reinforced that there will be regular updates that may be more often and robust as necessary prior to LRP and LRH departing.

Section 10 permits:

a. Some navigable waterways have active navigation use, but some do not.

b. Construction methods for all but three will use HDD.

(1) Two will use cofferdams splitting the river in half laterally to continue flow.

(a) West Fork River (LRP)

(b) Appomattox River (NAO)

(2) One will use a wet crossing in shallow water.

(a) Neuse River (SAW)

c. Question: Do these methods satisfy conditions for navigation in the general permit conditions?

(1) For LRP, a lot depends on the State requirements. Make this an agenda item with LRP and the State of West Virginia.
(2) Should not be a problem for the Appomattox River; must inform upstream outfitters ahead of time.
(3) Post warnings upstream of the Neuse River crossing site; provide assistance to portage around the crossing area as needed.
(4) Anadromous fish are a concern on the Neuse River. Need to confirm the in-water work period for this stretch. Dominion has already begun coordination with NOAA (NMFS) on this.

General Discussion:

a. Question: What is the USACE looking for as far as mitigation?

(1) NAO: Map with all options listed.
(2) SAW: The week of September 7th, NAO and SAW Districts will meet to get an answer re: property owner agreements, etc. This is a worse case date.
(3) Opportunities to reserve mitigation banking credits were discussed indicating that they may generally be reserved for a maximum of two to four months. A conceptual plan must be submitted for mitigation, but the applicant assumes risk in both buying credits (then not being needed) and not buying credits (risk of them not being available at a later date).

b. Question: Are all adjacent landowners required for NWP #12?

(1) NAO: Required for the Joint Permit Application for adjacent landowners to subaqueous land crossings (perennial waterbodies with greater than 5 sq. mile watershed) to facilitate Virginia Marine Resource Commission review of subaqueous land crossings.

(2) SAW: Not required, but it is one of the remaining items that would be required in case this moves to a standard permit (worst case scenario).

(3) LRP/LRH: recommend confirming with Pittsburgh and Huntington Districts during follow-up meeting.

c. Question: Are HUC 10/12 required for the SAW PCN? Jean Gibby will query the state to determine if this is their requirement. SAW does not require it.

d. Jim Haggerty advised that we clarify with LRP/LRH the requirements regarding ENG 4345 and adjacent landowners.

ACTION ITEMS:	
ACTION REQUIRED:	
Pre-Application Meetings with District offices	BY WHOM: ACP/DTI/Dawson

cc: Project Files

Attachments: Sign-in Sheet
Meeting Handouts

EXHIBIT 1

Sign-In Sheet

Atlantic Coast Pipeline

USACE Multi-District Pre-Application Meeting
August 13, 2015

Name	Company	E-Mail
Spencer Trichell	NRG	spencer.trichell@nrg-llc.com
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~~Kerin~~		
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Michael Hatten	LRH	michael.e.hatten@usace.army.mil
Molly Plantz	Dominion	molly.p.plantz@dom.com
John R Eisenhauer	Dawson	jeisenhauer@dawsonassociates.com
Emily Greer	SAW	emily.c.greer@usace.army.mil
Alani Taylor	LRP	alani.taylor@usace.army.mil
Mark Cline	NRG	mark.cline@NRG-llc.com
Josh Shaffer,	LRP	joshua.d.shaffer@usace.army.mil

EXHIBIT 1

Permit Pre-Application Meeting
for the
Atlantic Coast Pipeline (ACP) and Supply Header Projects (SHP)
August 13, 2015

AGENDA

- **1:00 PM – 3:45 PM EDT – Meeting among ACP, Corps PDT and FERC**

MEETING PURPOSE

- Introduce the Corps District PDT to key Dominion personnel and describe the ACP/SHP (Include alignment)
- Develop ACP's understanding of the PDT process and procedures the Corps will use to manage the permit from application to decision
- Confirm the specific permit applications that need to be submitted to Pittsburgh District, the State of Pennsylvania through PASPGP-4, and Huntington District.
- Clarify topics for the permit application process
- As necessary, provide discussion on other permit issues specific to each District
- Provide details on major proposed crossings within Wilmington and Norfolk Districts and discuss how best to address these crossings and any associated mitigation requirements in the permit applications.

SUB-AGENDA

1. Introductions – 1:00 – 1:10 — ALL
2. Opening Remarks –1:10 – 1:20 — Jim Haggerty, NAD; Bob Bisha, ACP
3. ACP/SHP Project Overview – 1:20 – 1:50
4. Approach/Permit Application Evaluation Process –1:50 – 2:45
    a. ACP and SHP Dominion Schedule
    b. Corps of Engineers PDT Coordination.
    c. Coordination with the Corps and other affected agencies –Kevin Bowman Lead Discussion
        i. FERC NEPA Process – Coordination with FERC, as NEPA lead, and Corps as Cooperating Agency (*How does the Corps want to coordinate information developed and submitted related to FERC EIS in support of the permit application process?)*
        ii. Review Agency Coordination & Potential Comments – EPA, FWS, etc.
        iii. FERC Section 7 ESA Consultation Process – Status Updates
        iv. FERC Migratory Bird Act Consultation Process – Status Updates
        v. FERC Tribal Consultation Process – Status Updates
        vi. FERC Section 106 Consultation Process – Status Updates

d. Specific Permit Issues
    i. Pittsburgh (including PASPGP-4)
    ii. Huntington
    iii. Wilmington
    iv. Norfolk
5. Policy Discussion – 2:45 – 3:15
    a. Remote Data Evaluation
    b. Impact Analysis
    c. Corridor Work Description
        i. Temporary Impacts/restoration
        ii. Wetlands forested and scrub shrub Conversion Impacts/Mitigation
    d. Section 10 Permits
6. Summary and Next Steps – 3:15 – 3:30
    a. Action Items Identified
    b. ACP submits permit application packages to each District planned mid-September 2015
    c. Follow on Discussions
    d. Coordination of Individual Meetings by District following Permit Application Submittal

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Phone number: (b) (6)
Access code: (b) (6)
Security code: (b) (6)

Web Meeting : (b) (6)
Meeting#: (b) (6)
Access Code: (b) (6)

ATTENDEES FOR AFTERNOON MEETING (AS OF AUGUST 11TH)

1. Jim Haggerty, NAD
2. Steve Gibson, NAO
3. Peter Kube, NAO
4. Jean Gibby, SAW
5. Adam Fannin, LRH – By Phone
6. Michael Hatten, LRH – By Phone
7. Suzanne Chubb, LRD – By Phone
8. Karen Kochenbach, LRP (or other representative) – By Phone
9. Kevin Bowman – FERC – By Phone
10. ACP
    a. Sandy Williams
    b. Spencer Trichell- Natural Resources Group (NRG)
    c. Wade Hammer– NRG
    d. Bob Bisha
    e. Molly Plautz
    f. Linda Morrison – Dawson

EXHIBIT 2

ATLANTIC COAST PIPELINE

Nationwide Permit 12
Pre-Construction Notification

U.S. Army Corps of Engineers – Pittsburgh District

SUPPLEMENTAL INFORMATION

Prepared by

NATURAL RESOURCE GROUP

an ERM Group company

September 2015

EXHIBIT 2

Atlantic Coast Pipeline Project
Nationwide Permit No. 12 – Pre-Construction Notification
U.S. Army Corps of Engineers – Pittsburgh District

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

ACRONYMS AND ABBREVIATIONS

ACP	Atlantic Coast Pipeline
AGL	AGL Resources, Inc.
APE	Area of Potential Effects
Atlantic	Atlantic Coast Pipeline, LLC
ATWS	additional temporary workspace
BA	biological assessment
bcf/d	billion cubic feet per day
BMP	best management practices
CFR	Code of Federal Regulations
Commission	Federal Energy Regulatory Commission
DOE	U.S. Department of Energy
Dominion	Dominion Resources, Inc.
dth/d	dekatherms per day
DTI	Dominion Transmission, Inc.
Duke Energy	Duke Energy Corporation
ECD	erosion control devices
EIA	U.S. Energy Information Administration
EIS	environmental impact statement
ESA	Endangered Species Act
ESFO	Ecological Services Field Office
FERC	Federal Energy Regulatory Commission
GIS	geographic information system
HDD Plan	Horizontal Directional Drill Fluid Monitoring, Operations, and Contingency Plan
HDD	horizontal directional drill
HUC	hydrologic unit code
LDC	local distribution company
M&R	metering and regulating station
MMDth/d	million dekatherms per day
MP	milepost
NEPA	National Environmental Policy Act
NHD	National Hydrography Dataset
NHI	Natural Heritage Information
NOAA	National Oceanic and Atmospheric Administration
NWI	National Wetland Inventory
NWP	Nationwide Permit
PCN	pre-construction notification
Piedmont	Piedmont Natural Gas Co., Inc.
Plan	Upland Erosion Control, Revegetation, and Maintenance Plan
Procedures	Wetland and Waterbody Construction and Mitigation Procedures
Project	Atlantic Coast Pipeline
SHP	Supply Header Project

SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
Transco	Transcontinental Gas Pipe Line Company, LLC
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WV SHPO	West Virginia State Historic Preservation Officer

1.0 PROJECT INTRODUCTION

Atlantic Coast Pipeline, LLC (Atlantic) is a company formed by four major U.S. energy companies – Dominion Resources, Inc. (Dominion), Duke Energy Corporation (Duke Energy), Piedmont Natural Gas Co., Inc. (Piedmont), and AGL Resources, Inc. (AGL). 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. Atlantic has contracted with Dominion Transmission, Inc. (DTI), a subsidiary of Dominion, to permit, build, and operate the ACP on behalf of Atlantic. [1]

Approximately 69.7 miles of the Project occurs within the U.S. Army Corps of Engineers' (USACE) Pittsburgh District. Counties crossed by Project facilities within the Pittsburgh District's regulatory boundaries include Harrison, Lewis, Upshur, and Randolph Counties, West Virginia. Construction of the Project would result in temporary discharge of earthen fill material and construction mats into "waters of the United States" crossed by the mainline pipeline. Permanent loss of "waters of the United States" are not anticipated to occur as a result of construction of aboveground facilities. Atlantic has prepared the following supplemental information document to accompany the standard ENG FORM 4345, which is being submitted as a pre-construction notification (PCN) for authorization under Nationwide Permit 12 (NWP 12) for Utility Line Activities. This supplemental information contains the necessary information to comply with the pre-construction notification requirements of the NWP Program.

Atlantic is providing the following information as background information regarding the ACP to assist the USACE in understanding the overall project being permitted and authorized through Federal Energy Regulatory Commission (FERC or Commission). Atlantic understands that the USACE is a cooperating agency on the National Environmental Policy Act (NEPA) evaluation being conducted by FERC, including preparation of an Environmental Impact Statement (EIS), but provides the following information to the USACE to provide context and understanding regarding the location of the multiple single and complete crossings proposed for verification under NWP 12. The background information provided from the FERC process below is intended to assist the USACE in documenting that verification of the single and complete crossings of this linear project under NWP 12 is appropriate and fully consistent with USACE regulations on scope of analysis and the NWP Program. In particular, the following background information is intended to provide the necessary basis for the USACE to determine that the avoidance of impacts to waters of the United States, mitigation for unavoidable conversion of forested wetlands to scrub-shrub and/or emergent wetlands and scrub-shrub wetlands to emergent wetlands results in no more than minimal impact at each single and complete crossing. Furthermore, the information provided below demonstrates that the

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

cumulative impacts to waters of the United States, after considering compensatory mitigation, is minimal.

Contextual information is provided in this supplement on the overall project to provide a basis for the USACE minimal impact determinations, understanding that the USACE's scope of analysis under NWP 12 is limited to the single and complete crossings and the uplands in the immediate vicinity of the single and complete crossings that impact the location of such crossings of waters of the United States. Only approximately 14% of the overall Project pipeline length, is located within waters of the United States.

Under relevant USACE precedent (including without limitation, USACE regulations, NEPA implementation procedures, 2012 NWPs and Memorandum of Understanding with FERC), the "build/no build" decision and the overall project alignment is determined through the FERC NEPA process. The USACE serves as cooperating agency on the FERC environmental impact statement (EIS) through which the USACE can coordinate with FERC to ensure that the overall pipeline alignment properly considers avoidance of impacts to waters of the U.S. Moreover, the FERC licensing process has many policies and procedures to ensure impacts to waters of the United States are avoided and minimized to the extent practicable.

As with any linear project, waters of the United States cannot be completely avoided because of the extensive and reticulate nature of the aquatic resource. The USACE evaluation under NWP 12 ensures that the unavoidable impacts to waters of the United States at each single and complete crossing are mitigated in order to ensure no more than minimal individual and cumulative impacts to waters of the United States after considering the required compensatory mitigation.

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

Mainline Pipeline Facilities:

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

Lateral Pipeline Facilities:

- AP-3: approximately 79.3 miles of 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 16-inch outside diameter natural gas lateral pipeline in Brunswick County, Virginia.
- AP-5: approximately 1.1 miles of 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 [2] (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 MP 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).

This supplemental information includes materials necessary for the USACE to review the portion of the ACP within the Pittsburgh District's regulatory boundaries (figure 3) according to PCN requirements of NWP 12. The materials included conform to the requirements of NWP general condition 31 and the regional conditions for pre-construction notifications in West Virginia.

2.0 PROJECT INFORMATION

This section outlines the applicant information, project location, project description, and purpose for the project and includes required information for the USACE application form ENG- 4345.

[2] 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.

2.1 APPLICANT INFORMATION

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2.2 AGENT INFORMATION

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(804) 273-3019

2.3 PROJECT DESCRIPTION

The Project description for purposes of USACE NWP 12 authorization is to construct single and complete crossings or waters of the United States that result in no more than minimal individual and cumulative impacts to the aquatic environment. The overall ACP project construction and operation to be authorized by FERC is a proposed 564.1-mile-long, interstate natural gas transmission pipeline including approximately 300.1 miles of 42-inch outside diameter pipeline, approximately 183.0 miles of 36-inch outside diameter pipeline, and a total of 81.0 miles of three separate lateral pipelines. In addition to the construction of the pipeline, the Project would include the construction of 3 new compressor stations, 9 new meter stations, 30 mainline valves, and 8 sets of pig launcher and/or receiver sites at 11 points along the pipelines.

Subject to receipt of the required permits and regulatory approvals, Atlantic anticipates that construction of the ACP would commence in the Fall of 2016. Atlantic anticipates utilizing 12 construction spreads to construct the pipeline and associated facilities, although the number and definition of spreads may change depending on the project needs at the time of construction. Construction of the pipelines is expected to occur over approximately a 2-year period beginning in October 2016. Construction of aboveground facilities for the Project will begin in the Spring of 2017. Atlantic anticipates that all facilities would be placed in service by November 2018.

2.4 PROJECT LOCATION AND FACILITIES

Approximately 69.7 miles of 42-inch outside diameter pipeline and one compressor station for the ACP are proposed within the USACE's Pittsburgh District. Counties crossed by Project facilities within the USACE Pittsburgh District's regulatory boundaries include Harrison, Lewis, Upshur, and Randolph Counties, West Virginia (Appendix A-3). Construction of the

ACP would result in temporary impact on wetlands and waterbodies crossed by the pipeline and is the focus of this preconstruction notification.

In addition to the proposed pipeline facilities, the ACP will require construction of one compressor station, one pig launcher/receiver site, two metering and regulation stations, and five valve sites within the USACE Pittsburgh District. The location of each facility, in the Pittsburgh District, is listed in Table 2-1 by milepost and county.

TABLE 2-1

Proposed Aboveground Facilities for the Atlantic Coast Pipeline – USACE Pittsburgh District

Aboveground Facility	County/City and State/Commonwealth	Approximate Milepost
Compressor Stations		
AP-1 Mainline		
Compressor Station 1	Lewis County, WV	7.6
Metering and Regulating Stations		
AP-1 Mainline		
Kincheloe M&R Station	Lewis County, WV	7.6
Long Run M&R Station	Randolph County, WV	47.2
Valves		
AP-1 Mainline		
Valve Site 1	Lewis County, WV	7.6
Valve Site 2	Upshur County, WV	24.3
Valve Site 3	Upshur County, WV	41.3
Valve Site 4	Randolph County, WV	59.9
Pig Launcher/Receiver Sites		
AP-1 Mainline		
Site 1 (launcher)	Harrison County, WV	0.0

Due to the linear nature of the ACP, there are multiple access point locations and land owners. In order to protect the safety and security of the project, directions and landowner information will be provided under separate cover upon request.

2.5 PROJECT PURPOSE

The purpose and need of each single and complete crossing is to cross the particular water of the United States while avoiding impacts to waters of the United States to the maximum extent practicable and offsetting unavoidable impacts to the aquatic environment with compensatory mitigation to the minimal individual and cumulative level.

2.6 FERC NEPA PROJECT PURPOSE AND NEED

The following description of the purpose and need for the FERC NEPA process is provided as background information.

The ACP is a proposed interstate natural gas transmission pipeline that would serve the growing energy needs of multiple public utilities and local distribution companies in Virginia and North Carolina. The natural gas transported by the ACP would be used as a fuel to generate electricity for industrial, commercial, and residential uses. The natural gas would also be used directly for residential, commercial, and industrial uses. By providing access to additional low-

cost natural gas supplies, the ACP would increase the reliability and security of natural gas supplies in Virginia and North Carolina.

In recent years, demand for natural gas in Virginia and North Carolina has grown significantly. Demand for natural gas for all uses grew by 37 and 50 percent, respectively, in Virginia and North Carolina between 2008 and 2012. Demand for gas-fired electric power generation grew by 123 percent in Virginia and 459 percent in North Carolina from 2008 to 2013 (U.S. Energy Information Administration [EIA], 2015a, 2015b, 2015c, 2015d, and 2015e). [3]

Demand for natural gas in Virginia and North Carolina is expected to increase in coming decades due to a combination of population growth and displacement of coal-fired electric power generation. The U.S. Census Bureau predicts 2.7 million new residents in Virginia and 4.2 million new residents in North Carolina between 2000 and 2030 (U.S. Census Bureau, 2014). At the same time, use of natural gas for power generation is expected to increase significantly. By 2035, natural gas is expected to surpass coal as the most common fuel for electric power generation due to coal-fired plant retirements and low natural gas prices. The EIA (2014a) expects renewable generation to grow 1.9 percent per year, meeting a part of the demand for power, but more than 70 percent of new generating capacity will be fueled by natural gas.

A study prepared by ICF International (2014) for Atlantic projects that electric power generation in Virginia and North Carolina will increasingly rely on natural gas over the next two decades. Between 2019 and 2038, the study predicts that approximately 9,900 megawatts of electric generating capacity from coal and nuclear fuels will be retired, while 20,200 megawatts of new generating capacity from natural gas will be built in Virginia and North Carolina. As a result, demand for natural gas for power generation in Virginia and North Carolina is expected to grow 6.3 percent annually between 2014 and 2035, increasing from 1 billion cubic feet per day (bcf/d) to 3.7 bcf/d.

To meet the growing demand for natural gas, the EIA (2014a) projects total United States natural gas production to increase by 56 percent from 2012 to 2040. At the same time, natural gas transmission patterns across the United States are expected to change based on the growing production from shale basins in the mid-Atlantic region. Historically, gas produced from the Gulf of Mexico, Canada, and the Rocky Mountains was delivered to markets in the eastern United States. Large increases in production from United States supply basins have created abundant, competitively priced supplies to meet the demands of the region.

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[3] U.S. Energy Information Administration. 2015a. Annual Energy Outlook 2015. Available online at http://www.eia.gov/forecasts/aeo/. Accessed June 2015.
U.S. Energy Information Administration. 2015b. Market Trends; Electricity Demand. Available online at http://www.eia.gov/forecasts/aeo/MT_electric.cfm. Accessed June 2015.
U.S. Energy Information Administration. 2015c. Market Trends; Natural Gas. Available online at http://www.eia.gov/forecasts/aeo/mt_naturalgas.cfm. Accessed June 2015.
U.S. Energy Information Administration. 2015d. Natural Gas Summary for Virginia. Available online at http://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SVA_a.htm. Accessed June 2015.
U.S. Energy Information Administration. 2015e. Natural Gas Summary for North Carolina. Available online at http://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SNC_a.htm. Accessed June 2015.

A study by the U.S. Department of Energy (DOE, 2015) [4], dated February 2015, examined the impact of increased demand for natural gas from the electric power sector on natural gas pipeline infrastructure in the United States over a 15 year period from 2015 to 2030.[5] The DOE (2015) study found that a projected 38 to 42 bcf/d of new and expanded pipeline capacity will be necessary to meet demand over the 15 year study period. The DOE study further found that flow reversal is projected to occur "to serve markets in the Southeast." Furthermore, existing pipelines that historically transported natural gas from the Gulf Coast region to points further north are expected to change the direction of flow in order to "serve the Virginia and Carolina markets" (DOE, 2015). However, there are no existing long haul interstate pipelines with available takeaway capacity from the Appalachian region directly serving Virginia and North Carolina (see Figure 1 in the DOE [2015] study).

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

To meet the natural gas demand of its customers, the ACP would connect the growing demand areas in Virginia and North Carolina with growing supplies. Interstate natural gas pipelines act as common carriers to transport natural gas; they are not part of natural gas exploration or production activities. The ACP would connect growing demand areas in Virginia and North Carolina with growing supply areas in the Appalachian region and provide access to the Dominion South Point supply hub, consisting of abundant supplies on the DTI system that are sourced from a wide variety of upstream pipeline interconnects and diverse production areas. More specifically, the ACP would provide up to 1.5 bcf/d of firm natural gas transportation service into West Virginia, Virginia, and North Carolina.

The ACP would receive gas on behalf of its customers at two new interconnections: one between the ACP and the Supply Header Project (SHP), a connected project proposed by DTI, (both existing facilities and new facilities proposed for the SHP) in Harrison County, West Virginia, to be known as the Marts Junction Interconnection; and one between the ACP and existing Transcontinental Gas Pipe Line Company, LLC (Transco) facilities in Buckingham County, Virginia, to be known as the Buckingham Interconnect. The natural gas would be delivered to various new customer interconnects in West Virginia, Virginia, and North Carolina.

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[4] U.S. Department of Energy. 2015. Natural Gas Infrastructure Implications of Increased Demand from the Electric Power Section. Available on line at http://energy.gov/sites/prod/files/2015/02/f19/DOE%20Report%20Natural%20Gas%20Infrastructure%20V_02-02.pdf. Accessed February 2015.

[5] In comments filed with the FERC, several individuals said that demand for natural gas in Virginia and North Carolina could be met by existing pipeline systems citing this study by the DOE. The study did not conclude, as some suggested, that no additional pipeline capacity is needed to meet the increased demand for natural gas. Instead, the study found that the expected increase in pipeline capacity over the study period will be modest relative to previous expansions in pipeline capacity.

Additionally, the ACP would lease capacity on a pipeline owned and operated by Piedmont to enable certain deliveries in North Carolina.

Of the 1.5 MMDth/day of the firm transportation capacity created by the ACP, Atlantic currently has commitments with six customers for 1.44 MMDth/d (96 percent). The precedent agreements between Atlantic and these six customers demonstrate the demand for new natural gas supplies, the desire for access to a new supply region, and the need for the Projects. The remaining unsubscribed capacity on the ACP (4 percent) will be awarded and contracted for in accordance with Commission policies applicable to open-access interstate pipelines and the provisions of applicable FERC natural gas tariffs. The natural gas supplied to each delivery point would be provided to local distribution companies (LDC), power generators, and other interstate pipeline companies.

3.0 NATURE OF ACTIVITY AND APPLICABLE CONSTRUCTION METHODS

This section is intended to provide a better understanding of construction methods, potential impacts, and planned mitigation measures to be implemented during construction to avoid and minimize environmental impacts at sensitive resource crossings such as wetlands and waterbodies. While much of the information referenced in the sections below is not specifically related to the USACE permitting requirements, the detailed information and Plans will be available through the FERC Project docket to all cooperating agencies, including the USACE.

3.1 GENERAL CONSTRUCTION PROCEDURES

The ACP will be designed, constructed, operated, and maintained in accordance with USDOT regulations codified at 49 CFR 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*; with FERC regulations codified at 18 CFR 380.15, *Siting and Maintenance Requirements*; and with other applicable Federal and State regulations, except as otherwise specified in the FERC Application or approved by the appropriate regulatory agency.

Atlantic will adopt and implement the 2013 versions of the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures).[6] Atlantic additionally will prepare and implement the following construction, restoration, and mitigation plans:

- *Spill Prevention, Control, and Countermeasures Plan* (SPCC Plan);
- *Horizontal Directional Drill Fluid Monitoring, Operations, and Contingency Plan* (HDD Plan); *Timber Removal Plan*;
- *Contaminated Media Plan*;
- *Traffic and Transportation Management Plan*;
- *Invasive Plant Species Management Plan*;

[6] Copies of the FERC's Plan and Procedures are available on the FERC's website at http://www.ferc.gov/industries/gas/enviro/guidelines.asp.

- *Blasting Plan*;
- *Winter Construction Plan*;
- *Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction;*
- *Karst Monitoring and Mitigation Plan*;
- *Restoration and Rehabilitation Plan;*
- *Migratory Bird Plan*;
- *Fugitive Dust Control and Mitigation Plan*; and
- *Fire Prevention and Suppression Plan*.

A copy of the SPCC Plan, the Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction, and the Restoration and Rehabilitation Plan are provided in the Appendices B, C, and D of this Supplemental Information. Construction typical drawings depicting construction sequence and methods are contained in Appendix E.

Atlantic will also prepare a set of construction alignment sheets, drawings at a scale of one inch equals 200 feet, or similar scale maps which depict the locations of erosion and sediment controls in construction work areas that will be used during construction of ACP. The alignment sheets will incorporate the FERC's Plan and Procedures requirements as well as State and local regulations or guidelines applying the strictest applicable standards, such as the West Virginia Department of Environmental Protection's *Erosion and Sediment Control Best Management Practice Manual* (2006).

3.1.1 **Survey and Staking**

Affected landowners will be notified before the preconstruction survey and staking are conducted. After these notifications, Atlantic's survey contractor will stake the pipeline centerlines and limits of the construction right-of-way and additional temporary workspace (ATWS) areas. Wetland boundaries and other environmentally sensitive areas will also be marked at this time.

3.1.2 **Clearing and Grading**

Prior to beginning ground-disturbing activities, Atlantic's construction contractors will coordinate with the One-Call systems West Virginia to have existing underground utilities (e.g., cables, conduits, and pipelines) identified and flagged. Once this process is complete, the clearing crew will mobilize to the construction areas. Fences along the rights-of-way will be cut and braced, and temporary gates and fences will be installed to contain livestock, if present. The clearing crew will then clear the work area of vegetation and other obstacles, including trees, stumps, logs, brush, and rocks.

To the extent feasible, Atlantic will minimize tree removal during construction. Cleared vegetation and stumps will be either burned, chipped (except in wetlands), or hauled offsite to a

commercial disposal facility. Burning will be conducted in accordance with State and local burning requirements or permits in uplands; burning will not be conducted in wetlands.

Following clearing, the construction right-of-way and ATWS will be graded where necessary to provide a level work surface to allow safe passage of construction equipment and emergency vehicles. More extensive grading will be required in steep side slope or vertical areas and where necessary to prevent excessive bending of the pipelines. Graded topsoil will be segregated in accordance with the Plan and Procedures, where required. Typically, topsoil will be segregated from subsoil in cultivated and rotated croplands, managed pastures, residential areas, and hayfields, unless Atlantic is instructed by a landowner or land managing agency not to do so or Atlantic imports topsoil in accordance with the Plan.

The depth of topsoil removed will depend on soil conditions and landowner requests or land managing agency requirements. In accordance with the Plan, and in areas where topsoil segregation is required, Atlantic will segregate at least 12 inches of topsoil in deep soils (more than 12 inches of topsoil) and the entire topsoil layer in shallow soils (less than 12 inches of topsoil). Excavated topsoil will be placed on the edge or edges of the construction right-of-way as shown in the construction typicals provided in Appendix E.

If the ground is relatively flat and does not require topsoil segregation or grading, the existing vegetative mat will be peeled and removed similar to topsoil and stockpiled along the right-of-way for use in restoration. In areas disturbed by grading, and as required by the Plan and Procedures, temporary erosion and sediment controls will be installed within the right-of-way to minimize erosion. The erosion and sediment controls will be inspected and maintained throughout the construction and restoration phases of the Projects, as appropriate, and as required by the Plan and Procedures.

3.1.3 Erosion Control Device Installation

Atlantic will install temporary best management practices (BMP) and/or erosion control devices (ECD), such as slope breakers, sediment barriers, stormwater diversions, etc., as necessary to prevent erosion within the construction right-of-way and ATWS immediately after the initial removal of vegetation (clearing and grubbing) and prior to grading and soil disturbance. ECDs will be installed in accordance with applicable permit conditions. The temporary ECDs will be replaced by permanent ECDs as installation of the pipeline and restoration is completed. ECDs and BMPs will be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls, or restoration of adjacent upland areas is complete, and revegetation has stabilized the disturbed area.

3.1.4 Trenching

Pipe trench will be excavated by rotary trenching machines, track-mounted backhoes, or other similar equipment. Trench temporary side-cast will be deposited adjacent to the trench within the construction right-of-way. The trench for each pipeline will be excavated to a depth that provides sufficient cover over the pipeline after backfilling. The typical dimensions of each pipeline trench will vary depending on a number of factors, such as the diameter of the pipe

being installed and the substrate in the vicinity of the trench. The bottom width of the trench will be sufficient to accommodate the diameter of the pipeline and sufficient pad material around it (typically approximately 1 foot on either side of the pipeline). The top width will vary to allow the sides of the trench to be adapted to local soil conditions at the time of construction. If trench dewatering is required within or off of the construction right-of-way, it will be conducted in accordance with the Plan and Procedures and applicable permits in a manner that will not cause erosion or result in silt-laden water flowing into a wetland or waterbody.

In areas where topsoil segregation is required, subsoil from trench excavations will be placed adjacent to the topsoil in a separate pile to allow for proper restoration of the soil during backfilling and restoration. Gaps will be left between the topsoil and subsoil piles to prevent stormwater runoff from backing up or flooding. Mixing of topsoil and subsoil piles will be prevented by separating them physically or with a mulch or silt fence barrier, where necessary, to accommodate reduced workspace.

When rock or rocky formations are encountered, tractor-mounted mechanical rippers or rock trenchers will be used for breaking up the rock prior to excavation. In areas where mechanical equipment or other means cannot be used to break up or loosen boulders or shallow bedrock, blasting will be required.

3.1.5 Pipe Stringing, Bending, and Welding

Individual joints of pipe (up to 80 feet long) will be trucked to the construction right-of-way and strung along the trenchline in a single, continuous line. Individual sections of pipe will be bent, where necessary, to allow for a uniform fit with the contours at the bottom of the trench and horizontal points of inflection. Typically, a track-mounted, hydraulic pipe-bending machine will tailor the shape of the pipe to conform to the contours of the terrain. After the pipe sections are bent, they will be welded together into long sections and placed on temporary supports.

Welding is a crucial phase of pipeline construction because the integrity of the pipeline depends on this process. Each weld must exhibit the same structural integrity with respect to strength and ductility. Welding will be conducted in compliance with 49 CFR 192 and API Standard 1104, *Welding of Pipelines and Related Facilities*. Completed welds will be visually and radiographically inspected. Welds that do not meet established specifications will be repaired or removed. Following welding and after inspection, pipe weld joints will be coated with an epoxy coating in accordance with required specifications. The coating will be inspected for defects, and repaired, if necessary, prior to lowering the pipe into the trench.

3.1.6 Lowering-in and Backfilling

Prior to lowering-in, the trench will be inspected to confirm it is free of rocks and other debris that could damage the pipe or its protective coating. Dewatering may be necessary to inspect the bottom of the trench in areas where water has accumulated. If dewatering is required, it will be conducted in accordance with the Plan and Procedures and applicable permits in a manner that will not cause erosion or result in silt-laden water flowing into a wetland or waterbody.

The pipe will be lifted from the temporary supports and lowered into the trench using side-boom tractors. As necessary, trench breakers (stacked sand bags or foam) will be installed in the trench around the pipe in steeply sloped areas to prevent movement of subsurface water along the pipeline. After lowering-in, the trench will be backfilled with previously excavated materials using bladed equipment or backhoes. If the excavated material is rocky, the pipeline will be protected with a rock shield or covered with other suitable fill (e.g., crushed limestone rock). Excavated rock will then be used to backfill the trench to the top of the existing bedrock profile in the trench, except that large rock will be buried on the working side of the two-tone cut where the contractor levels the ground for construction. This will prevent large rocks from migrating into the pad material in the trench and making contact with the pipe. Additionally, excavated rock may be crushed with a rock pulverizer and incorporated into fill or used as gravel to upgrade access roads. Excavated material not required for backfill will be removed and disposed of at approved upland disposal sites. Coal ash and/or coal byproduct will not be utilized as fill material for backfilling the trench.

3.1.7 Hydrostatic Testing

After backfilling and all other construction activities that could affect the pipeline are complete, each pipeline will be hydrostatically tested in sections to verify that each system is free from leaks and will provide the required margin of safety at operating pressures. Individual sections of pipeline to be tested will be determined by water availability and terrain conditions. Water for hydrostatic testing will be obtained from surface or groundwater sources in accordance with State regulations and required permits. As practicable, water will be transferred from one test section to another to reduce the amount of water that is required for testing. Once hydrostatic testing is complete, the test water will 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). Alternatively, the water will be hauled offsite for disposal at an approved location.

During hydrostatic testing, internal pressures and durations will be in accordance with 49 CFR 192 and applicable permit conditions. If leaks are found during testing, the leaks will be repaired and the section of pipe retested until the required specifications are met.

3.1.8 Cleanup and Restoration

Final cleanup will begin after backfilling and as soon as weather and site conditions permit. A concerted effort will be made to complete final cleanup (including final grading and installation of permanent erosion control devices) within timeframes required by permits, in accordance with landowner requests, or as required by the Plan and Procedures. Construction debris will be collected and taken to an approved disposal facility. Preconstruction contours will be restored as closely as possible. Segregated topsoil will be spread over the surface of the right-of-way, and permanent erosion controls will be installed.

Revegetation measures will be implemented in accordance with the Plan and Procedures or as directed by the appropriate land managing agency. Disturbed, non-cultivated work areas will be stabilized and seeded as soon as possible after final grading, weather and soil conditions permitting, subject to the recommended seeding dates for the seed mixes used to revegetate

different areas along the pipelines. Seeding will stabilize the soil, improve the appearance of the area disturbed by construction, and where native seed mixes are used, restore native flora.

Atlantic and DTI are working with local NRCS offices to acquire native seed mixes appropriate to the region. These recommendations will be specified in the project-specific Restoration and Rehabilitation Plan (Appendix D). The Restoration and Rehabilitation Plan includes specific guidelines for seeding and restoration activities after construction in riparian areas and wetlands. For additional details please refer to the Restoration and Rehabilitation Plan in Appendix D.

Markers showing the location of the pipeline will be installed intermittently along the pipeline rights-of-way according to ACP specifications as well as at fence, road, and railroad crossings to identify DTI as the operator of the new pipelines. The markers will convey emergency information in accordance with applicable government regulations, including USDOT safety requirements. Special markers providing information and guidance to aerial patrol pilots also will be installed. Site-specific crossing drawings for Section 10 crossings are found in Appendix F.

3.2 SPECIAL CONSTRUCTION TECHNIQUES

In addition to standard pipeline construction methods, Atlantic will use special construction techniques where warranted by site-specific conditions, (e.g., when constructing across waterbodies, wetlands, roads, highways, railroads, steep terrain, karst areas, agricultural areas, and residential areas; when blasting through rock; or when working in winter conditions). Each of these specialized measures is described below.

3.2.1 Wetland Crossings

Construction across wetlands will be conducted in accordance with the Procedures, site-specific modifications to the Procedures requested by Atlantic and approved by the FERC, and any additional requirements identified in Federal or State wetland crossing permits. Typical methods for construction across wetlands are described below. A list of wetland crossings along the proposed pipeline route is provided in Appendix G.

In accordance with the Procedures, the width of the construction right-of-way will be limited to 75 feet through wetlands, with ATWS on both sides of wetland crossings to stage construction equipment and materials, fabricate the pipeline, and store materials and excavated temporary side-cast. ATWS will be located in upland areas a minimum of 50 feet from the wetland edge (with the exception of site-specific modifications as requested by Atlantic and approved by the FERC or where the adjacent upland consists of cultivated or rotated cropland or other disturbed land).

Wetland boundaries will be clearly marked in the field prior to the start of construction with signs and flagging. Construction equipment working in wetlands will be limited to what is essential for right-of-way clearing, excavating the trench, fabricating and installing the pipeline, backfilling the trench, and restoring the right-of-way. In areas where there is no reasonable access to the right-of-way except through wetlands, non-essential equipment will be allowed to

travel through wetlands once, unless the ground is firm enough or has been stabilized to avoid rutting.

Clearing of vegetation in wetlands will be limited to trees and shrubs, which will be cut flush with the surface of the ground and removed from the wetland. To avoid excessive disruption of wetland soils and the native seed and rootstock within the topsoil, stump removal, grading, topsoil segregation, and excavation will be limited to the area immediately over the trenchline, except a limited amount of stump removal and grading may be conducted in other areas if required by safety-related issues. Topsoil segregation over the trenchline will only occur if the wetland soils are not saturated at the time of construction.

During clearing, sediment barriers, such as silt fences or other approved sediment barriers, will be installed and maintained adjacent to wetlands and within ATWS areas as necessary to minimize the potential for sediment runoff. Sediment barriers will be installed across the full width of the construction right-of-way at the base of slopes adjacent to wetland boundaries. ECDs installed across the working side of the right-of-way will be removed during the day when vehicle traffic is present, and will be replaced each night. Alternatively, drivable berms may be installed and maintained across the right-of-way in lieu of silt fences or straw bales. Sediment barriers will also be installed within wetlands along the edge of the right-of-way, where necessary, to minimize the potential for sediment to run off the construction right-of-way and into wetlands outside the work area. If trench dewatering is necessary, it will be conducted in accordance with the Procedures and applicable permits. Silt-laden trench water will be discharged into an energy dissipation/sediment filtration device, such as a geotextile filter bag and straw bale structure, to minimize the potential for erosion and sedimentation.

The method of pipeline construction used in wetlands will depend on site-specific weather conditions, soil saturation, and soil stability at the time of construction. If wetland soils are not excessively saturated at the time of construction and can support construction equipment on equipment mats, they will be crossed using conventional open-trench construction. This will occur in a manner similar to conventional upland cross-country construction techniques. In unsaturated wetlands, topsoil from the trenchline will be stripped and stored separately from subsoil.

Where wetland soils are saturated or in inundated lowlands areas where soils cannot support conventional pipe-laying equipment, the pipeline may be installed using the push-pull method. This method will involve stringing and welding the pipeline outside of the wetland and excavating and backfilling the trench using a backhoe supported by equipment mats. A prefabricated section of pipeline will be installed in the wetland by equipping it with buoys and pushing or pulling it across the water-filled trench. After the pipeline is floated into place, the floats will be removed and the pipeline will sink into place. In most cases, the pipeline will be coated with concrete or equipped with set-on weights to provide negative buoyancy. Once the pipeline is in place, the trench will be backfilled. The push-pull construction method minimizes the number of equipment passes, reducing wetland impacts and soil compaction in lowland areas.

Because little or no grading will occur in wetlands, restoration of contours will be accomplished during backfilling. Prior to backfilling, trench breakers will be installed, where

necessary, to prevent subsurface drainage of water from wetlands. Where topsoil is segregated, the subsoil will be backfilled first followed by the topsoil. Topsoil will be replaced to the original ground level leaving no crown over the trenchline. In areas where wetlands overlie rocky soils, the pipe will be padded with rock-free soil or sand before backfilling with native bedrock and soil. Equipment mats, gravel fill, and/or geotextile fabric will be removed from wetlands following backfilling.

Where wetlands are located at the base of slopes, permanent slope breakers will be constructed across the right-of-way in upland areas adjacent to the wetland boundary. Temporary sediment barriers will be installed where necessary until revegetation of adjacent upland areas is successful. Once revegetation is successful, sediment barriers will be removed from the right-of-way and disposed of at an approved disposal facility.

3.2.2 **Waterbody Crossings**

Atlantic will use the open-cut, flume, dam-and-pump, conventional bore, cofferdam, or horizontal directional drill (HDD) methods to construct the pipelines across waterbodies. In each case and for each method, Atlantic will adhere to the measures specified in the Procedures; site-specific modifications to the Procedures as requested by Atlantic and approved by the FERC. As well as any additional requirements identified in Federal or State waterbody crossing permits, including applicable permits and approvals from the USACE and various State agencies (see Section 6.0). A complete list of the waterbodies along the proposed pipeline routes, and the construction method proposed for each crossing, is provided in Appendix H. Construction methods for waterbodies that isolate the pipeline trench from flowing water (e.g. flume, dam-and-pump, cofferdam) will be utilized where these methods are proposed and perceptible flow is present at the time of the crossing.

During the clearing and grading phase of construction, 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. 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.

ATWS will be required on both sides of waterbody crossings to stage construction equipment, fabricate the pipeline, and store construction materials. Except as requested and approved by the Commission, the ATWS will be located at least 50 feet away from the water's edge at each waterbody (with the exception of site-specific modifications as requested by Atlantic and approved by the FERC or where the adjacent upland consists of cultivated or rotated cropland or other disturbed land).

Clearing adjacent to waterbodies will involve the removal of trees and brush from the construction right-of-way and ATWS areas. Woody vegetation within the construction right-of-way will be cleared to the edge of each waterbody. Sediment barriers may be installed at the top of the bank if no herbaceous strip exists. Initial grading of the herbaceous strip will be limited to the extent needed to create a safe approach to the waterbody and to install temporary bridges.

During clearing, sediment barriers will be installed and maintained across the right-of-way adjacent to waterbodies and within ATWS to minimize the potential for sediment runoff. ECDs located across the working side of the right-of-way will be removed during the day when vehicle traffic is present, and will be replaced each night. Alternatively, drivable berms may be installed and maintained across the right-of-way in lieu of silt fences and/or straw bales.

Typically, equipment refueling and lubricating at waterbodies will take place in upland areas that are 100 feet or more from the edge of the waterbody and any adjacent wetlands. 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. Atlantic's SPCC Plan will address, among other items, 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. The SPCC Plan is provided in Appendix B.

After the pipeline is installed across a waterbody using one of the methods described below, the trench will be backfilled with native material excavated from the trench. If present and moved prior to construction, larger rocks or boulders will be replaced in the stream channel within the construction area following backfill of the trench. The streambed profile will be restored to preconstruction contours and grade conditions to prevent scouring. The stream banks will then be restored as near as practicable to preconstruction conditions and stabilized. Stabilization measures could include seeding, tree planting, installation of erosion control blankets, or installation of riprap materials, as appropriate. Jute thatching or bonded fiber blankets will be installed on banks of waterbodies or road crossings to stabilize seeded areas. 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.

Open-Cut Method

The Open-Cut method is not currently proposed for use for construction across waterbodies within the Pittsburgh District. However, the Open-Cut method for waterbody crossings may be determined by Dominion as a feasible option for use at waterbodies where there is no perceptible flow at the time of the crossing.

Flume Method

The flume crossing method consists of isolating and temporarily diverting the flow of water across the trenching area through one or more large-diameter, smooth steel flume pipes placed in the waterbody. This method allows for trenching activities to occur within a relatively dry stream or riverbed (beneath the flume pipes containing the water flow), thereby minimizing sediment and turbidity within the waterbody. The flume method is typically used to cross small to intermediate flowing waterbodies that support coldwater or other significant fisheries.

For each waterbody where the flume method is implemented, a sufficient number of adequately sized flume pipes will be installed in the waterbody to accommodate the highest

anticipated flows during construction. Atlantic will use stream gauge data from the U.S. Geological Survey (USGS) to determine the highest anticipated flows during the time the flume crossing is in effect. As noted above, the duration of in-stream construction activities (excluding blasting, if required) will be limited to 24 hours across minor waterbodies (up to 10 feet in width) and 48 hours across intermediate waterbodies (greater than 10 feet and less than or equal to 100 feet in width). In the absence of stream gauge data, Atlantic's engineers and Environmental Inspectors will estimate the highest anticipated flows based on the width of the waterbody at the ordinary high water mark, the depth of the waterbody, existing flows at the time of the crossing, and the weather forecast at the time of the crossing. As a contingency, Atlantic will stage additional flume pipes at the crossing in the event that the volume of flow increases due to a precipitation event.

Prior to installation, Atlantic will inspect the flume pipes to confirm that they are free of dirt, grease, oil, or other pollutants. After placing the pipes in the waterbody, sand- or pea gravel-filled bags, water bladders, or metal wing deflectors will be placed in the waterbody around the flume pipes upstream and downstream of the proposed trench. These devices will serve to dam the stream and divert the water flow through the flume pipes, thereby isolating the water flow from the construction work area between the dams.

After installation of the flume pipes, any remaining standing water between the dams will be pumped out. Pump intakes will be appropriately screened to prevent entrainment of aquatic species. Additionally, any fish trapped in the dewatered area will be removed and returned to the flowing waterbody. Leakage from the dams or subsurface flow from below the waterbody bed may cause water to accumulate in the trench once trenching has begun. If water accumulates in this area, it may be periodically pumped out and discharged into energy dissipation/sediment filtration devices as required by the Procedures. Such devices include geotextile filter bags and straw bale structures. Alternatively, the water will be discharged into well-vegetated areas away from the edge of the waterbody, to prevent silt-laden water from entering the waterbody.

Backhoe-type excavators located on the banks of the waterbody will be used to excavate a trench under the flume pipe across the dewatered streambed. Temporary side-cast excavated from the waterbody trench will be placed and stored on the bank above the high water mark and a minimum of 10 feet from the edge of the waterbody. Once the trench is excavated, a prefabricated segment of pipe will be installed beneath the flume pipes. The trench will then be backfilled with the native material excavated from the trench across the waterbody bed. The banks will be stabilized before removing the dams and flume pipes and returning flow to the waterbody channel.

The flume method has proven to be an effective technique for constructing pipelines across sensitive waterbodies. The potential for the introduction of turbidity or suspended sediments is limited because sediment generated during trench excavation and backfilling operations is isolated to the dewatered area between dams. When flumes are installed properly, the operation of the flume is generally stable and can be installed and left in place for periods prior to and following the installation of the waterbody pipeline crossing. The flume method also provides for continued fish passage through the construction work area via the flume pipes during the crossing.

Dam-and-Pump Method

The dam-and-pump method may be used as an alternative to the flume method. It generally is preferred for waterbodies where hard bedrock occurs and in-stream blasting is required. The dam-and-pump method is similar to the flume method except that pumps and hoses are used instead of flume pipes to isolate and transport the stream flow around the construction work area. Similar to the flume method, the objective of the dam-and-pump method is to create a relatively dry work area to avoid or minimize the transportation of sediment and turbidity downstream of the crossing during in-stream work.

As the first step in implementing the dam-and-pump method, one or more pumps and hoses of sufficient size to transport anticipated flows around the construction work area will be installed in the waterbody. Additional back-up pumps will be on site at all times in case of pump failure. Once the pumps are operational, the waterbody upstream and downstream of the construction area will be dammed with sandbags and/or steel plates. As the dams are installed, the pumps will be started to maintain continuous flow in the waterbody.

Following the installation of the dams, the pumps will be run continuously until the pipeline is installed across the waterbody and the streambed and banks are restored. Pump intakes above the upstream dam will be appropriately screened to prevent entrainment of aquatic species. Energy-dissipation devices will be used to prevent scouring of the streambed at the discharge location. Water flow will be maintained through all but a short reach of the waterbody at the actual crossing location.

Backhoe-type excavators located on the banks of the waterbody will be used to excavate a trench across the waterbody. Temporary side-cast removed from the trench will be placed and stored on the bank above the high water mark at a minimum of 10 feet from the edge of the waterbody. Trench plugs will be maintained between the upland trench and the waterbody crossing. After backfilling, the dams will be removed and the banks restored and stabilized as described above.

Conventional Bore

The Conventional Bore method is not currently being evaluated for use in installing waterbody crossings within the Pittsburgh District, pending the results of geotechnical investigations and final engineering. Other Conventional Bore crossings for the ACP may be identified as a result of ongoing engineering design or consultation with permitting agencies.

Cofferdam

Some waterbodies will be crossed using the cofferdam method. In this method, a temporary diversion structure is installed from the bank around half the width of the crossing to isolate that section of the stream from the rest of the waterbody. Once the temporary diversion structure is installed, water is pumped from the isolated section to allow excavation of the pipe trench from the bed of the waterbody in the dry. After the pipe is installed in the trench in the isolated section of stream, the temporary diversion structure is disassembled and reinstalled from the opposite bank of the crossing and the process is repeated. The cofferdam method allows

waterbodies to be crossed in the dry in discrete sections while water flows unimpeded around the temporary diversion structure. The method is sometimes favored for wide, relatively shallow waterbodies or waterbodies containing sensitive fisheries because it allows water and fish to pass around the temporary diversion structure.

For waterbodies crossed using the cofferdam method, sections of steel frame for the temporary diversion structure will be assembled in an upland area adjacent to the crossing. Depending on size, the frame sections will be placed in the waterbody either manually or by crane. The frame sections will be positioned around a predetermined perimeter in the waterbody extending from one of the banks. The spacing of frame sections will be based on the depth of the water, but a typical spacing will be 15 to 30 inches. The frame sections may be reinforced, as necessary, with steel poles or other supports to increase stability of the structure, especially in waterbodies with soft substrate. Fabric sheets will then be attached to the top of the frame and unrolled down and out onto the bed of the waterbody on the exterior side of the frame. The fabric sheets will create a liner around the frame with a seal on the bed of the waterbody. The fabric may be covered in soft sediments or sandbags to help create the seal.

After the temporary diversion structure is installed, one or more pumps will be used to dewater the area within the temporary diversion structure. The pump intakes will be appropriately screened to prevent entrainment of aquatic species. Water will be discharged to the waterbody outside the structure through an energy-dissipating device to prevent scouring of the bed at locations of discharge. Once dewatering is complete, fish trapped in the temporary diversion structure will be removed and returned to the flowing waterbody. Construction equipment will then enter the isolated section of the waterbody from the adjacent bank, excavate the trench, install a pre-assembled section of pipe, backfill the trench, and restore the bed as near as practicable to preconstruction contours. The equipment will then exit the temporary diversion structure via the adjacent bank.

After the section of pipeline is installed, the enclosed area within the temporary diversion structure will be flooded, the fabric sheets and steel frame sections will be disassembled, and the structure will be reinstalled from the opposite bank with enough overlap of the initial excavation area so that the installed section of the pipeline will be accessible for tie-in to the next section of pipe. The dewatering and construction process will then be repeated from the opposite bank to complete the crossing of the waterbody.

Horizontal Directional Drill Method

The HDD method is not currently proposed for use to install the pipeline across waterbodies within the Pittsburgh District, pending the results of geotechnical investigations and final engineering. Other HDD crossings for the ACP could be evaluated as a result of ongoing engineering design or consultation with permitting agencies

The use of horizontal directional drilling (HDD) was considered for wetland and waterbody crossings, but was determined to not be feasible in all crossing locations based on logistical, economic, temporal, and engineering constraints, additional environmental impacts, and potential environmental risks. The HDD method requires that a prefabricated segment of

pipe at least the length of the bore hole be staged in line with the drill path at the exit hole, opposite the placement of the drilling rig. This "pullback" generally requires a false right-of-way that can deviate from the right-of-way approaching the crossing, unless the drill alignment is directly in-line with the construction right-of-way for the length of the prefabricated pipe segment. In many cases the drill path is not in-line with the construction right-of-way and additional workspace that extends well outside of the standard construction right-of-way must be cleared and graded to accommodate the prefabrication of the pipe segment described above. In addition, work space required at the entry and exit holes, although temporary, is approximately 300-ft by 300-ft.

The path of the drill is constrained by the flexibility of the pipe; the depth beneath the wetland and/or waterbody needed to achieve a successful installation; and the elevation of the entry and exit points. The entry and exit points should be similar in elevation to prevent a significant pressure differential that can contribute to failure of the HDD operation and by maintaining consistent pressure this helps maintain predictable flow of drilling mud and thus greater likelihood of a successful HDD.

As a rule of thumb used in evaluating the feasibility of the HDD method, the 42-inch pipe requires a minimum drill path of 2,200 feet and the 36-inch pipe requires a minimum drill path of 1,800 feet to achieve acceptable radius of curvature that will prevent a catastrophic "crinkling" of the pipe as it conforms to the path of the drill hole. All proposed HDD crossings will be designed based on specific site constraints at the crossing and geologic conditions, therefore site-specific designs may vary from the planning guidelines. HDD poses a higher risk to construction scheduling as well. Typical installations of this pipe size take several months which increases the impact to the surrounding communities and environment. In the event the initial bore is unsuccessful the process would start again in the immediate vicinity further increasing the impact.

A large drill can be more expensive than traditional crossing methods and can several months to install. Traditional crossing methods of major waterbodies can typically be completed in less than 30 days for major waterbody crossings, whereas typical minor or intermediate waterbody crossings can be completed within a day or a few days. Due to the extended time of exposure of additional workspace associated with HDD coupled with the potential for an inadvertent return, traditional crossing methods can often reduce the environmental impact over HDD. Based on these constraints and design considerations the HDD method is feasible and practicable where large, deep waterbodies are encountered and sufficient space to place the pullback and work area for drilling equipment is available.

4.0 AVOIDANCE AND MINIMIZATION

For purposes of the USACE evaluation of single and complete crossings, the "alternatives analysis" is to ensure that the crossing of each water of the United States is made in a manner that avoids and minimizes impacts to the aquatic environment to the maximum extent practicable, after considering the approach to the crossing in the uplands immediately adjacent to the water of the United States. For example, to the extent practicable, crossings will be perpendicular to the aquatic feature to minimize the length of the pipeline in the particular aquatic system.

The FERC NEPA EIS process is evaluating alternative route alignments and the overall impacts on the human environment of the proposed pipeline. As background, information on the FERC alternatives analysis follows, including discussion of the various alternatives FERC is considering.

Atlantic identified and evaluated a number of alternatives to the proposed Projects through the FERC NEPA process which included a range of alternatives consistent with the requirements of 40 CFR 230. These include a no-action alternative; alternative energy sources, including traditional and renewable sources; energy conservation measures; system alternatives; conceptual collocation route alternatives; major route alternatives; minor route variations; minor route adjustments; and alternative aboveground facility sites. The review of alternatives included an assessment and comparison of a number of factors, including technical and economic feasibility, constructability, environmental impact, ability to meet the purpose and need of the Projects, and input from stakeholders, including Federal land managing agencies, Federal and State/Commonwealth resource agencies, and landowners.

Atlantic identified an initial or "baseline" route for the proposed ACP pipeline based on locations of receipt and delivery points, engineering and constructability criteria, terrain, and existing land use. Atlantic subsequently evaluated and continue to evaluate environmental and other constraints along each of the routes in an effort to refine the baseline configurations. Route alternatives, variations, and minor adjustments were identified and continues to be identified based on a review of desktop constraint data, consultations and discussions with agency staff or other stakeholders, and field review in an effort to optimize the routes. The objective of the process was to identify the shortest possible route between the proposed receipt and delivery points taking into account the ACP purpose and need, engineering constraints, crossings of public lands, issues identified by stakeholders, minimization of impacts by collocating with existing rights-of-way or infrastructure, and the potential for impacts on sensitive environmental, tribal, and historical resources.

Atlantic's analysis of route alternatives and variations used a geographic information system (GIS) to characterize crossings of environmental features and other constraints along the routes. A digital centerline for each route alternative and the corresponding segment of the baseline was compared with a variety of datasets and map resources in the GIS. Features and constraints considered in the analysis included: length, public lands crossed, roads crossed, conservation easements crossed, forested lands crossed (based on the National Land Cover Database), wetlands crossed (based on the National Wetlands Inventory [NWI]), waterbodies crossed (based on the National Hydrography Dataset [NHD]), and known cultural resources sites crossed, such as Civil War battlefields.

Once a baseline route was determined using desktop data, a field oriented routing team consisting of a lead construction router, civil survey staff, and an ecological specialist teamed to adjust the route based on site-specific conditions while weighing competing constraints associated with environmental, tribal, and historical resource protection, constructability, available technology, and logistical constraints . Where practicable, adjustments to the route were made to avoid and/or minimize impacts to wetlands and waterbodies.

As a result of desktop analyses and field surveys, Atlantic identified a number of route alternatives and variations along the proposed pipeline routes to avoid or minimize crossings of sensitive environmental features or to address engineering or other issues. Additional route alternatives or variations may be considered to address issues identified as a result of ongoing environmental and civil field surveys, engineering design work, agency consultations, landowner communications, or other stakeholder input.

Atlantic has evaluated numerous 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 route variations to the baseline route was cumulative impact avoidance relative to the objective of the route 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 refinements to the routes are small, but collectively they reduce impacts on environmental resources. Table 4-1 lists the route alternatives, route variations, and minor route adjustments to date that have been incorporated into the proposed ACP pipeline route within the Pittsburgh District and a brief rationale for each adjustment.

TABLE 4-1

Route Variations and Adjustments Incorporated into the Proposed Atlantic Coast Pipeline Route

Route Variation/Adjustment	Approximate Mileposts	Rationale
AP-1 Mainline		
Hollick Run	7.4 to 8.4	Adjustment to decrease the length of the pipeline and provide better alignment for a river crossing
Wymer Run	9.5 to 9.8	Adjustment to avoid a wetland and a cultural resource site
Life's Run	13.3 to 14.7	Adjustment to reduce crossings of a known mussel stream
Hackers Creek	14.7 to 20.1	Route Variation to avoid multiple crossings of Hackers Creek, avoids impacts to federally listed mussel species
Buckhannon Run Road	19.2 to 20.1	Adjustment to avoid a cultural resource site and to reduce tree clearing
Left Fork of French Creek Road	30.3 to 30.9	Adjustment to reduce tree clearing
Queens Road	39.0 to 40.1	Adjustment to avoid a wetland

In addition to the route variations and adjustments, Atlantic continued to optimize the route at a localized scale to further minimize impacts on wetlands and waterbodies where feasible.

Appendix A includes detailed route maps that illustrate how Atlantic has also minimized impacts to wetlands and waterbodies by reducing workspace at wetland crossings and in the vicinity of wetlands and waterbodies, where feasible. In addition, to avoid impacts to wetlands along the periphery of the construction workspace, modifications to workspace have been incorporated into the project design to minimize impacts to wetlands and waterbodies.

ACP is a FERC regulated pipeline project and subject to certain procedures to avoid and minimize impacts to wetland and waterbody crossings to satisfy FERC's own NEPA requirements that also include minimization of environmental impacts. These procedures are outlined in the Plan and Procedures and are applicable to all FERC regulated pipelines.

Despite Atlantics efforts to avoid and minimize impacts, there will be impacts that cannot be avoided. These impacts will be offset with compensatory mitigation, discussed in Section 8.0.

5.0 IMPACTS ON WETLANDS AND WATERBODIES

Atlantic began conducting wetland field surveys during the 2014 field season, on properties where survey permission had been granted by the landowner, to identify and delineate wetlands within the ACP pipeline construction corridors, access roads and other work areas. The wetland delineation study area for the ACP 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. Atlantic will continue to conduct waterbody surveys to document waterbody crossings along the remainder of the proposed pipeline routes, access roads and in other work areas. To date, wetland surveys have been completed for approximately 94 percent of the proposed ACP Project in West Virginia. Wetland surveys will continue until the entire route has been surveyed.

Appendix H provides a list of the waterbodies crossed by the proposed ACP within the Pittsburgh District. 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 water classification, and indicates if there is a time of year restriction at the crossing. 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.

Site-specific crossing drawings for Section 10 crossings are found in Appendix F (USGS, 2015) and/or recent aerial photography. There is one Section 10 water crossed within the Pittsburgh District, the West Fork River (MP 8.2, AP-1). This crossing was evaluated for an HDD. However, as discussed in Section 3.2.2, the HDD method for a 42-inch pipeline has various constraints that must be evaluated. The route approaches the West Fork River from the west, down steep side slope, to cross the river and adjacent highway at a perpendicular angle to accommodate the pipeline alignment coming into and out of the crossing. Due to the direction of approach from the west to allow for a perpendicular crossing of the river and highway, and the direction of approach required to construct up the steep sideslope on the east side of the West Fork River valley, the crossing distance of the valley is under the minimum distance required for HDD of a 42-inch pipeline (approximately 2,200 feet). The west side of Route 1 does not have enough room for adequate workspace for the HDD drilling or pullback. Due to the site constraints within the valley, the angles of approach in and out of the valley to construct safely up and down steep hillsides, and the large diameter pipeline, the HDD method was not feasible for the West Fork River crossing.

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) (USACE), 1987; (USACE, 2012), as appropriate. Observations of vegetation, hydrology, and soils were recorded, and photographs were taken at each wetland. Wetland and waterbody delineations for the ACP 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 will obtain preliminary jurisdictional determinations from the USACE for these delineations. The wetland and waterbody delineation report and supporting datasheets are included in Appendix I.

A summary description of the direct and indirect environmental effects to waterbodies and wetlands within the Pittsburgh District that will result from the construction of the Project is provided in Section 5.1 and 5.2. In order to minimize environmental impacts during construction, Atlantic developed a SPCC Plan which is provided in Appendix B.

CUMULATIVE IMPACTS UNDER USACE NWP 12

As part of the USACE evaluation of the single and complete crossings of waters of the United States for applicability of coverage under NWP 12, the USACE must determine if the individual and cumulative impacts on the aquatic environment are no more than minimal after considering compensatory mitigation for unavoidable impacts. The single and complete crossing impacts are presented by HUC 8 watershed in Sections 5.1 and 5.2, below. By avoiding impacts to higher ecological value waters of the United States, minimizing impacts to the maximum extent practicable, and providing compensatory mitigation for conversion of forested and scrub-shrub wetlands to herbaceous wetlands, Atlantic has ensured that impacts associated with single and complete crossings are minimal. As with all impact evaluation under the NWP program, the determination whether there will be more than minimal cumulative adverse impacts on the aquatic environment is made after considering proposed mitigation. Furthermore, based on the level of conversion impacts occurring within each HUC 8 watershed, and the fact that all conversion impacts have been offset by compensatory mitigation, the cumulative impacts to the aquatic environment have been reduced to a minimal level as described in Section 3.14 of this Joint Permit Application document. The Preamble of the March 2012 NWP issuance package also indicates that cumulative effects will normally be evaluated on a watershed basis.

(77 FR 10196)"Each separate and distant crossing should be evaluated to determine if it meets the terms and conditions of the NWP, and cumulative effects of the overall utility line should be evaluated to determine if the adverse cumulative effects on the aquatic environment are more than minimal and therefore do not qualify for NWP authorization. Separate utility line crossings are usually on different water bodies, and may also be in widely separated watersheds. Such factors should be considered when assessing cumulative impacts."

(77 FR 10264) "For single and complete linear projects, each separate and distant crossing of a waterbody, as well as each crossing of other waterbodies along the corridor for the linear project may be permitted by separate NWP authorizations. The acreage and other applicable limits for an NWP would be applied to each crossing, as long as those crossings are far enough apart to be considered separate and distant. District engineers will evaluate the cumulative effects of those linear projects when determining whether authorization by NWP is appropriate. The approach to cumulative effects analysis for linear projects is little different than the cumulative effects analysis for other types of NWP activities, including those circumstances in which more than one NWP is used to authorize a single and complete non-linear project, because cumulative effects are evaluated on a regional basis. Cumulative

effects analysis may be done on a watershed basis, or by using a different type of geographic area, such as an ecoregion."

The USACE mitigation rule at 33 CFR 332.8(d)(6)(ii)(A), provides that normally mitigation service areas would be at the HUC 8 watershed level. HUC 8 has been used as the size of watershed in which to present the cumulative impacts of the proposed Project.

The vast majority of the Project impacts to waters of the U.S. would result from the temporary discharge of earthen fill material associated with trench excavation for pipeline installment within the rights-of-way. Furthermore, to facilitate construction equipment for pipeline installation, forested and scrub/shrub wetlands would be cleared and stumps removed where required for safe passage during pipeline installment. Where temporary discharges of fill or excavation is necessary, Atlantic will immediately restore the wetland to its pre-construction contours. The center 30-feet of the cleared rights-of-way that previously consisted of forested wetlands will be permanently maintained free of trees. The center 10-feet of the cleared rights-of-way that previously consisted of forested or scrub-shrub wetlands will be permanently maintained in an herbaceous state. This maintenance for the life of the project, while not resulting in a loss of waters of the U.S., will result in a permanent loss of function and value, which would otherwise exist had the vegetative cover of the wetland not been altered. This has been described as permanent conversion in associated tables.

Permanent impacts (e.g., permanent loss of waters of the U.S.), although minimized and avoided to the maximum extent practicable, may be necessary to accommodate the construction of access roads. These impacts will be quantified during the design phase and provided at a later date.

The temporary impacts and permanent conversion impacts of the proposed Project are provided in detail in Appendices G and H, and summarized by HUC 8 watershed in Sections 5.1 and 5.2 below. There will be no loss of waters of the U.S. due to mainline pipeline crossings of waters of the U.S. Despite potential minor loss of waters of the U.S. for access road improvements and the wetland conversion impacts, the compensatory mitigation plan will provide for impact offsets and Atlantic does not anticipate a net loss in aquatic functions and services of the waters of the U.S.

Assessment of cumulative effects also involves a general characterization of impacts to waters of the U.S. from similar types of projects in the past and reasonably foreseeable future. The area that the pipeline will traverse largely involves a mix of small community development, agricultural use and open undisturbed forested land. Past impacts would be those of typical rural development with road and various utility line crossings of streams and wetlands in support of agriculture and dispersed human development. Reasonably foreseeable impacts would include continued slow additional growth in the small human communities with associated road and utility line crossings of waters of the U.S.

As provided in the USACE 2012 NWP issuance document at 77 FR 10197, cumulative impacts to the human environment other than impacts to waters of the U.S. will be evaluated by FERC in its NEPA EIS process.

"Even though an environmental impact statement may be prepared for a particular utility line, the National Environmental Policy Act process does not prohibit the Corps from using NWP 12 to authorize the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, as long as the activity complies with all applicable terms and conditions and results in minimal individual and cumulative adverse effects on the aquatic environment. NEPA requires consideration of all environmental impacts, not only those to aquatic resources, so there may well be situations where aquatic impacts are minimal even though environmental impacts more generally are not. These other environmental impacts would be addressed by the lead agency preparing the environmental impact statement."

The purpose of the proposed pipeline is to transport natural gas from West Virginia and Pennsylvania to use in areas of Virginia and North Carolina. Other pipelines, subject to future approvals with mitigation as appropriate and practicable, may be required to transport natural gas from source areas such as the Marcellus Shale and Utica Shale formations.

Based on the fact that the majority of the overall pipeline project impacts to waters of the U.S. are temporary with restoration immediately after construction and that permanent conversion of forested and scrub-shrub wetlands to other wetland types and small road fills will be mitigated to the minimal impact level the impacts at each single and complete crossing will be minimal. In addition, since these minimal impacts to waters of the U.S., at each single and complete crossing, are dispersed over different watersheds in the Pittsburgh District, the aggregate impacts of the overall pipeline project to waters of the U.S. will be minimal as well. Therefore the cumulative impacts of the overall pipeline project on each HUC 8 watershed are not of a nature or extent that would trigger the need for an individual permit for the Project.

5.1 WATERBODY IMPACTS

After the avoidance and minimization efforts employed during routing and route refinement, as well as construction planning and design described in section 4.0, within the Pittsburg District, a total of 126 waterbodies will be crossed by the Project. Appendix H provides table that includes the waterbodies crossed by the ACP within the Pittsburgh District.

Impacts on individual waterbodies temporarily crossed by the proposed ACP facilities could occur as a result of construction activities in stream channels and on adjacent banks. Potential impacts on waterbodies and minimization or mitigation measure that will be utilized are described below.

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. In addition, implementation of the best management procedure outlined in the FERC Plan and Procedures will help minimize impacts on waterbodies.

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 will install equipment bridges, mats, and pads, as necessary. Additionally, Atlantic will locate ATWS at least 50 feet from the top of stream banks (with the exception of site-specific modifications requested by Atlantic and approved by the FERC or where the adjacent upland consists of cultivated or rotated cropland or other disturbed land). Temporary sediment barriers will be installed around disturbed areas as outlined in the Plan and Procedures. Upon completion of construction, Atlantic will install approved permanent erosion control measures at stream crossing locations to provide long-term protection of water quality according to the Plan and Procedures and all permit requirements.

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 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.

As noted above, Atlantic 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 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-construction contours and grade conditions to prevent scouring. The stream banks will then be restored as near as practicable to preconstruction 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.

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 straw bale structure, to minimize the potential for erosion and sedimentation.

In areas where concrete-coated pipe is required, and in accordance with the SPCC Plan, concrete coating activities conducted in the field will occur a minimum of 100 feet from wetlands, waterbodies, springs, and karst features. Concrete-coated pipe will be installed after the concrete is dried and will not be dispersed when submerged in water.

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 150 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 will prepare and implement a *Contaminated Media Plan* 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.

Once construction is complete, the pipeline will be buried below the ground surface and preconstruction contours will be reestablished; therefore, the pipeline will not impact water retention or floodplain storage within riparian corridors. Atlantic is routing the proposed pipelines to avoid sharp angle crossings or crossing streams where high stream energy could result in bank erosion. Atlantic 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 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.

The impacts associated with construction are planned to occur in an expedient and efficient manner such that impacts on the waterbody and associate banks are temporary in nature. In addition, while the number of waterbody crossings across the project in the Pittsburgh District are numerous, the crossings are distributed across many watersheds. Table 5.1-1 summarizes the

impacts on waterbodies by the 8-digit hydrologic unit code watershed (HUC 8) for mainline pipeline. Based on the short duration and distant nature of the waterbody crossings, Atlantic anticipates that cumulative impacts will result in less than significant adverse impacts to the watersheds crossed. No impacts are anticipated at aboveground facilities sites. Where access road improvements are necessary for use, loss of waters will be minimized to the maximum extent practicable, and will be kept below 0.5 acre to conform to USACE Nationwide Permit 12.

TABLE 5.1-1

Atlantic Coast Pipeline Project – U.S. Army Corps of Engineers Pittsburgh District
HUC 8 Waterbody Impacts Table – Mainline Pipeline

Sub-basin HUC 8 Number	Waterbody Type	Total Count	Approximate Crossing Width (Feet)	Affected Length (Feet)
05020001	Perennial	29	747	3840
	Intermittent	25	108	2967
	Ephemeral	2	6	296
	Pond	2	0	0
	Canal/Ditch	0	0	0
Subtotal		**58**	**861**	**7,101**
05020002	Perennial	17	260	2074
	Intermittent	17	75	1869
	Ephemeral	4	3	283
	Pond	0	0	0
	Canal/Ditch	0	0	0
Subtotal		**38**	**338**	**4,226**
05020004	Perennial	16	157	1677
	Intermittent	8	33	1064
	Ephemeral	5	11	580
	Pond	1	0	0
	Canal/Ditch	0	0	0
Subtotal		**30**	**201**	**3,321**
Total		**126**	**1,400**	**14,648**

5.2 WETLAND IMPACTS

After the avoidance and minimization efforts employed during routing and route refinement, as well as construction planning and design described in section 4.0, within the Pittsburgh District there will be a total of 111 wetland crossings conducted for the ACP mainline construction. Where the route crosses a single wetland more than once, each crossing was counted separately. Appendix H provides a table that includes the wetlands crossed by the ACP within the Pittsburgh District.

Impacts resulting in loss of the waters of the U.S. are not anticipated as a result of mainline pipeline construction. However, loss of waters of the U.S. may occur as a result of access road improvements, where necessary. Existing access roads will be utilized where feasible. Where improvements are necessary for use, waters of the U.S. loss impacts will be

minimized to the maximum extent practicable, and will be kept below 0.5 acre at single and complete crossings.

The combined linear crossing distance of all wetlands within the USACE Pittsburgh District is 6,423 feet, accounting for less than 1.7 percent of the combined length of the pipeline routes within that district. In total, approximately 12.73 acres of wetlands will be temporarily impacted by construction of the ACP pipeline facilities within the Pittsburgh District. The proposed Project will result in the conversion of approximately 0.33 acre of PFO wetlands and 0.02 acre of PSS wetlands, excluding wetlands delineated via desktop.

The crossing method for each wetland during construction will depend on site-specific weather and soil conditions, including soil saturation and stability. Appendix G identifies the proposed crossing method for each wetland along the ACP.

Construction activities can affect wetlands in several ways. Clearing and grading of wetlands, trenching, backfilling, and trench dewatering can affect wetlands through the temporary alteration of wetland vegetation and hydrology; loss or change to wildlife habitat; erosion and sedimentation; and accidental spills of fuels and lubricants.

In general, Atlantic will minimize impacts on wetlands by following the Plan and Procedures, site-specific modifications to the Procedures requested by Atlantic and approved by the FERC, and any additional requirements identified in Federal or State wetland crossing permits. Atlantic will prepare a Plan of Development or *Construction, Operation, and Maintenance Plan*, which will identify construction procedures and mitigation measures to be implemented on federally managed lands.

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 approved by the FERC and other applicable agencies);
- locating ATWS within uplands, at least 50 feet away from wetland boundaries (unless alternative, site-specific measures are requested by Atlantic and approved by the FERC and other applicable agencies or where the adjacent upland consists of cultivated or rotated cropland or other disturbed land);
- limiting the operation of construction equipment within wetlands to only equipment essential for clearing, excavation, pipe installation, backfilling, and restoration;
- limiting the operation of equipment off of equipment mats or timber riprap in wetlands only if the wetland is not excessively saturated in order to prevent the compaction and rutting of wetland soils;

- restricting grading in wetlands to the area directly over the trenchline, except where necessary to provide 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 use of a 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 and properly installed straw bale structure, to minimize the potential for erosion and sedimentation;
- preventing the invasion or spread of undesirable exotic vegetation as according to a project-specific invasive plant species management plan.
- 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;
- monitoring of the success of wetland revegetation following construction until wetland revegetation is successful; and
- at the end of 3 years after construction, active management for any wetland where revegetation is not successful by developing and implementing a remedial revegetation plan, in consultation with a professional wetland ecologist, to actively revegetate wetlands.

Based on FERC Procedures 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.

The impacts associated with construction are planned to occur in an expedient and efficient manner such that impacts on the wetlands are minimized to the extent practicable, and long-term impacts are associated with minimal conversion of type but not loss of wetlands. In addition, while there are a number of wetland crossings across the project in the Pittsburgh District, the crossings are distributed across many watersheds. Tables 5.2-1 and 5.2-2 summarizes the impacts on wetlands for mainline pipeline and access road/aboveground facility, respectively, by HUC 8 watershed. Based on the short duration of construction thru wetlands, minimization of long-term conversion by implementing FERC procedures (i.e., clearing of 10 feet to maintain herbaceous conditions, and 15 feet either side of centerline for trees), Atlantic anticipates that cumulative impacts will result in less than significant adverse impacts to the watersheds crossed.

TABLE 5.2-1

Atlantic Coast Pipeline Project – U.S. Army Corps of Engineers Pittsburgh District
HUC 8 Wetland Impacts Table – Mainline Pipeline

Sub-basin HUC 8 Number	Wetland Type[a]	Crossing Length (Feet)	Temporary Impacts (Acres)[b]	Conversion Impacts (Acres)[c]	Permanent Loss (Acres)
05020001	PEM	2719	5.62	0.00	0.00
	PFO	320	0.74	0.23	0.00
	PSS	0	0.00	0.00	0.00
Subtotal		**3,039**	**6.63**	**0.23**	**0.00**
05020002	PEM	357	0.72	0.00	0.00
	PFO	0	0.01	0.00	0.00
	PSS	24	0.1	0.00	0.00
Subtotal		**381**	**0.83**	**0.01**	0.00
05020004	PEM	2727	4.9	0.00	**0.00**
	PFO	112	0.22	0.01	
	PSS	56	0.12	0.01	0.00
Subtotal		**2,895**	**5.24**	**0.10**	**0.00**
Total		**6,324**	**12.42**	**0.33**	**0.00**

[a] Indicates Cowardin classification. PEM – emergent, PSS – scrub-shrub, PFO – forested.
[b] Temporary impacts include all permanent, temporary, and extra temporary workspace.
[c] Conversion of PFO and PSS wetlands consists of acreage that will be maintained as herbaceous/scrub-shrub wetlands following construction to facilitate inspection and maintenance of the pipeline.

Impacts resulting in loss of the waters of the U.S. are not anticipated as a result of mainline pipeline construction within the Pittsburgh District. However, loss of waters of the U.S. may occur as a result of access road improvements. Existing access roads will be utilized

where feasible. Where improvements are necessary for use, waters of the U.S. loss impacts will be minimized to the maximum extent practicable, and will be kept below 0.5 acre at individual and complete crossings. Dominion has further outlined and described a conceptual compensatory mitigation plan in section 8.0, below.

6.0 COMPLIANCE WITH NATIONWIDE 12 PERMIT TERMS AND CONDITIONS

Compliance with both General Conditions of the Nationwide Permit Program and additional Regional Conditions as specified according to General Condition 27 are summarized in table 6-1, table 6-2, and 6-3 below.

TABLE 6-1

Atlantic Coast Pipeline
Compliance with Nationwide Permit General Conditions

General Conditions	Compliance with Condition
1 – Navigation	Atlantic will comply with General Condition 1 utilizing the cofferdam method to construct the West Fork River crossing, which is the only Section 10, navigable water crossed by the ACP in the Pittsburgh District. The cofferdam method will maintain approximately half of the surface width of the river open during construction activities, which are anticipated to be relatively short in duration. A site-specific plan for the Section 10 crossing is included Appendix F.
2 – Aquatic Life Movements	Atlantic will comply with General Condition 2 by completing pipeline installation in accordance with the best management practices contained in the FERC Plan and Procedures, as well as agency specified in-stream work windows, which collectively include measures to minimize impacts on aquatic life movements including: • Expediting in-stream construction activities in waterbodies; • Installing temporary bridges across flowing waterbodies to facilitate access for equipment; • Maintaining downstream flow rates during Dam-and-pump and Flume crossings by use of adequately sized pumps or flume pipes to protect aquatic life and prevent interruption of existing downstream uses; • Restoring the stream channel and banks to preconstruction contours; and • Removing construction equipment and materials from within the waterbody as soon as practical. In-water work windows will be adhered to as specified by U.S. Fish and Wildlife Service and West Virginia Division of Natural Resources; spawning season waivers will be applied for if necessary.
3 – Spawning Areas	Atlantic will comply with General Condition 3 by completing installation of the pipeline during periods of low flow where practicable, expediting in-stream activities, installing temporary equipment bridges, and completing installation of the pipeline in perennial waterbodies with cold or warm water fisheries outside of in-stream work restriction periods required by federal and or state agencies. If Atlantic is unable to work outside of these time restrictions, requests for spawning waivers will be applied for with the West Virginia Division of Natural Resources.
4 – Migratory Bird Breeding Areas	Atlantic will comply with general condition 4 and remain in compliance with the applicable portions of the Migratory Bird Treaty Act. The ACP does not cross any areas identified as important bird areas that support breeding, wintering, or migrating birds within West Virginia. However, to comply with General Condition 4 Atlantic is developing conservation measures that would minimize impacts to migratory birds, otherwise known as the approved Migratory Bird Plan. Atlantic plans to clear the majority of the pipeline right-of-way outside of the migratory bird nesting season to reduce potential impacts on migratory birds and other sensitive species. In the event, that clearing is necessary within the nesting season, Atlantic will avoid impacts to nests observed within the construction right-of-way in accordance with the Migratory Bird Treaty Act.
5 – Shellfish Beds	Atlantic will comply with General Condition 5 by completing shellfish surveys. If shellfish are identified during surveys, mitigation measures will be developed and may include the use of dry crossing techniques such as the flume or dam and pump method and/or the relocation of mussel populations located in the immediate vicinity of the crossing location to be disturbed by construction activities.
6 – Suitable Material	Atlantic will comply with General Condition 6 by utilizing the material excavated from the pipeline trench to backfill the trench in areas where the pipeline will be installed using conventional trenching techniques. The backfilled material will be free from trash and other unsuitable material. Where trench temporary side-cast is not suitable, Atlantic may use imported clean fill such as sand, washed gravel, or cobbles to complete backfill of the trench. This situation may occur where bedrock is encountered within the trench and must be removed from the backfill material to prevent damage to the pipeline's coating.

TABLE 6-1 (cont'd)

Atlantic Coast Pipeline
Compliance with Nationwide Permit General Conditions

General Conditions	Compliance with Condition
7 – Water Supply Intakes	Atlantic has complied with General Condition 7 by identifying potable water intakes located within 3 miles downstream of proposed crossing locations. Water supply owners will be provided prior notice according to the FERC Procedures (one week prior notice) where construction crossings occur within 3 miles upstream of potable water supply intakes. Four surface water intake facilities are located within 3 miles of the project area within the Pittsburgh District: • Buckhannon Water Board at MP 30.0 – ACP will cross the Perennial Buckhannon River at MP 30.7 using the Cofferdam crossing method. • Grand Badger Community Hawthorne at MP 33.0 – ACP will cross the Ephemeral UNT to Buckhannon Run at MP 33.1 using the Dam-and-Pump method. • Mill Creek Water Department at MP 52.0 – ACP will cross the Perennial Mill Creek at MP 51.9 using the Flume and Cofferdam methods. • Huttonsville Medium Security Prison at MP 54.0 – Dam and Pump crossing method will be used.
8 – Adverse Effects From Impoundments	Atlantic will comply with General Condition 8 by completing pipeline installation in accordance with best management practices, which includes measures to minimize the duration of in-stream activities and maintain downstream flow. All temporary bulkheads and temporary bridges will be removed following construction. No permanent impoundments within waters of the U.S. are proposed.
9 – Management of Water Flows	Atlantic will comply with General Condition 9 by restoring the course, condition, and capacity of all waterbody crossings to the maximum extent practicable. Atlantic will complete pipeline installation in accordance with the best management practices contained in the FERC Plan and Procedures. The specific measures are designed to minimize the duration of in-stream activities and maintain downstream flow by: completing pipeline installation within the timeframes described in the Procedures, designing and maintaining temporary equipment bridges to maintain unrestricted flow, and maintaining adequate flow rates during use of dry crossing methods such as the dam & pump and flume methods.
10 – Fills Within 100-Year Floodplains	Atlantic will comply with General Condition 10 by siting aboveground facilities such as pump stations and valves in upland areas to the maximum extent feasible. In the event that placement of aboveground facilities such as valves is required within the floodplain, Atlantic will obtain the appropriate state and local permits prior to installation. Figure Set 5 in Appendix A identifies aboveground facilities in relation to FEMA floodplains.
11 – Equipment	Atlantic will comply with General Condition 11 by limiting the equipment operating in wetlands and waterbodies to that necessary to safely install the pipeline. Atlantic will utilize mats or low-ground-weight equipment if standing water or saturated soils are present and equipment would cause rutting in wetlands.
12 – Soil Erosion and Sediment Controls	Atlantic will comply with General Condition 12 by installing BMPs and/or ECDs as necessary to prevent erosion within the construction right-of-way and ATWS immediately after the initial removal of vegetation and prior to grading and soil disturbance. These controls will be properly maintained throughout construction until replaced by permanent controls or revegetation has stabilized the area.
13 – Removal of Temporary Fills	Atlantic will comply with general condition 13 by following the pipeline installation process of backfilling the trench and restoring surface contours to their pre-existing elevation. Excess materials will be removed from the wetland and disposed of in a suitable upland area. Temporary bridges and timber construction mats used within wetlands and waterbodies to facilitate installation of the pipeline and equipment travel will be removed once construction and restoration is complete.
14 – Proper Maintenance	Atlantic will comply with General Condition 14 by maintaining the pipeline in accordance with Atlantic's safety standards and specifications and in accordance with the U.S. Department of Transportation (U.S. DOT) (Title 49 CFR Part 195) requirements.
15 – Single and Complete Project	Atlantic will comply with General Condition 15. This pre-construction notification (PCN) includes all wetlands and waterbodies crossed by the route within the USACE - Pittsburgh District. Atlantic understands that most crossings will be considered a single and compete project under the provisions of Nationwide Permit No. 12 and all calculation of the projects impacts are provided in a manner for the USACE to review each crossing separately. Atlantic will provide update to this notification in the event that additional wetlands and waterbodies are identified as survey of the entire pipeline route is completed.
16 – Wild and Scenic Rivers	Atlantic has complied with General Condition 16 because the project does not cross any federally designated Wild and Scenic Rivers.
17 – Tribal Rights	The ACP will not impact tribal rights, such as reserved water rights and treaty fishing and hunting rights. Atlantic has initiated consultation with Native American tribes historically known to occur within the project areas. Atlantic will continue to consult with these tribes to address tribal rights and traditional cultural properties.

TABLE 6-1 (cont'd)

Atlantic Coast Pipeline
Compliance with Nationwide Permit General Conditions

General Conditions	Compliance with Condition
18 – Endangered Species	Atlantic will comply with General Condition 18 by developing a biological assessment evaluating the potential impacts of the Projects on federally listed species. Atlantic expects to file the draft biological assessment with the FERC in the Fall of 2015. As the lead Federal agency for authorizing Projects, FERC is required to coordinate with the FWS and NOAA Fisheries to determine whether federally listed endangered or threatened species or designated critical habitat are found in the vicinity of the Projects, and to evaluate the potential effects of the proposed actions on those species or critical habitat.
19 – Migratory Bird and Bald and Golden Eagle Permits	Atlantic will comply with General Condition 19 and the relevant portions of both the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Atlantic will implement a project-specific Migratory Bird Plan that identifies conservation measures that will be implemented, such as: Atlantic plans to clear the majority of the pipeline right-of-way outside of the migratory bird nesting season to reduce potential impacts on migratory birds and other sensitive species. In the event that clearing is necessary within the nesting season, Atlantic will avoid impacts to nests observed within the construction right-of-way in accordance with the Migratory Bird Treaty Act. In the event that an active bald eagle nest is identified in the vicinity of the project, Atlantic will adhere to the requirements of the National Bald Eagle Management guidelines to minimize potential impacts on nesting eagles.
20 – Historic Properties	Atlantic will comply with General Condition 20, which is discussed in more detail in Section 9 Atlantic is currently completing the cultural resources investigations for the ACP. The cultural surveys are being conducted to cover a 300–foot-wide corridor. Atlantic will provide a cultural resources survey report to the USACE upon request to facilitate the review of the project according to Section 106 of the National Historic Preservation Act.
21 – Discovery of Previously Unknown Remains and Artifacts	Atlantic will comply with General Condition 21, discovery of previously unknown remains and artifacts by ceasing work upon discovery of such cultural materials or remains and reporting the discovery to the FERC. Atlantic has developed Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction, which has been provided to the SHPO for review and comment. See Appendix C for the project-specific Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction.
22 – Designated Critical Resource Waters	Atlantic has complied with General Condition 22. The project will not be located within a National Oceanic and Atmospheric Administration-designated marine sanctuary, National Estuarine Research Reserve, or National Wild and Scenic River. The project will cross four Tier 3 Protected Waters in the Pittsburgh District (Tygart River, two separate crossings of Becky Creek, and Shavers Fork). There are crossings located at potential sites for freshwater mussels and trout. In-water work windows will be adhered to as specified by U.S. Fish and Wildlife Service and West Virginia Division of Natural Resources; spawning season waivers will be applied for if necessary.
23 – Mitigation	Atlantic will comply with General Condition 23 by mitigating temporary impacts on-site through restoration of pre-construction contours of wetlands and beds and banks of waterbodies, and revegetation of wetlands and waterbody banks. For remaining impacts that cannot be mitigated on site, Atlantic has provided a conceptual described in Section 8.0, for impacts that are not mitigated on site and for conversion impacts on wetlands.
24 – Safety of Impoundment Structures	Atlantic will comply with General Condition 24 as no permanent impoundments in waters of the U.S. are proposed for the ACP.
25 – Water Quality	Atlantic will submit an application for Section 401 water quality certification to the West Virginia Department of Environmental Protection and will implement best management practices to minimize impacts on water quality.
26 – Coastal Zone Management	Not applicable – There are no Coastal Zones in West Virginia.
27 – Regional and Case-By-Case Conditions	See Tables 5-2 and 5-3.
28 – Use of Multiple Nationwide Permits	Atlantic is seeking authorization only under Nationwide Permit 12 in the Pittsburgh District, therefore General Condition 28 is not applicable.
29 – Transfer of Nationwide Permit Verifications	Atlantic will comply with General Condition 29. Although Atlantic does not intend to transfer its permit verification, Atlantic will notify the USACE in accordance with the requirements of Condition 29 in the event that transfer of the permit is required.
30 – Compliance Certification	Atlantic will comply with General Condition 30. Following construction and restoration, Atlantic will submit a signed certification if required, stating that the work was completed in accordance with permit conditions.
31 –Pre-Construction Notification	Atlantic will comply with General Condition 31 by providing a complete preconstruction notification for all wetlands and waterbodies crossed by the Project. Atlantic will provide an update to this notification in the event that additional wetlands and waterbodies are identified as survey of the entire pipeline route is completed.

TABLE 6-2

Atlantic Coast Pipeline
Compliance with Nationwide Permit General Regional Conditions

Regional Conditions	Compliance with Condition
1 – Full Agency Pre-construction Notification	Atlantic has complied with General Condition 1 by submitting 5 copies of the PCN in addition to the 1 original hard copy. The five additional copies were submitted in electronic form.
2 - Pre-Construction Notification Submittals	Atlantic will comply with General Condition 2 by: • Providing graphic illustrations on 8 1/2" x 11" paper. The illustrations clearly depict the project boundaries, including all elements and phases of the proposed project. Three types of illustrations are needed to properly depict the work to be undertaken. • Providing a written description of the proposed project including acreage(s) of waters of the U.S. proposed to be directly or indirectly affected as a result of the proposed project, the linear footage of the proposed direct and indirect stream impacts associated with the project, and cubic yards of fill proposed to be discharged. • Providing a description of the ways in which the project has been designed to avoid and minimize adverse impacts to water of the U.S. • Providing information concerning whether the proposed activity would affect any historic properties listed, determined to be eligible, or which we have reason to believe may be eligible, for listing on the National Register of Historic Places. • Providing basic information about the general project area (encompassing a search radius of 2 miles centered on the project area) including USGS 7.5' series topographic maps, National Register of Historic Places (NRHP) files including Historic Districts, and county atlases, histories and/or any historic USGS 15' series topographic map(s), brief description of the terrain and topography of the project area, acreage of the project area, and any past cultural resource studies or coordination for the project area, if available, along with photographs, keyed to mapping, showing the project area and any buildings or structures on adjacent parcels. • The submittal of ground photographs to illustrate conditions of the overall project site and impact site, with the accompanying wetland and waterbody delineation report, included in Appendix I.
3 – Compensatory Mitigation	A conceptual compensatory mitigation plan for impacts to each single and complete crossing to Waters of the United States and Waters of the State for the ACP project has been developed and is outlined in Section 8.0. Where available mitigation bank credits will be utilized to mitigate impacts. In the event of a mitigation bank being unavailable for credit purchase or to make up the balance of credits needed an In-lieu Fee Program will be used to satisfy the mitigation requirement.
4 – Passage of Aquatic Life	Atlantic will comply with General Condition 4 by implementing the appropriate construction techniques at all waterbody crossings so as not to prevent the passage of aquatic life. These crossings will be completed per timing restrictions outlined in Appendix H.
5 – Endangered Species	The ACP requires a PCN, therefore the USACE District Engineer will assume responsibility for determining project related effects to endangered species. However, Atlantic has reviewed the affected species and will employ all discussed mitigation measures to avoid or minimize impact.
6 – Endangered Species Habitat	Atlantic has complied with General Condition 6 by providing notification to the USFWS Elkins Field Office.
7 – NPS Notification	Atlantic will comply with General Condition 7 by filing a notification to the National Park Service and/or the Forest Service due to work occurring in streams in the Monongahela National Forest.
8 – West Virginia Natural Stream Preservation Act	General Condition 8 does not apply to this project, because ACP does not cross any of these designated waterbodies.
9 – Tier 3 Protected Waters	The ACP crosses four Tier 3 waterbody within the Pittsburgh District and will comply with General Condition 9 by providing a 401 Water Quality Certification application to the West Virginia Department of Environmental Protection, Division of Water and Waste Management.
10 – Archeological Sites and Human Remains	Atlantic will comply with General Condition 10 by ceasing work, upon discovery of archeological sites or human remains, and contacting the appropriate offices and implementing the Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction included in Appendix C.

TABLE 6-3

Atlantic Coast Pipeline
Compliance with Nationwide Permit Specific Regional Conditions

Regional Conditions	Compliance with Condition
1 – For those utility line projects requiring notification, a USGS topographic map shall be provided showing the overall project area identifying beginning and ending termini.	Atlantic has complied with Specific Condition 1 by supplying a topographic map with the PCN, Figure Set 3.
2 – Notification is required for utility lines not regulated by a state or federal agency or to individual family residences.	Not applicable as this project is a natural gas pipeline project that is regulated by the Federal Energy Regulatory Commission.
3 – Notification is required for all work in waters of the U.S. associated with the construction of utility line substations.	Atlantic will comply with Specific Condition 2 by providing the PCN to the USACE for all project crossings of Waters of the U.S.
4 – Notification is required for all work in streams associated with the construction of foundations for overhead utility lines towers, poles, and anchors.	Not applicable to natural gas pipeline projects.
5 – The maximum allowable timeframe for temporary work in waters of the U.S. is limited to one year, unless the permittee receives prior written approval from the COW granting a time extension.	Atlantic will comply with Specific Condition 5 by implementing the FERC Procedures, which requires construction across minor waterbodies (up to 10 feet in width) within 24 hours, intermediate waterbodies (greater than 10 feet and less than or equal to 100 feet wide) within 48 hours, and for major waterbodies over 100 feet Atlantic will construct as quickly as practicable, but does not anticipate temporary work associated with pipeline construction within waters of the U.S. for longer than the maximum timeframe of one year.
6 – Notification for aerial transmission line over Section 10 waters must include the nominal system voltage and the additional clearance above low steel for bridges, if available, or above maximum high water elevation.	Not applicable to natural gas pipeline projects.
7 – All aerial crossings will have the following minimum clearances above the clearance required for bridges, or the clearances which would be required by the U.S. Coast Guard for new fixed bridges, in the vicinity of the proposed crossing. These clearances are based on the low point of the line under conditions which produce the greatest slag, taking into consideration temperature, load, wind, length or span, and type of supports as outlined in the National Electric Safety Code.	Not applicable to natural gas pipeline projects.

7.0 OTHER APPLICABLE PERMITS

A summary of other applicable federal, state, and local environmental permits required for construction of the Project are included in Table 7-1.

8.0 COMPENSATORY MITIGATION

In order to authorize any activity under the NWP Program the USACE must determine that the authorized activity in waters of the U.S. meets the terms and conditions of the relevant NWP, in this case NWP 12, which allows no more than 0.5 acre loss at any single and complete crossing. Furthermore, provided the activity meets the terms and conditions of NWP 12 USACE must determine that the activity will not result in more than minimal individual or cumulative impacts on the aquatic environment ***AFTER*** considering proposed compensatory mitigation. Such impacts would include the conversion impacts from one type of water of the U.S. to another type of water of the U.S. As stated in the Preamble to the 1991 NWP rule (56 FR 59118-59119) mitigation can be used to reduce impacts to the aquatic environment to the minimal level:

"In response to the comments concerning whether the DE should allow an activity to proceed under a relevant NWP when the mitigation reduces the adverse environmental effects to the minimal level (the "buy down" or "write down" concept), we believe it is indeed

appropriate for the DE to consider mitigation in determining whether the proposed activity will result in no more than a minimal level of adverse environmental effects." and "In summary, the net impact concept regarding the determination of minimal is consistent with NEPA, the Army/EPA Mitigation MOA and the Section 404(b)(1) Guidelines as they pertain to general permits."

TABLE 7-1

Atlantic Coast Pipeline Project
Required Permits and Approvals

Agency	Permit	Date Submitted	Date Received
Federal Permits			
U.S. Army Corps of Engineers Pittsburgh District	Section 404, Clean Water Act & Section 10, Rivers and Harbors Act	---	---
U.S. Fish and Wildlife Service - West Virginia	Endangered Species Act - Section 7 Consultation	---	---
National Park Service	Concurrence in the Right-of-Way Grant issued by the BLM to cross the Monongahela National Forest	---	---
	Special Use Permit for Survey Access	9/30/2014	1/21/2015
	Archaeological Resources Protection Act (ARPA) Permit	10/9/2014	1/21/2015
Federal Energy Regulatory Commission	Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act	9/15/2015	---
West Virginia State Permits			
West Virginia Department of Environmental Protection	401 Water Quality Certification	---	---
	Air Permit – New Sources Review Permit	---	---
	NPDES Stormwater Associated with Construction Activity Permit –WV0116815	---	---
	NPDES Hydrostatic Water Testing General Permit No. WV0113069	---	---
	Large Quantity User Water Use Registration	---	---
West Virginia Division of Natural Resources	Natural Heritage/Protected Species Consultation	8/8/2014	4/1/2015
	Stream Activity Permit	---	---
West Virginia Public Lands Corporation	Stream Activity Permit (Joint application with the DNR)	---	---
West Virginia Division of Culture and History	Consultation under Section 106 of the National Historic Preservation Act	8/14/2014	---

Permanent loss of wetlands are not anticipated to occur as a result of the ACP mainline pipeline construction in West Virginia. However, loss of waters of the U.S. may occur as a result of access road improvements. Existing access roads will be utilized where feasible. Where access road improvements are necessary for use, waters of the U.S. loss impacts will be minimized to the maximum extent practicable, and will be kept below 0.5 acre at single and complete crossings. Atlantic will compensate for the conversion of forested and scrub-shrub wetlands, both for the permanent conversion and temporal lag in temporarily impacted wetlands, along the ACP right-of-way and permanent losses of wetlands and/or waterbodies at access road crossings through the purchase of commercially available mitigation credits from an agency-approved mitigation bank as a first option. In-kind mitigation bank credits will be purchased from mitigation banks servicing the areas (HUC 8 watershed, or approved service area) where the conversion or loss occurs. In the event that a conversion or loss occurs in a service area where mitigation bank credits are not available, Atlantic will seek authorization to purchase

credits from outside the service area of the next nearest mitigation bank and/or participate in an agency-approved In-Lieu-Fee program, where credits or opportunities are available.

9.0 THREATENED AND ENDANGERED SPECIES AND CRITICAL HABITAT

The ACP is a FERC 7c regulated project and the USACE is participating in the pre-filing process as a cooperating agency. FERC will be coordinating with the U.S. Fish and Wildlife Service (USFWS) regarding the review of Section 7 Endangered Species Act (ESA) compliance.

Section 7 of the ESA requires Federal agencies to verify that any actions authorized, funded, or carried out by the agencies do not jeopardize the continued existence of a federally listed threatened or endangered species, or result in the destruction or adverse modification of designated critical habitat for a federally listed species. The law is jointly administered by the FWS, which is responsible for terrestrial and freshwater species, and the National Oceanic and Atmospheric Administration (NOAA) Fisheries, which is responsible for marine and anadromous species. As the lead Federal agency for authorizing the Projects, FERC is required to coordinate with the USFWS and NOAA Fisheries to determine whether federally listed endangered or threatened species or designated critical habitat are found in the vicinity of the Projects, and to evaluate the potential effects of the proposed actions on those species or critical habitat.

For actions involving major construction activities with the potential to affect listed species or designated critical habitat, the FERC must report its findings to the USFWS and NOAA Fisheries in a biological assessment (BA) for those species that could be affected. If it is determined that the proposed action is likely to adversely affect listed species or designated critical habitat, the FERC is required to initiate formal consultation with the appropriate Federal agency.

Atlantic reviewed the IPaC System to determine which federally listed species could occur in the ACP Project area. Additionally Atlantic coordinated with the USFWS Ecological Services Field Office (ESFO) in West Virginia to introduce the Project and begin discussing potential impacts on federally listed species and designated critical habitat. Correspondence with agencies is located in Appendix J.

For the ACP, Atlantic sent letters to the West Virginia, USFWS EFSO and to the NOAA Fisheries' Office of Protected Resources in August 2014 requesting early coordination and technical assistance based on the species lists obtained through the IPaC System. These letters requested verification of the species that could be impacted by the ACP Project as well as direction on field survey protocols for species-specific surveys.

Atlantic requested and received National Heritage Inventory (NHI) data for a 2 mile-wide corridor centered on the proposed pipeline centerlines which include the locations of aboveground facilities. This data identifies occurrences of federally listed, as well as sensitive or significant habitats including parks, forests, or nature preserves located along or adjacent to the proposed pipeline routes.

Based on information obtained through IPaC System, NHI, and agency consultations to date, Atlantic has compiled a preliminary list of 9 federally listed threatened and endangered

species that potentially occur within the ACP Project area within the USACE - Pittsburgh District (table 9-1).

Through coordination with the USFWS EFSO field survey protocols were developed for all species listed in Table 9-1. Correspondence logs documenting the coordination with the USFWS EFSO are located in Appendix J.

Atlantic is developing an applicant prepared BA that will be submitted to FERC and the FWS, and anticipates that this will be completed in the Fall of 2015. A copy of the applicant prepared BA will be provided to the USACE.

10.0 HISTORIC PROPERTIES

The ACP is a FERC 7c regulated project and the USACE is participating in the pre-filing process as a cooperating agency. FERC will be coordinating with the Virginia State Historic Preservation Office (SHPO) for the review of Section 106 of the National Historic Preservation Act compliance, as well as coordinating its government-to-government consultation with federally recognized Indian Tribes. Project introduction letters were sent to 12 federally recognized Indian Tribes.

TABLE 9-1

Atlantic Coast Pipeline Project
Federally Listed Species and Species Proposed for Federal Listing within the U.S. Army Corps of Engineers – Pittsburgh District

Species	Status [a]	Areas of Potential Occurrence
Mammals		
Indiana bat (*Myotis sodalis*)	E	All counties crossed by the Project
Northern long-eared bat (*Myotis septentrionalis)*	T	All counties crossed by the Project
Virginia big-eared Bat (*Corynorhinus townsendii virginianus*)	E	Randolph County
Mussels		
Clubshell (*Pleurobema clava*)	E	Lewis, Harrison, and Upshur Counties
Snuffbox (*Epioblasma triquetra)*	E	Lewis, Harrison, and Upshur Counties
Amphibians		
Cheat Mountain Salamander *(Plethodon netting)*	T	Randolph County
Plants		
Running buffalo clover *(Trifolium stoloniferum)*	E	Upshur and Randolph Counties
Small Whorled Pogonia *(Isotria medeoloides)*	T	Randolph County
Virginia Spirea *(Spiraea virginana)*	T	Upshur County

[a] Abbreviations for species federal status are as follows:
E = Endangered
PE = Proposed Endangered
C = Candidate
T = Threatened

The area of potential effect (APE) for archaeological sites was defined horizontally as the proposed pipeline corridor and associated workspace, footprints of aboveground facility sites, and footprints of other work areas; and vertically as the maximum depth of trenching and other excavations or the depth to which evidence of human occupation could be found. The APE for aboveground historic resources was defined to include the proposed pipeline corridor and associated workspace, footprints of aboveground facility sites, and footprints of other work areas. The APE for aboveground historic resources also included viewsheds to and from historic sites along or near the proposed facilities. The linear extent of the viewsheds varied by site depending on changes in topography, vegetation cover, and the presence of structures or other obstructions in sight lines to and from aboveground historic resources.

The reports presenting the results of the cultural resources surveys for the Project can be provided to the USACE – Norfolk upon request, along with copies of documentation of SHPO review and comment when they become available.

11.0 REFERENCES

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ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX A-1

Figures
Atlantic Coast Pipeline: Overview Map

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX A-2

Figures
Atlantic Coast Pipeline: U.S. Army Corps of Engineers Districts Map

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX A-3

Figures
Atlantic Coast Pipeline: U.S. Army Corps of Engineers – Pittsburgh District – 1:12,000 Scale Topographic Map Set

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX A-4

Figures
Atlantic Coast Pipeline: U.S. Army Corps of Engineers – Pittsburgh District – 1:6,000 Scale Aerial Photo Map Set

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX A-5

Figures
Atlantic Coast Pipeline: U.S. Army Corps of Engineers – Pittsburgh District– Maps – FEMA Floodplain

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX B

Spill Prevention, Control, and Countermeasures Plan (SPCC Plan)

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX C

Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX D

Restoration and Rehabilitation Plan

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX E

Typical Pipeline Construction Sequence, Typical Construction & Right-of-Way Layout

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX F

Site-Specific Waterbody Crossing Drawings

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX G

Wetland Crossing Tables

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX H

Waterbody Crossing Tables

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX I

Waterbody and Wetland Report and Datasheets

EXHIBIT 2

ATLANTIC COAST PIPELINE, LLC

ATLANTIC COAST PIPELINE PROJECT

APPENDIX J

Fish and Wildlife Service Protected Species Correspondence

EXHIBIT 2

EXHIBIT 3

ATLANTIC COAST PIPELINE

Nationwide Permit 12
Pre-Construction Notification

U.S. Army Corps of Engineers – Huntington District

SUPPLEMENTAL INFORMATION

Prepared by

NATURAL RESOURCE GROUP

an ERM Group company

September 2015

EXHIBIT 3

Atlantic Coast Pipeline Project
Nationwide Permit No. 12 – Pre-Construction Notification
U.S. Army Corps of Engineers – Huntington District

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

ACRONYMS AND ABBREVIATIONS

ACP	Atlantic Coast Pipeline
AGL	AGL Resources, Inc.
APE	Area of Potential Effects
Atlantic	Atlantic Coast Pipeline, LLC
ATWS	additional temporary workspace
BA	biological assessment
bcf/d	billion cubic feet per day
BMP	best management practices
CFR	Code of Federal Regulations
Commission	Federal Energy Regulatory Commission
DOE	U.S. Department of Energy
Dominion	Dominion Resources, Inc.
dth/d	dekatherms per day
DTI	Dominion Transmission, Inc.
Duke Energy	Duke Energy Corporation
ECD	erosion control devices
EIA	U.S. Energy Information Administration
EIS	environmental impact statement
ESA	Endangered Species Act
ESFO	Ecological Services Field Office
FERC	Federal Energy Regulatory Commission
GIS	geographic information system
HDD Plan	Horizontal Directional Drill Fluid Monitoring, Operations, and Contingency Plan
HDD	horizontal directional drill
HUC	hydrologic unit code
LDC	local distribution company
M&R	metering and regulating station
MMDth/d	million dekatherms per day
MP	milepost
NEPA	National Environmental Policy Act
NHD	National Hydrography Dataset
NHI	Natural Heritage Information
NOAA	National Oceanic and Atmospheric Administration
NWP	Nationwide Permit
PCN	pre-construction notification
Piedmont	Piedmont Natural Gas Co., Inc.
Plan	Upland Erosion Control, Revegetation, and Maintenance Plan
Procedures	Wetland and Waterbody Construction and Mitigation Procedures
Project	Atlantic Coast Pipeline
SHP	Supply Header Project
SHPO	State Historic Preservation Officer
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
Transco	Transcontinental Gas Pipe Line Company, LLC

USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 PROJECT INTRODUCTION

Atlantic Coast Pipeline, LLC (Atlantic) is a company formed by four major U.S. energy companies – Dominion Resources, Inc. (Dominion), Duke Energy Corporation (Duke Energy), Piedmont Natural Gas Co., Inc. (Piedmont), and AGL Resources, Inc. (AGL). 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. Atlantic has contracted with Dominion Transmission, Inc. (DTI), a subsidiary of Dominion, to permit, build, and operate the ACP on behalf of Atlantic. [1]

Approximately 13.1 miles of the Project occurs within the United States Army Corps of Engineers (USACE) Huntington District. Counties crossed by Project facilities within the USACE Huntington District's regulatory boundaries include Pocahontas County, West Virginia. Construction of the Project would result in temporary discharge of earthen fill material and construction mats into "waters of the United States" crossed by the mainline pipeline. Permanent loss of "waters of the United States" are not anticipated to occur as a result of construction of aboveground facilities. Atlantic has prepared the following supplemental information document to accompany the standard ENG FORM 4345, which is being submitted as a pre-construction notification (PCN) for authorization under Nationwide Permit 12 (NWP 12) for Utility Line Activities. This supplemental information contains the necessary information to comply with the pre-construction notification requirements of the NWP Program.

Atlantic is providing the following information as background information regarding the ACP to assist the USACE in understanding the overall project being permitted and authorized through Federal Energy Regulatory Commission (FERC or Commission). Atlantic understands that the USACE is a cooperating agency on the National Environmental Policy Act (NEPA) evaluation being conducted by FERC, including preparation of an Environmental Impact Statement (EIS), but provides the following information to the USACE to provide context and understanding regarding the location of the multiple single and complete crossings proposed for verification under NWP 12. The background information provided from the FERC process below is intended to assist the USACE in documenting that verification of the single and complete crossings of this linear project under NWP 12 is appropriate and fully consistent with USACE regulations on scope of analysis and the NWP Program. In particular, the following background information is intended to provide the necessary basis for the USACE to determine that the avoidance of impacts to waters of the United States, mitigation for unavoidable conversion of forested wetlands to scrub-shrub and/or emergent wetlands and scrub-shrub wetlands to emergent wetlands results in no more than minimal impact at each single and complete crossing. Furthermore, the information provided below demonstrates that the

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

cumulative impacts to waters of the United States, after considering compensatory mitigation, is minimal.

Contextual information is provided in this supplement on the overall project to provide a basis for the USACE minimal impact determinations, understanding that the USACE's scope of analysis under NWP 12 is limited to the single and complete crossings and the uplands in the immediate vicinity of the single and complete crossings that impact the location of such crossings of waters of the United States. Only approximately 14 percent of the overall pipeline length is located within waters of the United States.

Under relevant USACE precedent (including without limitation, USACE regulations, NEPA implementation procedures, 2012 NWPs and Memorandum of Understanding with FERC), the "build/no build" decision and the overall project alignment is determined through the FERC NEPA process. The USACE serves as cooperating agency on the FERC environmental impact statement (EIS) through which the USACE can coordinate with FERC to ensure that the overall pipeline alignment properly considers avoidance of impacts to waters of the United States. Moreover, the FERC licensing process has many policies and procedures to ensure impacts to waters of the United States are avoided and minimized to the extent practicable.

As with any linear project, waters of the United States cannot be completely avoided because of the extensive and reticulate nature of the aquatic resource. The USACE evaluation under NWP 12 ensures that the unavoidable impacts to waters of the United States at each single and complete crossing are mitigated in order to ensure no more than minimal individual and cumulative impacts to waters of the United States after considering the required compensatory mitigation.

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

Mainline Pipeline Facilities:

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

Lateral Pipeline Facilities:

- AP-3: approximately 79.3 miles of 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 16-inch outside diameter natural gas lateral pipeline in Brunswick County, Virginia.
- AP-5: approximately 1.1 miles of 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 [2] (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 MP 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).

This supplemental information includes materials necessary for the USACE to review the portion of the ACP within the Huntington District's regulatory boundaries (Appendix A-3) according to PCN requirements of NWP 12. The materials included conform to the requirements of NWP general condition 31 and the regional conditions for PCN in West Virginia.

2.0 PROJECT INFORMATION

This section outlines the applicant information, project location, project description, and purpose for the project and includes required information for the USACE application form ENG- 4345.

[2] 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.

2.1 APPLICANT INFORMATION

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2.3 PROJECT DESCRIPTION

The Project description for purposes of USACE NWP 12 authorization is to construct single and complete crossings or waters of the United States that result in no more than minimal individual and cumulative impacts to the aquatic environment. The overall ACP project construction and operation to be authorized by FERC is a proposed 564.1-mile-long, interstate natural gas transmission pipeline including approximately 300.1 miles of 42-inch outside diameter pipeline, approximately 183.0 miles of 36-inch outside diameter pipeline, and a total of 81.0 miles of three separate lateral pipelines. In addition to the construction of the pipeline, the Project would include the construction of 3 new compressor stations, 9 new meter stations, 30 mainline valves, and 8 sets of pig launcher and/or receiver sites at 11 points along the pipelines.

Subject to receipt of the required permits and regulatory approvals, Atlantic anticipates that construction of the ACP would commence in the Fall of 2016. Atlantic anticipates utilizing 12 construction spreads to construct the pipeline and associated facilities, although the number and definition of spreads may change depending on the project needs at the time of construction. Construction of the pipelines is expected to occur over approximately a 2-year period beginning in October 2016. Construction of aboveground facilities for the Project will begin in the Spring of 2017. Atlantic anticipates that all facilities would be placed in service by November 2018.

2.4 PROJECT LOCATION AND FACILITIES

Approximately 13.1 miles of 42-inch outside diameter pipeline and one valve site for the ACP occur within the USACE Huntington District. Pocahontas County, West Virginia is the only county in West Virginia crossed within Huntington District (Appendix A-3). Construction

of the ACP would result in temporary impact on wetlands and waterbodies crossed by the pipeline and is the focus of this preconstruction notification.

In addition to the proposed pipeline facilities, the ACP will require construction of one compressor station, one pig launcher/receiver site, two metering and regulation stations, and five valve sites within the USACE Huntington District. The location of each facility, in the Huntington District, is listed in Table 2-1 by milepost and county.

TABLE 2-1

Proposed Aboveground Facilities for the Atlantic Coast Pipeline – USACE Huntington District

Aboveground Facility	County/City and State/Commonwealth	Approximate Milepost
Valves		
AP-1 Mainline		
Valve Site 5	Pocahontas County, WV	77.2

Due to the linear nature of the ACP, there are multiple access point locations and land owners. In order to protect the safety and security of the project, directions and landowner information will be provided under separate cover upon request.

2.5 PROJECT PURPOSE

The purpose and need of each single and complete crossing is to cross the particular water of the United States while avoiding impacts to waters of the United States to the maximum extent practicable and offsetting unavoidable impacts to the aquatic environment with compensatory mitigation to the minimal individual and cumulative level.

2.6 FERC NEPA PROJECT PURPOSE AND NEED

The following description of the purpose and need for the FERC NEPA process is provided as background information.

The ACP is a proposed interstate natural gas transmission pipeline that would serve the growing energy needs of multiple public utilities and local distribution companies in Virginia and North Carolina. The natural gas transported by the ACP would be used as a fuel to generate electricity for industrial, commercial, and residential uses. The natural gas would also be used directly for residential, commercial, and industrial uses. By providing access to additional low-cost natural gas supplies, the ACP would increase the reliability and security of natural gas supplies in Virginia and North Carolina.

In recent years, demand for natural gas in Virginia and North Carolina has grown significantly. Demand for natural gas for all uses grew by 37 and 50 percent, respectively, in Virginia and North Carolina between 2008 and 2012. Demand for gas-fired electric power generation grew by 123 percent in Virginia and 459 percent in North Carolina from 2008 to 2013 (U.S. Energy Information Administration [EIA], 2015a, 2015b, 2015c, 2015d, and 2015e). [3]

[3] U.S. Energy Information Administration. 2015a. Annual Energy Outlook 2015. Available online at http://www.eia.gov/forecasts/aeo/. Accessed June 2015.

Demand for natural gas in Virginia and North Carolina is expected to increase in coming decades due to a combination of population growth and displacement of coal-fired electric power generation. The U.S. Census Bureau predicts 2.7 million new residents in Virginia and 4.2 million new residents in North Carolina between 2000 and 2030 (U.S. Census Bureau, 2014). At the same time, use of natural gas for power generation is expected to increase significantly. By 2035, natural gas is expected to surpass coal as the most common fuel for electric power generation due to coal-fired plant retirements and low natural gas prices. The EIA (2014a) expects renewable generation to grow 1.9 percent per year, meeting a part of the demand for power, but more than 70 percent of new generating capacity will be fueled by natural gas.

A study prepared by ICF International (2014) for Atlantic projects that electric power generation in Virginia and North Carolina will increasingly rely on natural gas over the next two decades. Between 2019 and 2038, the study predicts that approximately 9,900 megawatts of electric generating capacity from coal and nuclear fuels will be retired, while 20,200 megawatts of new generating capacity from natural gas will be built in Virginia and North Carolina. As a result, demand for natural gas for power generation in Virginia and North Carolina is expected to grow 6.3 percent annually between 2014 and 2035, increasing from 1 billion cubic feet per day (bcf/d) to 3.7 bcf/d.

To meet the growing demand for natural gas, the EIA (2014a) projects total United States natural gas production to increase by 56 percent from 2012 to 2040. At the same time, natural gas transmission patterns across the United States are expected to change based on the growing production from shale basins in the mid-Atlantic region. Historically, gas produced from the Gulf of Mexico, Canada, and the Rocky Mountains was delivered to markets in the eastern United States. Large increases in production from United States supply basins have created abundant, competitively priced supplies to meet the demands of the region.

A study by the U.S. Department of Energy (DOE, 2015) [4], dated February 2015, examined the impact of increased demand for natural gas from the electric power sector on natural gas pipeline infrastructure in the United States over a 15 year period from 2015 to 2030.[5] The DOE (2015) study found that a projected 38 to 42 bcf/d of new and expanded pipeline capacity will be necessary to meet demand over the 15 year study period. The DOE study further found that flow reversal is projected to occur "to serve markets in the Southeast." Furthermore, existing pipelines that historically transported natural gas from the Gulf Coast

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U.S. Energy Information Administration. 2015b. Market Trends; Electricity Demand. Available online at http://www.eia.gov/forecasts/aeo/MT_electric.cfm. Accessed June 2015.

U.S. Energy Information Administration. 2015c. Market Trends; Natural Gas. Available online at http://www.eia.gov/forecasts/aeo/mt_naturalgas.cfm. Accessed June 2015.

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U.S. Energy Information Administration. 2015e. Natural Gas Summary for North Carolina. Available online at http://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SNC_a.htm. Accessed June 2015.

[4] U.S. Department of Energy. 2015. Natural Gas Infrastructure Implications of Increased Demand from the Electric Power Section. Available on line at http://energy.gov/sites/prod/files/2015/02/f19/DOE%20Report%20Natural%20Gas%20Infrastructure%20V_02-02.pdf. Accessed February 2015.

[5] In comments filed with the FERC, several individuals said that demand for natural gas in Virginia and North Carolina could be met by existing pipeline systems citing this study by the DOE. The study did not conclude, as some suggested, that no additional pipeline capacity is needed to meet the increased demand for natural gas. Instead, the study found that the expected increase in pipeline capacity over the study period will be modest relative to previous expansions in pipeline capacity.

region to points further north are expected to change the direction of flow in order to "serve the Virginia and Carolina markets" (DOE, 2015). However, there are no existing long haul interstate pipelines with available takeaway capacity from the Appalachian region directly serving Virginia and North Carolina (see Figure 1 in the DOE (2015) study).

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

To meet the natural gas demand of its customers, the ACP would connect the growing demand areas in Virginia and North Carolina with growing supplies. Interstate natural gas pipelines act as common carriers to transport natural gas; they are not part of natural gas exploration or production activities. The ACP would connect growing demand areas in Virginia and North Carolina with growing supply areas in the Appalachian region and provide access to the Dominion South Point supply hub, consisting of abundant supplies on the DTI system that are sourced from a wide variety of upstream pipeline interconnects and diverse production areas. More specifically, the ACP would provide up to 1.5 bcf/d of firm natural gas transportation service into West Virginia, Virginia, and North Carolina.

The ACP would receive gas on behalf of its customers at two new interconnections: one between the ACP and the Supply Header Project (SHP), a connected project proposed by DTI, (both existing facilities and new facilities proposed for the SHP) in Harrison County, West Virginia, to be known as the Marts Junction Interconnection; and one between the ACP and existing Transcontinental Gas Pipe Line Company, LLC (Transco) facilities in Buckingham County, Virginia, to be known as the Buckingham Interconnect. The natural gas would be delivered to various new customer interconnects in West Virginia, Virginia, and North Carolina. Additionally, the ACP would lease capacity on a pipeline owned and operated by Piedmont to enable certain deliveries in North Carolina.

Of the new firm transportation capacity of up to 1.5 bcf/d proposed by the ACP, 1,360,000 dekatherms per day (dth/d) (approximately 1.33 bcf/d) is currently subscribed pursuant to precedent agreements with six customers. These customers are major utilities and local distribution companies in the region. The precedent agreements demonstrate the need for the Projects, the demand for new gas supplies indicated in the studies noted above, and the desire for access to a new supply region. The remaining unsubscribed capacity would be awarded and contracted for in accordance with Commission policies applicable to open-access interstate pipelines and the provisions of applicable FERC gas tariffs. The natural gas supplied to each delivery point would be provided to local distribution companies (LDC), power generators, and other interstate pipeline companies.

3.0 NATURE OF ACTIVITY AND APPLICABLE CONSTRUCTION METHODS

This section is intended to provide a better understanding of construction methods, potential impacts, and planned mitigation measures to be implemented during construction to avoid and minimize environmental impacts at sensitive resource crossings such as wetlands and waterbodies. While much of the information referenced in the sections below is not specifically related to the USACE permitting requirements, the detailed information and Plans will be available through the FERC Project docket to all cooperating agencies, including the USACE.

3.1 GENERAL CONSTRUCTION PROCEDURES

The ACP will be designed, constructed, operated, and maintained in accordance with USDOT regulations codified at 49 CFR 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*; with FERC regulations codified at 18 CFR 380.15, *Siting and Maintenance Requirements*; and with other applicable Federal and State regulations, except as otherwise specified in the FERC Application or approved by the appropriate regulatory agency.

Atlantic will adopt and implement the 2013 versions of the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures).[6] Atlantic additionally will prepare and implement the following construction, restoration, and mitigation plans:

- *Spill Prevention, Control, and Countermeasures Plan* (SPCC Plan);
- *Horizontal Directional Drill Fluid Monitoring, Operations, and Contingency Plan* (HDD Plan);
- *Timber Removal Plan*;
- *Contaminated Media Plan*;
- *Traffic and Transportation Management Plan*;
- *Invasive Plant Species Management Plan*;
- *Blasting Plan*;
- *Winter Construction Plan*;
- *Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction;*
- *Karst Monitoring and Mitigation Plan*;
- *Restoration and Rehabilitation Plan;*
- *Migratory Bird Plan*;

[6] Copies of the FERC's Plan and Procedures are available on the FERC's website at http://www.ferc.gov/industries/gas/enviro/guidelines.asp.

- *Fugitive Dust Control and Mitigation Plan*; and
- *Fire Prevention and Suppression Plan*.

A copy of the SPCC Plan, the Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction, and the Restoration and Rehabilitation Plan are provided in the Appendices B, C, and D of this Supplemental Information. Construction typical drawings depicting construction sequence and methods are contained in Appendix E.

Atlantic will also prepare a set of construction alignment sheets, drawings at a scale of one inch equals 200 feet, or similar scale maps which depict the locations of erosion and sediment controls in construction work areas that will be used during construction of ACP. The alignment sheets will incorporate the FERC's Plan and Procedures requirements as well as State and local regulations or guidelines applying the strictest applicable standards, such as the West Virginia Department of Environmental Protection's *Erosion and Sediment Control Best Management Practice Manual* (2006).

3.1.1 Survey and Staking

Affected landowners will be notified before the preconstruction survey and staking are conducted. After these notifications, Atlantic's survey contractor will stake the pipeline centerlines and limits of the construction right-of-way and additional temporary workspace (ATWS) areas. Wetland boundaries and other environmentally sensitive areas will also be marked at this time.

3.1.2 Clearing and Grading

Prior to beginning ground-disturbing activities, Atlantic's construction contractors will coordinate with the One-Call systems West Virginia to have existing underground utilities (e.g., cables, conduits, and pipelines) identified and flagged. Once this process is complete, the clearing crew will mobilize to the construction areas. Fences along the rights-of-way will be cut and braced, and temporary gates and fences will be installed to contain livestock, if present. The clearing crew will then clear the work area of vegetation and other obstacles, including trees, stumps, logs, brush, and rocks.

To the extent feasible, Atlantic will minimize tree removal during construction. Cleared vegetation and stumps will be either burned, chipped (except in wetlands), or hauled offsite to a commercial disposal facility. Burning will be conducted in accordance with State and local burning requirements or permits in uplands; burning will not be conducted in wetlands.

Following clearing, the construction right-of-way and ATWS will be graded where necessary to provide a level work surface to allow safe passage of construction equipment and emergency vehicles. More extensive grading will be required in steep side slope or vertical areas and where necessary to prevent excessive bending of the pipelines. Graded topsoil will be segregated in accordance with the Plan and Procedures, where required. Typically, topsoil will be segregated from subsoil in cultivated and rotated croplands, managed pastures, residential areas, and hayfields, unless Atlantic is instructed by a landowner or land managing agency not to do so or Atlantic imports topsoil in accordance with the Plan.

The depth of topsoil removed will depend on soil conditions and landowner requests or land managing agency requirements. In accordance with the Plan, and in areas where topsoil segregation is required, Atlantic will segregate at least 12 inches of topsoil in deep soils (more than 12 inches of topsoil) and the entire topsoil layer in shallow soils (less than 12 inches of topsoil). Excavated topsoil will be placed on the edge or edges of the construction right-of-way as shown in the construction typicals provided in Appendix E.

If the ground is relatively flat and does not require topsoil segregation or grading, the existing vegetative mat will be peeled and removed similar to topsoil and stockpiled along the right-of-way for use in restoration. In areas disturbed by grading, and as required by the Plan and Procedures, temporary erosion and sediment controls will be installed within the right-of-way to minimize erosion. The erosion and sediment controls will be inspected and maintained throughout the construction and restoration phases of the Projects, as appropriate, and as required by the Plan and Procedures.

3.1.3 Erosion Control Device Installation

Atlantic will install temporary best management practices (BMP) and/or erosion control devices (ECD), such as slope breakers, sediment barriers, stormwater diversions, etc., as necessary to prevent erosion within the construction right-of-way and ATWS immediately after the initial removal of vegetation (clearing and grubbing) and prior to grading and soil disturbance. ECDs will be installed in accordance with applicable permit conditions. The temporary ECDs will be replaced by permanent ECDs as installation of the pipeline and restoration is completed. ECDs and BMPs will be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls, or restoration of adjacent upland areas is complete, and revegetation has stabilized the disturbed area.

3.1.4 Trenching

Pipe trench will be excavated by rotary trenching machines, track-mounted backhoes, or other similar equipment. Trench temporary side-cast will be deposited adjacent to the trench within the construction right-of-way. The trench for each pipeline will be excavated to a depth that provides sufficient cover over the pipeline after backfilling. The typical dimensions of each pipeline trench will vary depending on a number of factors, such as the diameter of the pipe being installed and the substrate in the vicinity of the trench. The bottom width of the trench will be sufficient to accommodate the diameter of the pipeline and sufficient pad material around it (typically approximately 1 foot on either side of the pipeline). The top width will vary to allow the sides of the trench to be adapted to local soil conditions at the time of construction. If trench dewatering is required within or off of the construction right-of-way, it will be conducted in accordance with the Plan and Procedures and applicable permits in a manner that will not cause erosion or result in silt-laden water flowing into a wetland or waterbody.

In areas where topsoil segregation is required, subsoil from trench excavations will be placed adjacent to the topsoil in a separate pile to allow for proper restoration of the soil during backfilling and restoration. Gaps will be left between the topsoil and subsoil piles to prevent stormwater runoff from backing up or flooding. Mixing of topsoil and subsoil piles will be

prevented by separating them physically or with a mulch or silt fence barrier, where necessary, to accommodate reduced workspace.

When rock or rocky formations are encountered, tractor-mounted mechanical rippers or rock trenchers will be used for breaking up the rock prior to excavation. In areas where mechanical equipment or other means cannot be used to break up or loosen boulders or shallow bedrock, blasting will be required.

3.1.5 Pipe Stringing, Bending, and Welding

Individual joints of pipe (up to 80 feet long) will be trucked to the construction right-of-way and strung along the trenchline in a single, continuous line. Individual sections of pipe will be bent, where necessary, to allow for a uniform fit with the contours at the bottom of the trench and horizontal points of inflection. Typically, a track-mounted, hydraulic pipe-bending machine will tailor the shape of the pipe to conform to the contours of the terrain. After the pipe sections are bent, they will be welded together into long sections and placed on temporary supports.

Welding is a crucial phase of pipeline construction because the integrity of the pipeline depends on this process. Each weld must exhibit the same structural integrity with respect to strength and ductility. Welding will be conducted in compliance with 49 CFR 192 and API Standard 1104, *Welding of Pipelines and Related Facilities*. Completed welds will be visually and radiographically inspected. Welds that do not meet established specifications will be repaired or removed. Following welding and after inspection, pipe weld joints will be coated with an epoxy coating in accordance with required specifications. The coating will be inspected for defects, and repaired, if necessary, prior to lowering the pipe into the trench.

3.1.6 Lowering-in and Backfilling

Prior to lowering-in, the trench will be inspected to confirm it is free of rocks and other debris that could damage the pipe or its protective coating. Dewatering may be necessary to inspect the bottom of the trench in areas where water has accumulated. If dewatering is required, it will be conducted in accordance with the Plan and Procedures and applicable permits in a manner that will not cause erosion or result in silt-laden water flowing into a wetland or waterbody.

The pipe will be lifted from the temporary supports and lowered into the trench using side-boom tractors. As necessary, trench breakers (stacked sand bags or foam) will be installed in the trench around the pipe in steeply sloped areas to prevent movement of subsurface water along the pipeline. After lowering-in, the trench will be backfilled with previously excavated materials using bladed equipment or backhoes. If the excavated material is rocky, the pipeline will be protected with a rock shield or covered with other suitable fill (e.g., crushed limestone rock). Excavated rock will then be used to backfill the trench to the top of the existing bedrock profile in the trench, except that large rock will be buried on the working side of the two-tone cut where the contractor levels the ground for construction. This will prevent large rocks from migrating into the pad material in the trench and making contact with the pipe. Additionally, excavated rock may be crushed with a rock pulverizer and incorporated into fill or used as gravel to upgrade access roads. Excavated material not required for backfill will be removed and

disposed of at approved upland disposal sites. Coal ash and/or coal byproduct will not be utilized as fill material for backfilling the trench.

3.1.7 Hydrostatic Testing

After backfilling and all other construction activities that could affect the pipeline are complete, each pipeline will be hydrostatically tested in sections to verify that each system is free from leaks and will provide the required margin of safety at operating pressures. Individual sections of pipeline to be tested will be determined by water availability and terrain conditions. Water for hydrostatic testing will be obtained from surface or groundwater sources in accordance with State regulations and required permits. As practicable, water will be transferred from one test section to another to reduce the amount of water that is required for testing. Once hydrostatic testing is complete, the test water will 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). Alternatively, the water will be hauled offsite for disposal at an approved location.

During hydrostatic testing, internal pressures and durations will be in accordance with 49 CFR 192 and applicable permit conditions. If leaks are found during testing, the leaks will be repaired and the section of pipe retested until the required specifications are met.

3.1.8 Cleanup and Restoration

Final cleanup will begin after backfilling and as soon as weather and site conditions permit. A concerted effort will be made to complete final cleanup (including final grading and installation of permanent erosion control devices) within timeframes required by permits, in accordance with landowner requests, or as required by the Plan and Procedures. Construction debris will be collected and taken to an approved disposal facility. Pre-construction contours will be restored as closely as possible. Segregated topsoil will be spread over the surface of the right-of-way, and permanent erosion controls will be installed.

Revegetation measures will be implemented in accordance with the Plan and Procedures or as directed by the appropriate land managing agency. Disturbed, non-cultivated work areas will be stabilized and seeded as soon as possible after final grading, weather and soil conditions permitting, subject to the recommended seeding dates for the seed mixes used to revegetate different areas along the pipelines. Seeding will stabilize the soil, improve the appearance of the area disturbed by construction, and where native seed mixes are used, restore native flora.

Atlantic and DTI are working with local NRCS offices to acquire native seed mixes appropriate to the region. These recommendations will be specified in the project-specific Restoration and Rehabilitation Plan (Appendix D). The Restoration and Rehabilitation Plan includes specific guidelines for seeding and restoration activities after construction in riparian areas and wetlands. For additional details please refer to the Restoration and Rehabilitation Plan in Appendix D.

Markers showing the location of the pipeline will be installed intermittently along the pipeline rights-of-way according to ACP specifications as well as at fence, road, and railroad crossings to identify DTI as the operator of the new pipelines. The markers will convey

emergency information in accordance with applicable government regulations, including USDOT safety requirements. Special markers providing information and guidance to aerial patrol pilots also will be installed.

3.2 SPECIAL CONSTRUCTION TECHNIQUES

In addition to standard pipeline construction methods, Atlantic will use special construction techniques where warranted by site-specific conditions, (e.g., when constructing across waterbodies, wetlands, roads, highways, railroads, steep terrain, karst areas, agricultural areas, and residential areas; when blasting through rock; or when working in winter conditions). Each of these specialized measures is described below.

3.2.1 Wetland Crossings

Construction across wetlands will be conducted in accordance with the Procedures, site-specific modifications to the Procedures requested by Atlantic and approved by the FERC, and any additional requirements identified in Federal or State wetland crossing permits. Typical methods for construction across wetlands are described below. A list of wetland crossings along the proposed pipeline route is provided in Appendix F.

In accordance with the Procedures, the width of the construction right-of-way will be limited to 75 feet through wetlands, with ATWS on both sides of wetland crossings to stage construction equipment and materials, fabricate the pipeline, and store materials and excavated temporary side-cast. ATWS will be located in upland areas a minimum of 50 feet from the wetland edge (with the exception of site-specific modifications as requested by Atlantic and approved by the FERC).

Wetland boundaries will be clearly marked in the field prior to the start of construction with signs and flagging. Construction equipment working in wetlands will be limited to what is essential for right-of-way clearing, excavating the trench, fabricating and installing the pipeline, backfilling the trench, and restoring the right-of-way. In areas where there is no reasonable access to the right-of-way except through wetlands, non-essential equipment will be allowed to travel through wetlands once, unless the ground is firm enough or has been stabilized to avoid rutting.

Clearing of vegetation in wetlands will be limited to trees and shrubs, which will be cut flush with the surface of the ground and removed from the wetland. To avoid excessive disruption of wetland soils and the native seed and rootstock within the topsoil, stump removal, grading, topsoil segregation, and excavation will be limited to the area immediately over the trenchline, except a limited amount of stump removal and grading may be conducted in other areas if required by safety-related issues. Topsoil segregation over the trenchline will only occur if the wetland soils are not saturated at the time of construction.

During clearing, sediment barriers, such as silt fences or other approved sediment barriers, will be installed and maintained adjacent to wetlands and within ATWS areas as necessary to minimize the potential for sediment runoff. Sediment barriers will be installed across the full width of the construction right-of-way at the base of slopes adjacent to wetland boundaries. ECDs installed across the working side of the right-of-way will be removed during

the day when vehicle traffic is present, and will be replaced each night. Alternatively, drivable berms may be installed and maintained across the right-of-way in lieu of silt fences or straw bales. Sediment barriers will also be installed within wetlands along the edge of the right-of-way, where necessary, to minimize the potential for sediment to run off the construction right-of-way and into wetlands outside the work area. If trench dewatering is necessary, it will be conducted in accordance with the Procedures and applicable permits. Silt-laden trench water will be discharged into an energy dissipation/sediment filtration device, such as a geotextile filter bag and straw bale structure, to minimize the potential for erosion and sedimentation.

The method of pipeline construction used in wetlands will depend on site-specific weather conditions, soil saturation, and soil stability at the time of construction. If wetland soils are not excessively saturated at the time of construction and can support construction equipment on equipment mats, they will be crossed using conventional open-trench construction. This will occur in a manner similar to conventional upland cross-country construction techniques. In unsaturated wetlands, topsoil from the trenchline will be stripped and stored separately from subsoil.

Where wetland soils are saturated or in inundated lowlands areas where soils cannot support conventional pipe-laying equipment, the pipeline may be installed using the push-pull method. This method will involve stringing and welding the pipeline outside of the wetland and excavating and backfilling the trench using a backhoe supported by equipment mats. A prefabricated section of pipeline will be installed in the wetland by equipping it with buoys and pushing or pulling it across the water-filled trench. After the pipeline is floated into place, the floats will be removed and the pipeline will sink into place. In most cases, the pipeline will be coated with concrete or equipped with set-on weights to provide negative buoyancy. Once the pipeline is in place, the trench will be backfilled. The push-pull construction method minimizes the number of equipment passes, reducing wetland impacts and soil compaction in lowland areas.

Because little or no grading will occur in wetlands, restoration of contours will be accomplished during backfilling. Prior to backfilling, trench breakers will be installed, where necessary, to prevent subsurface drainage of water from wetlands. Where topsoil is segregated, the subsoil will be backfilled first followed by the topsoil. Topsoil will be replaced to the original ground level leaving no crown over the trenchline. In areas where wetlands overlie rocky soils, the pipe will be padded with rock-free soil or sand before backfilling with native bedrock and soil. Equipment mats, gravel fill, and/or geotextile fabric will be removed from wetlands following backfilling.

Where wetlands are located at the base of slopes, permanent slope breakers will be constructed across the right-of-way in upland areas adjacent to the wetland boundary. Temporary sediment barriers will be installed where necessary until revegetation of adjacent upland areas is successful. Once revegetation is successful, sediment barriers will be removed from the right-of-way and disposed of at an approved disposal facility.

3.2.2 **Waterbody Crossings**

Atlantic will use the flume, dam-and-pump, or cofferdammethods to construct the pipelines across waterbodies. In each case and for each method, Atlantic will adhere to the measures specified in the Procedures; site-specific modifications to the Procedures as requested by Atlantic and approved by the FERC. As well as any additional requirements identified in Federal or State waterbody crossing permits, including applicable permits and approvals from the USACE and various State agencies (see Section 6.0). A complete list of the waterbodies along the proposed pipeline routes, and the construction method proposed for each crossing, is provided in Appendix G. Construction methods for waterbodies that isolate the pipeline trench from flowing water (e.g. flume, dam-and-pump, cofferdam) will be utilized where these methods are proposed and perceptible flow is present at the time of the crossing.

During the clearing and grading phase of construction, 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. 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.

ATWS will be required on both sides of waterbody crossings to stage construction equipment, fabricate the pipeline, and store construction materials. Except as requested and approved by the Commission, the ATWS will be located at least 50 feet away from the water's edge at each waterbody (with the exception of site-specific modifications as requested by Atlantic and approved by the FERC).

Clearing adjacent to waterbodies will involve the removal of trees and brush from the construction right-of-way and ATWS areas. Woody vegetation within the construction right-of-way will be cleared to the edge of each waterbody. Sediment barriers may be installed at the top of the bank if no herbaceous strip exists. Initial grading of the herbaceous strip will be limited to the extent needed to create a safe approach to the waterbody and to install temporary bridges.

During clearing, sediment barriers will be installed and maintained across the right-of-way adjacent to waterbodies and within ATWS to minimize the potential for sediment runoff. ECDs located across the working side of the right-of-way will be removed during the day when vehicle traffic is present, and will be replaced each night. Alternatively, drivable berms may be installed and maintained across the right-of-way in lieu of silt fences and/or straw bales.

Typically, equipment refueling and lubricating at waterbodies will take place in upland areas that are 100 feet or more from the edge of the waterbody and any adjacent wetlands. 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. Atlantic's SPCC Plan will address, among other items, 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. The SPCC Plan is provided in Appendix B.

After the pipeline is installed across a waterbody using one of the methods described below, the trench will be backfilled with native material excavated from the trench. If present and moved prior to construction, larger rocks or boulders will be replaced in the stream channel within the construction area following backfill of the trench. The streambed profile will be restored to preconstruction contours and grade conditions to prevent scouring. The stream banks will then be restored as near as practicable to preconstruction conditions and stabilized. Stabilization measures could include seeding, tree planting, installation of erosion control blankets, or installation of riprap materials, as appropriate. Jute thatching or bonded fiber blankets will be installed on banks of waterbodies or road crossings to stabilize seeded areas. 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.

Open-Cut Method

The Open-Cut method is not currently proposed for use for construction across waterbodies within the Huntington District. However, the Open-Cut method for waterbody crossings may be determined by Dominion as a feasible option for use at waterbodies where there is no perceptible flow at the time of the crossing.

Flume Method

The flume crossing method consists of isolating and temporarily diverting the flow of water across the trenching area through one or more large-diameter, smooth steel flume pipes placed in the waterbody. This method allows for trenching activities to occur within a relatively dry stream or riverbed (beneath the flume pipes containing the water flow), thereby minimizing sediment and turbidity within the waterbody. The flume method is typically used to cross small to intermediate flowing waterbodies that support coldwater or other significant fisheries.

For each waterbody where the flume method is implemented, a sufficient number of adequately sized flume pipes will be installed in the waterbody to accommodate the highest anticipated flows during construction. Atlantic will use stream gauge data from the U.S. Geological Survey (USGS) to determine the highest anticipated flows during the time the flume crossing is in effect. As noted above, the duration of in-stream construction activities (excluding blasting, if required) will be limited to 24 hours across minor waterbodies (up to 10 feet in width) and 48 hours across intermediate waterbodies (greater than 10 feet and less than or equal to 100 feet in width). In the absence of stream gauge data, Atlantic's engineers and Environmental Inspectors will estimate the highest anticipated flows based on the width of the waterbody at the ordinary high water mark, the depth of the waterbody, existing flows at the time of the crossing, and the weather forecast at the time of the crossing. As a contingency, Atlantic will stage additional flume pipes at the crossing in the event that the volume of flow increases due to a precipitation event.

Prior to installation, Atlantic will inspect the flume pipes to confirm that they are free of dirt, grease, oil, or other pollutants. After placing the pipes in the waterbody, sand- or pea gravel-filled bags, water bladders, or metal wing deflectors will be placed in the waterbody around the flume pipes upstream and downstream of the proposed trench. These devices will serve to dam the stream and divert the water flow through the flume pipes, thereby isolating the water flow from the construction work area between the dams.

After installation of the flume pipes, any remaining standing water between the dams will be pumped out. Pump intakes will be appropriately screened to prevent entrainment of aquatic species. Additionally, any fish trapped in the dewatered area will be removed and returned to the flowing waterbody. Leakage from the dams or subsurface flow from below the waterbody bed may cause water to accumulate in the trench once trenching has begun. If water accumulates in this area, it may be periodically pumped out and discharged into energy dissipation/sediment filtration devices as required by the Procedures. Such devices include geotextile filter bags and straw bale structures. Alternatively, the water will be discharged into well-vegetated areas away from the edge of the waterbody, to prevent silt-laden water from entering the waterbody.

Backhoe-type excavators located on the banks of the waterbody will be used to excavate a trench under the flume pipe across the dewatered streambed. Temporary side-cast excavated from the waterbody trench will be placed and stored on the bank above the high water mark and a minimum of 10 feet from the edge of the waterbody. Once the trench is excavated, a prefabricated segment of pipe will be installed beneath the flume pipes. The trench will then be backfilled with the native material excavated from the trench across the waterbody bed. The banks will be stabilized before removing the dams and flume pipes and returning flow to the waterbody channel.

The flume method has proven to be an effective technique for constructing pipelines across sensitive waterbodies. The potential for the introduction of turbidity or suspended sediments is limited because sediment generated during trench excavation and backfilling operations is isolated to the dewatered area between dams. When flumes are installed properly, the operation of the flume is generally stable and can be installed and left in place for periods prior to and following the installation of the waterbody pipeline crossing. The flume method also provides for continued fish passage through the construction work area via the flume pipes during the crossing.

Dam-and-Pump Method

The dam-and-pump method may be used as an alternative to the flume method. It generally is preferred for waterbodies where hard bedrock occurs and in-stream blasting is required. The dam-and-pump method is similar to the flume method except that pumps and hoses are used instead of flume pipes to isolate and transport the stream flow around the construction work area. Similar to the flume method, the objective of the dam-and-pump method is to create a relatively dry work area to avoid or minimize the transportation of sediment and turbidity downstream of the crossing during in-stream work.

As the first step in implementing the dam-and-pump method, one or more pumps and hoses of sufficient size to transport anticipated flows around the construction work area will be

installed in the waterbody. Additional back-up pumps will be on site at all times in case of pump failure. Once the pumps are operational, the waterbody upstream and downstream of the construction area will be dammed with sandbags and/or steel plates. As the dams are installed, the pumps will be started to maintain continuous flow in the waterbody.

Following the installation of the dams, the pumps will be run continuously until the pipeline is installed across the waterbody and the streambed and banks are restored. Pump intakes above the upstream dam will be appropriately screened to prevent entrainment of aquatic species. Energy-dissipation devices will be used to prevent scouring of the streambed at the discharge location. Water flow will be maintained through all but a short reach of the waterbody at the actual crossing location.

Backhoe-type excavators located on the banks of the waterbody will be used to excavate a trench across the waterbody. Temporary side-cast removed from the trench will be placed and stored on the bank above the high water mark at a minimum of 10 feet from the edge of the waterbody. Trench plugs will be maintained between the upland trench and the waterbody crossing. After backfilling, the dams will be removed and the banks restored and stabilized as described above.

Conventional Bore

The Conventional Bore method is not currently being evaluated for use in installing waterbody crossings within the Huntington District, pending the results of geotechnical investigations and final engineering. Other Conventional Bore crossings for the ACP may be identified as a result of ongoing engineering design or consultation with permitting agencies.

Cofferdam

Some waterbodies will be crossed using the cofferdam method. In this method, a temporary diversion structure is installed from the bank around half the width of the crossing to isolate that section of the stream from the rest of the waterbody. Once the temporary diversion structure is installed, water is pumped from the isolated section to allow excavation of the pipe trench from the bed of the waterbody in the dry. After the pipe is installed in the trench in the isolated section of stream, the temporary diversion structure is disassembled and reinstalled from the opposite bank of the crossing and the process is repeated. The cofferdam method allows waterbodies to be crossed in the dry in discrete sections while water flows unimpeded around the temporary diversion structure. The method is sometimes favored for wide, relatively shallow waterbodies or waterbodies containing sensitive fisheries because it allows water and fish to pass around the temporary diversion structure.

For waterbodies crossed using the cofferdam method, sections of steel frame for the temporary diversion structure will be assembled in an upland area adjacent to the crossing. Depending on size, the frame sections will be placed in the waterbody either manually or by crane. The frame sections will be positioned around a predetermined perimeter in the waterbody extending from one of the banks. The spacing of frame sections will be based on the depth of the water, but a typical spacing will be 15 to 30 inches. The frame sections may be reinforced, as necessary, with steel poles or other supports to increase stability of the structure,

especially in waterbodies with soft substrate. Fabric sheets will then be attached to the top of the frame and unrolled down and out onto the bed of the waterbody on the exterior side of the frame. The fabric sheets will create a liner around the frame with a seal on the bed of the waterbody. The fabric may be covered in soft sediments or sandbags to help create the seal.

After the temporary diversion structure is installed, one or more pumps will be used to dewater the area within the temporary diversion structure. The pump intakes will be appropriately screened to prevent entrainment of aquatic species. Water will be discharged to the waterbody outside the structure through an energy-dissipating device to prevent scouring of the bed at locations of discharge. Once dewatering is complete, fish trapped in the temporary diversion structure will be removed and returned to the flowing waterbody. Construction equipment will then enter the isolated section of the waterbody from the adjacent bank, excavate the trench, install a pre-assembled section of pipe, backfill the trench, and restore the bed as near as practicable to preconstruction contours. The equipment will then exit the temporary diversion structure via the adjacent bank.

After the section of pipeline is installed, the enclosed area within the temporary diversion structure will be flooded, the fabric sheets and steel frame sections will be disassembled, and the structure will be reinstalled from the opposite bank with enough overlap of the initial excavation area so that the installed section of the pipeline will be accessible for tie-in to the next section of pipe. The dewatering and construction process will then be repeated from the opposite bank to complete the crossing of the waterbody.

Horizontal Directional Drill Method

The horizontal directional drill (HDD) method is not currently proposed for use to install the pipeline across waterbodies within the Huntington District, pending the results of geotechnical investigations and final engineering.

The use of horizontal directional drilling (HDD) was considered for wetland and waterbody crossings, but was determined to not be feasible in all crossing locations based on logistical, economic, temporal, and engineering constraints, additional environmental impacts, and potential environmental risks. The HDD method requires that a prefabricated segment of pipe at least the length of the bore hole be staged in line with the drill path at the exit hole, opposite the placement of the drilling rig. This "pullback" generally requires a false right-of-way that can deviate from the right-of-way approaching the crossing, unless the drill alignment is directly in-line with the construction right-of-way for the length of the prefabricated pipe segment. In many cases the drill path is not in-line with the construction right-of-way and additional workspace that extends well outside of the standard construction right-of-way must be cleared and graded to accommodate the prefabrication of the pipe segment described above. In addition, work space required at the entry and exit holes, although temporary, is approximately 300-ft by 300-ft.

The path of the drill is constrained by the flexibility of the pipe; the depth beneath the wetland and/or waterbody needed to achieve a successful installation; and the elevation of the entry and exit points. The entry and exit points should be similar in elevation to prevent a significant pressure differential that can contribute to failure of the HDD operation and by

maintaining consistent pressure this helps maintain predictable flow of drilling mud and thus greater likelihood of a successful HDD.

As a rule of thumb used in evaluating the feasibility of the HDD method, the 42-inch pipe requires a minimum drill path of 2,200 feet and the 36-inch pipe requires a minimum drill path of 1,800 feet to achieve acceptable radius of curvature that will prevent a catastrophic "crinkling" of the pipe as it conforms to the path of the drill hole. All proposed HDD crossings will be designed based on specific site constraints at the crossing and geologic conditions, therefore site-specific designs may vary from the planning guidelines. HDD poses a higher risk to construction scheduling as well. Typical installations of this pipe size take several months which increases the impact to the surrounding communities and environment. In the event the initial bore is unsuccessful the process would start again in the immediate vicinity further increasing the impact.

A large drill can be more expensive than traditional crossing methods and can take several months to install. Traditional crossing methods of major waterbodies can typically be completed in less than 30 days for major waterbody crossings, whereas typical minor or intermediate waterbody crossings can be completed within a day or a few days. Due to the extended time of exposure of additional workspace associated with HDD coupled with the potential for an inadvertent return, traditional crossing methods can often reduce the environmental impact over HDD. Based on these constraints and design considerations the HDD method is feasible and practicable where large, deep waterbodies are encountered and sufficient space to place the pullback and work area for drilling equipment is available.

4.0 AVOIDANCE AND MINIMIZATION

For purposes of the USACE evaluation of single and complete crossings, the "alternatives analysis" is to ensure that the crossing of each water of the United States is made in a manner that avoids and minimizes impacts to the aquatic environment to the maximum extent practicable, after considering the approach to the crossing in the uplands immediately adjacent to the water of the United States. For example, to the extent practicable, crossings will be perpendicular to the aquatic feature to minimize the length of the pipeline in the particular aquatic system.

The FERC NEPA EIS process is evaluating alternative route alignments and the overall impacts on the human environment of the proposed pipeline. As background, information on the FERC alternatives analysis follows, including discussion of the various alternatives FERC is considering.

Atlantic identified and evaluated a number of alternatives to the proposed Projects through the FERC NEPA process which included a range of alternatives consistent with the requirements of 40 CFR 230. These include a no-action alternative; alternative energy sources, including traditional and renewable sources; energy conservation measures; system alternatives; conceptual collocation route alternatives; major route alternatives; minor route variations; minor route adjustments; and alternative aboveground facility sites. The review of alternatives included an assessment and comparison of a number of factors, including technical and economic feasibility, constructability, environmental impact, ability to meet the purpose and

need of the Projects, and input from stakeholders, including Federal land managing agencies, Federal and State/Commonwealth resource agencies, and landowners.

Atlantic identified an initial or "baseline" route for the proposed ACP pipeline based on locations of receipt and delivery points, engineering and constructability criteria, terrain, and existing land use. Atlantic subsequently evaluated and continue to evaluate environmental and other constraints along each of the routes in an effort to refine the baseline configurations. Route alternatives, variations, and minor adjustments were identified and continues to be identified based on a review of desktop constraint data, consultations and discussions with agency staff or other stakeholders, and field review in an effort to optimize the routes. The objective of the process was to identify the shortest possible route between the proposed receipt and delivery points taking into account the ACP purpose and need, engineering constraints, crossings of public lands, issues identified by stakeholders, minimization of impacts by collocating with existing rights-of-way or infrastructure, and the potential for impacts on sensitive environmental, tribal, and historical resources.

Atlantic's analysis of route alternatives and variations used a geographic information system (GIS) to characterize crossings of environmental features and other constraints along the routes. A digital centerline for each route alternative and the corresponding segment of the baseline was compared with a variety of datasets and map resources in the GIS. Features and constraints considered in the analysis included: length, public lands crossed, roads crossed, conservation easements crossed, forested lands crossed (based on the National Land Cover Database), wetlands crossed (based on the National Wetlands Inventory [NWI]), waterbodies crossed (based on the National Hydrography Dataset [NHD]), and known cultural resources sites crossed, such as Civil War battlefields.

Once a baseline route was determined using desktop data, a field oriented routing team consisting of a lead construction router, civil survey staff, and an ecological specialist teamed to adjust the route based on site-specific conditions while weighing competing constraints associated with environmental, tribal, and historical resource protection, constructability, available technology, and logistical constraints . Where practicable, adjustments to the route were made to avoid and/or minimize impacts to wetlands and waterbodies.

As a result of desktop analyses and field surveys, Atlantic identified a number of route alternatives and variations along the proposed pipeline routes to avoid or minimize crossings of sensitive environmental features or to address engineering or other issues. Additional route alternatives or variations may be considered to address issues identified as a result of ongoing environmental and civil field surveys, engineering design work, agency consultations, landowner communications, or other stakeholder input.

Atlantic has evaluated numerous 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 route variations to the baseline route was cumulative impact avoidance relative to the objective of the route 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 refinements to the routes are small, but collectively they reduce impacts on

environmental resources. Table 4-1 lists the route variations and minor route adjustments to date that have been incorporated into the proposed ACP pipeline route within the Huntington District and a brief rationale for each adjustment.

TABLE 4-1

Route Variations and Adjustments Incorporated into the Proposed Atlantic Coast Pipeline Route

Route Variation/Adjustment	Approximate Mileposts	Rationale
AP-1 Mainline		
Thornwood Road	75.7-76.6	Adjustment to optimize crossing angle of East Fork Greenbrier River

In addition to the route variations and adjustments, Atlantic continued to optimize the route at a localized scale to further minimize impacts on wetlands and waterbodies where feasible.

Appendix A includes detailed route maps that illustrate how Atlantic has also minimized impacts to wetlands and waterbodies by reducing workspace at wetland crossings and in the vicinity of wetlands and waterbodies, where feasible. In addition, to avoid impacts to wetlands along the periphery of the construction workspace, modifications to workspace have been incorporated into the project design to minimize impacts to wetlands and waterbodies.

ACP is a FERC regulated pipeline project and subject to certain procedures to avoid and minimize impacts to wetland and waterbody crossings to satisfy FERC's own NEPA requirements that also include minimization of environmental impacts. These procedures are outlined in the Plan and Procedures and are applicable to all FERC regulated pipelines.

Despite Atlantics efforts to avoid and minimize impacts, there will be impacts that cannot be avoided. These impacts will be offset with compensatory mitigation, discussed in Section 8.0.

5.0 IMPACTS TO WETLANDS AND WATERBODIES

Atlantic began conducting wetland field surveys during the 2014 field season, on properties where survey permission had been granted by the landowner, to identify and delineate wetlands within the ACP pipeline construction corridors, access roads and other work areas. The wetland delineation study area for the ACP 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. Atlantic will continue to conduct waterbody surveys to document waterbody crossings along the remainder of the proposed pipeline routes, access roads and in other work areas. To date, wetland surveys have been completed for approximately 94 percent of the proposed ACP pipeline routes and 94 percent of the aboveground facility sites, access roads, and pipe storage and contractor yards. Wetland surveys will continue until the entire route has been surveyed.

Appendix G provides a list of the waterbodies crossed by the proposed ACP within the Huntington District. 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 water classification, and indicates if there is a time of year restriction at the crossing. 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.

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) (USACE), 1987; (USACE, 2012). Observations of vegetation, hydrology, and soils were recorded, and photographs were taken at each wetland. Wetland and waterbody delineations for the ACP 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 will obtain preliminary jurisdictional determinations from the USACE for these delineations. The wetland and waterbody delineation report and supporting datasheets are included in Appendix H.

A summary description of the direct and indirect environmental effects to waterbodies and wetlands within the Huntington District that will result from the construction of the Project is provided in Section 5.1 and 5.2. In order to minimize environmental impacts during construction, Atlantic developed a SPCC Plan which is provided in Appendix B.

CUMULATIVE IMPACTS UNDER USACE NWP 12

As part of the USACE evaluation of the single and complete crossings of waters of the United States for applicability of coverage under NWP 12, the USACE must determine if the individual and cumulative impacts on the aquatic environment are no more than minimal after considering compensatory mitigation for unavoidable impacts. The single and complete crossing impacts are presented by HUC 8 watershed in Sections 5.1 and 5.2, below. By avoiding impacts to higher ecological value waters of the United States, minimizing impacts to the maximum extent practicable, and providing compensatory mitigation for conversion of forested and scrub-shrub wetlands to herbaceous wetlands, Atlantic has ensured that impacts associated with single and complete crossings are minimal. As with all impact evaluation under the NWP program, the determination whether there would be more than minimal cumulative adverse impacts on the aquatic environment is made after considering proposed mitigation. Furthermore, based on the level of conversion impacts occurring within each HUC 8 watershed, and the fact that all conversion impacts have been offset by compensatory mitigation, the cumulative impacts to the aquatic environment have been reduced to a minimal level as described in Section 3.14 of this Joint Permit Application document.

The Preamble of the March 2012 NWP issuance package also indicates that cumulative effects will normally be evaluated on a watershed basis.

(77 FR 10196)"Each separate and distant crossing should be evaluated to determine if it meets the terms and conditions of the NWP, and cumulative effects of the overall utility line should be evaluated to determine if the adverse cumulative effects on the aquatic environment are more than minimal and therefore do not qualify for NWP authorization. Separate utility line crossings are usually on different water bodies, and may also be in widely separated watersheds. Such factors should be considered when assessing cumulative impacts."

(77 FR 10264) "For single and complete linear projects, each separate and distant crossing of a waterbody, as well as each crossing of other waterbodies along the corridor for the linear project may be permitted by separate NWP authorizations. The acreage and other applicable limits for an NWP would be applied to each crossing, as long as those crossings are far enough apart to be considered separate and distant. District engineers will evaluate the cumulative effects of those linear projects when determining whether authorization by NWP is appropriate. The approach to cumulative effects analysis for linear projects is little different than the cumulative effects analysis for other types of NWP activities, including those circumstances in which more than one NWP is used to authorize a single and complete non-linear project, because cumulative effects are evaluated on a regional basis. Cumulative effects analysis may be done on a watershed basis, or by using a different type of geographic area, such as an ecoregion."

The USACE mitigation rule at 33 CFR 332.8(d)(6)(ii)(A), provides that normally mitigation service areas would be at the HUC 8 watershed level. HUC 8 has been used as the size of watershed in which to present the cumulative impacts of the proposed Project.

The vast majority of the Project impacts to waters of the U.S. would result from the temporary discharge of earthen fill material associated with trench excavation for pipeline installment within the rights-of-way. Furthermore, to facilitate construction equipment for pipeline installation, forested and scrub/shrub wetlands would be cleared and stumps removed where required for safe passage during pipeline installment. Where temporary discharges of fill or excavation is necessary, Atlantic will immediately restore the wetland to its pre-construction contours. The center 30-feet of the cleared rights-of-way that previously consisted of forested wetlands will be permanently maintained free of trees. The center 10-feet of the cleared rights-of-way that previously consisted of forested or scrub-shrub wetlands will be permanently maintained in an herbaceous state. This maintenance for the life of the project, while not resulting in a loss of waters of the U.S., will result in a permanent loss of function and value, which would otherwise exist had the vegetative cover of the wetland not been altered. This has been described as permanent conversion in associated tables.

Atlantic has taken great steps to avoid all permanent impacts (i.e., permanent loss of waters of the U.S.) and has successfully been able to avoid impacts at permanent above ground facilities in the Huntington District. However, loss of waters of the U.S. may occur as a result of access road improvements. Existing access roads will be utilized where feasible. Where access road improvements are necessary for use, waters of the U.S. loss impacts will be minimized to the maximum extent practicable, and will be kept below 0.5 acre at individual and complete crossings. These impacts will be quantified during the design phase and provided at a later date.

The temporary impacts and permanent conversion impacts of the proposed Project are provided in detail in Appendices F and G, and summarized by HUC 8 watershed in Sections 5.1 and 5.2 below. There will be no loss of waters of the U.S. due mainline pipeline crossings of waters of the U.S. Despite potential minor loss of waters of the U.S. for access road improvements and the wetland conversion impacts, the compensatory mitigation plan will provide for impact offsets and Atlantic does not anticipate a net loss in aquatic functions and services of the waters of the U.S.

Assessment of cumulative effects also involves a general characterization of impacts to waters of the U.S. from similar types of projects in the past and reasonably foreseeable future. The area that the pipeline would traverse largely involves a mix of small community development, agricultural use and open undisturbed forested land. Past impacts would be those of typical rural development with road and various utility line crossings of streams and wetlands in support of agriculture and dispersed human development. Reasonably foreseeable impacts would include continued slow additional growth in the small human communities with associated road and utility line crossings of waters of the U.S.

As provided in the USACE 2012 NWP issuance document at 77 FR 10197, cumulative impacts to the human environment other than impacts to waters of the U.S. will be evaluated by FERC in its NEPA EIS process.

"Even though an environmental impact statement may be prepared for a particular utility line, the National Environmental Policy Act process does not prohibit the Corps from using NWP 12 to authorize the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, as long as the activity complies with all applicable terms and conditions and results in minimal individual and cumulative adverse effects on the aquatic environment. NEPA requires consideration of all environmental impacts, not only those to aquatic resources, so there may well be situations where aquatic impacts are minimal even though environmental impacts more generally are not. These other environmental impacts would be addressed by the lead agency preparing the environmental impact statement."

The purpose of the proposed pipeline is to transport natural gas from West Virginia and Pennsylvania to use in areas of Virginia and North Carolina. Other pipelines, subject to future approvals with mitigation as appropriate and practicable, may be required to transport natural gas from source areas such as the Marcellus Shale and Utica Shale formations.

Based on the fact that the majority of the overall pipeline project impacts to waters of the U.S. are temporary with restoration immediately after construction and that permanent conversion of forested and scrub-shrub wetlands to other wetland types and small road fills will be mitigated to the minimal impact level the impacts at each single and complete crossing will be minimal. In addition, since these minimal impacts to waters of the U.S., at each single and complete crossing, are dispersed over different watersheds in the Huntington District, the aggregate impacts of the overall pipeline project to waters of the U.S. will be minimal as well. Therefore the cumulative impacts of the overall pipeline project on each HUC 8 watershed are not of a nature or extent that would trigger the need for an individual permit for the Project.

5.1 WATERBODY IMPACTS

After the avoidance and minimization efforts employed during routing and route refinement, as well as construction planning and design described in section 4.0, within the Huntington District, a total of 19 waterbodies will be crossed by the Project. Appendix G provides table that includes the waterbodies crossed by the ACP within the Huntington District.

Impacts on individual waterbodies temporarily crossed by the proposed ACP facilities could occur as a result of construction activities in stream channels and on adjacent banks. Potential impacts on waterbodies and minimization or mitigation measure that will be utilized are described below.

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. In addition, implementation of the best management procedure outlined in the FERC Plan and Procedures will help minimize impacts on waterbodies.

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 will install equipment bridges, mats, and pads, as necessary. Additionally, Atlantic will locate ATWS at least 50 feet from the top of stream banks (with the exception of site-specific modifications requested by Atlantic and approved by the FERC). Temporary sediment barriers will be installed around disturbed areas as outlined in the Plan and Procedures. Upon completion of construction, Atlantic will install approved permanent erosion control measures at stream crossing locations to provide long-term protection of water quality according to the Plan and Procedures and all permit requirements.

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 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.

As noted above, Atlantic 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 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 preconstruction

contours and grade conditions to prevent scouring. The stream banks will then be restored as near as practicable to preconstruction 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.

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.

In areas where concrete-coated pipe is required, and in accordance with the SPCC Plan, concrete coating activities conducted in the field will occur a minimum of 100 feet from wetlands, waterbodies, springs, and karst features. Concrete-coated pipe will be installed after the concrete is dried and will not be dispersed when submerged in water.

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 will prepare and implement a *Contaminated Media Plan* 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.

Once construction is complete, the pipeline will be buried below the ground surface and preconstruction contours will be reestablished; therefore, the pipeline will not impact water retention or floodplain storage within riparian corridors. Atlantic is routing the proposed pipelines to avoid sharp angle crossings or crossing streams where high stream energy could result in bank erosion. Atlantic 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 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.

The impacts associate with construction are planned to occur in an expedient and efficient manner such that impacts on the waterbody and associate banks are temporary in nature. Table 5.1-1 summarizes the impacts on waterbodies by the 8-digit hydrologic unit code watershed (HUC 8) for mainline pipeline. Based on the short duration and distant nature of the waterbody crossings, Atlantic anticipates that cumulative impacts will result in less than significant adverse impacts to the watersheds crossed. No impacts are anticipated at aboveground facilities sites. Where access road improvements are necessary for use, loss of waters will be minimized to the maximum extent practicable, and will be kept below 0.5 acre to conform to USACE, Nationwide Permit 12.

TABLE 5.1-1

Atlantic Coast Pipeline Project – U.S. Army Corps of Engineers Huntington District
HUC 8 Waterbody Impacts Table – Mainline Pipeline

Sub-basin HUC 8 Number	Waterbody Type	Total Count	Approximate Crossing Width (Feet)	Affected Length (Feet)
05020003	Perennial	11	302	1326
	Intermittent	7	18	517
	Ephemeral	1	0	41
	Pond	0	0	0
	Canal/Ditch	0	0	0
Total		**19**	**320**	**1884**

5.2 WETLAND IMPACTS

After the avoidance and minimization efforts employed during routing and route refinement, as well as construction planning and design described in section 4.0, within the Huntington District there will be a total of 15 wetland crossings conducted for the ACP mainline construction within the Huntington District. There will be no wetland crossing associated with aboveground facilities and construction staging areas for the ACP. Where the route crosses a single wetland more than once, each crossing was counted separately. Appendix G provides a table that includes the wetlands crossed by the ACP within the Huntington District.

Impacts resulting in loss of the waters of the U.S. are not anticipated as a result of mainline pipeline construction. However, loss of waters of the U.S. may occur as a result of access road improvements, where necessary. Existing access roads will be utilized where feasible. Where improvements are necessary for use, waters of the U.S. loss impacts will be

minimized to the maximum extent practicable, and will be kept below 0.5 acre at individual and complete crossings.

The combined linear crossing distance of all wetlands within the Huntington USACE District is 529 feet, accounting for 0.8 percent of the combined length of the pipeline routes within that district. In total, approximately 0.98 acre of wetlands will be temporarily impacted by construction of the ACP pipeline facilities within the Huntington District. The proposed Project will result in the conversion of approximately 0.02 acre of PFO wetlands and 0.00 acre of PSS wetlands.

The crossing method for each wetland during construction will depend on site-specific weather and soil conditions, including soil saturation and stability. Appendix H identifies the proposed crossing method for each wetland along the ACP.

Construction activities can affect wetlands in several ways. Clearing and grading of wetlands, trenching, backfilling, and trench dewatering can affect wetlands through the temporary alteration of wetland vegetation and hydrology; loss or change to wildlife habitat; erosion and sedimentation; and accidental spills of fuels and lubricants.

In general, Atlantic will minimize impacts on wetlands by following the Plan and Procedures, site-specific modifications to the Procedures requested by Atlantic and approved by the FERC, and any additional requirements identified in Federal or State wetland crossing permits. Atlantic will prepare a Plan of Development or *Construction, Operation, and Maintenance Plan*, which will identify construction procedures and mitigation measures to be implemented on federally managed lands.

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 approved by the FERC and other applicable agencies);
- locating ATWS within uplands, at least 50 feet away from wetland boundaries (unless alternative, site-specific measures are requested by Atlantic 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;
- limiting the operation of equipment off of equipment mats or timber riprap in wetlands only if the wetland is not excessively saturated in order to prevent the compaction and rutting of wetland soils;
- restricting grading in wetlands to the area directly over the trenchline, except where necessary to provide 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 pre-construction 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 use of a 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 and properly installed straw bale structure, to minimize the potential for erosion and sedimentation;
- preventing the invasion or spread of undesirable exotic vegetation as according to a project-specific invasive plant species management plan.
- 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;
- monitoring of the success of wetland revegetation following construction until wetland revegetation is successful; and
- at the end of 3 years after construction, active management for any wetland where revegetation is not successful by developing and implementing a remedial revegetation plan, in consultation with a professional wetland ecologist, to actively revegetate wetlands.

Based on FERC Procedures 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.

TABLE 5.2-1

Atlantic Coast Pipeline Project – U.S. Army Corps of Engineers Huntington District
HUC 8 Wetland Impacts Table – Mainline Pipeline

Sub-basin HUC 8 Number	Wetland Type[a]	Crossing Length (Feet)	Temporary Impacts (Acres)[b]	Conversion Impacts (Acres)[c]
05020003	PEM	278	0.5	0.00
	PFO	251	0.48	0.02
	PSS	0	0.00	0.00
Total		**529**	**0.98**	**0.02**

[a] Indicates Cowardin classification. PEM – emergent, PSS – scrub-shrub, PFO – forested.
[b] Temporary impacts include all permanent, temporary, and extra temporary workspace.
[c] Conversion of PFO and PSS wetlands consists of acreage that will be maintained as herbaceous/scrub-shrub wetlands following construction to facilitate inspection and maintenance of the pipeline.

The impacts associated with construction are planned to occur in an expedient and efficient manner such that impacts on the wetlands are minimized to the extent practicable, and long-term impacts are associated with minimal conversion of type but not loss of wetlands. In addition, while there are a number of wetland crossings across the project in the Huntington District, the crossings are distributed across many watersheds. Table 5.2-1 summarizes the impacts on wetlands for mainline pipeline in the HUC 8 watershed. Based on the short duration of construction thru wetlands, minimization of long-term conversion by implementing FERC procedures (i.e., clearing of 10 feet to maintain herbaceous conditions, and 15 feet either side of centerline for trees), Atlantic anticipates that cumulative impacts will result in less than significant adverse impacts to the watersheds crossed. No impacts are anticipated at Aboveground Facilities sites.

Impacts resulting in loss of the waters of the U.S. are not anticipated as a result of mainline pipeline construction within the Huntington District. However, loss of waters of the U.S. may occur as a result of access road improvements. Existing access roads will be utilized where feasible. Where improvements are necessary for use, waters of the U.S. loss impacts will be minimized to the maximum extent practicable, and will be kept below 0.5 acre at individual and complete crossings. Dominion has further outlined and described a conceptual compensatory mitigation plan in section 8.0, below.

6.0 COMPLIANCE WITH NATIONWIDE 12 PERMIT TERMS AND CONDITIONS

Compliance with both General Conditions of the Nationwide Permit Program and additional Regional Conditions as specified according to General Condition 27 are summarized in table 6-1, table 6-2, and 6-3 below.

TABLE 6-1

Atlantic Coast Pipeline
Compliance with Nationwide Permit General Conditions

General Conditions	Compliance with Condition
1 – Navigation	ACP does not cross Section 10 Rivers within the Huntington District.
2 – Aquatic Life Movements	Atlantic will comply with General Condition 2 by completing pipeline installation in accordance with the best management practices contained in the FERC Plan and Procedures, as well as agency specified in-stream work windows, which collectively include measures to minimize impacts on aquatic life movements including: • Expediting in-stream construction activities in waterbodies; • Installing temporary bridges across flowing waterbodies to facilitate access for equipment; • Maintaining downstream flow rates during dam-and-pump and flume crossings by use of adequately sized pumps or flume pipes to protect aquatic life and prevent interruption of existing downstream uses; • Restoring the stream channel and banks to preconstruction contours; and • Removing construction equipment and materials from within the waterbody as soon as practical. In-water work windows will be adhered to as specified by U.S. Fish and Wildlife Service and West Virginia Division of Natural Resources; spawning season waivers will be applied for if necessary.
3 – Spawning Areas	Atlantic will comply with General Condition 3 by completing installation of the pipeline during periods of low flow where practicable, expediting in-stream activities, installing temporary equipment bridges, and completing installation of the pipeline in perennial waterbodies with cold or warm water fisheries outside of in-stream work restriction periods required by federal and or state agencies. If Atlantic is unable to work outside of these time restrictions, requests for spawning waivers will be applied for with the West Virginia Division of Natural Resources.
4 – Migratory Bird Breeding Areas	Atlantic will comply with general condition 4 and remain in compliance with the applicable portions of the Migratory Bird Treaty Act. The ACP does not cross any areas identified as important bird areas that support breeding, wintering, or migrating birds within West Virginia. However, to comply with General Condition 4 Atlantic is developing conservation measures that would minimize impacts to migratory birds, otherwise known as the approved Migratory Bird Plan. Atlantic plans to clear the majority of the pipeline right-of-way outside of the migratory bird nesting season to reduce potential impacts on migratory birds and other sensitive species. In the event, that clearing is necessary within the nesting season, Atlantic will avoid impacts to nests observed within the construction right-of-way in accordance with the Migratory Bird Treaty Act.
5 – Shellfish Beds	Atlantic will comply with General Condition 5 by completing shellfish surveys. If protected shellfish are identified during surveys, mitigation/conservation measures will be developed and may include the use of dry crossing techniques such as the flume or dam and pump method and/or the relocation of mussel populations located in the immediate vicinity of the crossing location that would be disturbed by construction activities.
6 – Suitable Material	Atlantic will comply with General Condition 6 by utilizing the material excavated from the pipeline trench to backfill the trench in areas where the pipeline will be installed using conventional trenching techniques. The backfilled material will be free from trash and other unsuitable material. Where trench spoil is not suitable, Atlantic may use imported clean fill such as sand, washed gravel, or cobbles to complete backfill of the trench. This situation may occur where bedrock is encountered within the trench and must be removed from the backfill material to prevent damage to the pipeline's coating. Atlantic will dispose of drill cuttings generated during the HDD installation of the pipeline outside of wetlands and waterbodies in accordance with landowner requirements and any applicable regulations.
7 – Water Supply Intakes	Atlantic has complied with General Condition 7 by identifying potable water intakes located within 3 miles downstream of proposed crossing locations. None were identified within Pocahontas county.
8 – Adverse Effects From Impoundments	Atlantic will comply with General Condition 8 by completing pipeline installation in accordance with best management practices, which includes measures to minimize the duration of in-stream activities and maintain downstream flow. All temporary bulkheads and temporary bridges will be removed following construction. No permanent impoundments within waters of the U.S. are proposed.
9 – Management of Water Flows	Atlantic will comply with General Condition 9 by restoring the course, condition, and capacity of all waterbody crossings to the maximum extent practicable. Atlantic will complete pipeline installation in accordance with the best management practices contained in the FERC Plan and Procedures. The specific measures are designed to minimize the duration of in-stream activities and maintain downstream flow by: completing pipeline installation within the timeframes described in the Procedures, designing and maintaining temporary equipment bridges to maintain unrestricted flow, and maintaining adequate flow rates during use of dry crossing methods such as the dam & pump and flume methods.

TABLE 6-1 (cont'd)

Atlantic Coast Pipeline
Compliance with Nationwide Permit General Conditions

General Conditions	Compliance with Condition
10 – Fills Within 100-Year Floodplains	Atlantic will comply with General Condition 10 by siting aboveground facilities such as pump stations and valves in upland areas to the maximum extent feasible. In the event that placement of aboveground facilities such as valves is required within the floodplain, Atlantic will obtain the appropriate state and local permits prior to installation. Figure Set 5 in Appendix A identifies aboveground facilities in relation to FEMA floodplains.
11 – Equipment	Atlantic will comply with General Condition 11 by limiting the equipment operating in wetlands and waterbodies to that necessary to safely install the pipeline. Atlantic will utilize mats or low-ground-weight equipment if standing water or saturated soils are present and equipment would cause rutting in wetlands.
12 – Soil Erosion and Sediment Controls	Atlantic will comply with General Condition 12 by installing BMPs and/or ECDs as necessary to prevent erosion within the construction right-of-way and ATWS immediately after the initial removal of vegetation and prior to grading and soil disturbance. These controls will be properly maintained throughout construction until replace by permanent controls or revegetation has stabilized the area.
13 – Removal of Temporary Fills	Atlantic will comply with general condition 13 by following the pipeline installation process of backfilling the trench and restoring surface contours to their pre-existing elevation. Excess materials will be removed from the wetland and disposed of in a suitable upland area. Temporary bridges and timber construction mats used within wetlands and waterbodies to facilitate installation of the pipeline and equipment travel will be removed once construction and restoration is complete.
14 – Proper Maintenance	Atlantic will comply with General Condition 14 by maintaining the pipeline in accordance with Atlantic's safety standards and specifications and in accordance with the U.S. Department of Transportation (U.S. DOT) (Title 49 CFR Part 195) requirements.
15 – Single and Complete Project	Atlantic will comply with General Condition 15. This pre-construction notification (PCN) includes all wetlands and waterbodies crossed by the route within the USACE - Huntington District. Atlantic understands that most crossings will be considered a single and compete project under the provisions of Nationwide Permit No. 12 and all calculation of the projects impacts are provided in a manner for the USACE to review each crossing separately. Atlantic will provide update to this notification in the event that additional wetlands and waterbodies are identified as survey of the entire pipeline route is completed.
16 – Wild and Scenic Rivers	Atlantic has complied with General Condition 16 because the project does not cross any federally designated Wild and Scenic Rivers.
17 – Tribal Rights	The ACP will not impact tribal rights, such as reserved water rights and treaty fishing and hunting rights. Atlantic has initiated consultation with Native American tribes historically known to occur within the project areas. Atlantic will continue to consult with these tribes to address tribal rights and traditional cultural properties.
18 – Endangered Species	Atlantic will comply with General Condition 18 by developing a biological assessment evaluating the potential impacts of the Projects on federally listed species. Atlantic expects to file the draft biological assessment with the FERC in the Fall of 2015. As the lead Federal agency for authorizing Projects, FERC is required to coordinate with the FWS and NOAA Fisheries to determine whether federally listed endangered or threatened species or designated critical habitat are found in the vicinity of the Projects, and to evaluate the potential effects of the proposed actions on those species or critical habitat.
19 – Migratory Bird and Bald and Golden Eagle Permits	Atlantic will comply with General Condition 19 and the relevant portions of both the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Atlantic will implement a project-specific Migratory Bird Plan that identifies conservation measures that will be implemented, such as: Atlantic plans to clear the majority of the pipeline right-of-way outside of the migratory bird nesting season to reduce potential impacts on migratory birds and other sensitive species. In the event that clearing is necessary within the nesting season, Atlantic will avoid impacts to nests observed within the construction right-of-way in accordance with the Migratory Bird Treaty Act. In the event that an active bald eagle nest is identified in the vicinity of the project, Atlantic will adhere to the requirements of the National Bald Eagle Management guidelines to minimize potential impacts on nesting eagles.
20 – Historic Properties	Atlantic will comply with General Condition 20, which is discussed in more detail in Section 9 Atlantic is currently completing the cultural resources investigations for the ACP. The cultural surveys are being conducted to cover a 300–foot-wide corridor. Atlantic will provide a cultural resources survey report to the USACE upon request to facilitate the review of the project according to Section 106 of the National Historic Preservation Act.
21 – Discovery of Previously Unknown Remains and Artifacts	Atlantic will comply with General Condition 21, discovery of previously unknown remains and artifacts by ceasing work upon discovery of such cultural materials or remains and reporting the discovery to the FERC. Atlantic has developed Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction, which has been provided to the SHPO for review and comment. See Appendix C for the project-specific Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction.

TABLE 6-1 (cont'd)

Atlantic Coast Pipeline
Compliance with Nationwide Permit General Conditions

General Conditions	Compliance with Condition
22 – Designated Critical Resource Waters	Atlantic has complied with General Condition 22. The project will not be located within a National Oceanic and Atmospheric Administration-designated marine sanctuary, National Estuarine Research Reserve, or National Wild and Scenic River. The project crosses six Tier 3 Protected Waters in the Huntington District (UNT to Greenbrier River, West Fork Greenbrier River, Mountain Lick Creek, John's Run, East Fork Greenbrier River, and Little River). There are crossings located at potential sites for freshwater mussels and trout. Atlantic will be taking required measures to avoid impact at these locations. In-water work windows will be adhered to as specified by U.S. Fish and Wildlife Service and West Virginia Division of Natural Resources; spawning season waivers will be applied for if necessary.
23 – Mitigation	Atlantic will comply with General Condition 23 by mitigating temporary impacts on-site through restoration of pre-construction contours of wetlands and beds and banks of waterbodies, and revegetation of wetlands and waterbody banks. For remaining impacts that cannot be mitigated on site, Atlantic has provided a conceptual described in Section 8.0, for impacts that are not mitigated on site and for conversion impacts on wetlands.
24 – Safety of Impoundment Structures	Atlantic will comply with General Condition 24 as no permanent impoundments in waters of the U.S. are proposed for the ACP.
25 – Water Quality	Atlantic will submit an application for Section 401 water quality certification to the West Virginia Department of Environmental Protection and will implement best management practices to minimize impacts on water quality.
26 – Coastal Zone Management	Not applicable – There are no Coastal Zones in West Virginia.
27 – Regional and Case-By-Case Conditions	See Tables 5-2 and 5-3.
28 – Use of Multiple Nationwide Permits	Atlantic is seeking authorization only under Nationwide Permit 12 in the Huntington District, therefore General Condition 28 is not applicable.
29 – Transfer of Nationwide Permit Verifications	Atlantic will comply with General Condition 29. Although Atlantic does not intend to transfer its permit verification, Atlantic will notify the USACE in accordance with the requirements of Condition 29 in the event that transfer of the permit is required.
30 – Compliance Certification	Atlantic will comply with General Condition 30. Following construction and restoration, Atlantic will submit a signed certification if required, stating that the work was completed in accordance with permit conditions.
31 –Pre-Construction Notification	Atlantic will comply with General Condition 31 by providing a complete preconstruction notification for all wetlands and waterbodies crossed by the Project. Atlantic will provide an update to this notification in the event that additional wetlands and waterbodies are identified as survey of the entire pipeline route is completed.

TABLE 6-2

Atlantic Coast Pipeline
Compliance with Nationwide Permit General Regional Conditions

Regional Conditions	Compliance with Condition
1 – Full Agency Pre-construction Notification	Atlantic will comply with General Condition 1 by submitting 5 copies of the PCN in addition to the 1 original hard copy. The five additional copies will be submitted in electronic form.
2 - Pre-Construction Notification Submittals	Atlantic will comply with General Condition 2 by: • Providing graphic illustrations on 8 1/2" x 11" paper. The illustrations clearly depict the project boundaries, including all elements and phases of the proposed project. Three types of illustrations are needed to properly depict the work to be undertaken. • Providing a written description of the proposed project including acreage(s) of waters of the U.S. proposed to be directly or indirectly affected as a result of the proposed project, the linear footage of the proposed direct and indirect stream impacts associated with the project, and cubic yards of fill proposed to be discharged. • Providing a description of the ways in which the project has been designed to avoid and minimize adverse impacts to water of the U.S. • Providing information concerning whether the proposed activity would affect any historic properties listed, determined to be eligible, or which we have reason to believe may be eligible, for listing on the National Register of Historic Places. • Providing basic information about the general project area (encompassing a search radius of 2 miles centered on the project area) including USGS 7.5' series topographic maps, National Register of Historic Places (NRHP) files including Historic Districts, and county atlases, histories and/or any historic USGS 15' series topographic map(s), brief description of the terrain and topography of the project area, acreage of the project area, and any past cultural resource studies or coordination for the project area, if available, along with photographs, keyed to mapping, showing the project area and any buildings or structures on adjacent parcels. • The submittal of ground photographs to illustrate conditions of the overall project site and impact site, with the accompanying wetland and waterbody delineation report, included in Appendix H.
3 – Compensatory Mitigation	A conceptual compensatory mitigation plan for impacts to each single and complete crossing to Waters of the United States and Waters of the State for the ACP project has been developed and is outlined in Section 8.0. Where available mitigation bank credits will be utilized to mitigate impacts. In the event of a mitigation bank being unavailable for credit purchase or to make up the balance of credits needed an In-lieu Fee Program will be used to satisfy the mitigation requirement.
4 – Passage of Aquatic Life	Atlantic will comply with General Condition 4 by implementing the appropriate construction techniques at all waterbody crossings so as not to prevent the passage of aquatic life. These crossings will be completed per timing restrictions outlined in Appendix G.
5 – Endangered Species	The ACP requires a PCN, therefore the USACE District Engineer will assume responsibility for determining project related effects to endangered species. However, Atlantic has reviewed the affected species and will employ all discussed mitigation measures to avoid or minimize impact.
6 – Endangered Species Habitat	Atlantic has complied with General Condition 6 by providing notification to the USFWS Elkins Field Office.
7 – NPS Notification	Atlantic will comply with General Condition 7 by filing a notification to the National Park Service and/or the Forest Service due to work occurring in streams in the Monongahela National Forest.
8 – West Virginia Natural Stream Preservation Act	General Condition 8 does not apply to this project, because ACP does not cross any of these designated waterbodies.
9 – Tier 3 Protected Waters	The ACP crosses six Tier 3 waterbody within the Huntington District and will comply with General Condition 9 by providing a 401 Water Quality Certification application to the West Virginia Department of Environmental Protection, Division of Water and Waste Management.
10 – Archeological Sites and Human Remains	Atlantic will comply with General Condition 10 by ceasing work, upon discovery of archeological sites or human remains, and contacting the appropriate offices and implementing the Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction included in Appendix C.

TABLE 6-3

Atlantic Coast Pipeline
Compliance with Nationwide Permit Specific Regional Conditions

Regional Conditions	Compliance with Condition
1 – For those utility line projects requiring notification, a USGS topographic map shall be provided showing the overall project area identifying beginning and ending termini.	Atlantic has complied with Specific Condition 1 by supplying a topographic map with the PCN, Figure Set 3.
2 – Notification is required for utility lines not regulated by a state or federal agency or to individual family residences.	Not applicable as this project is a natural gas pipeline project that is regulated by the Federal Energy Regulatory Commission.
3 – Notification is required for all work in waters of the U.S. associated with the construction of utility line substations.	Atlantic will comply with Specific Condition 2 by providing the PCN to the USACE for all project crossings of Waters of the U.S.
4 – Notification is required for all work in streams associated with the construction of foundations for overhead utility lines towers, poles, and anchors.	Not applicable to natural gas pipeline projects.
5 – The maximum allowable timeframe for temporary work in waters of the U.S. is limited to one year, unless the permittee receives prior written approval from the COW granting a time extension.	Atlantic will comply with Specific Condition 5 by implementing the FERC Procedures, which requires construction across minor waterbodies (up to 10 feet in width) within 24 hours, intermediate waterbodies (greater than 10 feet and less than or equal to 100 feet wide) within 48 hours, and for major waterbodies over 100 feet Atlantic will construct as quickly as practicable, but does not anticipate temporary work associated with pipeline construction within waters of the U.S. for longer than the maximum timeframe of one year.
6 – Notification for aerial transmission line over Section 10 waters must include the nominal system voltage and the additional clearance above low steel for bridges, if available, or above maximum high water elevation.	Not applicable to natural gas pipeline projects.
7 – All aerial crossings will have the following minimum clearances above the clearance required for bridges, or the clearances which would be required by the U.S. Coast Guard for new fixed bridges, in the vicinity of the proposed crossing. These clearances are based on the low point of the line under conditions which produce the greatest slag, taking into consideration temperature, load, wind, length or span, and type of supports as outlined in the National Electric Safety Code.	Not applicable to natural gas pipeline projects.

7.0 OTHER APPLICABLE PERMITS

A summary of other applicable federal, state, and local environmental permits required for construction of the Project are included in Table 7-1.

TABLE 7-1

Atlantic Coast Pipeline Project
Required Permits and Approvals

Agency	Permit	Date Submitted	Date Received
Federal Permits			
U.S. Army Corps of Engineers Huntington District	Section 404, Clean Water Act & Section 10, Rivers and Harbors Act	---	---
U.S. Fish and Wildlife Service - West Virginia	Endangered Species Act - Section 7 Consultation	---	---
National Park Service	Concurrence in the Right-of-Way Grant issued by the BLM to cross the Monongahela National Forest	---	---
	Special Use Permit for Survey Access	9/30/2014	1/21/2015
	Archaeological Resources Protection Act (ARPA) Permit	10/9/2014	1/21/2015
Federal Energy Regulatory Commission	Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act	9/15/2015	---
West Virginia State Permits			
West Virginia Department of Environmental Protection	401 Water Quality Certification	---	---
	Air Permit – New Sources Review Permit	---	---
	NPDES Stormwater Associated with Construction Activity Permit –WV0116815	---	---
	NPDES Hydrostatic Water Testing General Permit No. WV0113069	---	---
	Large Quantity User Water Use Registration	---	---
West Virginia Division of Natural Resources	Natural Heritage/Protected Species Consultation	8/8/2014	4/1/2015
	Stream Activity Permit	---	---
West Virginia Public Lands Corporation	Stream Activity Permit (Joint application with the DNR)	---	---
West Virginia Division of Culture and History	Consultation under Section 106 of the National Historic Preservation Act	8/14/2014	---

8.0 COMPENSATORY MITIGATION

In order to authorize any activity under the NWP Program the USACE must determine that the authorized activity in waters of the U.S. meets the terms and conditions of the relevant NWP, in this case NWP 12, which allows no more than 0.5 acre loss at any single and complete crossing. Furthermore, provided the activity meets the terms and conditions of NWP 12 USACE must determine that the activity will not result in more than minimal individual or cumulative impacts on the aquatic environment ***AFTER*** considering proposed compensatory mitigation. Such impacts would include the conversion impacts from one type of water of the U.S. to another type of water of the U.S. As stated in the Preamble to the 1991 NWP rule (56 FR 59118-59119) mitigation can be used to reduce impacts to the aquatic environment to the minimal level:

"In response to the comments concerning whether the DE should allow an activity to proceed under a relevant NWP when the mitigation reduces the adverse environmental effects to the minimal level (the "buy down" or "write down" concept), we believe it is indeed

appropriate for the DE to consider mitigation in determining whether the proposed activity will result in no more than a minimal level of adverse environmental effects." and "In summary, the net impact concept regarding the determination of minimal is consistent with NEPA, the Army/EPA Mitigation MOA and the Section 404(b)(1) Guidelines as they pertain to general permits."

Permanent loss of wetlands are not anticipated to occur as a result of the ACP mainline pipeline construction in West Virginia. However, loss of waters of the U.S. may occur as a result of access road improvements. Existing access roads will be utilized where feasible. Where access road improvements are necessary for use, waters of the U.S. loss impacts will be minimized to the maximum extent practicable, and will be kept below 0.5 acre at individual and complete crossings. Atlantic will compensate for the conversion of forested and scrub-shrub wetlands, both for the permanent conversion and temporal lag in temporarily impacted wetlands, along the ACP right-of-way and permanent losses of wetlands and/or waterbodies at access road crossing through the purchase of commercially available mitigation credits from an agency-approved mitigation bank as a first option. In-kind mitigation bank credits will be purchased from mitigation banks servicing the areas (HUC 8 watershed, or approved service area) where the conversion or loss occurs. In the event that a conversion or loss occurs in a service area where mitigation bank credits are not available, Atlantic will seek authorization to purchase credits from outside the service area of the next nearest mitigation bank and/or participate in an agency-approved In-Lieu-Fee program, where credits or opportunities are available.

9.0 THREATENED AND ENDANGERED SPECIES AND CRITICAL HABITAT

The ACP is a FERC 7c regulated project and the USACE is participating in the pre-filing process as a cooperating agency. FERC will be coordinating with the U.S. Fish and Wildlife Service (USFWS) regarding the review of Section 7 Endangered Species Act (ESA) compliance.

Section 7 of the ESA requires Federal agencies to verify that any actions authorized, funded, or carried out by the agencies do not jeopardize the continued existence of a federally listed threatened or endangered species, or result in the destruction or adverse modification of designated critical habitat for a federally listed species. The law is jointly administered by the USFWS, which is responsible for terrestrial and freshwater species, and National Oceanic and Atmospheric Administration (NOAA) Fisheries, which is responsible for marine and anadromous species. As the lead Federal agency for authorizing the Projects, FERC is required to coordinate with the USFWS and NOAA Fisheries to determine whether federally listed endangered or threatened species or designated critical habitat are found in the vicinity of the Projects, and to evaluate the potential effects of the proposed actions on those species or critical habitat.

For actions involving major construction activities with the potential to affect listed species or designated critical habitat, the FERC must report its findings to the USFWS and NOAA Fisheries in a biological assessment (BA) for those species that could be affected. If it is determined that the proposed action is likely to adversely affect listed species or designated critical habitat, the FERC is required to initiate formal consultation with the appropriate Federal agency.

Atlantic reviewed the IPaC System to determine which federally listed species could occur in the ACP Project area. Additionally Atlantic coordinated with the FWS Ecological Services Field Office (ESFO) in West Virginia to introduce the Project and begin discussing potential impacts on federally listed species and designated critical habitat. Correspondence with agencies is located in Appendix I.

For the ACP, Atlantic sent letters to the West Virginia, USFWS EFSO and to NOAA Fisheries' Office of Protected Resources in August 2014 requesting early coordination and technical assistance based on the species lists obtained through the IPaC System. These letters requested verification of the species that could be impacted by the ACP Project as well as direction on field survey protocols for species-specific surveys.

Atlantic requested and received National Heritage Inventory (NHI) data for a 2 mile-wide corridor centered on the proposed pipeline centerlines which include the locations of aboveground facilities. This data identifies occurrences of federally listed, as well as sensitive or significant habitats including parks, forests, or nature preserves located along or adjacent to the proposed pipeline routes.

Based on information obtained through IPaC System, NHI, and agency consultations to date, Atlantic has compiled a preliminary list of 5 federally listed threatened and endangered species that potentially occur within the ACP Project area within the USACE – Huntington District (table 9-1).

Through coordination with the FWS EFSO field survey protocols were developed for all species listed in Table 9-1. Correspondence logs documenting the coordination with the USFWS EFSO are located in Appendix I.

Atlantic is developing an applicant prepared BA that will be submitted to FERC and the FWS, and anticipates that this will be completed in the Fall of 2015. A copy of the applicant prepared BA will be provided to the USACE.

10.0 HISTORIC PROPERTIES

The ACP is a FERC 7c regulated project and the USACE is participating in the pre-filing process as a cooperating agency. FERC will be coordinating with the West Virginia State Historic Preservation Office (SHPO) for the review of Section 106 of the National Historic Preservation Act compliance, as well as coordinating its government-to-government consultation with federally recognized Indian Tribes. Project introduction letters were sent to 12 federally recognized Indian Tribes.

TABLE 9-1

Atlantic Coast Pipeline Project
Federally Listed Endangered, Threatened and Candidate Species and Species Proposed for Federal Listing within U.S. Army Corps of Engineers – Huntington District

Species	Status [a]	Areas of Potential Occurrence
Mammals		
Indiana bat (*Myotis sodalis*)	E	All counties crossed by the Project
Northern long-eared bat (*Myotis septentrionalis)*	T	All counties crossed by the Project
Amphibians		
Cheat Mountain Salamander *(Plethodon netting)*	T	Pocahontas County
Plants		
Running buffalo clover *(Trifolium stoloniferum)*	E	Pocahontas County
Virginia Spirea *(Spiraea virginana)*	T	Pocahontas County

[a] Abbreviations for species federal status are as follows:
E = Endangered
PE = Proposed Endangered
C = Candidate
T = Threatened

The area of potential effect (APE) for archaeological sites was defined horizontally as the proposed pipeline corridor and associated workspace, footprints of aboveground facility sites, and footprints of other work areas; and vertically as the maximum depth of trenching and other excavations or the depth to which evidence of human occupation could be found. The APE for aboveground historic resources was defined to include the proposed pipeline corridor and associated workspace, footprints of aboveground facility sites, and footprints of other work areas. The APE for aboveground historic resources also included viewsheds to and from historic sites along or near the proposed facilities. The linear extent of the viewsheds varied by site depending on changes in topography, vegetation cover, and the presence of structures or other obstructions in sight lines to and from aboveground historic resources.

The reports presenting the results of the cultural resources surveys for the Project can be provided to the USACE – Norfolk upon request, along with copies of documentation of SHPO review and comment when they become available.

11.0 REFERENCES

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West Virginia Mussel Survey Protocol. 2014. Available online at: http://www.wvdnr.gov/Mussels/West%20Virginia%20Mussel%20Survey%20Protocols%20March%202014.pdf. Accessed December 2014.

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ATLANTIC COAST PIPELINE PROJECT

APPENDIX A-1

Figures
Atlantic Coast Pipeline: Overview Map

EXHIBIT 3

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APPENDIX A-2

Figures
Atlantic Coast Pipeline: U.S. Army Corps of Engineers Districts Map

EXHIBIT 3

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APPENDIX A-3

Figures
Atlantic Coast Pipeline: U.S. Army Corps of Engineers – Huntington District
1:12,000 Scale Topographic Map Set

EXHIBIT 3

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ATLANTIC COAST PIPELINE PROJECT

APPENDIX A-4

Figures
Atlantic Coast Pipeline: U.S. Army Corps of Engineers – Huntington District
1:6,000 Scale Aerial Photo Map Set

EXHIBIT 3

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APPENDIX A-5

Figures
Atlantic Coast Pipeline: U.S. Army Corps of Engineers – Huntington District
Maps – FEMA Floodplain

EXHIBIT 3

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APPENDIX B

Spill Prevention, Control, and Countermeasures Plan (SPCC Plan)

EXHIBIT 3

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APPENDIX C

Plans for Unanticipated Discovery of Historic Properties or Human Remains during Construction

EXHIBIT 3

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APPENDIX D

Restoration and Rehabilitation Plan

EXHIBIT 3

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APPENDIX E

Typical Pipeline Construction Sequence, Typical Construction & Right-of-Way Layout

EXHIBIT 3

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APPENDIX F

Wetland Crossing Tables

EXHIBIT 3

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APPENDIX G

Waterbody Crossing Tables

EXHIBIT 3

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APPENDIX H

Waterbody and Wetland Report and Datasheets

EXHIBIT 3

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APPENDIX I

Fish and Wildlife Service Protected Species Correspondence

EXHIBIT 3

EXHIBIT 4

APPENDIX K

WATERBODIES CROSSED BY THE
ATLANTIC COAST PIPELINE AND SUPPLY HEADER PROJECT

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Harrison County, WV	AP-1 / 0.0	Tanner Fork	Perennial		6	Temp / Perm ROW	Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Harrison County, WV	AP-1 / 0.0	UNT to Tanner Fork	Perennial	3 (CL)	3	Dam and Pump or Flume	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Harrison County, WV	AP-1 / 0.4	Tanner Fork	Perennial		4	Perm AR - Existing Culvert	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Harrison County, WV	AP-1 / 0.5	UNT to Tanner Fork	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Harrison and Lewis Counties, WV	AP-1 / 1.1	Kincheloe Creek	Perennial	14 (AR) / 14 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	B1; HQS	Iron and Fecal Coliform	April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 1.5	Sand Fork	Perennial	12 (CL)	14	Dam and Pump or Flume	In-stream; Within 1000 feet	B1; HQS	Conditions Not Allowable (CNA)- Biological	April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 2.4	UNT to Kincheloe Creek	Intermittent	56 (AR) / 21 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 2.5	Kincheloe Creek	Perennial	45 (AR)	20	Temp AR - Existing Culvert	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 3.0	UNT to Hog Camp Run	Perennial		4	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 3.8	Hog Camp Run	Perennial	11 (AR)	7	Perm AR	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 4.0	Hog Camp Run	Perennial	41 (CL)	15	Flume or Dam and Pump	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 4.0	UNT to Hog Camp Run	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 5.0	Elk Lick	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 5.0	Elk Lick	Intermittent		5	Abuts Perm AR	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Lewis County, WV	AP-1 / 5.0	UNT to Elk Lick	Intermittent		2	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Lewis County, WV	AP-1 / 5.7	Turkeypen Creek	Perennial	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 5.7	UNT to Turkeypen Creek	Intermittent		3	Temp ROW	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Lewis County, WV	AP-1 / 7.2	UNT to Hollick Run	Ephemeral		1	Temp / Perm ROW	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Lewis County, WV	AP-1 / 7.5	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	NA		NA		NA	
Lewis County, WV	AP-1 / 7.6	UNT to Hollick Run	Intermittent		4	Compressor Station - Temporary Impact	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 7.7	Hollick Run	Perennial	9 (CL)	9	Compressor Station - Temporary Impact	Within 1000 feet	B1		April 1 to June 30	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Lewis County, WV	AP-1 / 7.7	Hollick Run	Perennial		6	Compressor Station - Temporary Impact	Within 1000 feet	B1		April 1 to June 30	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Lewis County, WV	AP-1 / 7.7	UNT to Hollick Run	Intermittent		2	Compressor Station - Temporary Impact	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 7.7	UNT to Hollick Run	Intermittent		4	Compressor Station - Temporary Impact	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 7.8	Hollick Run	Perennial		15	Compressor Station - Temporary Impact	Within 1000 feet	B1		April 1 to June 30	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Lewis County, WV	**AP-1 / 8.2**	**West Fork River**	**Perennial**	**92 (CL)**	**65**	**Cofferdam**	**In-stream; Within 1000 feet**	**A; B1; HQS**	**CNA-Biological, Fecal Coliform, and Polychlorinated Biphenyls (PCB)**	**April 1 to June 30**	**Assume presence of snuffbox (F-E) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.**	**Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**
Lewis County, WV	AP-1 / 9.4	Broad Run	Perennial	11 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Lewis County, WV	AP-1 / 9.9	UNT to Broad Run	Intermittent		2	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Lewis County, WV	AP-1 / 10.2	Broad Run	Perennial		4	Perm AR - Existing Culvert	NA	B1		April 1 to June 30	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Lewis County, WV	AP-1 / 10.2	UNT to Broad Run	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 10.8	UNT to Sycamore Lick	Ephemeral		2	Temp ROW	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Lewis County, WV	AP-1 / 10.9	Broad Run	Intermittent		3	Perm AR - Existing Culvert	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 11.8	UNT to Hacker's Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 11.8	UNT to Hacker's Creek	Intermittent		3	Temp ROW	Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Lewis County, WV	AP-1 / 12.5	UNT to West Run	Perennial	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 12.5	UNT to West Run	Intermittent		1	Temp ROW	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Lewis County, WV	AP-1 / 12.6	West Run	Perennial	14 (CL)	8	Flume or Dam and Pump	In-stream; Within 1000 feet	B1	Iron and Fecal Coliform	April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 13.6	UNT to Lifes Run	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Lewis County, WV	AP-1 / 13.8	UNT to Lifes Run	Intermittent		4	Flume or Dam and Pump	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 13.9	UNT to Lifes Run	Intermittent	1 (CL)	2	Flume or Dam and Pump	In-stream, Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 14.2	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Lewis County, WV	AP-1 / 14.3	Lifes Run	Perennial		22	Perm AR - Bridge	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Lewis County, WV	AP-1 / 14.3	Lifes Run	Perennial	20 (CL)	15	Flume or Dam and Pump	In-stream; Within 1000 feet	B1	Fecal Coliform and CNA-Biological	April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 14.4	UNT to Lifes Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 14.5	UNT to Lifes Run	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 14.8	UNT to Hacker's Creek	Intermittent		4	Temp AR - Existing Culvert	NA	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 14.8	UNT to Hacker's Creek	Intermittent	3 (AR)	5	Perm AR - Existing Culvert	NA	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 14.8	UNT to Hacker's Creek	Intermittent	14 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 15.0	UNT to Hacker's Creek	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 15.0	UNT to Hacker's Creek	Ephemeral	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Lewis County, WV	AP-1 / 15.3	UNT to Hacker's Creek	Intermittent	3 (AR)	3	Perm AR - Existing Culvert	NA	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 15.4	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Lewis County, WV	AP-1 / 15.5	UNT to Hacker's Creek	Intermittent	14 (AR)	4	Perm AR - Existing Culvert	NA	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 15.5	UNT to Hacker's Creek	Intermittent		2	Perm AR - Existing Culvert	NA	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 15.5	UNT to Hacker's Creek	Perennial	13 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Lewis County, WV	**AP-1 / 15.6**	**Hacker's Creek**	**Perennial**	**30 (AR)**	**30**	**Perm AR - Bridge**	**NA**	**A; B1; HQS**		**April 1 to June 30**	**Assume presence of clubshell (F-E) Classified as endangered mussel stream by the WVDNR Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**	**Will adhere to TOYR for work within the waterbody.**	**Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**
Lewis County, WV	AP-1 / 15.8	UNT to Hacker's Creek	Ephemeral		2	Abuts Perm AR	NA	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Lewis County, WV	AP-1 / 15.9	UNT to Hacker's Creek	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Lewis County, WV	AP-1 / 16.3	UNT to Hacker's Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 16.4	UNT to Hacker's Creek	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Lewis County, WV	AP-1 / 17.2	UNT to Hacker's Creek	Perennial	7 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to A; B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 18.1	Laurel Lick	Intermittent	5 (CL)	15	Flume or Dam and Pump	In-stream; Within 1000 feet	B1	CNA-Biological, Iron, and Fecal Coliform	April 1 to June 30		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

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County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Lewis County, WV	AP-1 / 18.1	UNT to Laurel Lick	Intermittent		12	Temp ROW	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Lewis County, WV	AP-1 / 19.9	UNT to Buckhannon Run	Intermittent	5 (AR)	5	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 19.9	UNT to Buckhannon Run	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 20.3	Buckhannon Run	Perennial	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	B1	CNA-Biological, Iron, and Fecal Coliform	April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Lewis County, WV	AP-1 / 20.6	UNT to Buckhannon Run	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 23.3	Fink Run	Perennial	10 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 24.0	UNT to Fink Run	Intermittent	3 (AR) / 4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 24.6	UNT to Brushy Fork	Intermittent	4 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 24.7	UNT to Brushy Fork	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 25.4	UNT to Brushy Fork	Intermittent	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 25.4	UNT to Brushy Fork	Intermittent		2	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Upshur County, WV	AP-1 / 25.7	Brushy Fork	Intermittent		3	Perm AR - Existing Culvert	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 25.8	UNT to Brushy Fork	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 25.8	UNT to Brushy Fork	Intermittent		3	Contractor Yard - Temporary Impact	Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 26.0	Brushy Fork	Perennial	16 (CL)	15	Flume or Dam and Pump	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 28.4	UNT to Lick Run	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 28.5	UNP to Lick Run	Pond		Pond	Pond	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 29.2	Cutright Run	Perennial	22 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 29.3	UNT to Cutright Run	Intermittent		3	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Upshur County, WV	AP-1 / 29.9	UNT to French Creek	Perennial	6 (CL)	5	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to B2; HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 30.3	UNT to French Creek	Intermittent		5	Abuts Perm AR	NA	UNT to B2; HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Upshur County, WV	AP-1 / 30.5	UNT to French Creek	Perennial		3	Temp / Perm ROW	Within 1000 feet	UNT to B2; HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Upshur County, WV	AP-1 / 30.6	UNT to French Creek	Intermittent		5	Perm AR - Existing Culvert	NA	UNT to B2; HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

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County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Upshur County, WV	AP-1 / 30.7	UNT to French Creek	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to B2; HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 30.9	UNT to French Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B2; HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 31.1	French Creek	Perennial	40 (CL)	40	Cofferdam	In-stream; Within 1000 feet	B2; HQS	Iron	September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 31.7	Buckhannon River	Perennial	91 (CL)	75	Cofferdam	In-stream; Within 1000 feet	A; B2; HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 32.1	UNT to Trubie Run	Intermittent	6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 33.0	Trubie Run	Perennial		20	Perm AR - Existing Culvert	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 33.0	UNT to Trubie Run	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 34.1	UNT to Buckhannon Run	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Upshur County, WV	AP-1 / 34.4	Grassy Run	Perennial	25 (CL)	17	Flume or Dam and Pump	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 35.9	Gravel Run	Perennial	15 (AR)	12	Perm AR	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 36.1	Gravel Run	Perennial	21 (CL)	15	Flume or Dam and Pump	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 36.1	UNT to Gravel Run	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 36.4	Laurel Run	Perennial		15	Perm AR	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 36.7	UNT to Laurel Run	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 36.8	Laurel Run	Perennial	21 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 37.1	UNT to Tenmile Creek	Intermittent	6 (AR)	3	Temp AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 37.5	UNT to Tenmile Creek	Intermittent		3	Abuts Temp AR	NA	UNT to HQS; UNT to Coldwater (Brook/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Upshur County, WV	AP-1 / 37.8	Tenmile Creek	Perennial	10 (AR) / 17 (CL)	14	Dam and Pump or Flume	In-stream; Within 1000 feet	HQS; Coldwater (Brook/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 37.8	UNP to Tenmile Creek	Pond		Pond	Pond	NA	Unnamed Pond to HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 37.8	UNT to Tenmile Creek	Perennial		3	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 37.8	UNT to Tenmile Creek	Perennial		5	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 37.9	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	NA		NA		NA	
Upshur County, WV	AP-1 / 37.9	UNT to Tenmile Creek	Intermittent	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Upshur County, WV	AP-1 / 39.6	Tenmile Creek	Intermittent	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 40.5	UNT to Leonard Run	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 40.7	UNT to Leonard Run	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 41.3	Right Fork Middle Fork River	Perennial	45 (CL)	32	Flume or Cofferdam	In-stream; Within 1000 feet	B2; HQS; Coldwater (Brook Trout)	Iron	September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 41.4	UNT to Right Fork Middle Fork River	Intermittent		2	Abuts Temp AR	NA	UNT to B2; HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Upshur County, WV	AP-1 / 41.9	Jackson Fork	Perennial		15	Perm AR - Existing Culvert	NA	Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Upshur County, WV	AP-1 / 41.9	UNT to Jackson Fork	Ephemeral	17 (AR)	1	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 45.4	UNT to Jenks Fork	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 45.4	UNT to Jenks Fork	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 47.0	UNT to Long Run	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 47.1	UNT to Long Run	Intermittent	4 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 47.4	UNT to Sugar Run	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.2	UNT to Dry Run	Intermittent		3	Temp / Perm ROW	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 50.4	UNT to Dry Run	Intermittent	55 (AR)	3	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.4	UNT to Dry Run	Intermittent	46 (AR)	3	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.4	UNT to Dry Run	Intermittent	6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.4	UNT to Dry Run	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 50.5	Dry Run	Intermittent	11 (AR)	9	Perm AR	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.5	Dry Run	Perennial	23 (CL)	16	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.5	UNT to Dry Run	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.6	UNT to Dry Run	Intermittent		5	Temp ROW	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 50.7	UNT to Dry Run	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.7	UNT to Left Fork Buckhannon River	Perennial		10	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Randolph County, WV	AP-1 / 50.8	Dry Run	Intermittent	4 (AR) / 7 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 50.8	UNT to Dry Run	Intermittent	4 (AR)	4	Perm AR	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 50.9	UNT to Dry Run	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 51.2	UNT to Lick Run	Ephemeral	2 (AR)	2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 51.3	UNT to Lick Run	Ephemeral	2 (AR)	2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 51.4	UNT to Lick Run	Intermittent	4 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 51.4	UNT to Lick Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 51.4	UNT to Lick Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 51.6	UNT to Lick Run	Intermittent	6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 51.7	UNT to Lick Run	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 51.7	UNT to Lick Run	Intermittent		3	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 51.8	UNT to Lick Run	Perennial		7	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 51.8	UNT to Lick Run	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 52.1	Beech Run	Perennial	27 (CL)	25	Dam and Pump or Flume	In-stream; Within 1000 feet	HQS; Coldwater (Brook Trout)	pH	September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 52.1	Beech Run	Perennial	23 (AR)	25	Perm AR - Existing Culvert	NA	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 52.1	UNT to Beech Run	Perennial		14	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 52.1	UNT to Lick Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 52.4	UNT to Beech Run	Intermittent	3 (AR)	3	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 52.8	UNT to Beech Run	Intermittent	32 (AR)	3	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 52.8	UNT to Beech Run	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 53.0	UNT to Beech Run	Intermittent		2	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 54.1	Left Fork Buckhannon River	Perennial	43 (AR)	18	Perm AR	NA	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 54.1	Left Fork Buckhannon River	Perennial		50	Abuts Perm AR	NA	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 54.1	Left Fork Buckhannon River	Perennial	43 (AR)	25	Perm AR	NA	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Randolph County, WV	AP-1 / 54.1	UNT to Left Fork Buckhannon River	Intermittent	12 (AR)	12	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 54.2	UNT to Left Fork Buckhannon River	Intermittent		10	Abuts Perm AR	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 54.2	UNT to Left Fork Buckhannon River	Perennial		5	Abuts Perm AR	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 54.3	Philips Camp Run	Perennial	29 (CL)	25	Dam and Pump or Flume	In-stream; Within 1000 feet	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 54.3	UNT to Left Fork Buckhannon River	Perennial		22	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 54.5	UNT to Left Fork Buckhannon River	Intermittent		10	Abuts Perm AR	NA	UNT to HQS, UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 55.0	Short Run	Perennial	9 (CL)	13	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 55.1	Long Run	Intermittent	20 (AR)	20	Perm AR	NA	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 55.1	UNT to Left Fork Buckhannon River	Perennial	22 (AR)	10	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 55.3	Long Run	Perennial	13 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 55.3	UNT to Long Run	Intermittent		8	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 55.3	UNT to Long Run	Intermittent		3	Abuts Perm AR	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 55.3	UNT to Long Run	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 55.3	UNT to Long Run	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 56.1	UNT to Left Fork Buckhannon River	Intermittent	4 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 56.3	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	NA		NA		NA	
Randolph County, WV	AP-1 / 56.3	UNT to Left Fork Buckhannon River	Intermittent	8 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 56.3	UNT to Left Fork Buckhannon River	Intermittent		3	Abuts Perm AR	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 56.4	UNT to Sugar Creek	Perennial	5 (AR)	4	Perm AR - Existing Culvert	NA	UNT to HQS		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 56.5	UNT to Back Fork Elk River	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 56.5	UNT to Sugar Creek	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Randolph County, WV	AP-1 / 56.7	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Randolph County, WV	AP-1 / 56.7	UNT to Back Fork Elk River	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.0	UNT to Back Fork Elk River	Intermittent	5 (AR) / 5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.1	UNT to Back Fork Elk River	Intermittent	14 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.1	UNT to Left Fork Back Fork Elk River	Intermittent	6 (AR)	10	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.2	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Randolph County, WV	AP-1 / 57.3	Mitchell Run	Intermittent		2	Abuts Perm AR	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 57.3	Mitchell Run	Perennial		8	Perm AR - Existing Culvert	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.3	UNT to Back Fork Elk River	Intermittent		2	Temp / Perm ROW	Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 57.3	UNT to Mitchell Run	Intermittent		6	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 57.4	UNT to Mitchell Run	Ephemeral	2 (AR)	2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 57.4	UNT to Mitchell Run	Intermittent	2 (AR)	2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.4	UNT to Mitchell Run	Ephemeral	2 (AR)	2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 57.5	UNT to Mitchell Run	Ephemeral	2 (AR)	2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 57.5	UNT to Mitchell Run	Ephemeral	25 (AR)	2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Intermittent		7	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Intermittent		7	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Intermittent	5 (AR)	2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Intermittent	26 (AR)	9	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Intermittent		2	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Intermittent		5	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Ephemeral		2	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Intermittent		7	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Intermittent		6	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 57.6	UNT to Mitchell Run	Ephemeral		2	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 57.7	Mitchell Run	Perennial		20	Perm AR - Existing Culvert	NA	B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 57.7	UNT to Mitchell Run	Intermittent		3	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Randolph County, WV	AP-1 / 57.7	UNT to Mitchell Run	Ephemeral		2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 57.7	UNT to Mitchell Run	Ephemeral		2	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 57.7	UNT to Mitchell Run	Intermittent		5	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 58.1	UNT to Back Fork Elk River	Intermittent	3 (AR)	2	Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 58.1	UNT to Back Fork Elk River	Ephemeral		2	Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 58.1	UNT to Back Fork Elk River	Intermittent	5 (AR)	5	Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 58.2	UNT to Back Fork Elk River	Intermittent	2 (AR)	2	Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 58.2	UNT to Back Fork Elk River	Ephemeral		2	Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 58.2	Back Fork Elk River	Perennial	12 (CL)	10	Dam and Pump or Flume	In-stream, Within 1000 feet	Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 58.2	Upper Flint Run	Intermittent		5	Temp ROW	Within 1000 feet	Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 58.3	UNT to Hewett Fork	Ephemeral		2	Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 58.4	UNT to Back Fork Elk River	Intermittent	10 (AR)	7	Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 58.5	UNT to Hewett Fork	Intermittent		1	Abuts Perm AR	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 58.7	UNT to Hewett Fork	Intermittent	25 (AR)	5	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 59.4	UNT to Hickorylick Run	Intermittent	27 (AR)	5	Perm AR	NA	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 59.6	UNT to Hewett Fork	Intermittent		2	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 59.7	UNT to Hewett Fork	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 59.7	UNT to Hewett Fork	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 59.7	UNT to Hickorylick Run	Ephemeral	5 (AR)	2	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 60.7	UNT to Valley Fork	Intermittent	8 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 60.7	UNT to Valley Fork	Intermittent	8 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 60.7	Valley Fork	Perennial	51 (CL)	50	Dam and Pump or Flume	In-stream; Within 1000 feet	Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 60.8	UNT to Valley Fork	Ephemeral	3 (AR) / 7 (CL)	3	Flume or Dam and Pump	Within 1000 feet	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 60.8	UNT to Valley Fork	Ephemeral	9 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 60.9	UNT to Valley Fork	Ephemeral	12 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 60.9	UNT to Valley Fork	Intermittent	34 (AR)	8	Perm AR	NA	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Randolph County, WV	AP-1 / 61.0	UNT to Valley Fork	Ephemeral	6 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 61.1	UNT to Valley Fork	Ephemeral	6 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook/Brown Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 61.3	UNT to Elk River	Intermittent		5	Temp ROW	Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook/Brown/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 61.7	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	NA		NA		NA	
Randolph County, WV	AP-1 / 62.0	UNT to Elk River	Intermittent	7 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook/Brown/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 62.0	UNT to Elk River	Intermittent		4	Temp / Perm ROW	Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook/Brown/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 62.2	UNT to Elk River	Ephemeral		2	Temp ROW	Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook/Brown/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 62.2	UNT to Elk River	Intermittent	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook/Brown/Rainbow Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 62.9	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	NA		NA		NA	
Randolph County, WV	AP-1 / 63.0	Unnamed pond	Pond		Pond	Pond	NA	NA		NA		NA	
Randolph County, WV	AP-1 / 63.0	UNT to Elkwater Fork	Intermittent		6	Contractor Yard - Temporary Impact	Within 1000 feet	UNT to HQS; UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 63.2	UNT to Falling Spring Run	Intermittent	6 (AR)	6	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 63.2	UNT to Falling Spring Run	Ephemeral		2	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 63.2	UNT to Falling Spring Run	Intermittent		4	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 63.2	UNT to Falling Spring Run	Ephemeral		4	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 63.3	UNT to Falling Spring Run	Ephemeral	9 (AR)	3	Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 63.4	UNT to Falling Spring Run	Intermittent		6	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 63.6	UNT to Falling Spring Run	Ephemeral	6 (AR)	4	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 63.7	Falling Spring Run	Perennial		20	Abuts Perm AR	NA	Tributary to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 63.8	Falling Spring Run	Perennial	92 (AR)	12	Perm AR	NA	Tributary to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 63.8	UNT to Falling Spring Run	Intermittent	3 (AR)	3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 63.8	UNT to Falling Spring Run	Intermittent	83 (AR)	2	Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 63.9	UNT to Falling Spring Run	Intermittent		10	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 63.9	UNT to Falling Spring Run	Ephemeral		3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Randolph County, WV	AP-1 / 64.1	UNT to Falling Spring Run	Ephemeral	12 (AR)	5	Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.2	Unnamed Pond	Pond		Pond	Pond	In-stream; Within 1000 feet	NA		NA		NA	
Randolph County, WV	AP-1 / 64.2	Unnamed Pond	Pond		Pond	Pond	In-stream; Within 1000 feet	NA		NA		NA	
Randolph County, WV	AP-1 / 64.2	UNT to Falling Spring Run	Ephemeral	2 (AR)	2	Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.3	UNT to Falling Spring Run	Intermittent		6	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.4	UNT to Falling Spring Run	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.5	UNT to Falling Spring Run	Ephemeral		6	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.5	UNT to Falling Spring Run	Intermittent	9 (AR)	6	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.5	UNT to Falling Spring Run	Intermittent		8	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.5	UNT to Falling Spring Run	Ephemeral		2	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.5	UNT to Falling Spring Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.5	UNT to Falling Spring Run	Ephemeral		2	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.6	UNT to Falling Spring Run	Intermittent		4	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 64.6	UNT to Falling Spring Run	Intermittent		5	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.6	UNT to Falling Spring Run	Ephemeral		3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.6	UNT to Falling Spring Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.6	UNT to Falling Spring Run	Ephemeral		1	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.7	UNT to Falling Spring Run	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.7	UNT to Falling Spring Run	Ephemeral		1	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.8	UNT to Falling Spring Run	Intermittent	3 (AR)	3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.9	UNT to Falling Spring Run	Intermittent		8	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.9	UNT to Falling Spring Run	Intermittent	3 (AR)	3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 64.9	UNT to Falling Spring Run	Ephemeral	3 (AR)	3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 64.9	UNT to Falling Spring Run	Ephemeral	1 (AR)	2	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 65.0	UNT to Falling Spring Run	Intermittent		10	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Randolph County, WV	AP-1 / 65.0	UNT to Falling Spring Run	Ephemeral		3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Randolph County, WV	AP-1 / 65.3	UNT to Mingo Run	Intermittent	19 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 65.4	Mingo Run	Perennial		8	Abuts Perm AR	NA	Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Randolph County, WV	AP-1 / 65.4	UNT to Mingo Run	Intermittent		5	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 65.4	UNT to Mingo Run	Intermittent		5	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 65.5	UNT to Mingo Run	Intermittent	9 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Randolph County, WV	AP-1 / 65.7	UNT to Mingo Run	Intermittent	17 (AR)	5	Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 66.6	Douglas Fork	Intermittent	6 (AR)	5	Perm AR	NA	Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 66.7	Douglas Fork	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 66.7	Douglas Fork	Intermittent		5	Temp ROW	Within 1000 feet	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Pocahontas County, WV	AP-1 / 67.0	UNT to Douglas Fork	Perennial	61 (AR) / 32 (CL)	4	Dam and Pump or Flume	In-stream, Within 1000 feet	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 67.5	Dry Fork	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 68.9	UNT to Big Spring Fork	Intermittent	5 (AR)	5	Perm AR	NA	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 69.1	Big Spring Fork	Perennial		16	Perm AR - Bridge	NA	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 69.2	Big Spring Fork	Perennial	19 (CL)	20	Dam and Pump or Flume	In-stream; Within 1000 feet	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 69.3	Big Spring Fork	Perennial	38 (AR)	35	Perm AR	NA	HQS; Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 69.6	Mill Run	Intermittent	17 (AR)	8	Perm AR	NA	Tributary to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.3	Mill Run	Intermittent	11 (AR)	12	Perm AR	NA	Tributary to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.4	UNT to Mill Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.4	UNT to Mill Run	Intermittent		3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.4	UNT to Mill Run	Intermittent		10	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.4	UNT to Mill Run	Ephemeral	40 (AR)	2	Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 70.4	UNT to Mill Run	Ephemeral	12 (AR)	1	Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 70.4	UNT to Mill Run	Intermittent	6 (AR)	5	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.4	UNT to Mill Run	Intermittent	4 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.5	UNT to Mill Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Pocahontas County, WV	AP-1 / 70.5	UNT to Mill Run	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.5	UNT to Mill Run	Ephemeral		2	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 70.5	UNT to Mill Run	Intermittent		8	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.5	UNT to Mill Run	Intermittent	24 (AR)	3	Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.5	UNT to Mill Run	Ephemeral		1	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 70.5	UNT to Mill Run	Intermittent	3 (AR)	2	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.5	UNT to Mill Run	Intermittent	8 (AR)	6	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 70.8	UNT to Big Spring Fork	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 71.8	UNT to Clover Creek	Ephemeral		4	Perm ROW	Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Ephemeral		3	Perm AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Ephemeral		4	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Ephemeral		2	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Ephemeral		3	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Intermittent		2	Abuts Long-term AR	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Intermittent		3	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Intermittent		5	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Perennial	2 (AR)	5	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Apply MNF additional erosion control measures from Oct 1-Jun 1 within 100 feet of perennial waterbodies	Will adhere to TOYR for work within the waterbody.	Apply MNF additional erosion control measures from Oct 1-Jun 1 within 100 feet of perennial waterbodies
Pocahontas County, WV	AP-1 / 71.9	UNT to Slaty Fork	Intermittent		3	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 72.0	Slaty Fork	Intermittent		7	Long-term AR - Existing Culvert	NA	HQS; Tier 3; Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent		2	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent		2	Abuts Long-term AR	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply. Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent		5	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent		2	Abuts Long-term AR	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply. Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent		2	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent		2	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Perennial		9	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation Apply MNF additional erosion control measures from Oct 1-Jun 1 within 100 feet of perennial waterbodies	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation Apply MNF additional erosion control measures from Oct 1-Jun 1 within 100 feet of perennial waterbodies
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent	3 (AR)	2	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent	31 (AR)	2	Long-term AR	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent		6	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Intermittent	13 (AR)	2	Long-term AR	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation
Pocahontas County, WV	AP-1 / 72.0	UNT to Slaty Fork	Perennial		9	Long-term AR - Existing Culvert	NA	UNT to HQS; Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation Apply MNF additional erosion control measures from Oct 1-Jun 1 within 100 feet of perennial waterbodies	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation Apply MNF additional erosion control measures from Oct 1-Jun 1 within 100 feet of perennial waterbodies
Pocahontas County, WV	AP-1 / 72.1	UNT to Old Field Fork	Intermittent		2	Contractor Yard - Temporary Impact	Within 1000 feet	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 72.3	UNT to Clover Creek	Intermittent		8	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 72.4	UNT to Clover Creek	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 72.5	UNT to Clover Creek	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 72.7	UNT to Clover Creek	Intermittent		12	Abuts Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Pocahontas County, WV	AP-1 / 72.8	UNT to Clover Creek	Perennial	13 (AR) / 24 (CL)	18	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 72.8	UNT to Clover Creek	Ephemeral		3	Perm AR - Existing Culvert	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 74.6	Clover Creek	Perennial		30	Perm AR - Existing Culvert	NA	Coldwater (Brook Trout)		September 15 to March 31	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)	Will adhere to TOYR for work within the waterbody.	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)
Pocahontas County, WV	AP-1 / 74.6	UNT to Clover Creek	Perennial	19 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 75.2	UNT to Clover Creek	Intermittent	8 (AR) / 8 (CL)	8	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 75.2	UNT to Clover Creek	Ephemeral		2	Abuts Perm AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 75.5	Clover Creek	Perennial	56 (CL)	30	Dam and Pump or Flume	In-stream; Within 1000 feet	Coldwater (Brook Trout)		September 15 to March 31	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)	Will adhere to TOYR for work within the waterbody.	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)
Pocahontas County, WV	AP-1 / 75.5	UNT to Clover Creek	Intermittent	8 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 76.0	Glade Run	Perennial	19 (CL)	14	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)	Will adhere to TOYR for work within the waterbody.	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)
Pocahontas County, WV	AP-1 / 76.4	UNT to Glade Run	Intermittent		5	Temporary Water Impoundment	Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Pocahontas County, WV	AP-1 / 76.4	Glade Run	Perennial		10	Temporary Water Impoundment	Within 1000 feet	B1		April 1 to June 30	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)	Will adhere to TOYR for work within the waterbody.	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)
Pocahontas County, WV	AP-1 / 76.5	UNT to Greenbrier River	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 76.6	Greenbrier River	Perennial	180 (CL)	170	Cofferdam	In-stream; Within 1000 feet	B1; HQS		April 1 to June 30	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)	Will adhere to TOYR for work within the waterbody.	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)
Pocahontas County, WV	AP-1 / 76.7	UNT to Greenbrier River	Ephemeral	1 (AR)	1	Perm AR	NA	UNT to B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 76.8	UNT to Greenbrier River	Ephemeral		5	Perm AR	NA	UNT to B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 76.9	UNT to Laurel Run	Intermittent	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to HQS; UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 77.1	UNT to Greenbrier River	Ephemeral		4	Perm AR - Existing Culvert	NA	UNT to B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 77.1	UNT to Greenbrier River	Ephemeral		4	Perm AR - Existing Culvert	NA	UNT to B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 77.3	Mile Branch	Perennial	13 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	B1		April 1 to June 30	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)	Will adhere to TOYR for work within the waterbody.	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)
Pocahontas County, WV	AP-1 / 77.3	UNT to Greenbrier River	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 77.3	UNT to Mile Branch	Intermittent	6 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to B1		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 77.9	UNT to Greenbrier River	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 78.1	UNT to Little Thorny Creek	Intermittent		6	Abuts Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Pocahontas County, WV	AP-1 / 78.1	Little Thorny Creek	Perennial		35	Perm AR - Existing Culvert	NA	Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 78.1	Seneca Lake	Pond		Pond	Pond	NA	Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 78.1	UNT to Greenbrier River	Ephemeral		2	Perm AR - Existing Culvert	NA	UNT to B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 78.1	UNT to Greenbrier River	Ephemeral	27 (AR)	2	Perm AR - Existing Culvert	NA	UNT to B1; HQS		April 1 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 78.1	UNT to Little Thorny Creek	Ephemeral		3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 78.1	UNT to Little Thorny Creek	Ephemeral		3	Perm AR - Existing Culvert	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 78.1	UNT to Thorny Creek	Ephemeral	178 (AR)	8	Perm AR	NA	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 79.3	Powder Lick Run	Intermittent	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Pocahontas County, WV	AP-1 / 79.3	Thomas Creek	Perennial	9 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	Coldwater		September 15 to March 31	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)	Will adhere to TOYR for work within the waterbody.	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)
Pocahontas County, WV	AP-1 / 79.8	UNT to Thomas Creek	Intermittent	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 80.9	UNT to Sugar Camp Run	Intermittent		3	Temp ROW	Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Pocahontas County, WV	AP-1 / 81.0	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Pocahontas County, WV	AP-1 / 81.0	UNT to Sugar Camp Run	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 81.0	Knapp Creek	Perennial		73	Contractor Yard - Temporary Impact	Within 1000 feet	Coldwater		September 15 to March 31	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)	Will adhere to TOYR for work within the waterbody.	If candy darter is listed during life of project, assume presence and implement the FWS' enhanced conservation measures (see section 4.7.1.12)
Pocahontas County, WV	AP-1 / 81.1	UNT to Sugar Camp Run	Intermittent	8 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 81.2	UNT to Sugar Camp Run	Intermittent		5	Abuts Long-term AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Pocahontas County, WV	AP-1 / 81.2	UNT to Sugar Camp Run	Intermittent		4	Abuts Long-term AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Pocahontas County, WV	AP-1 / 81.5	UNT to Sugar Camp Run	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	
Pocahontas County, WV	AP-1 / 81.9	UNT to Sugar Camp Run	Ephemeral	2 (AR)	1	Long-term AR	NA	UNT to Coldwater (Brook Trout)		September 15 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Pocahontas County, WV	AP-1 / 82.0	UNT to Shock Run	Perennial	12 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Tier 3; UNT to Coldwater (Brook Trout)		September 15 to March 31	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation Apply MNF additional erosion control measures from Oct 1-Jun 1 within 100 feet of perennial waterbodies	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (WV SGCN; MNF RFSS) and implement conservation measures established in the Biological Evaluation Apply MNF additional erosion control measures from Oct 1-Jun 1 within 100 feet of perennial waterbodies
Highland County, VA	AP-1 / 85.0	UNT to Warwick Run (Townsend Draft)	Perennial	45 (CL)	20	Dam and Pump or Flume	In-stream; Within 1000 feet	WQS not assessed; Class I-IV		March 15 to June 30 / October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation This is not a roughhead shiner stream; remove March 15-June 30 TOYR Apply pre-construction aquatic species relocation.
Highland County, VA	AP-1 / 85.1	UNT to Warwick Run (Townsend Draft)	Perennial	10 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	WQS not assessed; Class I-IV		March 15 to June 30 / October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation This is not a roughhead shiner stream; remove March 15-June 30 TOYR Apply pre-construction aquatic species relocation.

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Highland County, VA	AP-1 / 85.1	UNT to Warwick Run (Townsend Draft)	Perennial	24 (AR)	14	Long-term AR	NA	WQS not assessed; Class I-IV		March 15 to June 30 / October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation	Will adhere to TOYR for work within the waterbody.	Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation This is not a roughhead shiner stream; remove March 15-June 30 TOYR
Highland County, VA	AP-1 / 85.4	Lick Draft	Perennial		20	Abuts Perm AR	NA	Aquatic Life, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply. State Classification should classify this as Class I-IV waters
Highland County, VA	AP-1 / 85.4	Lick Draft	Perennial	11 (AR)	12	Perm AR	NA	Aquatic Life		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	State Classification should classify this as Class I-IV waters
Highland County, VA	AP-1 / 85.4	UNT to Lick Draft	Perennial	10 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	WQS not assessed; Class I-IV		October 1 to March 31	Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation
Highland County, VA	AP-1 / 85.4	UNT to Lick Draft	Intermittent	22 (AR)	9	Perm AR	NA	Aquatic Life		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	State Classification should classify this as Class I-IV waters
Highland County, VA	AP-1 / 85.4	Warwick Run (Townsend Draft)	Perennial	80 (AR)	30	Perm AR	NA	Class I-IV		March 15 to June 30 / October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	This is not a roughhead shiner stream; remove March 15-June 30 TOYR
Highland County, VA	AP-1 / 85.5	Lick Draft	Perennial	8 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	WQS not assessed; Class I-IV		October 1 to March 31	Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Assume presence of southern water shrew (VA-E; GWNF RFSS) and implement conservation measures outlined in the Biological Evaluation
Highland County, VA	AP-1 / 86.9	Erwin Draft	Perennial		15	Abuts Perm AR	NA	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Highland County, VA	AP-1 / 87.2	Back Creek	Perennial	73 (CL)	70	Cofferdam or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life	Temperature	March 15 to June 30	Assume presence of roughhead shiner (VA SGCN / GWNF RFSS) and implement VDGIF TOYR (Mar 15-Jun 30) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	TOYR also applies to water withdrawals
Highland County, VA	AP-1 / 87.3	Unnamed Pond	Pond		Pond	Pond	In-stream; Within 1000 feet	NA		NA		NA	
Highland County, VA	AP-1 / 88.5	UNT to Back Creek	Ephemeral	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Highland County, VA	AP-1 / 88.8	UNT to Back Creek	Intermittent	9 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocations	Pre-construction aquatic species relocations.	
Highland County, VA	AP-1 / 88.8	UNT to Back Creek	Intermittent	5 (AR)	4	Perm AR - Existing Culvert	NA	UNT to Aquatic Life		NA		NA	
Highland County, VA		UNT to Back Creek	Intermittent	3 (AR)	3	Perm AR	NA	UNT to Aquatic Life		NA		NA	
Highland County, VA	AP-1 / 89.2	UNT to Back Creek	Intermittent		2	Perm AR - Existing Culvert	NA	UNT to Aquatic Life		NA		NA	

Appendix K-1

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County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Perennial		8	Perm AR - Existing Culvert	NA	WQS not assessed, Class I-IV		March 15 to May 15/October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Intermittent		3	Perm AR - Existing Culvert	NA	WQS not assessed, Class I-IV		March 15 to May 15/October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Intermittent	5 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31/March 15 to May 15		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Intermittent	6 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31/March 15 to May 15		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Intermittent	5 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31/March 15 to May 15		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Intermittent	6 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31/March 15 to May 15		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Intermittent	13 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31/March 15 to May 15		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Perennial	15 (AR)	10	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31/March 15 to May 15/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 89.4	UNT to Jackson River	Intermittent	5 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31/March 15 to May 15		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of designated trout streams
Highland County, VA	AP-1 / 90.0	Peak Run	Ephemeral	3 (AR) / 2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA		NA	
Highland County, VA	AP-1 / 90.1	UNT to Peak Run	Intermittent	2 (AR)	2	Perm AR - Existing Culvert	NA	UNT to Aquatic Life		NA		NA	
Highland County, VA	AP-1 / 90.4	Peak Run	Perennial	9 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply pre-construction aquatic species relocation. Provide documentation for the implementation of this TOYR from the applicable state or federal agency or remove.
Highland County, VA	AP-1 / 90.4	UNT to Jackson River	Ephemeral	3 (AR)	3	Perm AR - Existing Culvert	NA	UNT to Aquatic Life, I-IV		October 1 to March 31/March 15 to May 15		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Highland County, VA	AP-1 / 90.8	Stony Run	Perennial	31 (CL)	16	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life, I-IV		October 1 to March 31/ March 15 to June 30	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Provide documentation for the implementation of the Mar 15-June 30 TOYR from the applicable state or federal agency or remove.
Highland County, VA	AP-1 / 90.8	UNT to Stony Run	Ephemeral	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Highland County, VA	AP-1 / 91.1	Morris Run	Perennial	11 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Provide documentation for the implementation of this TOYR from the applicable state or federal agency or remove.
Highland County, VA	AP-1 / 91.1	UNT to Morris Run	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Highland County, VA	AP-1 / 91.4	Morris Run	Perennial	9 (CL)	8	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		March 15 to June 30	Pre-construction aquatic species relocations	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	Provide documentation for the implementation of this TOYR from the applicable state or federal agency or remove.

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Highland County, VA	**AP-1 / 91.5**	**Jackson River**	**Perennial**	**63 (CL)**	**60**	**Cofferdam or Dam and Pump**	**In-stream; Within 1000 feet**	**Aquatic Life, I-IV**	**Escherichia Coli (E. Coli) and Temperature**	**October 1 to March 31/March 15 to May 15/March 15 to June 30**	**Assume presence of roughhead shiner (VA SGCN / GWNF RFSS) and implement VDGIF TOYR (Mar 15-Jun 30) Assume presence of James spinymussel (VA-E / F-E) and implement VDGIF TOYR (May 15-July 31) Implement VDGIF TOYR for rainbow trout (Mar 15-May 15); and possible brook trout (Oct 1-Mar 31) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.**	**Complete mussel surveys and submit results to FWS and VDGIF Apply VDGIF TOYR for James spinymussel May 15-July 31 per VDGIF February 7, 2017 letter; TOYR also applies to water withdrawals. Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**
Bath County, VA	AP-1 / 91.7	UNT to Jackson River	Intermittent	3 (AR)	2	Perm AR	NA	WQS not assessed, Class I-IV		March 15 to May 15/October 1 to March 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Jackson River for all applicable species	Will adhere to TOYR for work within the waterbody.	Apply James spinymussel VDGIF TOYR (May 15-Jul 31)
Bath County, VA	AP-1 / 91.7	UNT to Jackson River	Perennial	6 (AR)	5	Perm AR	NA	WQS not assessed, Class I-IV		March 15 to May 15/October 1 to March 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Jackson River for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Apply James spinymussel VDGIF TOYR (May 15-Jul 31) Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Bath County, VA	AP-1 / 91.8	UNT to Givens Run	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Bath County, VA	AP-1 / 91.8	UNT to Jackson River	Intermittent		2	Abuts Perm AR	NA	WQS not assessed, Class I-IV		March 15 to May 15/October 1 to March 31	Implement VDGIF TOYR for rainbow trout (Mar 15-May 15); and possible brook trout (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Bath County, VA	AP-1 / 91.9	UNT to Jackson River	Intermittent	2 (AR)	2	Perm AR - Existing Culvert	NA	WQS not assessed, Class I-IV		March 15 to May 15/October 1 to March 31	Implement VDGIF TOYR for rainbow trout (Mar 15-May 15); and possible brook trout (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	Apply James spinymussel VDGIF TOYR (May 15-Jul 31)
Bath County, VA	AP-1 / 91.9	UNT to Jackson River	Intermittent	9 (AR)	4	Perm AR	NA	WQS not assessed, Class I-IV		March 15 to May 15/October 1 to March 31	Implement VDGIF TOYR for rainbow trout (Mar 15-May 15); and possible brook trout (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	Apply James spinymussel VDGIF TOYR (May 15-Jul 31)
Bath County, VA	AP-1 / 92.9	Little Valley Run	Perennial	19 (CL)	11	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF TOYR for brook trout (Oct 1-Mar 31) Pre-construction fish relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Bath County, VA	AP-1 / 93.0	UNT to Little Valley Run	Intermittent	5 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	
Bath County, VA	AP-1 / 93.2	UNT to Little Valley Run	Ephemeral	4 (CL)	4	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Bath County, VA	AP-1 / 93.7	UNT to Muddy Run	Intermittent		2	Long-term AR - Existing Culvert	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 93.7	UNT to Muddy Run	Intermittent	59 (AR)	2	Long-term AR - Existing Culvert	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 93.7	UNT to Muddy Run	Intermittent	29 (AR)	2	Long-term AR	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 93.7	UNT to Muddy Run	Intermittent		2	Long-term AR - Existing Culvert	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 94.1	Laurel Run	Perennial	7 (CL)	7	Flume or Dam and Pump	In-stream; Within 1000 feet	Impaired; Class I-IV	pH	October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation. Crossings of Laurel Fork documented in this table do not match information provided in BE; BE only indicates one pipeline crossing and no access road crossings per GWNF comments. Revise this table accordingly.
Bath County, VA	AP-1 / 94.7	UNT to Laurel Run	Intermittent		5	Temp ROW	Within 1000 feet	UNT to Aquatic Life, I IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply. Confirm if this a tributary to Dry Run or Laurel Run
Bath County, VA	AP-1 / 94.7	UNT to Laurel Run	Intermittent	63 (CL)	5	Flume or Dam and Pump	Within 1000 feet	UNT to Aquatic Life, I IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation.
Bath County, VA	AP-1 / 95.2	UNT to Dry Run	Ephemeral	9 (CL)	9	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Bath County, VA	AP-1 / 95.5	UNT to Dry Run	Intermittent	3 (CL)	3	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Bath County, VA	AP-1 / 95.5	UNT to Dry Run	Intermittent	48 (CL)	2	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Bath County, VA	AP-1 / 95.5	UNT to Dry Run	Intermittent	3 (AR)	3	Perm AR	Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Bath County, VA	AP-1 / 96.3	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	WQS not assessed		NA	Further consultation with FS required		See section 4.4.7; prior to construction, Atlantic should file with the Secretary and the FS for review and concurrence, detailed mapping of the existing conditions and proposed improvements to access road 36-016.AR1, including digital data, a description of the construction and operation impacts, including impacts on the adjacent vegetation communities, potential pond crossings identified in appendix K, and GWNF locally rare species located downslope, and identify the conservation measures that would be implemented to these mitigate potential impacts.

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Bath County, VA	AP-1 / 96.3	Campbell Run	Ephemeral	2 (CL)	2	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 96.5	Unnamed Pond	Pond	Pond	Pond	Pond	NA	NA		NA	Further consultation with FS required	NA	See section 4.4.7; prior to construction, Atlantic should file with the Secretary and the FS for review and concurrence, detailed mapping of the existing conditions and proposed improvements to access road 36-016.AR1, including digital data, a description of the construction and operation impacts, including impacts on the adjacent vegetation communities, potential pond crossings identified in appendix K, and GWNF locally rare species located downslope, and identify the conservation measures that would be implemented to these mitigate potential impacts.
Bath County, VA	**AP-1 / 97.8**	**Cowpasture River**	**Perennial**	**106 (CL)**	**90**	**Cofferdam or Dam and Pump**	**In-stream; Within 1000 feet**	**Aquatic Life**		**March 15 to June 30/May 15 to July 31**	**Pending surveys for James spinymussel; if observed, implement VDGIF TOYR (May 15-Jul 31) Assume presence of roughhead shiner (VA SGCN / GWNF RFSS) and implement VDGIF TOYR (Mar 15-Jun 30) Assume presence yellow lance (F-PT) and implement VDGIF TOYR (May 15-July 31) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody.**	**Complete mussel surveys and submit results to FWS and VDGIF Apply pre-construction aquatic species relocation Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Applicant-Prepared BA (1/27/17) lists an access road crossing of Cowpasture River at MP 97.8. Confirm and revise this table accordingly.**
Bath County, VA	AP-1 / 97.8	UNT to Cowpasture River	Perennial	54 (CL)	20	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Cowpasture River for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation. Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)
Bath County, VA	AP-1 / 97.9	UNT to Cowpasture River	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Cowpasture River for all applicable species Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation
Bath County, VA	AP-1 / 98.0	UNT to Cowpasture River	Perennial	11 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Cowpasture River for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation Apply the FWS' enhanced conservation measures for ESA sensitive streams (see section 4.7.1)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Bath County, VA	AP-1 / 98.3	UNT to Cowpasture River	Perennial	16 (CL)	11	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Cowpasture River for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation. Apply the FWS' enhanced conservation measures for ESA sensitive streams (see section 4.7.1)
Bath County, VA	AP-1 / 99.0	UNT to Cowpasture River	Intermittent	15 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Cowpasture River for all applicable species Pre-construction aquatic species relocation	NA	Adhere to TOYR for work within the waterbody Apply pre-construction aquatic species relocation
Bath County, VA	AP-1 / 99.0	UNT to Gibson Hollow	Intermittent		4	Temp / Perm ROW	In-stream; Within 1000 feet	Unclassified		NA		NA	
Bath County, VA	AP-1 / 99.0	UNT to Gibson Hollow	Ephemeral		2	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Bath County, VA	AP-1 / 99.2	UNT to Gibson Hollow	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Bath County, VA	AP-1 / 99.3	Gibson Hollow	Perennial	20 (AR)	11	Perm AR	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 99.3	UNT to Gibson Hollow	Ephemeral	9 (AR)	8	Perm AR	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 99.3	UNT to Gibson Hollow	Ephemeral	13 (AR)	5	Perm AR	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 99.3	Gibson Hollow	Perennial	10 (AR) / 10 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Bath County, VA	AP-1 / 99.3	UNT to Gibson Hollow	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Bath County, VA	AP-1 / 99.3	Gibson Hollow	Perennial	15 (AR)	21	Perm AR	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 99.4	UNT to Gibson Hollow	Perennial	4 (AR)	3	Perm AR	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 99.4	UNT to Gibson Hollow	Ephemeral	3 (AR)	3	Perm AR	NA	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 100.4	UNT to White Sulphur Spring	Ephemeral		1	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Bath County, VA	AP-1 / 100.6	White Sulphur Spring Branch	Perennial	9 (CL)	20	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Bath County, VA	AP-1 / 100.7	Stuart Run	Perennial	65 (CL)	30	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Confirm that this is roughhead shiner stream; remove TOYR that are not applicable
Bath County, VA	AP-1 / 100.8	UNT to Stuart Run	Ephemeral	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Bath County, VA	AP-1 / 101.0	UNT to Stuart Run	Perennial	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Bath County, VA	AP-1 / 101.0	UNT to Stuart Run	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Bath County, VA	AP-1 / 101.0	UNT to Stuart Run	Ephemeral		5	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Bath County, VA	AP-1 / 101.1	UNT to Stuart Run	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Bath County, VA	AP-1 / 101.1	UNT to Stuart Run	Perennial		2	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA		Pre-construction aquatic species relocations.	No work within waterbody identified; therefore no pre-construction aquatic species relocation required.

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Bath County, VA	AP-1 / 101.2	UNT to Stuart Run	Intermittent		3	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Bath County, VA	AP-1 / 101.3	UNT to Stuart Run	Ephemeral		2	Temp / Perm ROW	In-stream, Within 1000 feet	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 101.3	UNT to Stuart Run	Ephemeral	2 (CL)	2	Flume or Dam and Pump	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Bath County, VA	AP-1 / 101.3	UNT to Stuart Run	Ephemeral		2	Temp / Perm ROW	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Bath County, VA	AP-1 / 101.5	UNT to Stuart Run	Perennial	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Bath County, VA	AP-1 / 101.5	UNT to Stuart Run	Perennial	6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Bath County, VA	AP-1 / 101.6	UNT to Stuart Run	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Bath County, VA	AP-1 / 101.8	UNT to Stuart Run	Perennial	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Bath County, VA	AP-1 / 101.9	UNT to Stuart Run	Perennial	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA			
Bath County, VA	AP-1 / 102.0	UNT to Stuart Run	Ephemeral		4	Perm AR - Existing Culvert	NA	UNT to Aquatic Life		NA		NA	
Bath County, VA	AP-1 / 102.1	UNT to Stuart Run	Ephemeral	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Bath County, VA	AP-1 / 102.1	UNT to Stuart Run	Intermittent	7 (CL)	6	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Bath County, VA	AP-1 / 102.3	UNT to Stuart Run	Ephemeral		2	Temp ROW	In-stream, Within 1000 feet	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 102.3	UNT to Stuart Run	Intermittent		5	Temp ROW	Within 1000 feet	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 102.5	UNT to Stuart Run	Intermittent	6 (CL)	5	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Bath County, VA	**AP-1 / 103.1**	**Mill Creek**	**Perennial**	**29 (CL)**	**12**	**Dam and Pump or Flume**	**In-stream; Within 1000 feet**	**Aquatic Life V-VIII**		**NA**	**Assume presence of James spinymussel (VA-E / F-E) and Atlantic pigtoe (VA-T / F-UR) and implement VDGIF TOYR (May 15-July 31) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Stockable trout water Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.**	**Complete mussel surveys and submit results to FWS and VDGIF Identify as Class V-VIII stockable trout steam; identify conservation measures to avoid/minimize conflict with stocking and angling activities (Paul Bugas, VDGIF Region IV Aquatic Resources Manager) Apply VDGIF TOYR for James spinymussel and Atlantic pigtoe (May 15-Jul 31) based on FWS correspondence Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**
Bath County, VA	AP-1 / 103.1	UNT to Mill Creek	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Complete musssel surveys and submit results to FWS and VDGIF Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31) Apply the FWS' enhanced conservation measures for ESA sensitive streams (see section 4.7.1)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Bath County, VA	AP-1 / 103.6	UNT to Mill Creek	Perennial	5 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31). Apply the FWS' enhanced conservation measures for ESA sensitive streams (see section 4.7.1)
Bath County, VA	AP-1 / 103.8	UNT to Mill Creek	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31). Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)
Bath County, VA	**AP-1 / 103.9**	**Mill Creek**	**Perennial**	**24 (AR)**	**22**	**Perm AR**	**NA**	**Aquatic Life V-VIII**		**NA**	**Assume presence of James spinymussel (VA-E /F-E) and Atlantic pigtoe (VA-T / F-UR) and implement VDGIF TOYR (May 15-July 31)** **Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)** **Stockable trout water**	**Will adhere to TOYR for work within the waterbody.**	**Complete mussel surveys and submit results to FWS and VDGIF** **Identify as Class V-VIII stockable trout steam; identify conservation measures to avoid/minimize conflict with stocking and angling activities (Paul Bugas, VDGIF Region IV Aquatic Resources Manager)** **Apply VDGIF TOYR for James spinymussel and Atlantic pigtoe (May 15-Jul 31) based on FWS correspondence** **Apply enhanced erosion control measures for ESA sensitive waterbodies (see section 4.7.1)**
Bath County, VA	AP-1 / 103.9	UNT to Mill Creek	Perennial	7 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31). Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)
Bath County, VA	AP-1 / 104.0	UNT to Mill Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31).
Bath County, VA	AP-1 / 104.1	UNT to Mill Creek	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31). Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Bath County, VA	AP-1 / 104.4	UNT to Mill Creek	Perennial	7 (CL)	7	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Pre-construction fish relocation	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31). Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)
Bath County, VA	AP-1 / 104.4	UNT to Mill Creek	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction fish relocation	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31)
Bath County, VA	AP-1 / 104.5	UNT to Mill Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction fish relocation	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31)
Bath County, VA	AP-1 / 104.6	UNT to Mill Creek	Intermittent	8 (CL)	6	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction fish relocation	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31)
Bath County, VA	AP-1 / 104.7	UNT to Mill Creek	Intermittent		2	Temp ROW	Within 1000 feet	WQS not assessed		NA		NA	
Bath County, VA	AP-1 / 104.8	UNT to Mill Creek	Intermittent	12 (CL)	4	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction fish relocation	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31)
Bath County, VA	AP-1 / 104.8	UNT to Mill Creek	Perennial	92 (CL)	9	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Pre-construction fish relocation	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31). Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)
Bath County, VA	AP-1 / 105.7	UNT to Mill Creek	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31). Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)
Bath County, VA	AP-1 / 105.7	UNT to Mill Creek	Perennial	3 (CL)	3	Flume or Dam and Pump	Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mill Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation. Apply James spinymussel and Atlantic pigtoe VDGIF TOYR (May 15-Jul 31). Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 107.1	UNT to Hamilton Branch	Intermittent	8 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 107.1	UNT to Hamilton Branch	Ephemeral	21 (AR)	3	Perm AR	NA	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 107.3	UNT to Hamilton Branch	Canal/Ditch		Canal/Ditch	Abuts Perm AR	NA	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 107.3	UNT to Hamilton Branch	Ephemeral	1 (CL)	1	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 107.5	UNT to Hamilton Branch	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 107.5	UNT to Hamilton Branch	Perennial	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 107.5	UNT to Hamilton Branch	Perennial		2	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 107.5	UNT to Hamilton Branch	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 107.5	UNT to Hamilton Branch	Perennial	7 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 107.7	UNT to Hamilton Branch	Perennial	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 107.9	UNT to Hamilton Branch	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 108.1	UNT to Hamilton Branch	Intermittent	8 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 108.3	UNT to Hamilton Branch	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 108.3	UNT to Hamilton Branch	Perennial	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 108.4	Hamilton Branch	Perennial	45 (CL)	20	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF
Augusta County, VA	AP-1 / 108.5	UNT to Hamilton Branch	Ephemeral	10 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 108.6	Hamilton Branch	Perennial	29 (AR)	25	Perm AR	NA	Unclassified		NA		NA	Complete mussel surveys and submit results to FWS and VDGIF
Augusta County, VA	AP-1 / 108.6	UNT to Hamilton Branch	Intermittent	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 108.8	Hughart Run	Perennial	19 (CL)	18	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 108.8	UNT to Hughart Run	Pond		Pond	Pond	Within 1000 feet	WQS not assessed		NA		NA	
Augusta County, VA	AP-1 / 108.9	UNT to Hamilton Branch	Intermittent		5	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Augusta County, VA	AP-1 / 109.2	Guy Hollow	Perennial	11 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 109.2	UNT to Guy Hollow	Intermittent	9 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 109.2	UNT to Hamilton Branch	Intermittent		2	Contractor Yard - Temporary Impact	Within 1000 feet	Unclassified		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 109.3	UNT to Hamilton Branch	Perennial	9 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 109.3	UNT to Hamilton Branch	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 109.3	UNT to Hamilton Branch	Intermittent	6 (AR)	5	Perm AR	NA	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 109.5	UNT to Hamilton Branch	Intermittent	9 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 109.6	UNT to Hamilton Branch	Perennial	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 109.7	UNT to Hamilton Branch	Perennial	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 109.8	UNT to Hamilton Branch	Perennial		6	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 110.1	UNT to Calfpasture River	Perennial	21 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR if not trout stream
Augusta County, VA	AP-1 / 110.5	UNT to Calfpasture River	Intermittent	9 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Remove TOYR if not trout stream
Augusta County, VA	AP-1 / 110.7	Tizzle Branch	Perennial	9 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 110.8	Benson Run	Perennial	20 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 110.8	UNT to Benson Run	Perennial	19 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 110.9	Tim's Draft	Perennial	23 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 111.1	UNT to Tizzle Branch	Perennial		15	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 111.4	Calfpasture River	Perennial	46 (CL)	30	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life, I-IV		October 1 to March 31	Complete surveys for James spinymussel; if observed implement VDGIF TOYR (May 15-Jul 31) and implement the FWS' enhanced conservation measures (see section 4.7.1) Assume presence of roughhead shiner (VA SGCN / GWNF RFSS) and implement VDGIF TOYR (Mar 15-Jun 30) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Implement roughhead shiner VDGIF TOYR (Mar 15-Jun 30) Remove Oct 1-Mar 31 TOYR if not trout stream; FWS indicates this waterbody has potential to contain James spinymussel. If James spinymussel identified during surveys, apply the VDGIF TOYR (May 15-July 31) and conduct mussel relocation. TOYR would also apply to water withdrawal. the FWS' enhanced conservation measures would also apply to perennial tributaries within 1 mile of this crossing location if also crossed by ACP.
Augusta County, VA	AP-1 / 111.4	White Rock Branch	Intermittent	14 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 111.5	UNT to White Rock Branch	Ephemeral	69 (CL)	14	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 111.5	White Rock Branch	Ephemeral	23 (CL)	14	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 112.1	UNT to Calfpasture River	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Remove TOYR if not trout stream

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 112.2	Calfpasture River	Perennial	65 (CL)	45	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life, I-IV		October 1 to March 31	Complete surveys for James spinymussel; if observed implement VDGIF TOYR (May 15-Jul 31) and implement the FWS' enhanced conservation measures (see section 4.7.1) Assume presence of roughhead shiner (VA SGCN / GWNF RFSS) and implement VDGIF TOYR (Mar 15-Jun 30) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Implement roughhead shiner VDGIF TOYR (Mar 15-Jun 30) Remove Oct 1-Mar 31 TOYR if not trout stream; FWS indicates this waterbody has potential to contain James spinymussel. If James spinymussel identified during surveys, apply the VDGIF TOYR (May 15-July 31) and conduct mussel relocation. TOYR would also apply to water withdrawal. the FWS' enhanced conservation measures would also apply to perennial tributaries within 1 mile of this crossing location if also crossed by ACP.
Augusta County, VA	AP-1 / 112.6	UNT to Calfpasture River	Perennial	24 (CL)	30	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR if not trout stream
Augusta County, VA	AP-1 / 113.1	Baker Draft	Perennial	11 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 113.1	UNT to Baker Draft	Perennial		3	Temp / Perm ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 113.1	UNT to Calfpasture River	Intermittent	33 (AR)	8	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31		NA	Remove TOYR if not trout stream
Augusta County, VA	AP-1 / 113.3	UNT to Calfpasture River	Perennial	14 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR if not trout stream
Augusta County, VA	AP-1 / 113.4	UNT to Calfpasture River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 113.5	Calfpasture River	Perennial	31 (CL)	30	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life, I-IV		October 1 to March 31	Complete surveys for James spinymussel; if observed implement VDGIF TOYR (May 15-Jul 31) and implement the FWS' enhanced conservation measures (see section 4.7.1) Assume presence of roughhead shiner (VA SGCN / GWNF RFSS) and implement VDGIF TOYR (Mar 15-Jun 30) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Implement roughhead shiner VDGIF TOYR (Mar 15-Jun 30) Remove Oct 1-Mar 31 TOYR if not trout stream; FWS indicates this waterbody has potential to contain James spinymussel. If James spinymussel identified during surveys, apply the VDGIF TOYR (May 15-July 31) and conduct mussel relocation. TOYR would also apply to water withdrawal. the FWS' enhanced conservation measures would also apply to perennial tributaries within 1 mile of this crossing location if also crossed by ACP.
Augusta County, VA	AP-1 / 113.5	UNT to Body Lick Branch	Perennial	4 (AR)	4	Perm AR	NA	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 113.9	UNT to Calfpasture River	Perennial	7 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR if not trout stream
Augusta County, VA	AP-1 / 113.9	UNT to Calfpasture River	Ephemeral		2	Temp ROW	Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31		NA	Remove TOYR; does not apply to ephemeral waters
Augusta County, VA	AP-1 / 114.0	UNT to Calfpasture River	Perennial	17 (AR)	4	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR if not trout stream Confirm that pre-construction aquatic species relocation would apply to access road crossing
Augusta County, VA	AP-1 / 114.0	UNT to Calfpasture River	Perennial	2 (AR)	2	Perm AR - Existing Culvert	NA	UNT to Aquatic Life, I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR if not trout stream Confirm that pre-construction aquatic species relocation would apply to access road crossing

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 114.1	UNT to Calfpasture River	Ephemeral	1 (AR)	1	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31		NA	Remove TOYR; does not apply to ephemeral waters
Augusta County, VA	AP-1 / 114.2	UNT to Calfpasture River	Ephemeral		1	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31		NA	Remove TOYR; does not apply to ephemeral waters
Augusta County, VA	AP-1 / 115.2	UNT to Cowpasture River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Cowpasture River for all applicable species Pre-construction aquatic species relocation	Pre-construction fish relocation	Adhere to TOYR for work within the waterbody Apply pre-construction aquatic species relocation
Augusta County, VA	AP-1 / 115.2	UNT to Ramsey's Draft	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Pre-construction fish relocation	Pre-construction fish relocation	Adhere to TOYR for work within waterbody.
Augusta County, VA	AP-1 / 115.3	Ramsey's Draft	Perennial	19 (CL)	12	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Pre-construction fish relocation	Pre-construction fish relocation	Adhere to TOYR for work within waterbody.
Augusta County, VA	AP-1 / 115.4	UNT to Calfpasture River	Intermittent	39 (AR) / 3 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation. Remove TOYR if not trout stream
Augusta County, VA	AP-1 / 115.7	UNT to Barn Lick Branch	Ephemeral		1	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 115.8	Barn Lick Branch	Perennial	9 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 116.3	UNT to Calfpasture River	Perennial	12 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR if not trout stream
Augusta County, VA	AP-1 / 116.5	Braley Branch	Perennial	12 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 116.7	Calfpasture River	Perennial	30 (CL)	16	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life, I-IV		October 1 to March 31	Complete surveys for James spinymussel; if observed implement VDGIF TOYR (May 15-Jul 31) and implement the FWS' enhanced conservation measures (see section 4.7.1) Assume presence of roughhead shiner (VA SGCN / GWNF RFSS) and implement VDGIF TOYR (Mar 15-Jun 30) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Implement roughhead shiner VDGIF TOYR (Mar 15-Jun 30) Remove Oct 1-Mar 31 TOYR if not trout stream; FWS indicates this waterbody has potential to contain James spinymussel. If James spinymussel identified during surveys, apply the VDGIF TOYR (May 15-July 31) and conduct mussel relocation. TOYR would also apply to water withdrawal. the FWS' enhanced conservation measures would also apply to perennial tributaries within 1 mile of this crossing location if also crossed by ACP.
Augusta County, VA	AP-1 / 117.1	Dowell's Draft	Perennial	10 (AR) / 10 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 117.2	UNT to Dowell's Draft	Intermittent	9 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		NA	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Per FS and VDGIF correspondence, this crossing of a tributary to Calfpasture River is within 0.5 mile of Calfpasture River (documented wild brook trout stream); therefore the VDGIF TOYR (Oct 1-Mar 31) would apply and should be implemented. Apply pre-construction aquatic species relocation.

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 117.3	East Branch Dowell's Draft	Perennial	10 (AR)	10	Long-term AR	NA	Aquatic Life, I-IV		NA	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	NA	Per FS and VDGIF correspondence, this crossing of a tributary to Calfpasture River is within 0.5 mile of Calfpasture River (documented wild brook trout stream); therefore the VDGIF TOYR (Oct 1-Mar 31) would apply and should be implemented.
Augusta County, VA	AP-1 / 117.7	UNT to East Branch Dowell's Draft	Intermittent	7 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	NA	Per FS and VDGIF correspondence, this crossing of a tributary to Calfpasture River is within 0.5 mile of Calfpasture River (documented wild brook trout stream); therefore the VDGIF TOYR (Oct 1-Mar 31) would apply and should be implemented. Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 120.2	Buckhorn Creek	Ephemeral	2 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 120.2	Buckhorn Creek	Perennial	25 (CL)	20	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 120.2	UNT to Buckhorn Creek	Perennial	25 (AR)	10	Temp AR - Temp Impact	NA	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 120.3	UNT to Buckhorn Creek	Ephemeral	1 (AR)	1	Temp AR - Temp Impact	NA	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 120.4	UNT to Buckhorn Creek	Perennial	29 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 120.6	UNT to Stoutameyer Branch	Intermittent		3	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 120.7	UNT to Stoutameyer Branch	Intermittent		3	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 120.9	UNT to Stoutameyer Branch	Intermittent	4 (AR) / 5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 121.1	Stoutameyer Branch	Perennial	6 (CL)	16	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Augusta County, VA	AP-1 / 122.5	UNT to Jennings Branch	Intermittent	3 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation. Remove TOYR; only applies to intermittent and perennial tributaries within 1 river mile of designated trout stream
Augusta County, VA	AP-1 / 122.8	UNT to Jennings Branch	Intermittent	6 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation. Remove TOYR; only applies to intermittent and perennial tributaries within 1 river mile of designated trout stream
Augusta County, VA	AP-1 / 123.0	UNT to Jennings Branch	Ephemeral	3 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Augusta County, VA	AP-1 / 123.9	UNT to Elk Run	Intermittent	8 (AR) / 6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 124.0	UNT to Elk Run	Intermittent		3	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 124.1	UNT to Elk Run	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 124.2	UNT to Elk Run	Intermittent		4	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 124.4	UNT to Elk Run	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 125.1	UNT to Elk Run	Intermittent	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 125.8	UNT to Elk Run	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 129.2	Jennings Branch	Perennial	92 (CL)	50	Cofferdam or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF TOYR also applies to water withdrawal
Augusta County, VA	AP-1 / 130.4	Middle River	Perennial	73 (CL)	75	Cofferdam or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF
Augusta County, VA	AP-1 / 138.6	UNT to Folly Mills Creek	Ephemeral	5 (CL)	3	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA		NA	
Augusta County, VA	AP-1 / 139.1	Folly Mills Creek	Perennial	26 (CL)	20	Dam and Pump or Flume	In-stream, Within 1000 feet	Aquatic Life V-VIII, Wildlife		NA	Stockable trout stream Pre-construction fish relocation	Pre-construction aquatic species relocations	Complete mussel surveys and provide results to FWS and VDGIF Identify as Class V-VIII stockable trout steam; identify conservation measures to avoid/minimize conflict with stocking and angling activities (Paul Bugas, VDGIF Region IV Aquatic Resources Manager)
Augusta County, VA	AP-1 / 139.1	UNT to Folly Mills Creek	Intermittent		6	Temp / Perm ROW	In-stream, Within 1000 feet	Aquatic Life, Wildlife		NA		NA	
Augusta County, VA	AP-1 / 139.6	UNT to Folly Mills Creek	Perennial	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 140.0	UNT to Folly Mills Creek	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 142.3	UNT to Christians Creek	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 142.5	Christian`s Creek	Perennial	27 (CL)	25	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 142.5	UNT to Christian`s Creek	Intermittent		4	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 143.9	UNT to Barterbrook Branch	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 144.0	Barterbrook Branch	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life V-VIII		NA	Stockable trout stream Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Identify as Class V-VIII stockable trout steam; identify conservation measures to avoid/minimize conflict with stocking and angling activities (Paul Bugas, VDGIF Region IV Aquatic Resources Manager)
Augusta County, VA	AP-1 / 145.6	UNT to South River	Perennial	8 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 146.2	UNT to South River	Intermittent	5 (CL)	5	Dam and Pump or Flume	Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 147.5	UNT to South River	Canal/Ditch	21 (CL)	Canal/Ditch	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 148.6	South River	Perennial	46 (CL)	35	Flume or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 150.8	UNT to South River	Ephemeral	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 151.5	UNT to the South River	Intermittent	3 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 152.3	UNP to Back Creek	Pond	Pond (AR) / Pond (CL)	Pond	Pond	Within 1000 feet	NA		NA		NA	
Augusta County, VA	AP-1 / 152.4	UNT to Back Creek	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 152.9	Mills Creek	Perennial	33 (CL)	16	Flume or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life, I-IV, V-VIII	Benthic-Macroinvertebrate Bioassessments	October 1 to March 31	Stockable trout stream Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; does not apply stockable trout streams; identify as Class V-VIII stockable trout steam; identify conservation measures to avoid/minimize conflict with stocking and angling activities (Paul Bugas, VDGIF Region IV Aquatic Resources Manager)
Augusta County, VA	AP-1 / 152.9	UNT to Mills Creek	Intermittent	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I IV, V-VIII		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR, does not apply to stockable trout streams; nor to tributaries to stockable trout streams
Augusta County, VA	AP-1 / 153.1	UNT to Mills Creek	Perennial	7 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, I IV, V-VIII		October 1 to March 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR, does not apply to stockable trout streams; nor to tributaries to stockable trout streams
Augusta County, VA	AP-1 / 153.4	Orebank Creek	Perennial	24 (CL)	13	Dam and Pump or Flume	Within 1000 feet	Aquatic Life, I-IV	pH	October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 153.6	UNT to Back Creek	Perennial	7 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life	Benthic-Macroinvertebrate Bioassessments and E. coli	NA	Pre-construction aquatic species relocation		Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 153.6	UNT to Back Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation		Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 153.7	UNT to Back Creek	Perennial	34 (CL)	10	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Augusta County, VA	AP-1 / 153.7	UNT to Back Creek	Intermittent		4	Temp ATWS / Temp ROW	Within 1000 feet	WQS not assessed		NA		NA	
Augusta County, VA	AP-1 / 153.7	UNT to Laurel Springs Branch	Intermittent	5 (AR)	5	Perm AR	NA	Unclassified		NA		NA	
Augusta County, VA	AP-1 / 153.7	UNT to Back Creek	Perennial		12	Temp / Perm ROW / Temp ATWS	Within 1000 feet	WQS not assessed		NA		NA	
Augusta County, VA	AP-1 / 153.8	Back Creek	Perennial	88 (CL)	55	Cofferdam or Dam and Pump	In-stream, Within 1000 feet	Aquatic Life Class V-VIII; Impaired		NA	Stockable trout stream Pre-construction aquatic species relocation		Complete mussel surveys and submit results to FWS and VDGIF Identify as Class V-VIII stockable trout steam; identify conservation measures to avoid/minimize conflict with stocking and angling activities (Paul Bugas, VDGIF Region IV Aquatic Resources Manager)
Augusta County, VA	AP-1 / 153.9	UNT to Back Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Augusta County, VA	AP-1 / 154.2	UNT to Back Creek	Intermittent	5 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 154.4	UNT to Back Creek	Intermittent	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 154.5	UNT to Back Creek	Intermittent	4 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 154.8	UNT to Back Creek	Intermittent	10 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 154.9	UNT to Back Creek	Ephemeral	6 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 155.0	UNT to Back Creek	Intermittent	2 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Augusta County, VA	AP-1 / 155.1	UNT to Back Creek	Ephemeral	11 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 155.2	UNT to Back Creek	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 155.3	UNT to Back Creek	Intermittent	5 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 155.3	UNT to Back Creek	Intermittent	6 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 155.5	UNT to Back Creek	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 155.6	UNT to Back Creek	Ephemeral	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 155.8	UNT to Back Creek	Perennial	11 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 155.9	UNT to Back Creek	Intermittent	8 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 155.9	UNT to Back Creek	Intermittent	7 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 155.9	UNT to Back Creek	Intermittent		6	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 155.9	UNT to Back Creek	Perennial		25	Temp / Perm ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Augusta County, VA	AP-1 / 156.0	UNT to Back Creek	Intermittent	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 156.2	UNT to Back Creek	Perennial	5 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 156.4	UNT to Back Creek	Intermittent	3 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 156.6	UNT to South Fork Back Creek	Perennial	18 (CL)	10	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 156.6	UNT to South Fork Back Creek	Intermittent	8 (CL)	7	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 156.7	UNT to South Fork Back Creek	Ephemeral	10 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR, does not apply to ephemeral waterbodies
Augusta County, VA	AP-1 / 156.7	UNT to South Fork Back Creek	Intermittent	28 (CL)	7	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Augusta County, VA	AP-1 / 156.9	UNT to South Fork Back Creek	Ephemeral		6	Temp / Perm ROW	Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR, does not apply to ephemeral waterbodies
Augusta County, VA	AP-1 / 156.9	UNT to South Fork Back Creek	Intermittent	7 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 157.0	UNT to South Fork Back Creek	Perennial	6 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 157.0	UNT to South Fork Back Creek	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	
Augusta County, VA	AP-1 / 157.2	UNT to South Fork Back Creek	Perennial	4 (CL)	4	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Augusta County, VA	AP-1 / 157.4	UNT to South Fork Back Creek	Intermittent		4	Temp ROW	Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Augusta County, VA	AP-1 / 157.6	UNT to South Fork Back Creek	Intermittent	6 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	
Augusta County, VA	AP-1 / 157.6	UNT to South Fork Back Creek	Perennial	17 (CL)	15	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Augusta County, VA	AP-1 / 157.6	UNT to South Fork Back Creek	Ephemeral	11 (CL)	9	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR, does not apply to ephemeral waterbodies
Augusta County, VA	AP-1 / 157.6	UNT to South Fork Back Creek	Intermittent		13	Temp ROW	Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Augusta County, VA	AP-1 / 157.8	UNT to South Fork Back Creek	Intermittent	5 (AR) / 7 (CL)	5	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation.
Nelson County, VA	AP-1 / 158.7	UNT to South Fork Rockfish River	Perennial	3 (CL)	8	Flume or Dam and Pump	Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation.

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nelson County, VA	AP-1 / 158.8	UNT to South Fork Rockfish River	Intermittent		3	Temp ATWS / Temp ROW	Within 1000 feet	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Nelson County, VA	AP-1 / 158.9	South Fork Rockfish River	Perennial	20 (CL)	16	Flume or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life, I-IV, V-VIII	E. Coli and Fecal Coliform	October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Stockable trout stream Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply pre-construction aquatic species relocation Identify as Class V-VIII stockable trout steam; identify conservation measures to avoid/minimize conflict with stocking and angling activities (Paul Bugas, VDGIF Region IV Aquatic Resources Manager) TOYR also applies to water withdrawal
Nelson County, VA	AP-1 / 160.4	Spruce Creek	Perennial	16 (AR)	10	Perm AR	NA	Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	
Nelson County, VA	AP-1 / 161.1	Spruce Creek	Perennial	2 (AR)	10	Perm AR	NA	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	
Nelson County, VA	AP-1 / 161.4	UNT to South Fork Rockfish River	Intermittent	6 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	
Nelson County, VA	AP-1 / 161.8	South Fork Rockfish River	Perennial	10 (AR)	10	Perm AR	NA	Aquatic Life, I-IV, V-VIII		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Stockable trout stream	Will adhere to TOYR for work within the waterbody.	Identify as Class V-VIII stockable trout steam; identify conservation measures to avoid/minimize conflict with stocking and angling activities (Paul Bugas, VDGIF Region IV Aquatic Resources Manager) TOYR also applies to water withdrawal
Nelson County, VA	AP-1 / 161.8	UNT to South Fork Rockfish River	Intermittent	5 (AR)	5	Perm AR	NA	UNT to Aquatic Life, I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) for perennial and intermittent tributaries within 1 river mile of designated waterbodies	Will adhere to TOYR for work within the waterbody.	
Nelson County, VA	AP-1 / 162.4	UNT to Spruce Creek	Perennial	6 (CL)	5	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction fish relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Nelson County, VA	AP-1 / 162.4	Spruce Creek	Perennial	26 (CL)	15	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction fish relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Nelson County, VA	AP-1 / 162.6	Spruce Creek	Perennial		15	Temp ATWS / Temp ROW	Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Nelson County, VA	AP-1 / 162.6	UNT to Spruce Creek	Perennial		8	Temp ROW	Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Nelson County, VA	AP-1 / 162.8	UNT to Spruce Creek	Ephemeral	13 (CL)	2	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Nelson County, VA	AP-1 / 163.0	UNT to Spruce Creek	Intermittent		2	Temp ROW	Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31)	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Nelson County, VA	AP-1 / 163.1	UNT to Spruce Creek	Ephemeral		2	Temp ATWS / Temp ROW	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Nelson County, VA	AP-1 / 163.1	UNT to Spruce Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waterbodies
Nelson County, VA	AP-1 / 163.1	Spruce Creek	Perennial	56 (CL)	16	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Implement VDGIF brook trout TOYR (Oct 1-Mar 31) Pre-construction fish relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Nelson County, VA	AP-1 / 163.7	South Fork Rockfish River	Perennial	61 (CL)	40	Dam and Pump or Flume	In-stream, Within 1000 feet	Aquatic Life, Wildlife, Class I-IV		October 1 to March 31	Pre-construction fish relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	Complete mussel surveys and submit results to FWS and VDGIF

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nelson County, VA	AP-1 / 163.9	UNT to South Fork Rockfish River	Perennial	8 (CL)	8	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Pre-construction fish relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Nelson County, VA	AP-1 / 164.2	UNT to South Fork Rockfish River	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Pre-construction fish relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Nelson County, VA	AP-1 / 164.4	UNT to South Fork Rockfish River	Perennial	10 (CL)	10	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed, Class I-IV		October 1 to March 31	Pre-construction fish relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Nelson County, VA	AP-1 / 165.4	UNT to Rockfish River	Perennial	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 165.5	UNT to Rockfish River	Perennial	7 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 165.5	UNT to Rockfish River	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 165.9	UNT to Rockfish River	Intermittent	11 (CL)	10	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 165.9	UNT to Rockfish River	Perennial	35 (CL)	12	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 166.0	UNT to Rockfish River	Perennial	5 (CL)	4	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 166.2	UNT to Rockfish river	Perennial	5 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 166.3	UNT to Rockfish river	Perennial	9 (CL)	9	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 166.7	UNT to Rockfish river	Perennial	9 (CL)	9	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 166.7	UNT to Rockfish River	Intermittent		4	Abuts Perm AR	NA	WQS not assessed		NA		NA	
Nelson County, VA	AP-1 / 166.9	UNT to Rockfish River	Perennial	11 (AR)	10	Perm AR	NA	Unclassified		NA		NA	
Nelson County, VA	AP-1 / 167.8	UNT to Rockfish River	Intermittent	12 (AR)	5	Perm AR	NA	Unclassified		NA		NA	
Nelson County, VA	AP-1 / 168.8	Davis Creek	Perennial	22 (CL)	14	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	Complete mussel surveys and provide results to FWS and VDGIF
Nelson County, VA	AP-1 / 168.9	UNT to Davis Creek	Intermittent	9 (CL)	9	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 169.3	Muddy Creek	Perennial	19 (CL)	25	Cofferdam or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	Complete mussel surveys and provide results to FWS and VDGIF
Nelson County, VA	AP-1 / 169.7	UNT to Craig Creek	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 169.9	Craig Creek	Perennial	8 (CL)	8	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 170.3	UNT to Rockfish River	Perennial	6 (CL)	4	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 170.7	UNT to Rockfish River	Intermittent	6 (CL)	3	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 171.0	UNT to Rockfish River	Perennial	6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nelson County, VA	AP-1 / 171.0	UNT to Rockfish River	Perennial		3	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Nelson County, VA	AP-1 / 171.3	UNT to Rockfish River	Perennial	8 (AR) / 4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 171.6	UNT to Rockfish River	Perennial	9 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 171.7	UNT to Rockfish River	Intermittent	3 (AR)	4	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Nelson County, VA	AP-1 / 172.4	UNT to Rockfish River	Intermittent	10 (CL)	5	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 172.8	UNT to Dutch Creek	Perennial	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Nelson County, VA	AP-1 / 172.9	UNT to Dutch Creek	Intermittent		4	Temp ATWS / Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Nelson County, VA	AP-1 / 173.2	UNT to Falls Run	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 173.2	UNT to Falls Run	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA		NA	
Nelson County, VA	AP-1 / 173.2	UNT to Falls Run	Intermittent	8 (CL)	6	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 175.1	UNT to Dutch Creek	Perennial	21 (CL)	25	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 175.6	Dutch Creek	Perennial	17 (AR) / 18 (CL)	30	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 175.9	UNT to Dutch Creek	Perennial	10 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 176.2	Dutch Creek	Perennial	21 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 177.4	UNT to Beaver Creek	Intermittent		4	Abuts Perm AR	NA	WQS not assessed		NA		NA	
Nelson County, VA	AP-1 / 178.2	UNT to Buffalo Creek	Perennial		4	Abuts Perm AR	NA	WQS not assessed		NA		NA	
Nelson County, VA	AP-1 / 178.9	UNT to Buffalo Creek	Perennial	8 (CL)	8	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nelson County, VA	AP-1 / 180.2	UNT to Buffalo Creek	Perennial	22 (CL)	12	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 180.5	UNT to Buffalo Creek	Intermittent	8 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 180.9	UNT to Buffalo Creek	Intermittent	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nelson County, VA	AP-1 / 181.5	UNT to Mayo Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mayo Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30)
Nelson County, VA	AP-1 / 181.9	Mayo Creek	Perennial	10 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Assume presence of green floater (VA-T) and implement VDGIF TOYR (Apr 15-Jun 15 and Aug 15-Sept 30) Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Nelson County, VA	AP-1 / 182.6	UNT to Mayo Creek	Intermittent	10 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mayo Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30)
Nelson County, VA	AP-1 / 182.9	UNT to Mayo Creek	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mayo Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30)
Nelson County, VA	AP-1 / 182.9	UNT to Mayo Creek	Perennial		4	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mayo Creek for all applicable species Pre-construction aquatic species relocation	NA	
Nelson County, VA	AP-1 / 182.9	UNT to Mayo Creek	Perennial		2	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mayo Creek for all applicable species Pre-construction aquatic species relocation	NA	
Nelson County, VA	AP-1 / 183.3	UNT to Mayo Creek	Perennial	6 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mayo Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30)
Nelson County, VA	AP-1 / 183.4	UNT to Mayo Creek	Intermittent	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Mayo Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30)
Nelson County, VA	AP-1 / 183.7	UNT to Mayo Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Nelson County, VA	AP-1 / 184.5	Mayo Creek	Perennial	35 (CL)	10	HDD (Part of James River HDD)	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		March 15 to June 30/April 15 to June 15 and August 15 to September 30/May 15 to July 31	Assume presence of green floater (VA-T) and implement VDGIF TOYR (Apr 15-Jun 15 and Aug 15-Sept 30) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)	No in-stream work planned.	VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30) Remove Mar 15-Jun 30 and May 15-Jul 31 TOYR Under State Classifications - UNT to Potential Anadromous Fish Use Area (TOYR does not apply to tributaries)
Nelson and Buckingham Counties, VA	AP-1 / 184.7	James River	Perennial	396 (CL)	300+	HDD	Within 1000 feet	Aquatic Life, Migratory fish Spawning and Nursery	Mercury in Fish and PCB in Fish	March 15 to June 30/April 15 to June 15 and August 15 to September 30/May 15 to July 31	Consult with VDGIF on proposal to not implement green floater TOYR Assume presence of green floater (VA-T) and implement VDGIF TOYR (Apr 15-Jun 15 and Aug 15-Sept 30) VDGIF Potential AFSA (above Bosher's Dam) VDGIF TOYR (Mar 15-Jun 30) Potential for marine mammals	No in-stream work planned.	Consult with VDGIF on proposal to not implement green floater TOYR; TOYR also applies to water withdrawal activities Remove May 15-Jul 31 TOYR
Buckingham County, VA	AP-1 / 184.9	UNT to James River	Perennial	21 (AR)	10	Perm AR	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		March 15 to June 30/April 15 to June 15 and August 15 to September 30/May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of James River for all applicable species	Will adhere to TOYR for work within the waterbody.	Complete mussel surveys and submit results to FWS and VDGIFRemove Mar 15-Jun 30 and May 15-Jul 31 TOYR Under State Classifications - UNT to Potential Anadromous Fish Use Area (TOYR does not apply to tributaries)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Buckingham County, VA	AP-1 / 184.9	UNT to James River	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		March 15 to June 30/ May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of James River for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Remove Mar 15-Jun 30 and May 15-Jul 31 TOYR; Under State Classifications - UNT to Potential Anadromous Fish Use Area (TOYR does not apply to tributaries) Apply green floater VDGIF TOYR (Apr 15-Jun 15 and Aug 15-Sept 30)
Buckingham County, VA	AP-1 / 185.0	UNT to James River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of James River for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove Mar 15-Jun 30 TOYR; Under State Classifications - UNT to Potential Anadromous Fish Use Area (TOYR does not apply to tributaries) Apply green floater VDGIF TOYR (Apr 15-Jun 15 and Aug 15-Sept 30)
Buckingham County, VA	AP-1 / 185.4	UNT to James River	Perennial	14 (AR)	10	Perm AR - Existing Culvert	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		March 15 to June 30/April 15 to June 15 and August 15 to September 30/May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of James River for all applicable species	Will adhere to TOYR for work within the waterbody.	Complete mussel surveys and submit results to FWS and VDGIF Remove Mar 15-Jun 30 and May 15-Jul 31 TOYR Under State Classifications - UNT to Potential Anadromous Fish Use Area (TOYR does not apply to tributaries)
Buckingham County, VA	AP-1 / 185.4	UNT to James River	Intermittent		5	Abuts Perm AR	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of James River for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Remove Mar 15-Jun 30 TOYR; Under State Classifications - UNT to Potential Anadromous Fish Use Area (TOYR does not apply to tributaries) No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Buckingham County, VA	AP-1 / 185.4	UNT to James River	Intermittent		2	Perm ROW	Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of James River for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Remove Mar 15-Jun 30 TOYR; Under State Classifications - UNT to Potential Anadromous Fish Use Area (TOYR does not apply to tributaries) No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Buckingham County, VA	AP-1 / 186.6	UNT to Sycamore Creek	Ephemeral	1 (CL)	1	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 186.8	UNT to Sycamore Creek	Perennial	7 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA		NA	Apply pre-construction aquatic species relocation.
Buckingham County, VA	AP-1 / 186.8	UNT to Sycamore Creek	Perennial	1 (CL)	1	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA		NA	Apply pre-construction aquatic species relocation.
Buckingham County, VA	AP-1 / 186.8	UNT to Sycamore Creek	Intermittent		5	Temp / Perm ROW	In-stream, Within 1000 feet	WQS not assessed		NA		NA	
Buckingham County, VA	AP-1 / 187.3	UNT to Sycamore Creek	Perennial		2	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 187.6	Sycamore Creek	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 187.9	UNT to Sycamore Creek	Perennial	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 189.1	Walton Fork	Intermittent	3 (AR)	3	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 190.0	UNT to Walton Fork	Intermittent		2	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 190.0	UNT to Walton Fork	Intermittent		3	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 190.1	Walton Fork	Perennial	11 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Buckingham County, VA	AP-1 / 191.0	UNT to Ripley Creek	Perennial	18 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 191.5	UNT to Ripley Creek	Intermittent	4 (CL)	4	Compressor Station - Temporary Impact	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 191.9	UNT to Ripley Creek	Intermittent		2	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 192.2	UNT to North River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Buckingham County, VA	AP-1 / 193.1	UNT to Matthews Creek	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 194.1	North River	Perennial	34 (CL)	30	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 194.9	UNT to North River	Intermittent	18 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 195.1	UNT to North River	Perennial	7 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 195.5	UNT to North River	Ephemeral		3	Contractor Yard - Temporary Impact	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 195.5	UNT to North River	Ephemeral	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 196.1	UNT to North River	Intermittent	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 196.3	UNT to North River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 196.9	UNT to Slate River	Ephemeral	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 197.1	UNT to Slate River	Perennial	4 (AR)	4	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 197.4	UNT to Slate River	Perennial	9 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 197.4	UNT to Slate River	Ephemeral		1	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 197.9	Slate River	Perennial	36 (CL)	19	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 198.1	UNT to Slate River	Ephemeral	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 198.1	UNT to Slate River	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 198.1	UNT to Slate River	Ephemeral		1	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 198.3	UNT to Licky Branch	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 198.5	Licky Branch	Perennial	19 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 198.5	UNT to Licky Branch	Intermittent		2	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 199.4	UNT to Licky Creek	Ephemeral		2	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Buckingham County, VA	AP-1 / 200.3	UNT to Pitman Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 201.2	Horsepen Creek	Perennial	6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 201.3	UNT to Horsepen Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 201.8	UNT to Horsepen Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 201.8	UNT to Horsepen Creek	Perennial	8 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 202.7	UNT to Willis River	Ephemeral	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 203.6	UNT to Willis River	Perennial	12 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 204.2	UNT to Willis River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 204.5	UNT to Willis River	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 204.5	UNT to Willis River	Ephemeral	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 204.7	UNT to Willis River	Perennial	13 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 204.8	UNT to Willis River	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 205.1	Willis River	Perennial	28 (AR)	25	Temp AR - Temp Impact	NA	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 205.1	Willis River	Perennial	24 (CL)	30	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 205.2	UNT to Willis River	Intermittent	3 (AR) / 7 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 205.6	UNT to Little Willis River	Ephemeral		3	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 205.7	UNT to Little Willis River	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 205.7	UNT to Little Willis River	Perennial	10 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 205.7	UNT to Little Willis River	Intermittent		4	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 205.9	UNT to Little Willis River	Perennial	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 205.9	UNT to Little Willis River	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 206.1	UNT to Willis River	Perennial	6 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 206.5	UNT to Willis River	Intermittent		1	Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 206.9	UNT to Willis River	Perennial	8 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 207.1	UNT to Bishop Creek	Intermittent		2	Temp ROW	Within 1000 feet	Unclassified		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Buckingham County, VA	AP-1 / 207.2	UNT to Bishop Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 207.3	UNT to Bishop Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 207.3	UNT to Bishop Creek	Intermittent	10 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 207.4	UNT to Bishop Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 207.8	Bishop Creek	Perennial	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 208.2	UNT to Little Willis River	Perennial	34 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 208.6	UNT to Little Willis River	Intermittent	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 208.9	UNT to Little Willis River	Ephemeral	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 209.1	UNT to Little Willis River	Ephemeral	6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 209.1	UNT to Little Willis River	Ephemeral		4	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 209.2	UNT to Little Willis River	Intermittent	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 209.5	Little Willis River	Perennial	15 (CL)	25	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 210.0	UNT to Gills Creek	Canal/Ditch	16 (CL)	Canal/Ditch	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 210.0	UNT to Gills Creek	Canal/Ditch		Canal/Ditch	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 210.2	Gills Creek	Perennial	11 (CL)	12	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 211.0	UNT to Little Willis River	Ephemeral	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 211.0	UNT to Perkins Creek	Ephemeral		2	Perm AR - Existing Culvert	NA	Unclassified		NA		NA	
Buckingham County, VA	AP-1 / 211.4	Perkins Creek	Perennial	25 (CL)	13	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Buckingham County, VA	AP-1 / 211.7	UNT to Perkins Creek	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 212.0	UNT to Perkins Creek	Ephemeral	3 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 212.2	UNT to Perkins Creek	Intermittent	9 (CL)	12	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 212.4	UNT to Perkins Creek	Intermittent	14 (CL)	4	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 212.9	UNT to Little Willis River	Ephemeral	4 (CL)	4	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 213.0	UNT to Little Willis River	Ephemeral		3	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 213.7	UNT to Dry Creek	Ephemeral	6 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 213.9	UNT to Dry Creek	Intermittent		5	Temp ROW	NA	Unclassified		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Cumberland County, VA	AP-1 / 214.0	UNT to Dry Creek	Intermittent		2	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 214.0	UNT to Dry Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 214.0	UNT to Dry Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 214.0	UNT to Dry Creek	Intermittent		2	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 214.2	UNT to Dry Creek	Intermittent	5 (CL)	4	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 214.3	UNT to Dry Creek	Intermittent	6 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 214.5	UNT to Dry Creek	Ephemeral	6 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 214.6	UNT to Dry Creek	Intermittent	5 (CL)	5	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 214.8	Dry Creek	Perennial	15 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Cumberland County, VA	AP-1 / 215.0	UNT to Dry Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 215.1	UNT to Dry Creek	Ephemeral	4 (CL)	4	Flume or Dam and Pump	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 215.1	UNT to Dry Creek	Intermittent		3	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 215.2	Dry Creek	Perennial	10 (CL)	9	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 215.2	UNT to Dry Creek	Ephemeral		1	Temp / Perm ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 215.4	UNT to Dry Creek	Ephemeral	4 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 215.9	UNT to Green Creek	Ephemeral	3 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 215.9	UNT to Green Creek	Intermittent		4	Temp / Perm ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 215.9	UNT to Green Creek	Ephemeral		2	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 216.2	UNT to Green Creek	Perennial	10 (CL)	6	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 216.8	UNT to Green Creek	Perennial	7 (CL)	5	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 217.0	UNT to Green Creek	Intermittent	7 (CL)	6	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 217.4	UNT to Green Creek	Intermittent		2	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 217.6	UNT to Green Creek	Intermittent		2	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 217.6	UNT to Green Creek	Perennial	9 (CL)	5	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 217.6	UNT to Green Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 218.1	UNT to Green Creek	Perennial	18 (CL)	10	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 218.1	UNT to Green Creek	Ephemeral	1 (CL)	1	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 218.2	UNT to Green Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 218.4	UNT to Green Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 218.6	UNT to Green Creek	Ephemeral		2	Temp / Perm ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 218.7	UNT to Green Creek	Intermittent	3 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 218.8	Green Creek	Perennial	14 (AR)	14	Temp AR - Temp Impact	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 219.2	UNT to Green Creek	Perennial	39 (CL)	15	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 219.4	Green Creek	Perennial	43 (CL)	18	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Cumberland County, VA	AP-1 / 219.4	UNT to Green Creek	Ephemeral		1	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 219.5	UNT to Green Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 219.6	UNT to Green Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland County, VA	AP-1 / 219.8	UNT to Green Creek	Intermittent		3	Temp ROW	NA	Unclassified		NA		NA	
Cumberland County, VA	AP-1 / 219.8	UNT to Green Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Cumberland and Prince Edward Counties, VA	**AP-1 / 220.8**	**Appomattox River**	**Perennial**	**106 (CL)**	**100**	**Cofferdam**	**In-stream; Within 1000 feet**	**Aquatic Life**		**May 15 to July 31**	**Assume presence of Atlantic pigtoe (VA-T; F-UR) and implement VDGIF TOYR (May 15-Jul 31)** **Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)** **Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.**	**TOYR applies to water withdrawal activities** **Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**
Prince Edward County, VA	AP-1 / 221.6	UNT to Appomattox River	Perennial	9 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Appomattox River for all applicable species Apply the FWS' enhanced conservation measures at perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply the FWS' enhanced conservation measures at perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Prince Edward County, VA	AP-1 / 221.7	UNT to Appomattox River	Ephemeral	2 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Prince Edward County, VA	AP-1 / 221.8	UNT to Appomattox River	Perennial	14 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Appomattox River for all applicable species Apply the FWS' enhanced conservation measures at perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply the FWS' enhanced conservation measures at perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Prince Edward County, VA	AP-1 / 222.0	UNT to Appomattox River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Appomattox River for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Appomattox River for all applicable species
Prince Edward County, VA	AP-1 / 222.1	UNT to Appomattox River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Appomattox River for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Appomattox River for all applicable species
Prince Edward County, VA	AP-1 / 222.2	UNT to Appomattox River	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of Appomattox River
Prince Edward County, VA	AP-1 / 222.4	UNT to Appomattox River	Perennial	14 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of Appomattox River
Prince Edward County, VA	AP-1 / 222.5	UNT to Appomattox River	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Prince Edward County, VA	AP-1 / 222.6	UNT to Appomattox River	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Prince Edward County, VA	AP-1 / 223.2	Little Saylers Creek	Perennial	32 (CL)	25	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF
Prince Edward County, VA	AP-1 / 223.4	UNT to Little Saylers Creek	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Prince Edward County, VA	AP-1 / 223.8	UNT to Little Saylers Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Prince Edward County, VA	AP-1 / 223.9	UNT to Little Saylers Creek	Perennial	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Prince Edward County, VA	AP-1 / 223.9	UNT to Little Saylers Creek	Intermittent		4	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Prince Edward County, VA	AP-1 / 224.1	UNT to Little Saylers Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Prince Edward County, VA	AP-1 / 225.2	UNT to Little Saylers Creek	Intermittent	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Prince Edward County, VA	AP-1 / 225.5	UNT to Little Saylers Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 226.6	Saylers Creek	Perennial	12 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 227.2	UNT to Ellis Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 227.6	UNT to Ellis Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 227.8	UNT to Ellis Creek	Ephemeral	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Nottoway County, VA	AP-1 / 228.2	Ellis Creek	Perennial	5 (CL)	18	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 228.6	UNT to Ellis Creek	Intermittent		2	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Nottoway County, VA	AP-1 / 228.8	UNT to Flat Creek	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 229.0	UNT to Flat Creek	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 229.2	Flat Creek	Perennial	38 (CL)	20	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 229.9	UNT to Flat Creek	Ephemeral		2	Temp / Perm ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Nottoway County, VA	AP-1 / 230.7	Little Creek	Perennial	10 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 230.7	UNT to Little Creek	Perennial		3	Temp ROW	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Nottoway County, VA	AP-1 / 230.9	UNT to Little Creek	Ephemeral	2 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Nottoway County, VA	AP-1 / 231.0	UNT to Little Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA		NA	
Nottoway County, VA	AP-1 / 231.8	UNT to West Creek	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nottoway County, VA	AP-1 / 231.8	UNT to West Creek	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 231.9	UNT to West Creek	Intermittent	7 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 232.0	UNT to West Creek	Perennial		3	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 232.0	West Creek	Perennial	7 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 232.2	UNT to West Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 232.4	UNT to West Creek	Perennial	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 232.4	UNT to West Creek	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 232.7	West Creek	Perennial	11 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 232.8	UNT to West Creek	Intermittent		1	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 233.0	UNT to West Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 233.0	UNT to West Creek	Ephemeral	3 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 233.1	UNT to West Creek	Ephemeral	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 233.1	UNT to West Creek	Ephemeral		3	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 233.4	UNT to Little West Creek	Perennial	8 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 234.2	Little West Creek	Perennial	21 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 234.3	UNT to Little West Creek	Intermittent	14 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 235.1	UNT to Deep Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 235.2	UNT to Deep Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 235.5	UNT to Deep Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 235.7	UNT to Deep Creek	Perennial	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 235.7	UNT to Deep Creek	Ephemeral	6 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 236.0	Deep Creek	Perennial	26 (CL)	35	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 236.1	UNT to Deep Creek	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 236.2	UNT to Deep Creek	Perennial	12 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nottoway County, VA	AP-1 / 236.5	UNT to Deep Creek	Intermittent	21 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 236.9	UNT to Deep Creek	Intermittent		2	Perm AR	NA	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 236.9	UNT to Deep Creek	Intermittent	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 237.0	UNT to Deep Creek	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 237.4	UNT to Deep Creek	Perennial	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 238.2	UNT to Winningham Creek	Ephemeral	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 238.6	Winningham Creek	Perennial	28 (CL)	50	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Nottoway County, VA	AP-1 / 238.8	UNT to Winningham Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 239.1	UNT to Winningham Creek	Perennial	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 239.9	UNT to Woody Creek	Perennial	6 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 239.9	UNT to Woody Creek	Ephemeral	2 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 240.0	UNP to Woody Creek	Pond		Pond	Pond	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 240.6	Woody Creek	Perennial	11 (CL)	17	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Nottoway County, VA	AP-1 / 241.5	UNT to Watson Creek	Ephemeral	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 241.6	Watson Creek	Perennial	10 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 242.6	UNT to Cellar Creek	Perennial	6 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 242.9	Cellar Creek	Perennial	14 (CL)	15	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 242.9	UNT to Cellar Creek	Intermittent	3 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 243.6	UNT to Cellar Creek	Intermittent		2	Temp / Perm ROW	In-stream, Within 1000 feet	WQS not assessed		NA		NA	
Nottoway County, VA	AP-1 / 243.6	UNT to Cellar Creek	Intermittent	3 (CL)	2	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nottoway County, VA	AP-1 / 243.6	UNT to Cellar Creek	Intermittent	1 (CL)	1	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Nottoway County, VA	AP-1 / 244.1	Lees Creek	Perennial	9 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Nottoway County, VA	AP-1 / 244.1	UNT to Lees Creek	Perennial		2	Temp / Perm ROW	In-stream; Within 1000 feet	Unclassified		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nottoway County, VA	AP-1 / 244.4	UNT to Lees Creek	Perennial	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Nottoway County, VA	AP-1 / 244.5	UNT to Lees Creek	Perennial	4 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Nottoway County, VA	AP-1 / 244.7	UNT to Lees Creek	Perennial	5 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
Nottoway County, VA	AP-1 / 244.9	UNT to Less Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 245.1	UNT to Less Creek	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 245.4	UNT to Bland Creek	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 245.4	UNT to Bland Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 245.5	UNT to Bland Creek	Perennial	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 245.6	UNT to Bland Creek	Perennial	16 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 245.6	UNT to Bland Creek	Ephemeral		2	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 246.0	UNT to Bland Creek	Perennial	6 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 247.0	UNT to Lake Lee	Intermittent	5 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 247.2	UNT to Bland Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 247.8	UNT to Butterwood Creek	Ephemeral	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Nottoway County, VA	AP-1 / 248.2	UNT to Twin Lakes	Intermittent	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Nottoway County, VA	AP-1 / 248.4	UNT to Twin Lakes	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Nottoway County, VA	AP-1 / 248.6	UNT to Twin Lakes	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Dinwiddie County, VA	AP-1 / 249.1	Butterwood Creek	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on June 16, 2017 Supplemental Filing, no potential for listed species at this crossing; therefore, remove VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30)
Dinwiddie County, VA	AP-1 / 249.1	UNT to Butterwood Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Dinwiddie County, VA	AP-1 / 249.6	UNT to Butterwood Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on June 16, 2017 Supplemental Filing, no potential for listed species at this crossing; therefore, remove VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30)
Dinwiddie County, VA	AP-1 / 249.7	UNT to Butterwood Creek	Intermittent	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on June 16, 2017 Supplemental Filing, no potential for listed species at this crossing; therefore, remove VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Dinwiddie County, VA	AP-1 / 249.9	UNT to Butterwood Creek	Intermittent	8 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on June 16, 2017 Supplemental Filing, no potential for listed species at this crossing; therefore, remove VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30)
Dinwiddie County, VA	AP-1 / 250.2	UNT to Butterwood Creek	Ephemeral	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Dinwiddie County, VA	AP-1 / 250.5	UNT to Butterwood Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Dinwiddie County, VA	AP-1 / 250.7	UNT to Butterwood Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on June 16, 2017 Supplemental Filing, no potential for listed species at this crossing; therefore, remove VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30)
Dinwiddie County, VA	AP-1 / 251.2	UNT to Butterwood Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on June 16, 2017 Supplemental Filing, no potential for listed species at this crossing; therefore, remove VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30)
Dinwiddie County, VA	AP-1 / 251.5	UNT to Butterwood Creek	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on June 16, 2017 Supplemental Filing, no potential for listed species at this crossing; therefore, remove VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30)
Dinwiddie County, VA	AP-1 / 251.7	UNT to Butterwood Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Dinwiddie County, VA	AP-1 / 251.8	UNT to Butterwood Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Dinwiddie County, VA	AP-1 / 252.0	UNT to Butterwood Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Dinwiddie County, VA	AP-1 / 252.1	UNT to Butterwood Creek	Ephemeral	4 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Dinwiddie County, VA	AP-1 / 252.6	UNT to Butterwood Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; does not apply to ephemeral waters
Dinwiddie County, VA	AP-1 / 252.7	UNT to Butterwood Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Butterwood Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Dinwiddie County, VA	AP-1 / 253.7	Butterwood Creek	Wetland-Waterbody Complex			Open Cut	**In-stream; Within 1000 feet**	**Aquatic Life**		**March 15 to June 30**	**Assume presence of Roanoke logperch (F-E) and implement VDGIF TOYR (Mar 15-Jun 30) Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.**	**Complete mussel and Roanoke logperch surveys and submit results to FWS and VDGIF Confirm that pre-construction aquatic species relocation would apply to open cut crossing Provide an HDD frac-out analysis for Butterwood Creek crossing**
Dinwiddie County, VA	AP-1 / 253.9	UNT to Butterwood Creek	Canal/Ditch	10 (CL)	Canal/Ditch	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Butterwood Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation.
Dinwiddie County, VA	AP-1 / 254.0	UNT to Butterwood Creek	Intermittent	24 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Butterwood Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Dinwiddie County, VA	AP-1 / 254.3	UNT to Butterwood Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Butterwood Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Dinwiddie County, VA	AP-1 / 254.4	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	UNT to Aquatic Life		NA		NA	
Dinwiddie County, VA	AP-1 / 254.5	UNT to Butterwood Creek	Intermittent		5	Temp ROW	Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Butterwood Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Dinwiddie County, VA	AP-1 / 254.9	UNT to Butterwood Creek	Intermittent	3 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of Butterwood Creek
Dinwiddie County, VA	AP-1 / 255.0	UNT to Butterwood Creek	Intermittent	2 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to perennial and intermittent tributaries within 1 river mile upstream of Butterwood Creek
Dinwiddie County, VA	AP-1 / 255.9	UNT to Beaver Pond Creek	Intermittent	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Dinwiddie County, VA	AP-1 / 256.2	Beaver Pond Creek	Perennial	18 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on Applicant-Prepared BA, Roanoke logperch habitat considered unsuitable. Confirm survey results and remove TOYR if habitat considered unsuitable.
Dinwiddie County, VA	AP-1 / 256.7	UNT to Beaver Pond Creek	Perennial	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Based on Applicant-Prepared BA, Roanoke logperch habitat considered unsuitable. Confirm survey results and remove TOYR if habitat considered unsuitable.
Dinwiddie County, VA	AP-1 / 256.8	UNT to Beaver Pond Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Dinwiddie County, VA	AP-1 / 259.3	Beaver Pond Creek	Perennial	7 (CL)	4	Open Cut	In-stream; Within 1000 feet	Aquatic Life		March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Confirm that pre-construction aquatic species relocation would apply to open cut crossing Based on Applicant-Prepared BA, Roanoke logperch habitat considered unsuitable. Confirm survey results and remove TOYR if habitat considered unsuitable.
Dinwiddie County, VA	AP-1 / 259.9	Ditch	Intermittent	3 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Dinwiddie County, VA	AP-1 / 260.3	UNT to Tommeheton Creek	Intermittent	18 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Dinwiddie and Brunswick Counties, VA	**AP-1 / 260.7**	**Nottoway River**	**Perennial**	**96 (CL)**	**55**	**Cofferdam**	**In-stream; Within 1000 feet**	**Aquatic Life, Migratory fish Spawning and Nursery**		**February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30/March 15 to May 31 and August 15 to October 15/March 15 to June 30**	**Assume presence of Roanoke logperch (F-E) and implement VDGIF TOYR (Mar 15-Jun 30) Assume presence of Atlantic pigtoe (VA-T; F-UR) and yellow lance (F-PT) and implement VDGIF TOYR (May 15-Jul 31) Assume presence of dwarf wedgemussel (F-E) and implement VDGIF TOYR (Mar 15-May 31 and Aug 15-Oct 15) VDGIF AFSA TOYR (Feb 15-Jun 30) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.**	**Complete Roanoke logperch surveys and submit results to FWS and VDGIF Provide an HDD frac-out analysis for this crossing of the Nottoway River; if feasible, implement the HDD method. If not feasible, coordinate with FWS and VDGIF on appropriate construction timing window (Atlantic has proposed July 2019) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Remove Apr 15-Jun 15 and Aug 15-Sept 30 VDGIF TOYR**
Brunswick County, VA	AP-1 / 260.8	UNT to Nottoway River	Ephemeral	7 (CL)	6	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR, not applicable to ephemeral waters
Brunswick County, VA	AP-1 / 261.3	UNT to Nottoway River	Ephemeral	1 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR, not applicable to ephemeral waters
Brunswick County, VA	AP-1 / 261.5	UNT to Nottoway River	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Nottoway River for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply VDGIF TOYR for Atlantic pigtoe and yellow lance (May 15-Jul 31) Apply VDGIF TOYR for dwarf wedgemussel (Mar 15-May 31 and Aug 15-Oct 15)
Brunswick County, VA	AP-1 / 261.8	Miry Run	Perennial	7 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 262.5	Hickory Run	Perennial	8 (CL)	8	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 262.6	UNT to Hickory Run	Intermittent	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 262.9	UNT to Hickory Run	Perennial	3 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 263.8	UNT to Hickory Run	Ephemeral		4	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 264.6	UNT to Great Branch	Perennial	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 264.7	UNT to Great Branch	Perennial	13 (AR)	10	Perm AR	NA	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 264.7	UNT to Great Branch	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 265.1	UNT to Great Branch	Perennial	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 265.1	UNT to Great Branch	Intermittent		3	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 265.1	UNT to Great Branch	Perennial	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 265.4	UNT to Great Branch	Intermittent	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Brunswick County, VA	AP-1 / 265.6	UNT to Great Branch	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 265.6	UNT to Great Branch	Perennial	1 (CL)	1	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 265.8	UNT to Great Branch	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 266.1	UNT to Waqua Creek	Perennial	8 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Brunswick County, VA	AP-1 / 266.3	UNT to Waqua Creek	Perennial	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Brunswick County, VA	AP-1 / 266.8	UNT to Waqua Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 266.9	UNT to Waqua Creek	Intermittent	4 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Brunswick County, VA	**AP-1 / 267.4**	**Waqua Creek**	**Perennial**	**38 (CL)**	**27**	**Flume or Cofferdam**	**In-stream; Within 1000 feet**	**Aquatic Life**		**March 15 to June 30**	**Consult with VDGIF regarding proposed instream activities during VDGIF TOYR Assume presence of Roanoke logperch (F-E) and implement VDGIF TOYR (Mar 15-Jun 30) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations. Presence is assumed for the Roanoke logperch due to suitable habitat and conservation measures as outlined in the EIS and BA will be implemented.**	**Consult with VDGIF regarding proposed installation of bridge support during Roanoke logperch TOYR Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**
Brunswick County, VA	AP-1 / 267.5	UNT to Waqua Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Brunswick County, VA	AP-1 / 267.9	Big Branch	Perennial	16 (CL)	15	Flume or Dam and Pump	In-stream; Within 1000 feet	Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30) Apply the FWS' enhanced conservation measures for ESA sensitive streams (see section 4.7.1.)
Brunswick County, VA	AP-1 / 268.7	UNT to Waqua Creek	Perennial	1 (CL)	1	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Brunswick County, VA	AP-1 / 268.8	UNT to Waqua Creek	Perennial	6 (CL)	4	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations	
Brunswick County, VA	AP-1 / 269.0	UNT to Waqua Creek	Intermittent		2	Temp / Perm ROW	In-stream, Within 1000 feet	WQS not assessed		March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Waqua Creek for all applicable species	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Brunswick County, VA	AP-1 / 270.0	UNT to Beaver Branch	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 270.5	Beaver Branch	Perennial	7 (CL)	7	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 270.8	UNT to Beaver Branch	Intermittent	3 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 271.6	UNT to Sturgeon Creek	Intermittent	3 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Sturgeon Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30) Apply VDGIF TOYR for Atlantic pigtoe (May 15-Jul 31)
Brunswick County, VA	AP-1 / 271.9	UNT to Sturgeon Creek	Intermittent	2 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Sturgeon Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30) Apply VDGIF TOYR for Atlantic pigtoe (May 15-Jul 31)
Brunswick County, VA	AP-1 / 271.9	UNT to Sturgeon Creek	Perennial	2 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life		May 15 to July 31/ April 15 to June 15 and August 15 to September 30/ March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Sturgeon Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Remove Apr 15-Jun 15 and Aug 15-Sept 30 TOYR

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Brunswick County, VA	**AP-1 / 272.0**	**Sturgeon Creek**	**Perennial**	**42 (CL)**	**40**	**Flume or Dam and Pump**	**In-stream; Within 1000 feet**	**Aquatic Life**		**May 15 to July 31/ April 15 to June 15 and August 15 to September 30/ March 15 to June 30**	**Consult with VDGIF regarding proposed instream activities during VDGIF TOYR Assume presence of Roanoke logperch (F-E) and implement VDGIF TOYR (Mar 15-Jun 30) Assume presence for Atlantic pigtoe (VA-T; F-UR) and implement VDGIF TOYR (May 15-Jul 31) Assume presence of dwarf wedgemussel (F-E) and implement VDGIF TOYR (Mar 15-Jul 31 and Aug 15-Oct 15) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation**	**Pre-construction aquatic species relocations.**	**Consult with VDGIF regarding proposed installation of bridge support during Roanoke logperch TOYR, and construction of crossing during the Atlantic pigtoe and dwarf wedgemussel TOYR; confirm with FWS and VDGIF when mussel relocations should occur Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Remove Apr 15-Jun 15 and Aug 15-Sept 30 TOYR; implement Mar 15-July 31 and Aug 15-Oct 15 TOYR for dwarf wedgemussel**
Brunswick County, VA	AP-1 / 272.6	UNT to Spring Branch	Intermittent		2	Temp ROW	Within 1000 feet	Unclassified		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Sturgeon Creek for all applicable species Pre-construction aquatic species relocation	NA	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Brunswick County, VA	AP-1 / 272.9	UNT to Spring Branch	Intermittent	5 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Sturgeon Creek for all applicable species Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30) Apply VDGIF TOYR for Atlantic pigtoe (May 15-Jul 31)
Brunswick County, VA	AP-1 / 272.9	UNT to Spring Branch	Intermittent		3	Temp ROW	Within 1000 feet	Unclassified		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Sturgeon Creek for all applicable species Pre-construction aquatic species relocation	NA	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Brunswick County, VA	AP-1 / 273.0	Spring Branch	Perennial	9 (CL)	6	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Sturgeon Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Pre-construction fish relocation	Apply VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30) Apply VDGIF TOYR for Atlantic pigtoe (May 15-Jul 31) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)
Brunswick County, VA	AP-1 / 273.0	UNT to Spring Branch	Perennial		3	Temp ROW	Within 1000 feet	WQS not assessed		NA		NA	
Brunswick County, VA	AP-1 / 274.1	UNT to Spring Branch	Intermittent	1 (CL)	1	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Brunswick County, VA	AP-1 / 274.3	Spring Branch	Perennial	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Sturgeon Creek for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	Apply VDGIF TOYR for Roanoke logperch (Mar 15-Jun 30) Apply VDGIF TOYR for Atlantic pigtoe (May 15-Jul 31) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Brunswick County, VA	AP-1 / 274.8	UNT to Flatrock Branch	Ephemeral		2	Contractor Yard - Temporary Impact	Within 1000 feet	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 274.9	Reedy Creek	Perennial		2	Temp / Perm ROW	In-stream, Within 1000 feet	WQS not assessed		NA		NA	
Brunswick County, VA	AP-1 / 274.9	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	NA		NA		NA	
Brunswick County, VA	AP-1 / 276.1	UNT t o Brunswick County Pond	Perennial	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 276.2	UNT t o Brunswick County Pond	Intermittent	3 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 276.3	UNT to Reedy Creek	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 276.7	UNT to Reedy Creek	Perennial	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 276.7	UNT to Reedy Creek	Perennial		1	Temp / Perm ROW	Within 1000 feet	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 276.8	UNT t o Brunswick County Pond	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 277.0	UNT t o Brunswick County Pond	Perennial	2 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 277.4	UNT to Reedy Creek	Perennial	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 277.6	UNT to Brunswick County Pond	Perennial	10 (CL)	12	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 277.6	UNT to Brunswick County Pond	Intermittent		3	Temp ROW	Within 1000 feet	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 277.9	UNT to Reedy Creek	Perennial	2 (CL)	2	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Brunswick County, VA	AP-1 / 278.3	UNT to Reedy Creek	Intermittent	2 (CL)	2	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Brunswick County, VA	AP-1 / 278.3	UNT to Reedy Creek	Perennial	5 (CL)	3	Flume or Dam and Pump	In-stream, Within 1000 feet	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
Brunswick County, VA	AP-1 / 278.6	UNT to Reedy Creek	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 278.9	UNT to Reedy Creek	Perennial	10 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 278.9	UNT to Reedy Creek	Perennial	5 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 279.3	UNT to Reedy Creek	Perennial	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 279.3	UNT to Reedy Creek	Perennial	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 279.7	UNT to Reedy Creek	Perennial	9 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 280.1	UNT to Reedy Creek	Intermittent	3 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Brunswick County, VA	AP-1 / 280.2	UNT to Reedy Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 280.4	UNT to Reedy Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 280.5	UNT to Reedy Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Brunswick County, VA	AP-1 / 281.5	UNT to Reedy Creek	Intermittent	5 (AR)	5	Perm AR	NA	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 282.5	Greensville Creek	Intermittent	5 (AR)	5	Perm AR	NA	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 282.7	UNT to Greensville Creek	Intermittent	5 (AR)	5	Perm AR	NA	Unclassified		NA		NA	
Brunswick County, VA	AP-1 / 282.9	UNT to Greensville Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 283.0	Greensville Creek	Perennial	13 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 283.2	UNT to Greensville Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 283.3	UNT to Greensville Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 283.4	UNT to Greensville Creek	Canal/Ditch	11 (CL)	Canal/Ditch	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Greensville County, VA	AP-1 / 284.2	UNT to Greensville Creek	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 285.0	UNT to Greensville Creek	Intermittent	19 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 285.7	UNT to Meadows Branch	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 285.9	UNT to Meherrin River	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Meherrin River for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30) Apply VDGIF TOYR for Atlantic pigtoe VDGIF TOYR (May 15-Jul 31)
Greensville County, VA	AP-1 / 286.2	UNT to Meherrin River	Intermittent		3	Temp ROW	Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Meherrin River for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Greensville County, VA	AP-1 / 286.2	UNT to Meherrin River	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Meherrin River for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30) Apply VDGIF TOYR for Atlantic pigtoe VDGIF TOYR (May 15-Jul 31)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Greensville County, VA	**AP-1 / 286.3**	**Meherrin River**	**Perennial**	**183 (CL)**	**115**	**Cofferdam**	**In-stream; Within 1000 feet**	**Aquatic Life, Migratory fish Spawning and Nursery**		**February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30**	**Consult with VDGIF regarding proposal to not adhere to TOYR for green floater Assume presence of green floater (VA-T) and implement VDGIF TOYR (Apr 15-Jun 15 and Aug 15-Sept 30) Assume presence of Atlantic pigtoe (VA-T; F-UR) and implement VDGIF TOYR (May 15-Jul 31) VDGIF AFSA TOYR (Feb 15-Jun 30) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation**	**Pre-construction aquatic species relocations.**	**Consult with VDGIF regarding proposal to not adhere to TOYR for green floater; confirm proposed construction timing in regard to Atlantic pigtoe TOYR - if proposed timing is August 2019, it would not conflict with the Atlantic pigtoe TOYR. Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**
Greensville County, VA	AP-1 / 286.6	UNT to Meherrin River	Intermittent		4	Perm AR - Existing Culvert	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Meherrin River for all applicable species	Will adhere to TOYR for work within the waterbody.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30) Apply VDGIF TOYR for Atlantic pigtoe VDGIF TOYR (May 15-Jul 31)
Greensville County, VA	AP-1 / 286.8	UNT to Meherrin River	Intermittent	11 (CL)	9	Open Cut	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Meherrin River for all applicable species	Will adhere to TOYR for work within the waterbody.	Apply VDGIF TOYR for green floater (Apr 15-Jun 15 and Aug 15-Sept 30) Apply VDGIF TOYR for Atlantic pigtoe VDGIF TOYR (May 15-Jul 31)
Greensville County, VA	AP-1 / 287.0	UNT to Meherrin River	Perennial	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Meherrin River for all applicable species Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)
Greensville County, VA	AP-1 / 288.5	Falling Run	Intermittent	8 (CL)	8	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 288.5	UNT to Falling Run	Ephemeral	12 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA		NA	
Greensville County, VA	AP-1 / 288.8	UNT to Falling Run	Intermittent	5 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 290.0	UNT to Fountains Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Fountains Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 290.4	UNT to Fountains Creek	Canal/Ditch	1 (CL)	Canal/Ditch	Flume or Dam and Pump	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Fountains Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation.
Greensville County, VA	AP-1 / 290.4	UNT to Fountains Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR, does not apply to ephemeral waters
Greensville County, VA	AP-1 / 293.4	UNT to Mill Swamp	Canal/Ditch	6 (CL)	Canal/Ditch	Flume or Dam and Pump	Within 1000 feet	Unclassified		NA		NA	
Greensville County, VA	AP-1 / 293.7	Unnamed Pond	Pond	Pond	Pond	Pond	Within 1000 feet	NA		NA		NA	

Appendix K-1

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County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Greensville County, VA	AP-1 / 295.7	UNT to Carney Swamp	Intermittent	6 (CL)	4	Open Cut	In-stream; Within 1000 feet	Unclassified		NA			
Greensville County, VA	AP-1 / 296.9	UNT to Fountains Creek	Perennial	13 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Fountains Creek for all applicable species Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 297.6	UNT to Fountains Creek	Perennial		2	Perm AR	NA	WQS not assessed		February 15 to June 30		Will adhere to TOYR for work within the waterbody.	
Greensville County, VA	AP-1 / 297.6	UNT to Fountains Creek	Intermittent	5 (AR)	5	Perm AR	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Fountains Creek for all applicable species	Will adhere to TOYR for work within the waterbody.	
Greensville County, VA	AP-1 / 298.6	Unnamed Pond	Pond		Pond	Pond	Within 1000 feet	NA		NA		NA	
Greensville County, VA	AP-1 / 299.4	Fountains Creek	Perennial	19 (CL)	15	Open Cut	In-stream; Within 1000 feet	Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	VDGIF AFSA TOYR (Feb 15-Jun 30)	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 299.4	Fountains Creek	Perennial	12 (CL)	12	Open Cut	In-stream; Within 1000 feet	Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	VDGIF AFSA TOYR (Feb 15-Jun 30)	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 299.6	Fountains Creek	Intermittent	30 (CL)	20	Dam and Pump or Flume	In-stream; Within 1000 feet	Aquatic Life, Migratory fish Spawning and Nursery	E. Coli, Dissolved Oxygen, and Mercury in Fish	February 15 to June 30	VDGIF AFSA TOYR (Feb 15-Jun 30) Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Greensville County, VA	AP-1 / 299.6	Fountains Creek	Perennial	29 (CL)	40	Open Cut	In-stream; Within 1000 feet	Aquatic Life, Migratory fish Spawning and Nursery	E. Coli, Dissolved Oxygen, and Mercury in Fish	February 15 to June 30	VDGIF AFSA TOYR (Feb 15-Jun 30)	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	
Northampton County, NC	AP-2 / 0.4	Jacks Swamp	Intermittent	6 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Northampton County, NC	AP-2 / 1.1	UNT to Jacks Swamp	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Northampton County, NC	AP-2 / 1.9	Jacks Swamp	Perennial	30 (CL)	15	Open Cut	In-stream; Within 1000 feet	C, NSW		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Northampton County, NC	AP-2 / 8.3	UNT to Trouble Field Creek	Intermittent		5	Abuts Perm AR	NA	C		NA		NA	
Northampton County, NC	AP-2 / 8.5	UNT to Trouble Field Creek	Perennial	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Northampton County, NC	AP-2 / 8.5	UNT to Trouble Field Creek	Perennial		10	Perm AR - Existing Culvert	NA	C		NA		NA	
Northampton County, NC	AP-2 / 8.8	UNT to Trouble Field Creek	Intermittent	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Northampton County, NC	AP-2 / 9.6	UNT to Roanoke RIver	Perennial	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Northampton and Halifax Counties, NC	**AP-2 / 9.8**	**Roanoke River**	**Perennial**	**355 (CL)**	**360**	**HDD**	**Within 1000 feet**	**AFSA, PNA, C**		**February 1 to June 30/August 15 through November 15/April 15 to June 15 and August 15 to September 30/May 15 to July 31**	**Assume presence of Atlantic pigtoe (NC-E; F-UR) and green floater (NC-E) Assume presence of Chowanoke crayfish (NC SGCN; F-UR) Assume presence of Atlantic sturgeon (F-E) and shortnose sturgeon (F-E) Atlantic sturgeon Carolina DPS PCH Implement AFSA TOYR/Atlantic sturgeon moratorium (Feb 1-Jun 30 and Aug 15-Nov 15) Implement PNA TOYR (Feb 15-Sept 30)**	**No in-stream work planned.**	**Remove Apr 15-June 15 and Aug 15 to Sept 30, and May 15-July 31 TOYR; these apply to VA waters only Based on NCWRC comments, classify this waterbody as inland PNA, and apply TOYR of Feb 15-Sept 30**
Halifax County, NC	AP-2 / 11.4	UNT to Mush Island Gut	Intermittent	13 (CL)	8	Dam and Pump or Flume	In-stream, Within 1000 feet	C				NA	
Halifax County, NC	AP-2 / 11.8	Mush Island Gut	Pond	Pond (CL)	Pond	Pond	In-stream; Within 1000 feet	NA		NA		NA	
Halifax County, NC	AP-2 / 11.9	UNT to Mush Island Gut	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 11.9	UNT to Mush Island Gut	Intermittent	9 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 12.4	UNT to Mush Island Gut	Intermittent	7 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 12.4	UNT to Mush Island Gut	Intermittent	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 13.3	Mush Island Gut	Intermittent	5 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 13.6	UNT to Roanoke River	Perennial	9 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 13.9	UNT to Roanoke River	Intermittent	8 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 14.0	UNT to Roanoke River	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 14.1	UNT to Roanoke River	Perennial	13 (CL)	10	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 14.1	UNT to Roanoke RIver	Perennial		6	Temp ROW	Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 14.4	UNT to the Roanoke River	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 14.7	UNT to the Roanoke River	Perennial	10 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 15.3	Little Quankey Creek	Wetland-Waterbody Complex			Open Cut	In-stream; Within 1000 feet	C		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Conduct aquatic species relocation; there are no TOYR that apply to this waterbody.
Halifax County, NC	AP-2 / 15.4	UNT to Little Quankey Creek	Perennial		12	Temp / Perm ROW	Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 16.9	Quankey Creek	Perennial	18 (CL)	20	Dam and Pump or Flume	In-stream, Within 1000 feet	C		NA	Conduct aquatic species relocation	Pre-construction aquatic species relocations	
Halifax County, NC	AP-2 / 17.2	Unnamed Pond	Pond	Pond	Pond	Pond	In-stream, Within 1000 feet	C		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Halifax County, NC	AP-2 / 17.2	UNT to Quankey Creek	Intermittent	9 (CL)	3	Dam and Pump or Flume	In-stream, Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 17.4	UNT to Quankey Creek	Intermittent		3	Flume or Dam and Pump	Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 18.2	UNT to Marsh Swamp	Ephemeral		2	Temp / Perm ROW	Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 18.3	UNT to Marsh Swamp	Intermittent		6	Temp / Perm ROW	Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 18.5	UNT to Marsh Swamp	Perennial	12 (CL)	9	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 18.6	UNT to Marsh Swamp	Perennial		12	Contractor Yard - Temporary Impact	Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 20.1	Marsh Swamp	Perennial	15 (CL)	15	Open Cut	In-stream; Within 1000 feet	C, Sw, NSW		NA		NA	
Halifax County, NC	AP-2 / 20.5	UNT to Marsh Swamp	Intermittent	6 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 21.0	UNT to Marsh Swamp	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 22.8	UNT to Beaverdam Swamp	Intermittent	5 (CL)	5	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 23.1	Beaverdam Swamp	Perennial	63 (CL)	45	Open Cut	In-stream; Within 1000 feet	C, Sw, NSW		NA	Pending additional survey	NA	Complete aquatic species surveys and submit results to FWS and NCWRC If waterbody is determined to be suitable habitat for Carolina madtom, or Carolina madtom or Neuse River waterdog are observed during surveys, conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see sections 4.7.1.7 and 4.7.1.11)
Halifax County, NC	AP-2 / 23.3	UNT to Beaverdam Swamp	Intermittent	4 (CL)	3	Flume or Dam and Pump	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 23.6	UNT to Beaverdam Swamp	Intermittent	4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 24.0	UNT to Beaverdam Swamp	Perennial	5 (CL)	5	Flume or Dam and Pump	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 25.0	UNT to Beaverdam Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 26.6	UNT to Burnt Coat Swamp	Perennial	9 (CL)	8	Open Cut	In-stream; Within 1000 feet	C, Sw, NSW		NA	Conduct aquatic species relocation	NA	Confirm this is a UNT to Burnt Coat Swamp or Burnt Coat Swamp proper; Applicant-Prepared BA (1/27/17) indicates this is not a tributary Conduct aquatic species relocation
Halifax County, NC	AP-2 / 26.9	UNT to Burnt Coat Swamp	Intermittent	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	

Appendix K-1

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Halifax County, NC	AP-2 / 27.4	Jacket Swamp	Perennial	28 (CL)	25	Open Cut	In-stream; Within 1000 feet	C		NA	Pending additional survey	NA	Complete aquatic species surveys and submit results to FWS and NCWRC If waterbody is determined to be suitable habitat for Carolina madtom, or Carolina madtom or Neuse River waterdog are observed during surveys, conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see sections 4.7.1.7 and 4.7.1.11)
Halifax County, NC	AP-2 / 27.7	UNT to Jacket Swamp	Intermittent	5 (CL)	5	Open Cut	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 28.9	UNT to Breeches Swamp	Perennial	4 (CL)	4	Dam and Pump or Flume	In-stream, Within 1000 feet	C				NA	
Halifax County, NC	AP-2 / 29.8	Breeches Swamp	Perennial	16 (CL)	15	Open Cut	In-stream; Within 1000 feet	C, Sw, NSW		NA		NA	
Halifax County, NC	AP-2 / 30.6	UNT to Rocky Swamp	Intermittent		6	Temp / Perm ROW	Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 31.0	UNT to Rocky Swamp	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 31.2	UNT to Rocky Swamp	Intermittent		4	Perm ROW	Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 31.2	UNT to Rocky Swamp	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 32.0	Rocky Swamp	Wetland-Waterbody Complex			Open Cut	No blasting allowed	WS-IV, NSW		NA	No blasting	NA	
Halifax County, NC	AP-2 / 32.7	UNT to Rocky Swamp	Intermittent	7 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 32.8	UNT to Rocky Swamp	Intermittent	9 (CL)	6	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Halifax County, NC	AP-2 / 33.5	UNT to Fishing Creek	Perennial		4	Perm AR - Existing Culvert	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Halifax County, NC	AP-2 / 33.7	UNT to Fishing Creek	Perennial	8 (CL)	8	HDD (Part of Fishing Creek HDD)	Within 1000 feet	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Implement 100-foot ATWS setback	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Implement 100-ft ATWS setback

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Halifax and Nash Counties, NC	**AP-2 / 33.9**	**Fishing Creek**	**Perennial**	**104 (CL)**	**40**	**HDD**	**Within 1000 feet**	**AFSA, WSIV, NSW**		**February 15 to June 30**	**Assume presence of Carolina madtom (NC-T; F-UR) Assume presence of Neuse River waterdog (NC-SC; F-UR) Assume presence of North Carolina spiny crayfish (NC-SC) Assume presence of Tar River spinymussel (F-E), yellow lance (NC-E; F-PT), and Atlantic pigtoe (NC-E; F-UR) Assume presence of state-listed mussel species Apply AFSA TOYR (Feb 15-Jun 30) Adopt HDD crossing technique**	**No in-stream work planned. HDD crossing method adopted.**	
Nash County, NC	AP-2 / 34.8	UNT to Fishing Creek	Intermittent	5 (CL)	5	Dam and Pump or Flume	NA	C		NA	Implement 100-ft ATWS setback	NA	Implement 100-ft ATWS setback
Nash County, NC	AP-2 / 34.8	UNT to Fishing Creek	Intermittent		3	Perm ROW	NA	C		NA		NA	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Nash County, NC	AP-2 / 35.1	UNT to Fishing Creek	Intermittent	4 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 37.0	Black Swamp	Wetland-Waterbody Complex			Open Cut	NA	WS-IV, NSW		NA		NA	
Nash County, NC	AP-2 / 39.7	UNT to Swift Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 39.9	UNT to Swift Creek	Intermittent	5 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 40.3	UNT to Swift Creek	Perennial	6 (CL)	6	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Implement 100-ft ATWS setback	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Implement 100-ft ATWS setback
Nash County, NC	**AP-2 / 40.6**	**Swift Creek**	**Perennial**	**126 (CL)**	**130**	**HDD**	**NA**	**AFSA, C, NSW**		**February 15 to June 30**	**Assume presence of Carolina madtom (NC-T; F-UR) Assume presence of Neuse River waterdog (NC-SC; F-UR) Assume presence of North Carolina spiny crayfish (NC-SC) Assume presence of Tar River spinymussel (F-E), yellow lance (NC-E; F-PT), Atlantic pigtoe (NC-E; F-UR), and green floater (NC-E) Apply AFSA TOYR (Feb 15-Jun 30) Adopt HDD crossing technique**	**No in-stream work planned. HDD crossing method adopted.**	
Nash County, NC	AP-2 / 40.9	UNT to Flat Rock Branch	Perennial	9 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 41.6	UNT to Flat Rock Branch	Perennial	7 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 41.7	UNT to Flat Rock Branch	Perennial	4 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 42.0	UNT to Flat Rock Branch	Intermittent	4 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 42.1	UNT to Flat Rock Branch	Perennial	68 (CL)	10	Open Cut	NA	C, NSW		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nash County, NC	AP-2 / 42.2	UNT to Flat Rock Branch	Perennial	9 (CL)	4	Open Cut	NA	C		NA		NA	
Nash County, NC	AP-2 / 42.8	UNT to Flat Rock Branch	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 43.7	Flat Rock Branch	Wetland-Waterbody Complex			Open Cut	NA	C		NA	Pre-construction mussel or aquatic species relocation	Pre-construction mussel or aquatic species relocation	
Nash County, NC	AP-2 / 44.0	UNT to Flat Rock Branch	Intermittent		3	Perm ROW	NA	C		NA		NA	
Nash County, NC	AP-2 / 44.4	Flat Rock Branch	Perennial	6 (CL)	8	Open Cut	NA	C, NSW		NA	Consult with FWS NC Field Office regarding Carolina madtom suitable habitat Assume presence of banded sunfish (NC-SR)	Pre-construction aquatic species relocations.	Confirm with FWS NC Field Office that waterbody does not provide suitable habitat for Carolina madtom (considered suitable habitat for Neuse River waterdog) If waterbody is determined to be suitable habitat for Carolina madtom conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.11)
Nash County, NC	AP-2 / 44.8	Flat Rock Branch	Perennial	7 (CL)	6	Open Cut	NA	C, NSW		NA	Pending additional survey	NA	Complete aquatic species surveys and submit results to FWS and NCWRC If waterbody is determined to be suitable habitat for Carolina madtom, or Carolina madtom are observed during surveys, conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.11) If other ESA species are observed during surveys, contact FWS NC Field Office to discuss appropriate conservation measures
Nash County, NC	AP-2 / 47.2	UNT to Pig Basket Creek	Perennial	5 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 47.6	Pig Basket Creek	Perennial	30 (CL)	25	Open Cut	NA	C, NSW		NA	Consult with FWS NC Field Office regarding Carolina madtom suitable habitat Assume presence of mimic shiner (NC-SR), and banded sunfish (NC-SR) and conduct aquatic species relocation	Pre-construction aquatic species relocations.	Confirm with FWS NC Field Office that waterbody does not provide suitable habitat for Carolina madtom (considered suitable habitat for Neuse River waterdog) If waterbody is determined to be suitable habitat for Carolina madtom conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.11)
Nash County, NC	AP-2 / 47.6	UNT to Pig Basket Creek	Intermittent	9 (CL)	9	Open Cut	NA	C		NA		NA	
Nash County, NC	AP-2 / 48.7	Stony Creek	Perennial	10 (CL)	10	Open Cut	NA	C		NA	Consult with FWS NC Field Office regarding Carolina madtom suitable habitat Assume presence of North Carolina spiny crayfish (NC-SC) Assume presence of mimic shiner (NC-SR), and banded sunfish (NC-SR) Conduct aquatic species relocation	Pre-construction aquatic species relocations.	Confirm with FWS NC Field Office that waterbody does not provide suitable habitat for Carolina madtom (considered suitable habitat for Neuse River waterdog) If waterbody is determined to be suitable habitat for Carolina madtom conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.11)
Nash County, NC	AP-2 / 48.7	UNT to Stony Creek	Intermittent	6 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nash County, NC	AP-2 / 49.2	UNT to Stony Creek	Perennial		4	Temp ROW	NA	C		NA		NA	
Nash County, NC	AP-2 / 49.5	UNT to Stony Creek	Perennial	8 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 50.2	UNT to Stony Creek	Perennial	6 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 50.2	UNT to Stony Creek	Perennial	19 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 50.8	UNT to Stony Creek	Perennial	4 (CL)	4	Flume or Dam and Pump	NA	C		NA		NA	
Nash County, NC	AP-2 / 51.5	UNT to Stony Creek	Perennial	17 (CL)	8	Dam and Pump or Flume	NA	WSIV, NSW		NA		NA	
Nash County, NC	AP-2 / 51.6	UNT to Stony Creek	Perennial	6 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 53.3	UNT to Little Sapony Creek	Perennial	24 (CL)	10	Open Cut	NA	C		NA	Assume presence of banded sunfish (NC-SR) and conduct aquatic species relocation	NA	Complete aquatic species surveys and submit results to FWS and NCWRC Conduct aquatic species relocation
Nash County, NC	AP-2 / 54.0	Little Sapony Creek	Wetland-Waterbody Complex			Open Cut	NA	WS-IV, NSW		NA	Assume presence of mimic shiner (NC-SR), ironcolor shiner (NC-SR), and banded sunfish Conduct aquatic species relocation Pending additional survey	Pending survey	Complete aquatic species surveys and submit results to FWS and NCWRC If surveys indicate suitable habitat for Carolina madtom, but no individuals are observed, assume presence of Carolina madtom and conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody If Carolina madtom, or ESA-listed or under review mussel species are observed during survey, contact FWS NC Field Office to discuss appropriate conservation measures
Nash County, NC	AP-2 / 54.9	UNT to Sapony Creek	Perennial	8 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 56.1	UNT to Sapony Creek	Perennial	14 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 56.3	Sapony Creek	Perennial	38 (CL)	20	Open Cut	NA	WSIV, NSW		NA	Pending additional survey Assume presence of mimic shiner (NC-SR), ironcolor shiner (NC-SR), and banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Complete aquatic species surveys and submit results to FWS and NCWRC If waterbody is determined to be suitable habitat for Carolina madtom, or Carolina madtom are observed during surveys, conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.11) If either ESA species are observed during surveys, contact FWS NC Field Office to discuss appropriate conservation measures
Nash County, NC	AP-2 / 56.6	UNT to Sapony Creek	Perennial	24 (CL)	10	Open Cut	NA	C		NA		NA	
Nash County, NC	AP-2 / 57.0	UNT to Sapony Creek	Intermittent	10 (CL)	7	Open Cut	NA	C		NA		NA	
Nash County, NC	AP-2 / 58.8	UNT to Tar River	Perennial	3 (CL)	3	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Implement 100-ft ATWS setback	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Apply AFSA TOYR (Feb 15-Jun 30) Implement 100-ft ATWS setback
Nash County, NC	AP-2 / 59.1	UNT to Tar River	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 59.1	UNT to Tar River	Intermittent	8 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Nash County, NC	**AP-2 / 59.4**	**Tar River**	**Perennial**	**159 (CL)**	**130**	**HDD**	**NA**	**AFSA, WSIV, NSW**		**February 15 to June 30**	**Assume presence of Neuse River waterdog (NC-SC; F-UR), Carolina madtom (NC-T; F-UR), and North Carolina spiny crayfish (NC-SC) Assume presence of Atlantic pigtoe (NC-E; F-UR) Assume presence of state-listed mussel species Adopt HDD crossing technique**	**HDD crossing method adopted.**	**Per NCWRC, due to the Rocky Mount Mills Dam and Tar River Reservoir, the Tar River does not support anadromous fish at the crossing location; therefore the AFSA TOYR would not apply and can be removed**
Nash County, NC	AP-2 / 60.4	UNT to Tar River	Ephemeral	3 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 61.9	UNT to Toisnot Swamp	Ephemeral	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 62.7	UNT to Toisnot Swamp	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 62.8	Toisnot Swamp	Wetland-Waterbody Complex			Open Cut	NA	WSIII, NSW		NA	Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Nash County, NC	AP-2 / 62.8	Toisnot Swamp	Pond		Pond	Pond	NA	WSIII, NSW		NA	Consult with FWS NC Field Office regarding Carolina madtom suitable habitat Assume presence of blackbanded sunfish (NC-SR) and ironcolor shiner (NC-SR) Conduct aquatic species relocation	NA	Confirm with FWS NC Field Office that waterbody does not provide suitable habitat for Carolina madtom (considered suitable habitat for Neuse River waterdog) If waterbody is determined to be suitable habitat for Carolina madtom conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.11)
Nash County, NC	AP-2 / 62.9	Toisnot Swamp	Pond		Pond	Pond	NA	WSIII, NSW		NA	Consult with FWS NC Field Office regarding Carolina madtom suitable habitat Assume presence of blackbanded sunfish (NC-SR) and ironcolor shiner (NC-SR) Conduct aquatic species relocation	NA	Confirm with FWS NC Field Office that waterbody does not provide suitable habitat for Carolina madtom (considered suitable habitat for Neuse River waterdog) If waterbody is determined to be suitable habitat for Carolina madtom conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.11)
Nash County, NC	AP-2 / 63.0	UNT to Toisnot Swamp	Ephemeral	4 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 63.3	UNT to Beaverdam Creek	Intermittent	5 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 63.3	UNT to Beaverdam Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 63.5	UNT to Beaverdam Creek	Ephemeral	6 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 64.5	UNT to Bloomers Swamp	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 64.6	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Nash County, NC	AP-2 / 65.1	UNT to Bloomery Swamp	Perennial	8 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 65.2	UNT to Bloomery Swamp	Perennial	6 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Nash County, NC	AP-2 / 65.6	UNT to Juniper Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	

Appendix K-1

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County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Wilson County, NC	AP-2 / 66.1	UNT to Juniper Creek	Perennial	9 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 66.3	UNT to Juniper Creek	Intermittent	8 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 66.9	Millstone Creek	Perennial	5 (CL)	10	Open Cut	NA	C		NA	Pending additional survey	Pre-construction aquatic species relocations.	Complete aquatic species surveys and submit results to FWS and NCWRC If Neuse River waterdog are observed during surveys, conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.7) If other ESA species are observed during surveys, contact FWS NC Field Office to discuss appropriate conservation measures
Wilson County, NC	AP-2 / 66.9	UNT to Millstone Creek	Intermittent		5	Temp ROW	NA	C		NA		NA	
Wilson County, NC	AP-2 / 67.7	UNT to Millstone Creek	Intermittent	8 (CL)	2	Open Cut	NA	C		NA		NA	
Wilson County, NC	AP-2 / 67.8	UNT to Millstone Creek	Perennial	2 (CL)	2	Open Cut	NA	C		NA		NA	
Wilson County, NC	AP-2 / 68.3	UNT to Marsh Swamp	Intermittent	5 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 69.1	UNT to Marsh Swamp	Perennial	22 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 69.3	UNT to Marsh Swamp	Perennial	9 (CL)	5	Open Cut	NA	C		NA		NA	
Wilson County, NC	AP-2 / 69.5	UNT to Marsh Swamp	Intermittent	5 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 69.7	Marsh Swamp	Perennial	9 (CL)	8	Open Cut	NA	C, NSW		NA	Conduct aquatic species relocation	Pre-construction aquatic species relocations.	
Wilson County, NC	AP-2 / 70.4	UNT to Marsh Swamp	Perennial	4 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 70.5	UNT to Marsh Swamp	Perennial	9 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 70.9	UNT to Marsh Swamp	Perennial	20 (CL)	4	Open Cut	NA	C		NA	Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Wilson County, NC	AP-2 / 71.0	UNT to Marsh Swamp	Perennial	16 (CL)	20	Open Cut	NA	C		NA	Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Wilson County, NC	AP-2 / 71.0	UNT to Marsh Swamp	Intermittent	10 (CL)	10	Open Cut	NA	C		NA		NA	
Wilson County, NC	AP-2 / 72.2	UNT to Contentnea Creek	Ephemeral	6 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 72.3	UNT to Contentnea Creek	Intermittent	5 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 72.5	UNT to Contentnea Creek	Canal/Ditch	11 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Wilson County, NC	AP-2 / 73.1	UNT to Contentnea Creek	Perennial	4 (CL)	3	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Implement 100-ft ATWS setback	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Apply AFSA TOYR (Feb 15-Jun 30) Implement 100-ft ATWS setback
Wilson County, NC	AP-2 / 73.3	UNT to Contentnea Creek	Perennial	6 (CL)	3	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Implement 100-ft ATWS setback	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Apply AFSA TOYR (Feb 15-Jun 30) Implement 100-ft ATWS setback

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Wilson County, NC	AP-2 / 73.4	UNT to Contentnea Creek	Perennial	5 (CL)	3	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Implement 100-ft ATWS setback	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1) Apply AFSA TOYR (Feb 15-Jun 30) Implement 100-ft ATWS setback
Wilson County, NC	**AP-2 / 73.6**	**Contentnea Creek**	**Perennial**	**69 (CL)**	**40**	**HDD**	**NA**	**AFSA, WSV, NSW**		**February 15 to June 30**	**Assume presence of Carolina madtom (NC-T; F-UR) Assume presence of Neuse River waterdog (NC-SC; F-UR) Assume presence of North Carolina spiny crayfish (NC-SC) Assume presence of Atlantic pigtoe (NC-E; F-UR) Assume presence of state-listed mussel species Adopt HDD crossing technique**	**No in-stream work planned. HDD crossing method adopted.**	**Per NCWRC, due to the Wiigins Mill Reservoir, the Contentnea Creek does not support anadromous fish at the crossing location; therefore the AFSA TOYR would not apply and can be removed**
Wilson County, NC	AP-2 / 73.8	UNT to Contentnea Creek	Ephemeral		4	Temp ATWS	NA	C		NA		NA	
Wilson County, NC	AP-2 / 73.9	UNT to Contentnea Creek	Intermittent		3	Temp ROW	NA	C		NA		NA	
Wilson County, NC	AP-2 / 74.1	UNT to Contentnea Creek	Intermittent	7 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 74.4	UNT to Buckhorn Branch	Ephemeral		4	Abuts Perm AR	NA	C		NA		NA	
Wilson County, NC	AP-2 / 74.6	UNT to Buckhorn Branch	Ephemeral	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Wilson County, NC	AP-2 / 74.9	UNT to Buckhorn Branch	Ephemeral	5 (CL)	4	Open Cut	NA	C		NA		NA	
Wilson County, NC	AP-2 / 75.8	UNT to Buckhorn Branch	Intermittent		3	Temp ROW	NA	C		NA		NA	
Wilson County, NC	AP-2 / 75.8	UNT to Buckhorn Branch	Perennial	5 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 78.9	UNT to Little Buffalo Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 78.9	UNT to Little Buffalo Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 79.2	UNT to Little Buffalo Creek	Perennial	26 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 79.5	Little Buffalo Creek	Perennial	31 (CL)	20	Open Cut	NA	C, NSW		NA	Consult with FWS NC Field Office regarding Carolina madtom suitable habitat Assume presence of banded sunfish (NC-SR) and ironcolor shiner (NC-SR) Conduct aquatic species relocation	NA	Confirm with FWS NC Field Office that waterbody does not provide suitable habitat for Carolina madtom (considered suitable habitat for Neuse River waterdog) If waterbody is determined to be suitable habitat for Carolina madtom conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody (see section 4.7.1.11)
Johnston County, NC	AP-2 / 81.0	UNT to Little River	Intermittent	2 (CL)	2	Open Cut	NA	C		NA		NA	
Johnston County, NC	AP-2 / 82.0	UNT to Little River	Intermittent	5 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	

Appendix K-1

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Johnston County, NC	**AP-2 / 82.5**	**Little River**	**Perennial**	**57 (CL)**	**50**	**HDD**	**NA**	**AFSA, WSV, NSW**		**February 15 to June 30**	**Assume presence of Carolina madtom (NC-T; F-UR) Assume presence of Neuse River waterdog (NC-SC; F-UR) Assume presence of North Carolina spiny crayfish (NC-SC) Assume presence of Tar River spinymussel (F-E), dwarf wedgemussel (F-E), yellow lance (NC-E; F-PT), and Atlantic pigtoe (NC-E; F-UR) Assume presence of state-listed mussel species Apply AFSA TOYR (Feb 15-Jun 30) Adopt HDD crossing technique**	**No in-stream work planned. HDD crossing method adopted.**	
Johnston County, NC	AP-2 / 82.5	UNT to Little River	Intermittent	2 (CL)	2	HDD (Part of Little River HDD)	NA	C		NA		NA	
Johnston County, NC	AP-2 / 82.6	UNT to Little River	Intermittent	6 (CL)	6	HDD (Part of Little River HDD)	NA	C		NA		NA	
Johnston County, NC	AP-2 / 83.4	UNT to Buffalo Creek	Perennial	6 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 83.5	UNT to Buffalo Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 84.6	UT to Big Branch	Ephemeral		4	Ground Bed	NA	C		NA		NA	
Johnston County, NC	AP-2 / 84.6	Big Branch	Intermittent	15 (CL)	6	Open Cut	NA	C, NSW		NA		NA	
Johnston County, NC	AP-2 / 84.6	UNT to Big Branch	Intermittent		5	Ground Bed	NA	C, NSW		NA		NA	
Johnston County, NC	AP-2 / 85.9	UNT to Little Creek	Perennial	8 (CL)	8	Open Cut	NA	C		NA		NA	
Johnston County, NC	AP-2 / 86.5	Little Creek	Perennial	5 (CL)	4	Open Cut	NA	C, NSW		NA	Assume presence of banded sunfish (NC-SR) and conduct aquatic species relocation	NA	Complete aquatic species surveys and submit results to FWS and NCWRC Conduct aquatic species relocation
Johnston County, NC	AP-2 / 87.3	UNT to Moccasin Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 88.9	UNT to Moccasin Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 89.7	Moccasin Creek	Perennial	17 (CL)	12	Dam and Pump or Flume	NA	C, NSW	Ecological/biological Integrity Benthos	NA		NA	
Johnston County, NC	AP-2 / 91.2	UNT to Bawdy Swamp	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 92.1	Bawdy Swamp	Perennial	8 (CL)	8	Conventional Bore (with US70 Business crossing)	NA	C, NSW		NA		NA	
Johnston County, NC	AP-2 / 93.6	UNT to Mill Branch	Intermittent	14 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 95.1	UNT to Neuse River	Intermittent	8 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 95.3	UNT to Polecat Branch	Intermittent		4	Temp / Perm ROW	NA	C		NA		NA	
Johnston County, NC	AP-2 / 95.8	UNT to Polecat Branch	Intermittent		4	Temp ROW	NA	C		NA		NA	
Johnston County, NC	AP-2 / 96.3	UNT to Polecat Branch	Perennial	4 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	

Appendix K-1

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Johnston County, NC	AP-2 / 96.4	UNT to Polecat Branch	Intermittent		4	Contractor Yard - Temporary Impact	NA	C		NA		NA	
Johnston County, NC	AP-2 / 97.2	Unnamed Pond	Pond	Pond	Pond	Pond	NA	C				NA	
Johnston County, NC	AP-2 / 97.5	Polecat Branch	Perennial	12 (AR) / 9 (CL)	8	Open Cut	NA	C		NA	Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Johnston County, NC	AP-2 / 97.7	UNT to Polecat Branch	Intermittent	10 (AR) / 10 (CL)	10	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 98.2	UNT to Neuse River	Intermittent	10 (CL)	4	Dam and Pump or Flume	NA	C				NA	
Johnston County, NC	AP-2 / 98.2	UNT to Neuse River	Perennial	19 (CL)	26	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Johnston County, NC	**AP-2 / 98.5**	**Neuse River**	**Perennial**	**138 (CL)**	**110**	**Cofferdam**	**NA**	**AFSA, PNA, WSV, NSW**		**February 1 to June 30/May 15 to July 31**	**Assume presence of green floater (NC-E) Assume presence of Carolina madtom (NC-T; F-UR) Assume presence of state-listed mussels Assume presence of Atlantic sturgeon (F-E) and shortnose sturgeon (F-E) Atlantic sturgeon Carolina DPS PCH Implement AFSA TOYR/Atlantic sturgeon moratorium (Feb 1-Jun 30) Implement PNA TOYR (Feb 15-Sept 30) Apply the FWS' enhanced conservation measures as ESA sensitive waterbodies Install turbidity curtains during construction across waterbody**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.**	**Complete aquatic species surveys and submit results to FWS and NCWRC Provide frac-out analysis for Neuse River crossing Pending additional consultation with NOAA Fisheries regarding Atlantic sturgeon spawning habitat Conduct aquatic species relocation Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies Install turbidity silt curtains during construction across waterbody Remove May 15-Jul 31 TOYR; TOYR only applies to Virginia waters Based on NCWRC comments, classify this waterbody as inland PNA, and apply TOYR of Feb 15-Sept 30**
Johnston County, NC	AP-2 / 99.7	UNT to Neuse River	Canal/Ditch	5 (CL)	Canal/Ditch	Flume or Dam and Pump	NA	Unclassified		NA		NA	Apply AFSA TOYR (Feb 15-Jun 30)
Johnston County, NC	AP-2 / 101.3	Hannah Creek	Wetland-Waterbody Complex			Open Cut	NA	C		NA	Assume presence of banded sunfish (NC-SR) and conduct aquatic species relocation	NA	Conduct aquatic species relocation
Johnston County, NC	AP-2 / 102.4	UNT to Hannah Creek	Intermittent	1 (CL)	1	Dam and Pump or Flume	NA	C		NA		NA	
Johnston County, NC	AP-2 / 102.8	UNT to Hannah Creek	Perennial	4 (CL)	4	Open Cut	NA	C		NA		NA	
Johnston County, NC	AP-2 / 102.8	UNT to Hannah Creek	Intermittent	4 (CL)	4	Open Cut	NA	C		NA		NA	
Johnston County, NC	AP-2 / 103.9	UNT to Hannah Creek	Perennial	4 (CL)	4	Open Cut	NA	C		NA		NA	
Johnston County, NC	AP-2 / 104.4	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Johnston County, NC	AP-2 / 105.1	Whiteoak Branch	Wetland-Waterbody Complex			Open Cut	NA	C, NSW		NA		NA	
Johnston County, NC	AP-2 / 106.8	Stone Creek	Wetland-Waterbody Complex			Open Cut	NA	C, NSW		NA	Assume presence of banded sunfish (NC-SR) and conduct aquatic species relocation	NA	Conduct aquatic species relocation

Appendix K-1

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Johnston County, NC	AP-2 / 107.6	UNT to Johnson Swamp	Wetland-Waterbody Complex			Open Cut	NA	C, NSW		NA	Assume presence of banded sunfish and conduct aquatic species relocation Pending additional survey data	NA	Confirm if there is a crossing at MP 107.6 or 107.7 of Johnson Swamp in addition to the UNT to Johnson Swamp; Applicant-Prepared BA (1/27/17) & the May 2017 NC Crayfish Report indicate there are is a crossing of Johnson Swamp and UNT to Johnson Swamp; presence of ironcolor shiner (NC-SR) should be assumed at Johnson Swamp and aquatic relocation performed Complete aquatic species surveys and submit results to FWS and NCWRC If surveys indicate suitable habitat for Carolina madtom, but no individuals are observed, assume presence of Carolina madtom and conduct aquatic species relocation, and apply the FWS' enhanced conservation measures at this waterbody crossing, and at any perennial tributaries within 1 mile of the ESA sensitive waterbody If Carolina madtom are observed during survey, contact FWS NC Field Office to discuss appropriate conservation measures
Johnston County, NC	AP-2 / 108.1	UNP to Johnson Swamp	Pond		Pond	Pond	NA	NA		NA		NA	
Johnston County, NC	AP-2 / 110.5	UNT to John K Swamp	Ephemeral	3 (CL)	3	Open Cut	NA	C		NA		NA	
Johnston County, NC	AP-2 / 110.6	John K Swamp	Wetland-Waterbody Complex			Open Cut	NA	C		NA	Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Johnston County, NC	AP-2 / 113.1	Mill Branch	Intermittent	8 (CL)	7	Dam and Pump or Flume	NA	C, NSW		NA		NA	
Johnston County, NC	AP-2 / 114.2	UNT to Jumping Run	Perennial	11 (CL)	5	Flume or Dam and Pump	NA	C		NA		NA	
Sampson County, NC	AP-2 / 115.4	UNT to Juniper Run	Ephemeral	5 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Sampson County, NC	AP-2 / 116.9	Little Juniper Run	Perennial	8 (CL)	8	Open Cut	NA	C, Sw		NA		NA	
Sampson County, NC	AP-2 / 117.2	Juniper Run	Perennial	17 (CL)	12	Open Cut	NA	C, Sw		NA		NA	
Sampson County, NC	AP-2 / 118.9	Beaverdam Swamp	Perennial	35 (CL)	9	Open Cut	NA	C, Sw		NA	Assume presence of blackbanded sunfish (NC-SR) Conduct aquatic species relocation	NA	Assume presence of blackbanded sunfish (NC-SR) Conduct aquatic species relocation
Sampson County, NC	AP-2 / 119.7	Beaverdam Swamp	Perennial	Wetland-Waterbody Complex (CL)	25	Open Cut	NA	C, Sw		NA	Assume presence of blackbanded sunfish (NC-SR) Conduct aquatic species relocation	NA	Assume presence of blackbanded sunfish (NC-SR) Conduct aquatic species relocation
Sampson County, NC	AP-2 / 121.9	Unnamed Pond	Pond	Pond (CL)	Pond	Pond	NA	NA		NA		NA	
Sampson County, NC	AP-2 / 121.9	UNT to Starlins Swamp	Intermittent	8 (CL)	2	Open Cut	NA	C		NA		NA	
Sampson County, NC	AP-2 / 122.2	Starlins Swamp	Perennial	25 (CL)	15	Open Cut	NA	C, Sw		NA	Assume presence of blackbanded sunfish (NC-SR) Conduct aquatic species relocation	NA	Assume presence of blackbanded sunfish (NC-SR) Conduct aquatic species relocation
Sampson County, NC	AP-2 / 122.3	Starlins Swamp	Perennial	Wetland-Waterbody Complex (CL)	20	Open Cut	NA	C, Sw		NA	Assume presence of blackbanded sunfish (NC-SR) Conduct aquatic species relocation	NA	Assume presence of blackbanded sunfish (NC-SR) Conduct aquatic species relocation
Sampson County, NC	AP-2 / 122.5	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Sampson County, NC	AP-2 / 122.5	UNT to Mingo Swamp	Intermittent		4	Perm AR - Existing Culvert	NA	C		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Cumberland County, NC	AP-2 / 123.0	UNT to Mingo Swamp	Perennial	20 (AR)	12	Perm AR	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 123.1	UNT to Mingo Swamp	Perennial		10	Abuts Perm AR	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 123.1	UNT to Mingo Swamp	Perennial	8 (AR)	7	Perm AR	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 125.2	UNT to Black River	Intermittent	6 (CL)	5	Open Cut	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 125.8	UNT to South River	Ephemeral	8 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 125.8	UNT to South River	Intermittent		10	Temp ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 126.7	UNT to Cape Fear River	Ephemeral	4 (AR) / 4 (CL)	4	Flume or Dam and Pump	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 126.8	UNT to Cape Fear River	Perennial	8 (AR) / 19 (CL)	8	Open Cut	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 127.3	UNT to Cape Fear River	Perennial	25 (CL)	6	Open Cut	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 129.0	UNT to Cape Fear River	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 129.4	UNT to Cape Fear River	Perennial	8 (CL)	7	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 129.6	UNT to Cape Fear River	Perennial		30	Temp / Perm ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 129.7	UNT to Cape Fear River	Ephemeral		3	Temp ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 130.1	UNT to Cape Fear River	Intermittent	3 (CL)	3	Open Cut	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 131.1	UNT to Cape Fear River	Intermittent	4 (AR)	4	Perm AR	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 131.5	UNT to Cape Fear River	Perennial	6 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 131.6	UNT to Cape Fear River	Ephemeral		3	Temp ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 131.7	UNT to Cape Fear River	Intermittent	2 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 131.7	UNT to Cape Fear River	Intermittent	5 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 131.8	UNT to Cape Fear River	Intermittent		3	Temp ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 132.7	UNT to Cape Fear River	Intermittent	9 (CL)	9	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 132.8	UNT to Cape Fear River	Perennial	28 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 133.2	UNT to Cape Fear River	Perennial	39 (CL)	15	M&R Workspace	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 133.4	UNT to Cape Fear River	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 133.8	UNT to Cape Fear River	Intermittent	11 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 133.9	UNT to Cape Fear River	Ephemeral	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 134.2	UNT to Cape Fear River	Perennial	13 (CL)	10	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 135.0	UNT to Gum Log Canal	Intermittent	7 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 135.8	Unnamed Pond	Pond	Pond (CL)	Pond	Pond	NA	NA		NA		NA	
Cumberland County, NC	AP-2 / 136.9	UNT to Bakers Swamp	Perennial	7 (CL)	6	Flume or Dam and Pump	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 137.0	UNT to Bakers Swamp	Perennial		8	Perm ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 137.1	UNT to Bakers Swamp	Perennial	62 (CL)	4	Dam and Pump or Flume	NA	C				NA	
Cumberland County, NC	AP-2 / 137.1	UNT to Bakers Swamp	Perennial	8 (CL)	8	Flume or Dam and Pump	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 137.1	UNT to Big Creek	Intermittent	8 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Cumberland County, NC	AP-2 / 141.6	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
Cumberland County, NC	AP-2 / 141.8	UNT to Buck Creek	Intermittent	5 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 142.0	UNT to Buck Creek	Ephemeral	4 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 142.7	UNT to Sandy Creek	Ephemeral	5 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 142.8	UNT to Sandy Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 142.8	UNT to Sandy Creek	Ephemeral		3	Perm ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 142.9	UNT to Sandy Creek	Ephemeral	3 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 143.2	Sandy Creek	Perennial	11 (CL)	6	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 143.3	UNT to Sandy Creek	Intermittent	7 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 143.4	UNT to Sandy Creek	Intermittent	6 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 144.7	UNT to Cedar Creek	Intermittent		3	Temp / Perm ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 146.2	UNT to Cedar Creek	Perennial	6 (CL)	6	Dam and Pump or Flume	NA	C		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Cumberland County, NC	AP-2 / 146.2	UNT to Cedar Creek	Ephemeral	10 (CL)	4	Dam and Pump or Flume	NA	C				NA	
Cumberland County, NC	AP-2 / 146.5	UNT to Cedar Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 146.6	UNT to Cedar Creek	Perennial	6 (CL)	4	Dam and Pump or Flume	NA	C		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Cumberland County, NC	AP-2 / 146.7	UNT to Cedar Creek	Intermittent	4 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 147.0	UNT to Cedar Creek	Ephemeral	12 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 147.1	UNT to Cedar Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 150.3	UNT to Big Alligator Swamp	Ephemeral	4 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 150.4	UNT to Big Alligator Swamp	Perennial	22 (CL)	15	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 150.4	UNT to Big Alligator Swamp	Ephemeral	3 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 150.8	UNT to Big Alligator Swamp	Intermittent	8 (CL)	8	Dam and Pump or Flume	NA	C				NA	
Cumberland County, NC	AP-2 / 151.1	UNT to Big Alligator Swamp	Intermittent	10 (CL)	10	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 151.6	UNT to Hair Canal	Perennial	6 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 151.7	Hair Canal	Perennial	31 (CL)	15	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 152.8	UNT to Cape Fear River	Intermittent		28	Temp ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 153.1	UNT to Cape Fear River	Perennial	11 (CL)	9	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1
Cumberland County, NC	AP-2 / 153.2	UNT to Cape Fear River	Intermittent	4 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 153.5	UNT to Cape Fear River	Ephemeral	3 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Cumberland County, NC	AP-2 / 153.8	UNT to Cape Fear River	Perennial	11 (CL)	12	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Cumberland County, NC	AP-2 / 154.0	UNT to Cape Fear River	Perennial	6 (CL)	6	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Cumberland County, NC	AP-2 / 154.1	UNT to Cape Fear River	Perennial	48 (CL)	60	HDD (Part of Cape Fear HDD)	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Cumberland County, NC	**AP-2 / 154.2**	**Cape Fear River**	**Perennial**	**326 (CL)**	**333**	**HDD**	**NA**	**AFSA, PNA, WSIV**		**February 15 to June 30**	**Assume presence of Atlantic pigtoe (NC-E; F-UR) Apply AFSA TOYR (Feb 15-Jun 30) Implement PNA TOYR (Feb 15-Sept 30)**	**No in-stream work planned.**	**Based on NCWRC comments, classify this waterbody as inland PNA, and apply TOYR of Feb 15-Sept 30**
Cumberland County, NC	AP-2 / 154.3	UNT to Cape Fear River	Intermittent	19 (CL)	6	HDD (Part of Cape Fear HDD)	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 154.6	UNT to Cape Fear River	Perennial	10 (AR) / 12 (CL)	10	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Cumberland County, NC	AP-2 / 154.6	UNT to Cape Fear River	Intermittent		3	Temp / Perm ROW	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 154.7	UNT to Cape Fear River	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 155.1	UNT to Cape Fear River	Intermittent	4 (CL)	4	Dam and Pump or Flume	NA	C				NA	
Cumberland County, NC	AP-2 / 155.1	UNT to Cape Fear River	Intermittent	11 (CL)	6	Dam and Pump or Flume	NA	C				NA	
Cumberland County, NC	AP-2 / 155.2	UNT to Cape Fear River	Perennial	5 (CL)	2	Dam and Pump or Flume	NA	C		NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)	NA	Apply the FWS' enhanced conservation measures for perennial tributaries within 1 mile of ESA sensitive waterbodies (see section 4.7.1)
Cumberland County, NC	AP-2 / 156.4	Longs Branch	Perennial	11 (CL)	9	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 157.3	UNT to Swans Creek	Perennial	4 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 158.3	UNT to Kirks Mill Creek	Intermittent	9 (CL)	9	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 158.3	UNT to Kirks Mill Creek	Intermittent	4 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Cumberland County, NC	AP-2 / 158.9	Kirks Mill Creek	Intermittent		2	Temp ROW	NA	WSIV		NA		NA	
Cumberland County, NC	AP-2 / 159.1	UNT to Kirks Mill Creek□	Intermittent	6 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 160.5	Gallberry Swamp	Perennial	17 (CL)	15	Dam and Pump or Flume	NA	C, Sw		NA		NA	
Robeson County, NC	AP-2 / 161.8	UNT to Little Marsh	Pond		Pond	Pond	NA	C		NA		NA	
Robeson County, NC	AP-2 / 161.9	UNT to Little Marsh Swamp□	Intermittent	10 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 164.2	UNT Little Marsh Swamp	Intermittent	8 (CL)	8	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 166.2	Mercer Branch	Intermittent	16 (CL)	15	Dam and Pump or Flume	NA	C, Sw		NA		NA	
Robeson County, NC	AP-2 / 166.8	UNT to Black Branch	Ephemeral		5	Temp ROW	NA	C		NA		NA	

Appendix K-1

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County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Robeson County, NC	AP-2 / 167.0	Black Branch	Intermittent	8 (CL)	8	Dam and Pump or Flume	NA	C, Sw		NA		NA	
Robeson County, NC	AP-2 / 170.2	UNT to Tenmile Swamp	Ephemeral	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 171.4	UNT to Little Tenmile Swamp	Intermittent	6 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 171.8	UNT to Saddletree Swamp	Intermittent	5 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 172.0	UNT to Little Tenmile Swamp	Intermittent	7 (CL)	4	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 172.0	UNT to Saddletree Swamp	Intermittent		4	Perm AR - Existing Culvert	NA	C		NA		NA	
Robeson County, NC	AP-2 / 172.1	UNT to Saddletree Swamp	Intermittent		5	Perm AR - Existing Culvert	NA	C		NA		NA	
Robeson County, NC	AP-2 / 172.4	UNT to Saddletree Swamp	Ephemeral		3	Ground Bed	NA	C		NA		NA	
Robeson County, NC	AP-2 / 172.4	UNT to Saddletree Swamp	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 172.4	UNT to Saddletree Swamp	Intermittent	7 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 174.0	Raft Swamp	Perennial	40 (CL)	40	Open Cut	NA	WSIV, Sw		NA	Assume presence of santee crayfish (NC-W3) Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Robeson County, NC	AP-2 / 177.6	UNT to Richland Swamp	Intermittent		5	Perm AR - Existing Culvert	NA	C		NA		NA	
Robeson County, NC	AP-2 / 177.6	Unnamed Pond	Pond	Pond	Pond	Open Cut	NA	C				NA	
Robeson County, NC	AP-2 / 177.6	UNT to Richland Swamp	Ephemeral		3	Perm AR - Existing Culvert	NA	C, Sw		NA		NA	
Robeson County, NC	AP-2 / 178.5	Burnt Swamp	Perennial	43 (CL)	25	Flume or Dam and Pump	NA	C		NA	Assume presence of santee crayfish (NC-W3), and ironcolor shiner (NC-SR) Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Robeson County, NC	AP-2 / 178.6	UNT to Burnt Swamp	Ephemeral	22 (CL)	8	Flume or Dam and Pump	NA	C		NA		NA	
Robeson County, NC	AP-2 / 179.2	UNT to Burnt Swamp	Perennial	10 (CL)	10	Flume or Dam and Pump	NA	C		NA		NA	
Robeson County, NC	AP-2 / 181.1	Moss Neck Swamp	Perennial	21 (CL)	20	Dam and Pump or Flume	NA	C, Sw		NA		NA	
Robeson County, NC	AP-2 / 181.3	UNT to Moss Neck Swamp	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 181.6	UNT to Bear Swamp	Perennial	8 (CL)	7	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 181.6	UNT to Little Bear Swamp	Intermittent		4	Temp ROW	NA	C		NA		NA	
Robeson County, NC	AP-2 / 181.7	UNT to Bear Swamp	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 181.7	UNT to Bear Swamp	Intermittent	5 (CL)	3	Dam and Pump or Flume	NA	C		NA		NA	
Robeson County, NC	AP-2 / 182.2	UNT to Bear Swamp	Intermittent		3	Temp / Perm ROW	NA	C		NA		NA	
Robeson County, NC	AP-2 / 182.3	UNT to Bear Swamp	Perennial	5 (CL)	5	Dam and Pump or Flume	NA	C		NA		NA	
Northampton County, NC	AP-3 / 0.6	Jacks Swamp	Wetland-Waterbody Complex			Open Cut	In-stream; Within 1000 feet	C		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Conduct aquatic species relocation
Northampton County, NC	AP-3 / 1.3	UNT to Jacks Swamp	Ephemeral	14 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C, NSW		NA		NA	

Appendix K-1

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Northampton County, NC	AP-3 / 1.5	UNT to Jack's Swamp	Ephemeral	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C, NSW		NA		NA	
Northampton County, NC	AP-3 / 3.6	UNT to Cypress Creek	Intermittent	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C, NSW		NA		NA	
Northampton County, NC	AP-3 / 4.2	UNT to Cypress Creek	Intermittent	10 (CL)	7	Dam and Pump or Flume	In-stream; Within 1000 feet	C, NSW		NA		NA	
Northampton County, NC	AP-3 / 5.9	UNT to Cypress Creek	Perennial	31 (CL)	9	Open Cut	In-stream; Within 1000 feet	C, NSW		NA		NA	
Northampton County, NC	AP-3 / 5.9	UNT to Cypress Creek	Perennial	8 (CL)	7	Open Cut	In-stream; Within 1000 feet	C, NSW		NA		NA	
Northampton County, NC	AP-3 / 6.5	UNT to Cypress Creek	Intermittent		4	Abuts Perm AR	NA	C, NSW		NA		NA	
Northampton County, NC	AP-3 / 7.0	UNT to Cypress Creek	Perennial	7 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C, NSW		NA		NA	
Northampton County, NC	AP-3 / 7.4	Cypress Creek	Wetland-Waterbody Complex			Open Cut	In-stream; Within 1000 feet	C, NSW		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Apply aquatic species relocation
Northampton County, NC	AP-3 / 7.8	UNT to Cypress Creek	Ephemeral	2 (CL)	2	Dam and Pump or Flume	In-stream; Within 1000 feet	C, NSW		NA		NA	
Northampton County, NC	AP-3 / 10.0	Cypress Creek	Perennial	33 (CL)	30	Open Cut	In-stream; Within 1000 feet	C		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Apply aquatic species relocation
Northampton County, NC	AP-3 / 10.0	UNT to Cypress Creek	Perennial		8	Temp ROW	Within 1000 feet	C		NA		NA	
Northampton County, NC	AP-3 / 10.2	UNT to Cypress Creek	Perennial	4 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Northampton County, NC	AP-3 / 10.3	Cypress Creek	Perennial	3 (CL)	3	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA	Assume presence of banded sunfish (NC-SR) Conduct aquatic species relocation	NA	Apply aquatic species relocation
Northampton County, NC	AP-3 / 10.8	UNT to Meherrin River	Ephemeral		3	Abuts Perm AR	NA	C		NA		NA	
Northampton County, NC	AP-3 / 11.2	UNT to Meherrin River	Intermittent	9 (AR)	8	Perm AR	NA	C		NA		NA	
Northampton County, NC	AP-3 / 11.6	UNT to Meherrin River	Intermittent	4 (CL)	4	Dam and Pump or Flume	In-stream; Within 1000 feet	C		NA		NA	
Greensville and Southampton Counties, VA	**AP-3 / 12.4**	**Meherrin River**	**Perennial**	**147 (CL)**	**113**	**Cofferdam**	**In-stream; Within 1000 feet**	**Aquatic Life, Migratory fish Spawning and Nursery**	**Mercury in Fish**	**February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30**	**Consult with VDGIF regarding proposal to not adhere to TOYR for green floater Assume presence of green floater (VA-T) and implement VDGIF TOYR (Apr 15-Jun 15 and Aug 15-Sept 30) Assume presence of Atlantic pigtoe (VA-T; F-UR) and implement VDGIF TOYR (May 15-Jul 31) VDGIF AFSA TOYR (Feb 15-Jun 30) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Pre-construction aquatic species relocation**	**Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.**	**Consult with VDGIF regarding proposal to not adhere to TOYR for green floater Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Southampton County, VA	AP-3 / 13.3	UNT to Meherrin River	Canal/Ditch	15 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Apply pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Meherrin River
Southampton County, VA	AP-3 / 13.5	UNT to Meherrin River	Perennial	6 (CL)	6	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30	Apply pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Meherrin River
Southampton County, VA	AP-3 / 13.6	UNT to Meherrin River	Perennial		6	Temp ROW	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30	Apply pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Meherrin River
Southampton County, VA	AP-3 / 14.4	UNT to Meherrin River	Perennial	10 (CL)	7	Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Meherrin River
Southampton County, VA	AP-3 / 15.9	UNT to Buckhorn Swamp	Perennial	12 (CL)	10	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Southampton County, VA	AP-3 / 16.5	Buckhorn Swamp	Perennial	7 (CL)	7	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Southampton County, VA	AP-3 / 17.8	Tarrara Creek	Wetland-Waterbody Complex			Open Cut	NA	Unclassified		NA		Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Confirm that pre-construction aquatic species relocation would apply to open cut crossing
Southampton County, VA	AP-3 / 18.6	UNT to Tarrara Creek	Intermittent		2	Temp / Perm ROW	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 18.9	UNT to Tarrara Creek	Ephemeral		5	Temp ROW	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 19.0	UNT to Tarrara Creek	Perennial	5 (CL)	5	Open Cut	NA	Unclassified		NA			
Southampton County, VA	AP-3 / 19.2	UNT to Tarrara Creek	Perennial	3 (CL)	2	Open Cut	NA	Unclassified		NA			
Southampton County, VA	AP-3 / 20.0	UNT to Tarrara Creek	Perennial	5 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Southampton County, VA	AP-3 / 20.1	UNT to Tarrara Creek	Perennial	4 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Southampton County, VA	AP-3 / 20.7	UNT to Tarrara Creek	Intermittent	2 (CL)	2	Open Cut	NA	Unclassified		NA			
Southampton County, VA	AP-3 / 21.0	UNT to Tarrara Creek	Perennial	6 (CL)	5	Open Cut	NA	Unclassified		NA			
Southampton County, VA	AP-3 / 21.3	UNT to Meherrin River	Intermittent	9 (CL)	6	Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30		Will adhere to TOYR for work within the waterbody.	Confirm if this is UNT to Meherrin River Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Meherrin River
Southampton County, VA	AP-3 / 21.7	UNT to Meherrin River	Intermittent	6 (CL)	5	Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30		Will adhere to TOYR for work within the waterbody.	Confirm if this is UNT to Meherrin River Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Meherrin River
Southampton County, VA	AP-3 / 22.1	UNT to Tarrara Creek	Canal/Ditch	2 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 22.6	UNT to Tarrara Creek	Canal/Ditch	7 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 22.6	UNT to Tarrara Creek	Canal/Ditch		Canal/Ditch	Perm AR	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 22.8	UNT to Darden Run	Canal/Ditch		Canal/Ditch	Temp / Perm ROW	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 23.7	UNT to Darden Pond	Perennial	6 (CL)	6	Open Cut	NA	Unclassified		NA			
Southampton County, VA	AP-3 / 23.9	Ditch	Canal/Ditch	5 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 24.2	UNT to Darden Pond	Intermittent		5	Ground Bed	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 24.3	UNT to Darden Pond	Perennial	3 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Southampton County, VA	AP-3 / 24.5	UNT to Darden Pond	Perennial	5 (CL)	4	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Southampton County, VA	AP-3 / 24.8	Ditch	Canal/Ditch	4 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 26.0	UNT to Mill Swamp	Intermittent	1 (CL)	1	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Southampton County, VA	AP-3 / 26.1	UNT to Mill Swamp	Intermittent	6 (CL)	5	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Southampton County, VA	AP-3 / 27.0	Ditch	Canal/Ditch	2 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 27.4	UNT to Nottoway River	Ephemeral	4 (CL)	3	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR, does not apply to ephemeral waters
Southampton County, VA	AP-3 / 28.8	UNT to Nottoway River	Intermittent	4 (CL)	4	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Southampton County, VA	AP-3 / 28.8	UNT to Nottoway River	Intermittent	4 (AR)	4	Perm AR	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Southampton County, VA	AP-3 / 31.3	UNT to Nottoway River	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Southampton County, VA	AP-3 / 31.6	UNT to Nottoway River	Perennial	10 (AR)	10	Perm AR	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30/March 15 to May 31 and August 15 to October 15/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Complete mussel and Roanoke logperch surveys and submit results to FWS and VDGIF Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Southampton County, VA	AP-3 / 31.8	UNT to Nottoway River	Wetland-Waterbody Complex			Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30/March 15 to May 31 and August 15 to October 15/March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Nottoway River for all applicable species Apply the FWS' enhanced conservation measures for ESA sensitive streams	Will adhere to TOYR for work within the waterbody.	Complete mussel and Roanoke logperch surveys and submit results to FWS and VDGIF Apply the FWS' enhanced conservation measures for ESA sensitive streams Remove Apr 15-Jun 15 and Aug 15-Sept 30 TOYR
Southampton County, VA	AP-3 / 31.8	UNT to Nottoway River	Wetland-Waterbody Complex			Perm AR	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30/March 15 to May 31 and August 15 to October 15/March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Nottoway River for all applicable species Apply the FWS' enhanced conservation measures for ESA sensitive streams (see section 4.7.1)	Will adhere to TOYR for work within the waterbody.	Complete mussel and Roanoke logperch surveys and submit results to FWS and VDGIF Apply the FWS' enhanced conservation measures for ESA sensitive streams (see section 4.7.1) Remove Apr 15-Jun 15 and Aug 15-Sept 30 TOYR

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet) [a]	Construction Method [b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments) [c]	FERC Recommended Conditions
Southampton County, VA	**AP-3 / 32.2**	**Nottoway River**	**Perennial**		**160**	**Abuts Perm AR**	**NA**	**Aquatic Life, Migratory fish Spawning and Nursery, Recreation**		**February 15 to June 30/May 15 to July 31/March 15 to May 31 and August 15 to October 15/March 15 to June 30**	**Assume presence of Roanoke logperch and implement VDGIF TOYR (Mar 15-Jun 30) Assume presence of dwarf wedgemussel and implement VDGIF TOYR (Mar 15-May 31 and Aug 15-Oct 15) Assume presence of Atlantic pigtoe and yellow lance and implement VDGIF TOYR (May 15-Jul 31) VDGIF AFSA TOYR (Feb 15-Jun 30) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**	**Will adhere to TOYR for work within the waterbody.**	**No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply. Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**
Southampton County, VA	**AP-3 / 32.6**	**Nottoway River**	**Perennial**	**241 (CL)**	**160**	**HDD**	**NA**	**Aquatic Life, Migratory fish Spawning and Nursery**	**Benthic-Macroinvertebrate Bioassessments and Mercury in Fish**	**February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30/March 15 to May 31 and August 15 to October 15/March 15 to June 30**	**Assume presence of Roanoke logperch and implement VDGIF TOYR (Mar 15-Jun 30) Assume presence of dwarf wedgemussel and implement VDGIF TOYR (Mar 15-May 31 and Aug 15-Oct 15) Assume presence of Atlantic pigtoe and yellow lance and implement VDGIF TOYR (May 15-Jul 31) VDGIF AFSA TOYR (Feb 15-Jun 30) Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1)**	**No in-stream work planned. Presence is assumed for the Roanoke logperch due to suitable habitat and conservation measures as outlined in the EIS and BA will be implemented.**	**Apply the FWS' enhanced conservation measures for ESA sensitive waterbodies (see section 4.7.1) Remove Apr 15-Jun 15 and Aug 15-Sept 30 TOYR**
Southampton County, VA	AP-3 / 33.1	UNT to Nottoway River	Canal/Ditch		Canal/Ditch	Temp ROW	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Nottoway River for all applicable species	Will adhere to TOYR for work within the waterbody.	No work within waterbody identified; therefore commitment to adhere to TOYR within waterbody does not apply.
Southampton County, VA	AP-3 / 33.1	UNT to Nottoway River	Intermittent	5 (AR) / 5 (CL)	5	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Nottoway River for all applicable species Apply pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation. Apply VDGIF TOYR for dwarf wedgemussel (Mar 15-May 31 and Aug 15-Oct 15) Apply VDGIF TOYR for Atlantic pigtoe and yellow lance (May 15-Jul 31)
Southampton County, VA	AP-3 / 33.1	UNT to Nottoway River	Intermittent	5 (AR) / 4 (CL)	4	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Nottoway River for all applicable species Apply pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Apply pre-construction aquatic species relocation. Apply VDGIF TOYR for dwarf wedgemussel (Mar 15-May 31 and Aug 15-Oct 15) Apply VDGIF TOYR for Atlantic pigtoe and yellow lance (May 15-Jul 31)
Southampton County, VA	AP-3 / 33.3	UNT to Nottoway River	Intermittent	10 (CL)	10	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of Nottoway River for all applicable species Apply pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Apply pre-construction aquatic species relocation. Apply VDGIF TOYR for dwarf wedgemussel (Mar 15-May 31 and Aug 15-Oct 15) Apply VDGIF TOYR for Atlantic pigtoe and yellow lance (May 15-Jul 31)
Southampton County, VA	AP-3 / 33.9	UNT to Nottoway River	Canal/Ditch	6 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Southampton County, VA	AP-3 / 33.9	UNT to Nottoway River	Perennial	27 (CL)	22	Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30/March 15 to May 31 and August 15 to October 15/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Southampton County, VA	AP-3 / 33.9	UNT to Nottoway River	Intermittent	12 (CL)	6	Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Southampton County, VA	AP-3 / 34.3	UNT to Nottoway River	Canal/Ditch	10 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Southampton County, VA	AP-3 / 34.4	UNT to Nottoway River	Intermittent	4 (CL)	4	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Franklin City, VA	AP-3 / 34.5	Ditch	Canal/Ditch		Canal/Ditch	Contractor Yard - Temporary Impact	Within 1000 feet	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 34.6	UNT to Nottoway River	Perennial	22 (CL)	15	Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30/March 15 to May 31 and August 15 to October 15/March 15 to June 30		Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River Confirm if pre-construction aquatic species relocation applies to open cut crossings.
Southampton County, VA	AP-3 / 34.6	UNT to Nottoway River	Perennial	14 (CL)	10	Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/May 15 to July 31/April 15 to June 15 and August 15 to September 30/March 15 to May 31 and August 15 to October 15/March 15 to June 30		Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River Confirm if pre-construction aquatic species relocation applies to open cut crossings.
Southampton County, VA	AP-3 / 34.8	Ditch	Canal/Ditch	2 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 34.9	Ditch	Canal/Ditch	3 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
Southampton County, VA	AP-3 / 35.7	UNT to Nottoway River	Intermittent	5 (CL)	4	Open Cut	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30/March 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Nottoway River
Southampton County, VA	AP-3 / 35.9	UNT to Blackwater River	Canal/Ditch	2 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30		NA	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
Southampton County, VA	AP-3 / 35.9	UNT to Blackwater River	Canal/Ditch	2 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30		NA	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
Southampton County, VA	AP-3 / 36.3	UNT to Blackwater River	Perennial	18 (CL)	16	Flume or Dam and Pump	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery	Mercury in Fish	February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
Southampton County, VA	AP-3 / 36.6	UNT to Blackwater River	Canal/Ditch	14 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River Apply pre-construction aquatic species relocation.

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
Southampton County, VA	AP-3 / 36.6	UNT to Blackwater River	Intermittent	4 (CL)	3	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 38.6	Blackwater River	Perennial	208 (CL)	185	HDD	NA	Aquatic Life, Migratory fish Spawning and Nursery	Dissolved Oxygen and Mercury in Fish	February 15 to June 30	Apply VDGIF AFSA TOYR (Feb 15-Jun 30)	No in-stream work planned.	TOYR also applies to water withdrawal activities
City of Suffolk, VA	AP-3 / 39.4	UNT to Blackwater River	Perennial	5 (CL)	4	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery	Mercury in Fish	February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 39.5	UNT to Blackwater River	Canal/Ditch	4 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River Apply pre-construction aquatic species relocation.
City of Suffolk, VA	AP-3 / 39.7	UNT to Blackwater River	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 40.1	UNT to Blackwater River	Perennial	8 (CL)	5	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 40.2	UNT to Blackwater River	Perennial	7 (CL)	6	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery	Mercury in Fish	February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 40.5	UNT to Blackwater River	Canal/Ditch	6 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River Apply pre-construction aquatic species relocation.
City of Suffolk, VA	AP-3 / 41.4	UNT to Blackwater River	Perennial	5 (CL)	3	Flume or Dam and Pump	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 41.6	UNT to Blackwater River	Ephemeral	3 (CL)	3	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR, does not apply to ephemeral waters
City of Suffolk, VA	AP-3 / 42.3	UNT to Blackwater River	Perennial	5 (CL)	5	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery	Mercury in Fish	February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 42.3	UNT to Blackwater River	Perennial	8 (CL)	7	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery	Mercury in Fish	February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 42.7	UNT to Blackwater River	Intermittent	7 (CL)	5	Dam and Pump or Flume	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30	Pre-construction aquatic species relocation	Will adhere to TOYR for work within the waterbody. Pre-construction aquatic species relocations.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 42.7	UNT to Blackwater River	Intermittent		4	Temp ROW	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30		Will adhere to TOYR for work within the waterbody.	Remove TOYR; only applicable to intermittent and perennial tributaries within 1 river mile of Blackwater River
City of Suffolk, VA	AP-3 / 44.5	UNT to Kingsale Swamp	Perennial	5 (CL)	4	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 44.6	Unnamed Ditch	Canal/Ditch		Canal/Ditch	Temp / Perm ROW	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 44.6	Unnamed Ditch	Canal/Ditch		Canal/Ditch	Temp ROW	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 44.6	UNT to Kindpole Swamp	Perennial	7 (CL)	5	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
City of Suffolk, VA	AP-3 / 45.1	UNT to Kingsale Swamp	Perennial	11 (CL)	6	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
City of Suffolk, VA	AP-3 / 45.4	Ditch	Canal/Ditch	11 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 45.5	Ditch	Canal/Ditch	10 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 45.7	UNT to Kingsale Swamp	Canal/Ditch	8 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 45.8	UNT to Kingsale Swamp	Canal/Ditch	6 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 46.1	UNT to Kingsale Swamp	Perennial	4 (CL)	4	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 46.2	UNT to Kingsale Swamp	Canal/Ditch	5 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 48.0	UNT to Jones Swamp	Canal/Ditch	9 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 48.5	UNT to Jones Swamp	Canal/Ditch	5 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 48.7	UNT to Jones Swamp	Canal/Ditch	26 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 49.2	Ditch	Canal/Ditch	4 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 49.5	Quaker Swamp	Wetland-Waterbody Complex			Open Cut	NA	Unclassified		NA		Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Confirm that pre-construction aquatic species relocation would apply to open cut crossing
City of Suffolk, VA	AP-3 / 49.9	UNT to Quaker Swamp	Perennial	3 (CL)	3	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 50.2	Quaker Swamp	Wetland-Waterbody Complex			Open Cut	NA	Unclassified		NA		Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Confirm that pre-construction aquatic species relocation would apply to open cut crossing
City of Suffolk, VA	AP-3 / 50.5	UNT to Quaker Swamp	Perennial	2 (CL)	2	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 51.7	Ditch	Canal/Ditch	8 (CL)	Canal/Ditch	Flume or Dam and Pump	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 52.1	UNT to Quaker Swamp	Perennial	6 (CL)	6	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 52.1	UNT to Quaker Swamp	Intermittent	3 (CL)	4	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 52.2	UNT to Quaker Swamp	Intermittent		5	Temp / Perm ROW	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 52.6	UNT to Quaker Swamp	Intermittent	2 (CL)	3	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 52.6	UNT to Quaker Swamp	Intermittent	3 (CL)	2	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 53.9	UNT to Speights Run	Intermittent		3	Temp ROW	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 53.9	UNT to Speights Run	Intermittent	4 (CL)	4	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 53.9	UNT to Speights Run	Intermittent	3 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 54.6	UNT to Cohoon Creek	Perennial	4 (CL)	4	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 55.3	UNT to Lake Cohoon	Perennial	3 (CL)	3	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
City of Suffolk, VA	AP-3 / 55.4	UNT to Lake Cohoon	Perennial	5 (CL)	4	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
City of Suffolk, VA	AP-3 / 55.5	Ditch	Canal/Ditch	2 (CL)	Canal/Ditch	Dam and Pump or Flume	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 56.1	Cohoon Creek	Wetland-Waterbody Complex			Open Cut	NA	Unclassified		NA		Pre-construction aquatic species relocations.	Complete mussel surveys and submit results to FWS and VDGIF Confirm that pre-construction aquatic species relocation would apply to open cut crossing
City of Suffolk, VA	AP-3 / 56.2	UNT to Cohoon Creek	Perennial	15 (CL)	6	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 56.3	UNT to Cohoon Creek	Intermittent		2	Temp ROW	NA	Unclassified		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
City of Suffolk, VA	AP-3 / 56.3	UNT to Cohoon Creek	Intermittent	1 (CL)	1	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 56.3	UNT to Cohoon Creek	Perennial	3 (AR)	3	Perm AR - Bridge	NA	WQS not assessed		NA		NA	
City of Suffolk, VA	AP-3 / 56.4	UNT to Cohoon Creek	Perennial	10 (CL)	6	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 56.7	Unnamed Pond	Pond	Pond (CL)	Pond	Pond	NA	NA		NA		NA	
City of Suffolk, VA	AP-3 / 56.7	UNT to Cohoon Creek	Intermittent	2 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 57.0	UNT to Eley Swamp	Intermittent	2 (CL)	3	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 58.0	UNT to Eley Swamp	Perennial	9 (CL)	5	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 58.1	UNT to Eley Swamp	Perennial	4 (CL)	2	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 58.8	Ditch	Canal/Ditch		Canal/Ditch	Abuts Perm AR	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 59.3	UNT to Lake Prince	Perennial	3 (CL)	3	Dam and Pump or Flume	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 59.4	UNT to Lake Prince	Perennial	5 (CL)	5	Dam and Pump or Flume	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 59.4	UNT to Lake Prince	Intermittent	13 (CL)	2	Dam and Pump or Flume	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 60.5	UNT to Prince Lake	Perennial	2 (CL)	2	Flume or Dam and Pump	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 60.9	UNT to Prince Lake	Intermittent		2	Perm ROW	NA	UNT to Public fishing Lake		NA		NA	
City of Suffolk, VA	AP-3 / 61.0	Lake Prince	Reservoir	389 (CL)	Reservoir	HDD	NA	Public fishing Lake		NA		NA	
City of Suffolk, VA	AP-3 / 61.1	UNT to Lake Prince	Ephemeral	3 (CL)	1	HDD (Part of Lake Prince HDD)	NA	UNT to Public fishing Lake		NA		NA	
City of Suffolk, VA	AP-3 / 61.6	UNT to Western Branch Reserv	Intermittent		1	Temp ROW	NA	UNT to Public fishing Lake		NA		NA	
City of Suffolk, VA	AP-3 / 61.7	UNT to Western Branch Reserv	Perennial	9 (CL)	3	Dam and Pump or Flume	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 61.8	UNT to Western Branch Reserv	Perennial		3	Perm ROW	NA	UNT to Public fishing Lake		NA		NA	
City of Suffolk, VA	AP-3 / 61.8	UNT to Western Branch Reserv	Perennial	3 (CL)	3	Dam and Pump or Flume	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 62.4	Western Branch Reservoir	Reservoir	302 (CL)	Reservoir	HDD	NA	Public fishing Lake		NA		NA	
City of Suffolk, VA	AP-3 / 62.7	UNT Western Branch Reserv	Perennial	3 (CL)	3	Dam and Pump or Flume	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 63.0	UNT Western Branch Reserv	Perennial	5 (CL)	3	Dam and Pump or Flume	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 63.0	UNT Western Branch Reserv	Perennial	2 (CL)	2	Dam and Pump or Flume	NA	UNT to Public fishing Lake		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	**AP-3 / 63.6**	**Western Tributary to Nansemond River**	**Perennial**	**60 (CL)**	**160**	**HDD**	**NA**	**Aquatic Life, Migratory fish Spawning and Nursery**		**February 15 to June 30**	**Assume presence of freshwater mussels Implement VDGIF TOYR for Potential AFSA (Feb 15-Jun 30)**	**No in-stream work planned.**	
City of Suffolk, VA	**AP-3 / 64.4**	**Nansemond River**	**Perennial**	**460 (CL)**	**440**	**HDD**	**NA**	**Aquatic Life, Migratory fish Spawning and Nursery**		**February 15 to June 30**	**Assume presence of freshwater mussels Potential for marine mammals Implement VDGIF TOYR for Potential AFSA (Feb 15-Jun 30)**	**No in-stream work planned.**	
City of Suffolk, VA	AP-3 / 65.5	UNT to Nansemond River	Canal/Ditch		Canal/Ditch	Temp ROW	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery				NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
City of Suffolk, VA	AP-3 / 65.6	UNT to Nansemond River	Perennial		3	Perm ROW	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery				NA	
City of Suffolk, VA	AP-3 / 65.8	UNT to Nansemond River	Intermittent	3 (CL)	2	Flume or Dam and Pump	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 15 to June 30		Will adhere to TOYR for work within the waterbody.	
City of Suffolk, VA	AP-3 / 65.9	UNT to Nansemond River	Intermittent		2	Perm ROW	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery				NA	Remove TOYR, does not apply to tributaries of Potential AFSA waters
City of Suffolk, VA	AP-3 / 66.0	UNT to Nansemond River	Canal/Ditch		Canal/Ditch	Abuts Perm AR	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery				NA	
City of Suffolk, VA	AP-3 / 66.3	UNT to Great Dismal Swamp	Intermittent	7 (AR)	5	Temp AR - Temp Impact	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 66.3	UNT to Great Dismal Swamp	Intermittent	70 (AR)	7	Abuts Perm AR	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 66.3	UNT to Great Dismal Swamp	Intermittent	5 (AR)	5	Temp AR - Temp Impact	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 66.9	UNT to Dismal Swamp	Perennial	9 (CL)	8	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 67.0	UNT to Dismal Swamp	Perennial	5 (CL)	5	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 67.6	UNT to Dismal Swamp	Perennial	24 (CL)	15	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 68.0	UNT to Dismal Swamp	Perennial	25 (CL)	15	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 68.5	UNT to Dismal Swamp	Pond		Pond	Pond	NA	Unclassified		NA		NA	
City of Suffolk, VA	AP-3 / 68.5	UNT to Dismal Swamp	Intermittent	6 (CL)	5	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Suffolk, VA	AP-3 / 68.6	UNT to Dismal Swamp	Perennial	10 (CL)	10	Flume or Dam and Pump	NA	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
City of Suffolk, VA	AP-3 / 68.8	UNT to Dismal Swamp	Perennial	3 (CL)	3	Flume or Dam and Pump	NA	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
City of Suffolk, VA	AP-3 / 69.0	UNT to Dismal Swamp	Perennial	10 (CL)	10	Flume or Dam and Pump	NA	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
City of Suffolk, VA	AP-3 / 70.6	UNT to Dismal Swamp	Perennial	3 (CL)	10	Flume or Dam and Pump	NA	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
City of Suffolk, VA	AP-3 / 71.1	UNT to Dismal Swamp	Perennial	6 (CL)	5	Flume or Dam and Pump	NA	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
City of Suffolk, VA	AP-3 / 71.1	UNT to Dismal Swamp	Perennial	14 (CL)	5	Flume or Dam and Pump	NA	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
City of Suffolk, VA	AP-3 / 71.2	UNT to Dismal Swamp	Perennial	15 (CL)	14	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 71.3	UNT to Dismal Swamp	Perennial	13 (CL)	14	Flume or Dam and Pump	NA	WQS not assessed		NA	Pre-construction fish relocation	Pre-construction fish relocation	
City of Chesapeake, VA	AP-3 / 71.6	East Ditch	Perennial	31 (CL)	15	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	NA	Apply pre-construction aquatic species relocation.
City of Chesapeake, VA	AP-3 / 71.6	UNT to East Ditch	Perennial	5 (CL)	5	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 71.7	UNT to East Ditch	Perennial	3 (CL)	3	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 71.8	UNT to East Ditch	Perennial	5 (CL)	4	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 73.6	UNT to Dismal Swamp	Perennial	13 (CL)	10	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 73.7	UNT to Dismal Swamp	Intermittent	9 (CL)	7	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
City of Chesapeake, VA	AP-3 / 73.9	UNT to Dismal Swamp	Perennial	17 (CL)	15	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 74.1	UNT to Dismal Swamp	Canal/Ditch	15 (AR)	Canal/Ditch	Temp AR - Temp Impact	NA	Unclassified		NA		NA	
City of Chesapeake, VA	AP-3 / 74.3	UNT to Dismal Swamp	Perennial	15 (CL)	7	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 75.0	UNT to Dismal Swamp	Perennial	44 (CL)	15	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 76.0	UNT to Dismal Swamp	Intermittent	34 (CL)	15	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 76.9	UNT to Deep Creek	Intermittent		5	Temp ROW	NA	Unclassified		NA		NA	
City of Chesapeake, VA	AP-3 / 77.3	UNT to Deep Creek	Perennial		4	Temp ROW	NA	WQS not assessed		NA		NA	
City of Chesapeake, VA	AP-3 / 77.4	Deep Creek	Perennial	32 (CL)	14	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 77.4	UNT to Deep Creek	Perennial	6 (CL)	6	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 77.4	UNT to Deep Creek	Intermittent	3 (CL)	2	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 77.5	UNT to Deep Creek	Canal/Ditch		Canal/Ditch	Temp ROW	NA	Unclassified		NA		NA	
City of Chesapeake, VA	AP-3 / 78.3	UNT to Deep Creek	Intermittent	42 (CL)	3	Dam and Pump or Flume	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 78.8	UNT to Deep Creek	Perennial	20 (CL)	6	HDD (Part of Route 17 HDD)	NA	Unclassified		NA	Pre-construction aquatic species relocation	No in-stream work planned.	
City of Chesapeake, VA	AP-3 / 78.9	Unnamed Pond	Pond	Pond (CL)	Pond	Pond	NA	NA		NA		NA	
City of Chesapeake, VA	AP-3 / 79.0	Ditch	Canal/Ditch	7 (CL)	Canal/Ditch	HDD (Part of Route 17 HDD)	NA	Unclassified		NA		NA	
City of Chesapeake, VA	AP-3 / 79.0	Unnamed Pond	Pond	Pond (CL)	Pond	Pond	NA	NA		NA		NA	
City of Chesapeake, VA	AP-3 / 81.0	UNT to Deep Creek	Ephemeral	3 (CL)	3	Flume or Dam and Pump	NA	Unclassified		NA		NA	
City of Chesapeake, VA	AP-3 / 81.2	Unnamed Pond	Pond	Pond (CL)	Pond	Pond	NA	NA		NA		NA	
City of Chesapeake, VA	AP-3 / 81.6	Unnamed Pond	Pond		Pond	Pond	NA	NA		NA		NA	
City of Chesapeake, VA	**AP-3 / 81.8**	**South Branch Elizabeth River**	**Perennial**	**835 (CL)**	**840**	**HDD**	**NA**	**Aquatic Life, Migratory fish Spawning and Nursery**		**February 1 to June 30**	**Assume presence of Atlantic sturgeon (F-E) and shortnose sturgeon (F-E) Implement VDGIF AFSA TOYR (Feb 1-Jun 30) Potential for marine mammals**	**No in-stream work planned.**	**Pending consultation with NOAA Fisheries; shortnose sturgeon may also be present. NOAA Fisheries may request that the HDD be conducted outside of the TOYR due to potential for frac-out**
City of Chesapeake, VA	AP-3 / 82.1	Ditch	Canal/Ditch		Canal/Ditch	Temp ROW	NA	Unclassified		NA		NA	

Appendix K-1

Waterbody Crossings Along the Atlantic Coast Pipeline

County, State/ Common-wealth	Project Segment / Milepost	Feature_Name	Waterbody Regime	Access Road (AR) and Centerline (CL) Crossings (feet)[a]	Survey/ Desktop Estimated OHWM Width (feet)[a]	Construction Method[b]	Blasting Planned (in-stream or within 1000 feet)	State/Common-wealth Regulatory Classification	Impairment	State/Commonwealth or Federal Time of Year Restrictions (TOYR) (work limited between dates listed)	Agency Recommended Mitigation	Atlantic Commitments to Conservation Measures (TOYR or other commitments)[c]	FERC Recommended Conditions
City of Chesapeake, VA	AP-3 / 82.1	UNT to S B of Elizabeth River	Intermittent	17 (CL)	6	HDD (Part of Elizabeth River HDD)	NA	UNT to Aquatic Life, Migratory fish Spawning and Nursery		February 1 to June 30	Apply VDGIF TOYR to perennial and intermittent tributaries within 1 river mile of South Branch Elizabeth River for all applicable species	No in-stream work planned.	
City of Chesapeake, VA	AP-3 / 82.3	Ditch	Canal/Ditch	6 (CL)	Canal/Ditch	Flume or Dam and Pump	NA	Unclassified		NA		NA	
City of Chesapeake, VA	AP-3 / 82.4	UNT to Dismal Swamp	Ephemeral		5	Perm ROW	NA	Unclassified		NA		NA	
City of Chesapeake, VA	AP-3 / 82.4	UNT to Dismal Swamp	Perennial	5 (CL)	5	Flume or Dam and Pump	NA	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
City of Chesapeake, VA	AP-3 / 82.5	UNT to Newton Creek	Canal/Ditch		Canal/Ditch	Temp ROW	NA	Unclassified		NA		NA	
City of Chesapeake, VA	AP-3 / 82.5	UNT to Newton Creek	Canal/Ditch		Canal/Ditch	Temp / Perm ROW	NA	Unclassified		NA		NA	
Greensville County, VA	AP-5 / 0.2	UNT to Greensville Creek	Intermittent	2 (CL)	2	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-5 / 0.4	UNT to Greensville Creek	Intermittent	4 (AR) / 4 (CL)	4	Flume or Dam and Pump	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	
Greensville County, VA	AP-5 / 0.8	Greensville Creek	Perennial	21 (CL)	15	Dam and Pump or Flume	In-stream; Within 1000 feet	Unclassified		NA	Pre-construction aquatic species relocation	Pre-construction aquatic species relocations.	

Shaded rows indicate waterbody crossings on the Monongahela and George Washington National Forests.

[a] "Access Road (AR) and Centerline (CL) Crossings" and "Survey/Desktop Estimated OHWM Width" represent measures of the width or crossing width of waterbodies. The first two crossing lengths, for access roads and for the pipeline centerline are GIS derived measurements based on waterbody polygons and the distance the respective facilities (access road or pipeline centerline) cross within the waterbody polygon. The third column of measurement is included for features that are not crossed by either an access road or the pipeline centerline, based on the field survey or desktop estimated ordinary high water mark (OHWM) width of the waterbodies.

[b] Construction Method includes trenchline construction methods for waterbodies that have a pipeline centerline crossing length. For waterbodies that are not crossed by the pipeline centerline or other unique facility components this column reads "Not Crossed by Centerline". For waterbodies that intersect unique facility components (e.g., compressor stations, contractor yards) the column refers to the unique facility crossed and identifies the nature of the planned impacts.

[c] Includes Agency Recommended Mitigation measures received to date in consultation with State/Commonwealth and Federal agencies.

EXHIBIT 5

From: Elliott, Danielle A <Danielle.A.Elliott@wv.gov>
Sent: Monday, January 29, 2018 2:02 PM
To: Wade Hammer <Wade.Hammer@erm.com>
Cc: Brown, Clifford L <Clifford.L.Brown@wv.gov>; Bennett, Danny A <Danny.A.Bennett@wv.gov>; Wellman, David I <David.I.Wellman@wv.gov>; Walker, James A <James.A.Walker@wv.gov>; Brooks, Carrie T <Carrie.T.Brooks@wv.gov>; Hedrick, Jim D <Jim.D.Hedrick@wv.gov>
Subject: FW: Atlantic Coast Pipeline - 2018 Construction Stream Activity Waiver Request

Hello Wade,
WV DNR Fishery Biologists have approved 55 of the requested fish spawning season restriction waivers. WV DNR has denied waiver requests for 18 High Quality Streams during the coldwater spawning season. Please review the attached document for more specific information.

The pipeline crossings need to be completed within 72 continuous hours. Also, the temporary bridges should be removed as soon as feasible.

Please let me know if you have any questions or concerns.
Thank you!

Danielle A. Elliott
WV DNR Coordination
Office: 304-637-0245 ext. 2043
Cell: 304-550-5057

EXHIBIT 5

Instructions: Complete the data fields shown in red for proposed stream impacts. Once the appropriate information has been received, the applicable WVDNR Fisheries Biologists will be contacted for review. For more information, contact Danielle.A.Elliott@wv.gov or call the WVDNR Coordination Unit at the Elkins Operations Center at 304-637-0245.

Fish Spawning Waiver Request- ACP

Submitted by Wade Hammer @ ERM (Wade.Hammer@erm.com) ; Date: January 12, 2018

	Project ID	Stream Name	Stream Regime	County	Latitude	Longitude	Temporary or Permanent	Proposed Date of Impact	Duration of In-Stream Impact (Working Days)	Purpose for Impact	Linear Feet of Impact	WHICHEVER APPLIES: Linear Feet of Bank Work, Culvert-Bridge Width OR Length/Pipeline Size	Riparian Revegetation Plan/Permanent Treatment	Comment/Rationale for Waiver Request	WVDNR Approval/ Denial
	shaa001	UNT to Tanner Fork	Perennial	Harrison County	39.17126	-80.56067	Permanent	April 1 2018	5	Fill/Pipe	128	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	shaa001	UNT to Tanner Fork	Perennial	Harrison County	39.17126	-80.56067	Temporary	April 1 2018	5	Temporary Bridge	128	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	shaa003	UNT to Tanner Fork	Intermittent	Harrison County	39.16561	-80.55981	Permanent	April 1 2018	5	Fill/Pipe	91	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	shaa003	UNT to Tanner Fork	Intermittent	Harrison County	39.16561	-80.55981	Temporary	April 1 2018	5	Temporary Bridge	91	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	slea001	Kincheloe Creek	Perennial	Lewis County	39.15930	-80.55282	Permanent	April 1 2018	5	Fill/Pipe	137	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	slea001	Kincheloe Creek	Perennial	Lewis County	39.15930	-80.55282	Permanent	April 1 2018	5	Add Culvert	137	40' maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Add Culvert	Approve
	slea001	Kincheloe Creek	Perennial	Lewis County	39.15930	-80.55282	Temporary	April 1 2018	5	Temporary Bridge	137	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	slea002	Sand Fork	Perennial	Lewis County	39.15432	-80.55412	Permanent	April 1 2018	5	Fill/Pipe	139	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Deny
	slea002	Sand Fork	Perennial	Lewis County	39.15432	-80.55412	Temporary	April 1 2018	5	Temporary Bridge	139	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Deny
	slea003	UNT to Kincheloe Creek	Intermittent	Lewis County	39.14794	-80.54492	Permanent	April 1 2018	5	Fill/Pipe	169	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	slea003	UNT to Kincheloe Creek	Intermittent	Lewis County	39.14794	-80.54492	Temporary	April 1 2018	5	Temporary Bridge	169	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Approve
	slea003	UNT to Kincheloe Creek	Intermittent	Lewis County	39.14794	-80.54492	Temporary	April 1 2018	5	Temporary Bridge	169	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	sleb001	UNT to Hog Camp Run	Intermittent	Lewis County	39.14072	-80.52108	Permanent	April 1 2018	5	Fill/Pipe	161	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	sleb001	UNT to Hog Camp Run	Intermittent	Lewis County	39.14072	-80.52108	Temporary	April 1 2018	5	Temporary Bridge	161	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	sleb002	Hog Camp Run	Perennial	Lewis County	39.14000	-80.52041	Permanent	April 1 2018	5	Fill/Pipe	132	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	sleb002	Hog Camp Run	Perennial	Lewis County	39.14000	-80.52041	Temporary	April 1 2018	5	Temporary Bridge	132	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	sleb004	Elk Lick	Intermittent	Lewis County	39.14131	-80.50502	Permanent	April 1 2018	5	Fill/Pipe	133	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	sleb004	Elk Lick	Intermittent	Lewis County	39.14131	-80.50502	Temporary	April 1 2018	5	Temporary Bridge	133	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	sleb009	West Fork River	Perennial	Lewis County	39.13533	-80.45626	Permanent	April 1 2018	5	Fill/Pipe	125	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Deny
	sleb009	West Fork River	Perennial	Lewis County	39.13533	-80.45626	Temporary	April 1 2018	5	Temporary Bridge	125	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Deny
	supa011	UNT to Trubie Run	Intermittent	Upshur County	38.92398	-80.22391	Permanent	April 1 2018	5	Fill/Pipe	143	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supa011	UNT to Trubie Run	Intermittent	Upshur County	38.92398	-80.22391	Temporary	April 1 2018	5	Temporary Bridge	143	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supb009	UNT to Trubie Run	Perennial	Upshur County	38.92151	-80.21111	Temporary	April 1 2018	5	Culvert Clean Out	126	40' maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Culvert Clean Out	Approve
	supb103	Trubie Run	Perennial	Upshur County	38.92267	-80.21172	Temporary	April 1 2018	5	Culvert Clean Out	0	40' maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Culvert Clean Out	Approve
	supa012	UNT to Buckhannon Run	Ephemeral	Upshur County	38.90808	-80.20356	Permanent	April 1 2018	5	Fill/Pipe	150	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Deny
	supa012	UNT to Buckhannon Run	Ephemeral	Upshur County	38.90808	-80.20356	Temporary	April 1 2018	5	Temporary Bridge	150	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Deny
	supa013	Grassy Run	Perennial	Upshur County	38.90285	-80.20277	Permanent	April 1 2018	5	Fill/Pipe	129	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supa013	Grassy Run	Perennial	Upshur County	38.90285	-80.20277	Temporary	April 1 2018	5	Temporary Bridge	129	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supe011	Gravel Run	Perennial	Upshur County	38.88927	-80.19355	Permanent	April 1 2018	5	Access Road Installation	0	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Not to exceed 30'	Approve
	supb010	Gravel Run	Perennial	Upshur County	38.88699	-80.18956	Permanent	April 1 2018	5	Fill/Pipe	79	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supb010	Gravel Run	Perennial	Upshur County	38.88699	-80.18956	Temporary	April 1 2018	5	Temporary Bridge	79	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supa014	UNT to Gravel Run	Intermittent	Upshur County	38.88680	-80.18929	Permanent	April 1 2018	5	Fill/Pipe	85	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supa014	UNT to Gravel Run	Intermittent	Upshur County	38.88680	-80.18929	Temporary	April 1 2018	5	Temporary Bridge	85	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supe010	Laurel Run	Perennial	Upshur County	38.88125	-80.19199	Permanent	April 1 2018	5	Access Road Installation	0	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Not to exceed 30'	Approve
	supb011	Laurel Run	Perennial	Upshur County	38.88030	-80.18456	Temporary	April 1 2018	5	Replace Culvert	141	40' maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Replace Culvert	Approve
	supb011	Laurel Run	Perennial	Upshur County	38.88030	-80.18456	Permanent	April 1 2018	5	Fill/Pipe	141	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supb011	Laurel Run	Perennial	Upshur County	38.88030	-80.18456	Temporary	April 1 2018	5	Temporary Bridge	141	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve

EXHIBIT 5

	supa053	UNT to Tenmile Creek	Intermittent	Upshur County	38.87672	-80.18148	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Approve
	supa016	Tenmile Creek	Perennial	Upshur County	38.87153	-80.17568	Temporary	April 1 2018	5	Temporary Bridge	128	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Approve
	supa017	UNT to Tenmile Creek	Intermittent	Upshur County	38.86975	-80.17561	Permanent	April 1 2018	5	Fill/Pipe	126	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42"	Approve
	supa017	UNT to Tenmile Creek	Intermittent	Upshur County	38.86975	-80.17561	Temporary	April 1 2018	5	Temporary Bridge	126	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	40' Maximum	Approve
	supb012	UNT to Leonard Run	Intermittent	Upshur County	38.84692	-80.14190	Permanent	April 1 2018	5	Fill/Pipe	119	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supb012	UNT to Leonard Run	Intermittent	Upshur County	38.84692	-80.14190	Temporary	April 1 2018	5	Temporary Bridge	119	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42" Pipeline	Approve
	supa015	Right Fork Middle Fork River	Perennial	Upshur County	38.84056	-80.13496	Permanent	April 1 2018	5	Fill/Pipe	130	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42"	Deny
	supa015	Right Fork Middle Fork River	Perennial	Upshur County	38.84056	-80.13496	Temporary	April 1 2018	5	Temporary Bridge	130	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	40' Maximum	Deny
	srab101	UNT to Jenks Fork	Intermittent	Randolph County	38.79708	-80.09547	Permanent	April 1 2018	5	Fill/Pipe	128	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42"	Deny
	srab101	UNT to Jenks Fork	Intermittent	Randolph County	38.79708	-80.09547	Temporary	April 1 2018	5	Temporary Bridge	128	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	40' Maximum	Deny
	srab103	UNT to Long Run	Intermittent	Randolph County	38.77531	-80.09487	Permanent	April 1 2018	5	Fill/Pipe	132	42"	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	42"	Deny
	srab103	UNT to Long Run	Intermittent	Randolph County	38.77531	-80.09487	Temporary	April 1 2018	5	Temporary Bridge	132	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	40' Maximum	Deny
	srae174	UNT to Mitchell Run	Ephemeral	Randolph County	38.60226	-80.17341	Permanent	April 1 2018	5	Access Road Installation	69	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Access Road Installation	Approve
	srae173	UNT to Mitchell Run	Intermittent	Randolph County	38.60167	-80.17359	Permanent	April 1 2018	5	Access Road Installation	48	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Access Road Installation	Approve
	srae171	UNT to Mitchell Run	Ephemeral	Randolph County	38.59895	-80.17415	Permanent	April 1 2018	5	Access Road Installation	52	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Access Road Installation	Approve
	srae172	UNT to Mitchell Run	Ephemeral	Randolph County	38.60057	-80.17368	Permanent	April 1 2018	5	Access Road Installation	40	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Access Road Installation	Approve
	srae170	UNT to Mitchell Run	Ephemeral	Randolph County	38.59750	-80.17452	Permanent	April 1 2018	5	Access Road Installation	59	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Access Road Installation	Approve
	srae160	UNT to Mitchell Run	Intermittent	Randolph County	38.59412	-80.18550	Temporary	April 1 2018	5	Culvert Clean Out	0	40' maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Culvert Clean Out	Approve
	srae156	UNT to Mitchell Run	Intermittent	Randolph County	38.59357	-80.18500	Temporary	April 1 2018	5	Culvert Clean Out	0	40' maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Culvert Clean Out	Approve
	srae148	Mitchell Run	Perennial	Randolph County	38.59096	-80.18523	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Approve
	srae195	UNT to Back Fork Elk River	Intermittent	Randolph County	38.58612	-80.16622	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Deny
	srae194	UNT to Back Fork Elk River	Ephemeral	Randolph County	38.58443	-80.16473	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Deny
	srae193	UNT to Back Fork Elk River	Intermittent	Randolph County	38.58403	-80.16438	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Deny
	srae192	UNT to Back Fork Elk River	Ephemeral	Randolph County	38.58342	-80.16353	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Deny
	srae191	UNT to Back Fork Elk River	Intermittent	Randolph County	38.58303	-80.16255	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Deny
	srae189	UNT to Hewett Fork	Ephemeral	Randolph County	38.58271	-80.15683	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	approve
	srae190	UNT to Back Fork Elk River	Intermittent	Randolph County	38.58161	-80.15971	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Deny
	srac106	UNT to Hickorylick Run	Intermittent	Randolph County	38.56046	-80.15060	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Approve
	srac105	UNT to Hickorylick Run	Ephemeral	Randolph County	38.55733	-80.14185	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Approve
	srae118	UNT to Valley Fork	Ephemeral	Randolph County	38.53772	-80.13602	Temporary	April 1 2018	5	Existing Culvert	146	40' maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Existing Culvert	Approve
	srac158	UNT to Falling Spring Run	Intermittent	Randolph County	38.50608	-80.11178	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Approve
	srac157	UNT to Falling Spring Run	Ephemeral	Randolph County	38.50425	-80.11464	Permanent	April 1 2018	5	Access Road Installation	36	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Access Road Installation	Approve
	srac136	Falling Spring Run	Perennial	Randolph County	38.48667	-80.10311	Permanent	April 1 2018	5	Access Road Installation	50	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Access Road Installation	Approve
	srac138	UNT to Falling Spring Run	Intermittent	Randolph County	38.48680	-80.10032	Temporary	April 1 2018	5	Temporary Bridge	0	40' Maximum	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Temporary Bridge	Approve
	srae176	UNT to Falling Spring Run	Ephemeral	Randolph County	38.49701	-80.08900	Permanent	April 1 2018	5	Access Road Installation	30	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Access Road Installation	Approve
	spoa410	UNT to Sugar Camp Run	Ephemeral	Pocahontas County	38.30042	-79.85170	Permanent	April 1 2018	5	Access Road Installation	33	Not to exceed 30'	Follow FERC Procedures; Seed/Planting & Permanent Bank Stabilization, Erosion Control Measures Installed According to Permits	Not to exceed 30'	Approve

EXHIBIT 5

EXHIBIT 6

West Virginia Division of Natural Resources

EXHIBIT 6

DIVISION OF NATURAL RESOURCES
324 Fourth Avenue, Room 200
South Charleston, West Virginia 25303-1228
Telephone (304) 558-3225
Fax (304) 558-6048
TDD (304) 558-1439
TDD 1-800-354-6087

Stephen S. McDaniel
Director

May 18, 2018

Division of Natural Resources
Office of Land and Streams
LICENSE and RIGHT of ENTRY

Re: P-18-III/49-1039

Atlantic Coast Pipeline LLC
c/o Dominion Energy Services, Inc.
Attention: Richard Gangle
5000 Dominion Blvd.
Glen Allen, VA 23060-

Dear Sir or Madam:

The West Virginia Division of Natural Resources (WVDNR) hereby grants to you for a term of ten (10) years, from the date hereof, a License and Right of Entry to construct, replace, cover, repair, operate, maintain, use and remove a forty-two inch (42") steel pipeline along an unnamed tributary of Trubie Run, Washington District in Upshur County, West Virginia, as shown located and highlighted in red on the map attached hereto as Exhibit A.

The issuance of this License and Right of Entry by the WVDNR does not preclude the necessity to obtain permits from the U.S. Army Corps of Engineers (USACE), W.V. Department of Environmental Protection (WVDEP), or the W.V. Division of Homeland Security and Emergency Management (WVDHSEM). The Right of Entry does not negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations.

The applicant must contact the following agencies and abide by the following conditions:

1. The USACE may require either a Clean Water Act 404 permit or a Nationwide Permit. Contact the Huntington District (304-399-5210) or the Pittsburgh District (412-395-7155) from more information. Information can also be found at http://www.lrh.usace.army.mil/Missions/Regulatory.aspx

2. The WVDEP (304-926-0499) may require the following permits:
   a. A Clean Water Act Section 401 Water Quality Certification http://www.dep.wv.gov/WWE/Programs/Pages/401Certification.aspx

b. Construction Stormwater Site Registration and Notice of Intent. Not needed if disturbance less than 1-acre http://dep.wv.gov/WWE/Programs/stormwater/Pages/sw_home.aspx

3. The WVDEP Erosion and Sediment Control Best Management Practice Manual, Revised 2016, must be followed. Copies of those guidelines are available from the Division of Water and Waste Management, (304) 926-0495 or at http://www.dep.wv.gov/WWE/Programs/stormwater/csw/Pages/ESC_BMP.aspx

4. The WVDHSEM may require a Floodplain Permit. WVDHSEM can be contacted at: (304) 957-2571

5. No in-stream work during the cold water and warm water fish spawning seasons (September 15-March 31 and April 1- June 30, respectively). If in-stream impacts cannot be avoided during the applicable fish spawning season, contact the WVDNR Environmental Coordination Unit at (304) 637-0245.

6. Threatened or Endangered aquatic species identified by the U.S. Fish and Wildlife Service are listed in Appendix A of the 2017 USACE Nationwide Permits. The U.S. Fish and Wildlife Service Field Office should be contacted (304) 636-6568 for any activity in waterways listed in Appendix A. http://www.lrp.usace.army.mil/Portals/72/docs/regulatory/2017%20Public%20Notices/West%20Virginia%20-%20NWP%20March%202017%20PN.pdf?ver=2017-03-22-095505-870

7. Survey requirements for streams with mussel populations are described in the West Virginia Mussel Survey Protocols. Contact the WVDNR Environmental Coordination Unit for information concerning mussels at (304) 637-0245. http://www.wvdnr.gov/Mussels/West%20Virginia%20Mussel%20Survey%20Protocols%20APR2016.pdf

Additionally, this Right of Entry does not provide for the applicant to work outside the requested boundaries. The State does not assume any liability for the applicant's/landowner's construction activities. By accepting this Right of Entry, the applicant/landowner assumes liability for any/all damages caused by this activity to both upstream and downstream landowners. This License and Right of Entry does not grant any rights or privileges, or permission to enter upon, or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. **In the event the applicant fails or refuses to comply with any of the terms or conditions herein, this License and Right of Entry will be canceled and considered null and void and the WVDNR may reject further applications.**

Your payment in the amount of $550.00 is now due and payable to the Division of Natural Resources covering the (10) ten-year fee of this agreement. Your agreement will be effective upon receipt of your payment in full.

Sincerely,

Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb

EXHIBIT 6

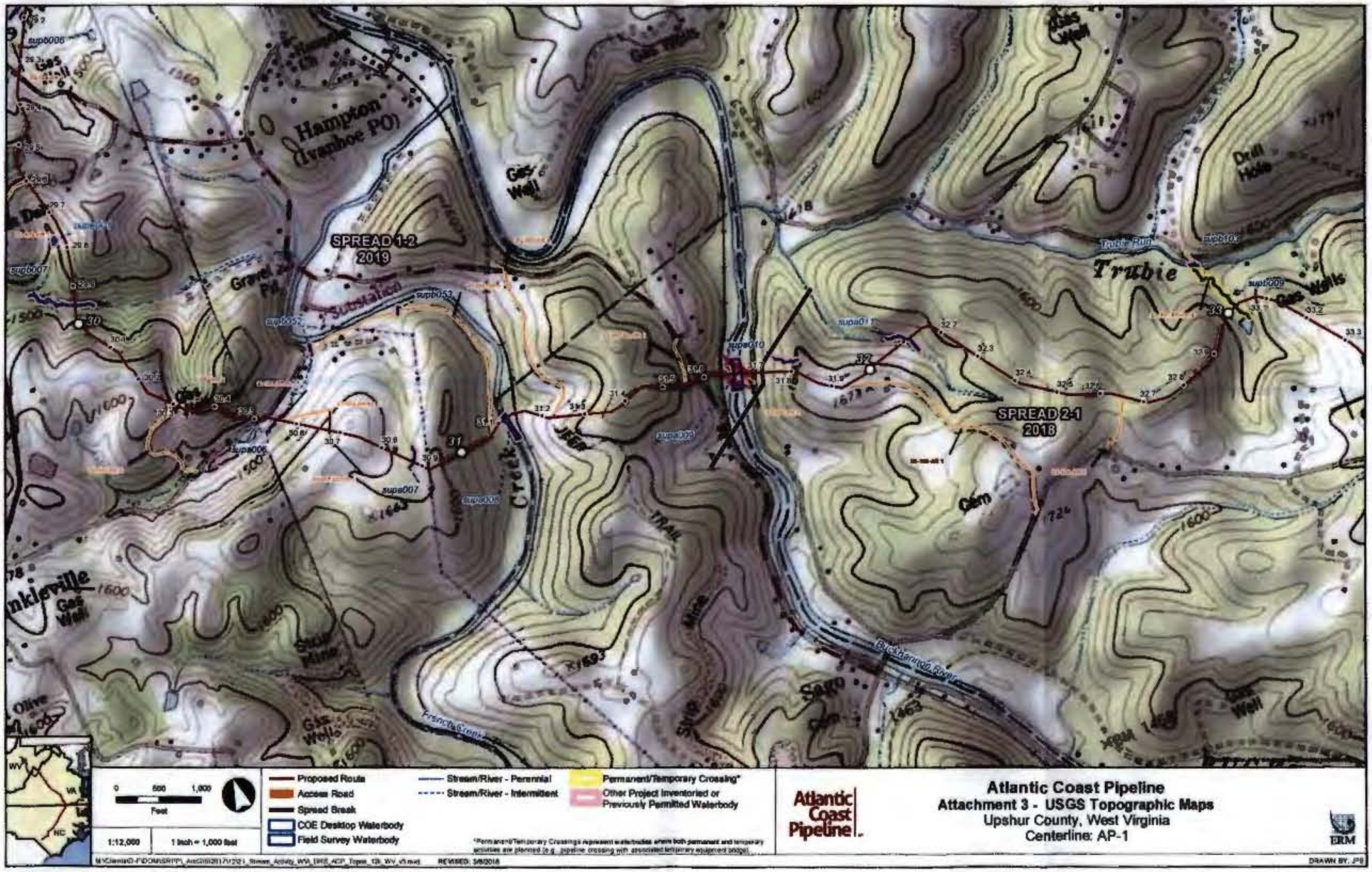
pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers
Danielle Elliot, WV DNR Coordination Unit

EXHIBIT 6

Exhibit A

P-18-111/49-1039

EXHIBIT 6



OFFICE OF LAND AND STREAMS
STREAM ACTIVITY APPLICATION

1. Name of Applicant: Atlantic Coast Pipeline, LLC
(Landowner)

2. Date: May 9, 2018

3. Complete mailing address of applicant: 707 E. Main Street, 19th Floor, Richmond, VA 23219

Telephone Number: (804) 771-4468 Fax Number:

E-Mail Address: leslie.hartz@dominionenergy.com

4. Name, address, telephone number, and title of applicant's authorized agent (i.e. contractor employed by landowner):
Richard Gangle, Dominion Energy Services, Inc., 5000 Dominion Blvd, Glen Alen VA 23060

Please ✓ if you want the approval sent to the agent ✓

5. Describe the proposed activity, its purpose and intended use after completion, type of equipment to be used in the stream, amount of material to be dredged (if any), plan for disposing of dredged materials, length of stream/bank to be worked or type and size of structure to be placed in the stream (i.e. length and width of bridge, diameter and length of culvert). **One copy of a map (topographical or detailed, hand-drawn) showing exact location of the work site (enabling Officials to locate site) must accompany this application,** and all other information that may be important to this application.

The Atlantic Coast Pipeline (ACP) natural gas transmission pipeline will serve the growing energy needs of multiple public utilities and local distribution companies in the region. The ACP will connect growing demand areas with growing supply areas in the Appalachian region. The ACP would provide up to 1.5 million dekatherms per day of firm natural gas transportation service into West Virginia, Virginia, and North Carolina.

This application addresses Project-specific temporary waterbody crossings in Upshur County, West Virginia for 2018 construction activities associated with the ACP and related appurtenances. The waterbody crossings addressed herein are associated with installation of the pipeline at a minimum depth of cover of 5 feet below the bed of the waterbody. Stream crossings will be done in a manner to reduce the amount of activities in the stream, and will be open cut but completed using dry crossing methods where perceptible water flow is present. Excavated material will be returned to the ditch, and streambanks will be stabilized according to Erosion and Sediment control plans approved by the West Virginia Department of Environmental Protection, according to FERC Plan and Procedures, and the ACP Restoration and Rehabilitation Plan. Construction activities will be conducted in accordance with federal, state, and local laws and permits.

Attachment 1 of this application package provides a summary table of the ACP waterbody crossings. Attachment 2 of this application provides a summary of the permits being sought related to the waterbody crossing addressed in this application, and Attachment 3 includes USGS topographic maps for waterbody crossings in Upshur County.

This application includes a total of 1 permanent pipeline crossing of a waterbody and 1 temporary access waterbody crossing associated with the pipeline crossing.

(if additional space is required, continue on a separate sheet) Pipeline

OLS Form 1 (08/07)

P-18-0149-1039

6. Please √ the proposed use:
Private: _____ (person use) Public: _____ (Government Agency) Commerical: ✔ (Business)

7. Location where proposed activity exists or will occur:

See the tables and figures provided in Attachments

Name of Water Way (if unnamed or unknown tributary, provide the stream that is flows into)

Upshur	See Attachment 1	See Attachment 1 and Attachment 3
County	District (taxable)	Closest City or Town

8. Date activity is proposed to commence: May 2018

Date activity is expected to be complete: November 2019

9. Is any portion of the activity for which authorization is sought now complete? Yes _____ No ✔
(If the answer is "Yes", give reasons in Section 5 including month and year the activity was completed)

10. Below is a list of entities that may require permits. Please list all approvals or certifications required by other Government Agencies for the above-described activity:

Issuing agency: Corps of Engineers – (304) 399-5710 (412) 395-7170 (412) 395-7157
Type of approval: See Attachment 2
Identification No.: _____
Date of approval: _____

Issuing agency: County Commission Flood Plain Coordinator
Type of approval: See Attachment 2
Identification No.: 10302017-1
Date of approval: October 2017

Issuing agency: City Government (if in City Limits the County isn't needed)
Type of approval: _____
Identification No.: _____
Date of approval: _____

11. Has any agency denied approval for the activity described herein? Yes _____ No ✔
(if "Yes", explain in Section 5 and/or attach a copy of the denial)

12: If activity is a pipeline construction (that is, gas, water, or sewer) give:
Material pipeline is made of: Steel

Size of Pipeline: 42-inch diameter

Maximum pressure of the pipeline: 1,440 per square inch gauge

Please provide the appropriate line number and if a Gathering or Well Line provide the A.P.I. Well Number:

Transmission: X Distribution: _____ Gathering: _____ Well Line: _____ A.P.I Well Number: _____

13: Application is hereby made for authorization to conduct the activities described herein. I certify that I am familiar with the information in this application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities.

Signature of Applicant or Agent

Office of Land and Streams
Building 74, Room 200
324 Fourth Avenue
South Charleston, WV 25303
Phone Number 304-558-3225
Fax Number 304-558-6048

OLS Form 1 (08/07)

EXHIBIT 6

Attachment 1

Atlantic Coast Pipeline
Stream Activity Application – Pipeline Installation Summary Table – Upshur County

MP	Construction Spread	Project Specific Unique ID	Waterbody Name	Waterbody Regime	County	Tax District	Nearest Town	Latitude	Longitude	Impact Type	Proposed Date of Impact	Duration of In-Stream Impact (days)	Construction Method for Pipeline or Access Road	Purpose for Impact	Construction Detail Plans	Length of Bank Impact for Pipeline Crossing	Pipeline Diameter/Maximum Impact Length
33.0	2-1	supb009	UNT to Trubie Run	Perennial	Upshur County	Washington	Buckhannon	38.92151	-80.2111	Permanent	May 15, 2018	5	Dam and Pump or Flume	Fill/Pipe	Pipeline Crossing	126	42" Pipeline

EXHIBIT 6

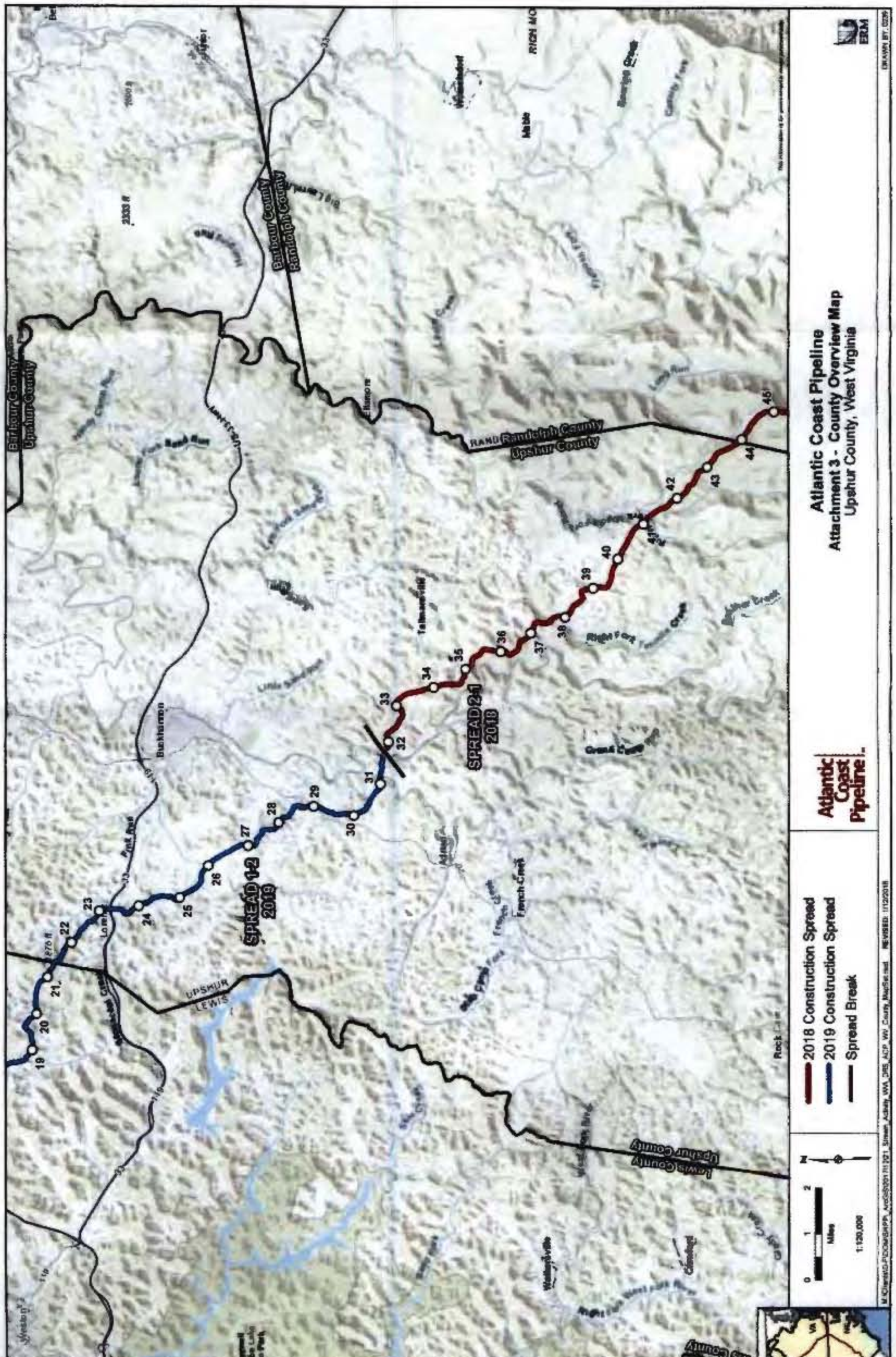

Atlantic Coast Pipeline
Attachment 3 - County Overview Map
Upshur County, West Virginia
2018 Construction Spread
2019 Construction Spread
Spread Break
SPREAD 1-2
2019
SPREAD 2-1
2018
Randolph County
Upshur County
Barbour County
Lewis County
Atlantic Coast Pipeline

EXHIBIT 6

DIVISION OF NATURAL RESOURCES
324 Fourth Avenue, Room 200
South Charleston, West Virginia 25303-1228
Telephone (304) 558-3225
Fax (304) 558-6048
TDD (304) 558-1439
TDD 1-800-354-6087

Stephen S. McDaniel
Director

May 21, 2018

Division of Natural Resources
Office of Land and Streams
LICENSE and RIGHT of ENTRY

Re: R-18-III/49-1040

Atlantic Coast Pipeline LLC
c/o Dominion Energy Services, Inc.
Attention: Richard Gangle
5000 Dominion Blvd.
Glen Allen, VA 23060-

Dear Sir or Madam:

The West Virginia Division of Natural Resources (WVDNR) hereby grants to you for a term of one (1) years, from the date hereof, a License and Right of Entry to install and maintain a minimum twenty inch (20") by maximum forty foot (40') culvert in the streambed along an unnamed tributary of Trubie Run, near Buckhannon in Upshur County, West Virginia.

The issuance of this License and Right of Entry by the WVDNR does not preclude the necessity to obtain permits from the U.S. Army Corps of Engineers (USACE), W.V. Department of Environmental Protection (WVDEP), or the W.V. Division of Homeland Security and Emergency Management (WVDHSEM). The Right of Entry does not negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations.

The applicant must contact the following agencies and abide by the following conditions:

1. The USACE may require either a Clean Water Act 404 permit or a Nationwide Permit. Contact the Huntington District (304-399-5210) or the Pittsburgh District (412-395-7155) from more information. Information can also be found at http://www.lrh.usace.army.mil/Missions/Regulatory.aspx

2. The WVDEP (304-926-0499) may require the following permits:
   a. A Clean Water Act Section 401 Water Quality Certification http://www.dep.wv.gov/WWE/Programs/Pages/401Certification.aspx

   b. Construction Stormwater Site Registration and Notice of Intent. Not needed if disturbance less than 1-acre http://dep.wv.gov/WWE/Programs/stormwater/Pages/sw_home.aspx

EXHIBIT 6

3. The WVDEP Erosion and Sediment Control Best Management Practice Manual, Revised 2016, must be followed. Copies of those guidelines are available from the Division of Water and Waste Management, (304) 926-0495 or at http://www.dep.wv.gov/WWE/Programs/stormwater/csw/Pages/ESC_BMP.aspx

4. The WVDHSEM may require a Floodplain Permit. WVDHSEM can be contacted at: (304) 957-2571

5. No in-stream work during the cold water and warm water fish spawning seasons (September 15-March 31 and April 1- June 30, respectively). If in-stream impacts cannot be avoided during the applicable fish spawning season, contact the WVDNR Environmental Coordination Unit at (304) 637-0245.

6. Threatened or Endangered aquatic species identified by the U.S. Fish and Wildlife Service are listed in Appendix A of the 2017 USACE Nationwide Permits. The U.S. Fish and Wildlife Service Field Office should be contacted (304) 636-6568 for any activity in waterways listed in Appendix A. http://www.lrp.usace.army.mil/Portals/72/docs/regulatory/2017%20Public%20Notices/West%20Virginia%20-%20NWP%20March%202017%20PN.pdf?ver=2017-03-22-095505-870

7. Survey requirements for streams with mussel populations are described in the West Virginia Mussel Survey Protocols. Contact the WVDNR Environmental Coordination Unit for information concerning mussels at (304) 637-0245. http://www.wvdnr.gov/Mussels/West%20Virginia%20Mussel%20Survey%20Protocols%20APR2016.pdf

Additionally, this Right of Entry does not provide for the applicant to work outside the requested boundaries. The State does not assume any liability for the applicant's/landowner's construction activities. By accepting this Right of Entry, the applicant/landowner assumes liability for any/all damages caused by this activity to both upstream and downstream landowners. This License and Right of Entry does not grant any rights or privileges, or permission to enter upon, or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. **In the event the applicant fails or refuses to comply with any of the terms or conditions herein, this License and Right of Entry will be canceled and considered null and void and the WVDNR may reject further applications.**

Your check in the amount of $100.00 is now due and payable to the Division of Natural Resources covering the one-time fee for this agreement. Your agreement will be effective upon receipt of your payment in full and is valid until construction is complete.

Sincerely,

Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb
pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers
Danielle Elliott, WV DNR Coordination Unit

EXHIBIT 6

OFFICE OF LAND AND STREAMS
STREAM ACTIVITY APPLICATION

1. Name of Applicant: Atlantic Coast Pipeline, LLC
(Landowner)

2. Date: May 9, 2018

3. Complete mailing address of applicant: 707 E. Main Street, 19th Floor, Richmond, VA 23219

Telephone Number: (804) 771-4468 Fax Number:

E-Mail Address: leslie.hartz@dominionenergy.com

4. Name, address, telephone number, and title of applicant's authorized agent (i.e. contractor employed by landowner):

Richard Gangle, Dominion Energy Services, Inc., 5000 Dominion Blvd, Glen Alen VA 23060

Please ✓ if you want the approval sent to the agent ✓

5. Describe the proposed activity, its purpose and intended use after completion, type of equipment to be used in the stream, amount of material to be dredged (if any), plan for disposing of dredged materials, length of stream/bank to be worked or type and size of structure to be placed in the stream (i.e. length and width of bridge, diameter and length of culvert). **One copy of a map (topographical or detailed, hand-drawn) showing exact location of the work site (enabling Officials to locate site) must accompany this application,** and all other information that may be important to this application.

The Atlantic Coast Pipeline (ACP) natural gas transmission pipeline will serve the growing energy needs of multiple public utilities and local distribution companies in the region. The ACP will connect growing demand areas with growing supply areas in the Appalachian region. The ACP would provide up to 1.5 million dekatherms per day of firm natural gas transportation service into West Virginia, Virginia, and North Carolina.

This application addresses Project-specific temporary waterbody crossings in Upshur County, West Virginia for 2018 construction activities associated with the ACP and related appurtenances. The waterbody crossings addressed herein are associated with installation of the pipeline at a minimum depth of cover of 5 feet below the bed of the waterbody. Stream crossings will be done in a manner to reduce the amount of activities in the stream, and will be open cut but completed using dry crossing methods where perceptible water flow is present. Excavated material will be returned to the ditch, and streambanks will be stabilized according to Erosion and Sediment control plans approved by the West Virginia Department of Environmental Protection, according to FERC Plan and Procedures, and the ACP Restoration and Rehabilitation Plan. Construction activities will be conducted in accordance with federal, state, and local laws and permits.

Attachment 1 of this application package provides a summary table of the ACP waterbody crossings. Attachment 2 of this application provides a summary of the permits being sought related to the waterbody crossing addressed in this application, and Attachment 3 includes USGS topographic maps for waterbody crossings in Upshur County.

This application includes a total of 1 permanent pipeline crossing of a waterbody and 1 temporary access waterbody crossing associated with the pipeline crossing.

(if additional space is required, continue on a separate sheet) Temp crossings

OLS Form 1 (08/07)

LS-18-111/49 -1040

EXHIBIT 6

6. Please √ the proposed use:
Private: ____ (person use) Public: ____ (Government Agency) Commerical: ✔ (Business)

7. Location where proposed activity exists or will occur:

See the tables and figures provided in Attachments

Name of Water Way (if unnamed or unknown tributary, provide the stream that is flows into)

Upshur	See Attachment 1	See Attachment 1 and Attachment 3
County	District (taxable)	Closest City or Town

8. Date activity is proposed to commence: May 2018

Date activity is expected to be complete: November 2019

9. Is any portion of the activity for which authorization is sought now complete? Yes ____ No ✔
(If the answer is "Yes", give reasons in Section 5 including month and year the activity was completed)

10. Below is a list of entities that may require permits. Please list all approvals or certifications required by other Government Agencies for the above-described activity:

Issuing agency: Corps of Engineers – (304) 399-5710 (412) 395-7170 (412) 395-7157
Type of approval: See Attachment 2
Identification No.: ____
Date of approval: ____

Issuing agency: County Commission Flood Plain Coordinator
Type of approval: See Attachment 2
Identification No.: 10302017-1
Date of approval: October 2017

Issuing agency: City Government (If in City Limits the County isn't needed)
Type of approval: ____
Identification No.: ____
Date of approval: ____

11. Has any agency denied approval for the activity described herein? Yes ____ No ✔
(If "Yes", explain in Section 5 and/or attach a copy of the denial)

12: If activity is a pipeline construction (that is, gas, water, or sewer) give:
Material pipeline is made of: Steel

Size of Pipeline: 42-inch diameter

Maximum pressure of the pipeline: 1,440 per square inch gauge

Please provide the appropriate line number and if a Gathering or Well Line provide the A.P.I. Well Number:

Transmission: x Distribution: ____ Gathering: ____ Well Line: ____ A.P.I Well Number: ____

13: Application is hereby made for authorization to conduct the activities described herein. I certify that I am familiar with the information in this application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities.

Signature of Applicant or Agent

Office of Land and Streams
Building 74, Room 200
324 Fourth Avenue
South Charleston, WV 25303
Phone Number 304-558-3225
Fax Number 304-558-6048

OLS Form 1 (08/07)

EXHIBIT 6

Attachment 1

Atlantic Coast Pipeline
Stream Activity Application – Non-Pipeline Crossing Summary Table –Upshur County

MP	Construction Spread	Project Specific Unique ID	Waterbody Name	Waterbody Regime	County	Tax District	Nearest Town	Latitude	Longitude	Impact Type	Proposed Date of Impact	Duration of In-Stream Impact (days)	Construction Method for Pipeline or Access Road	Purpose for Impact	Construction Detail Plate	Length of Bank Impact for Pipeline Crossing	Pipeline Diameter/Maximum Impact Length
33.0	2-1	supb009	UNT to Trubie Run	Perennial	Upshur County	Washington	Buckhannon	38.92151	-80.21110	Temporary	May 15, 2018	5	Dam and Pump or Flume	Temporary Bridge	timber mat or stone and culvert (with 20"diameter minimum sized culvert)	N/A	40' Maximum

EXHIBIT 6

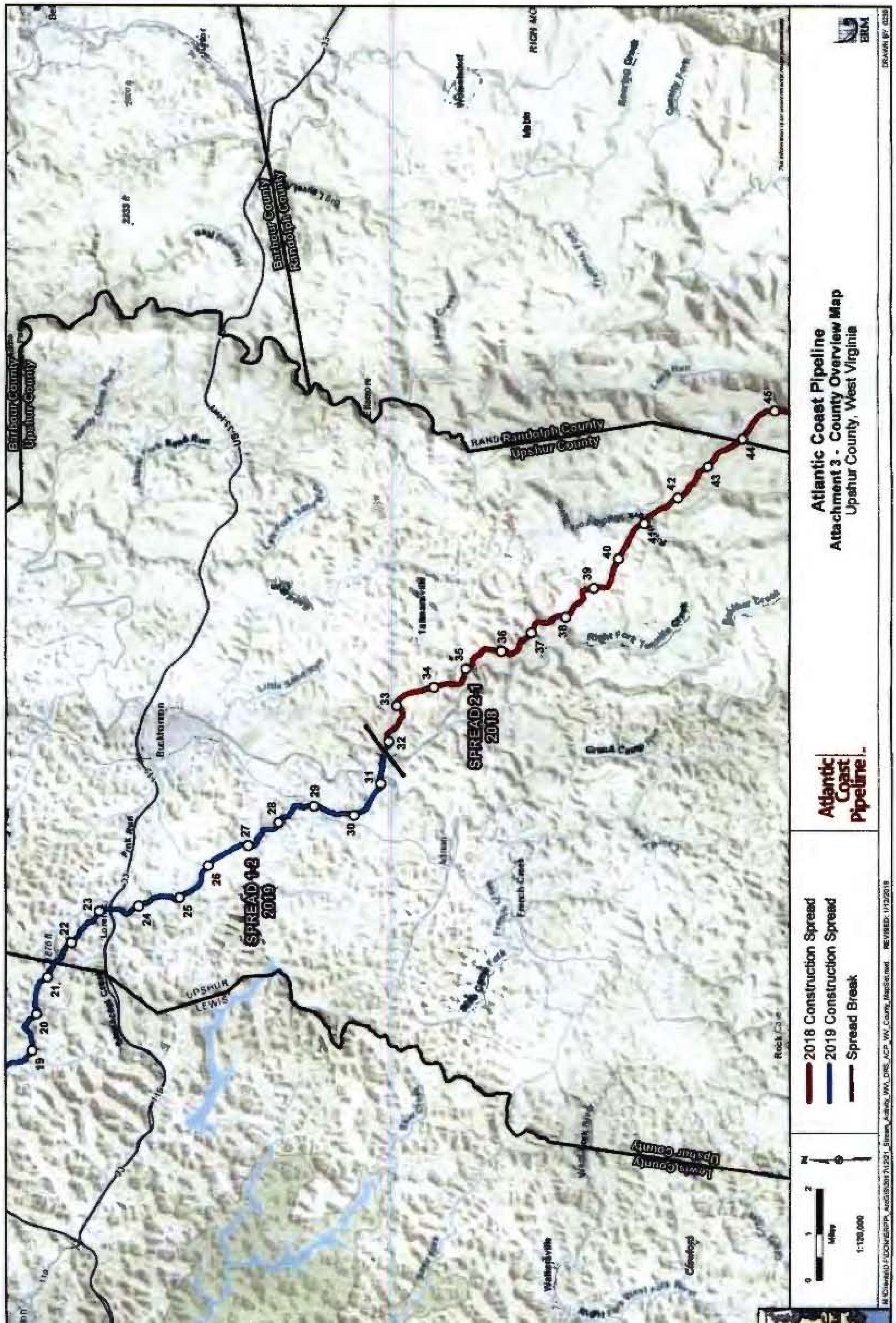

Atlantic Coast Pipeline
Attachment 3 - County Overview Map
Upshur County, West Virginia
2018 Construction Spread
2019 Construction Spread
Spread Break
SPREAD 1-2
2019
SPREAD 2-1
2018
Randolph County
Upshur County
Barbour County
Lewis County
Buckhannon
1:128,000

EXHIBIT 6

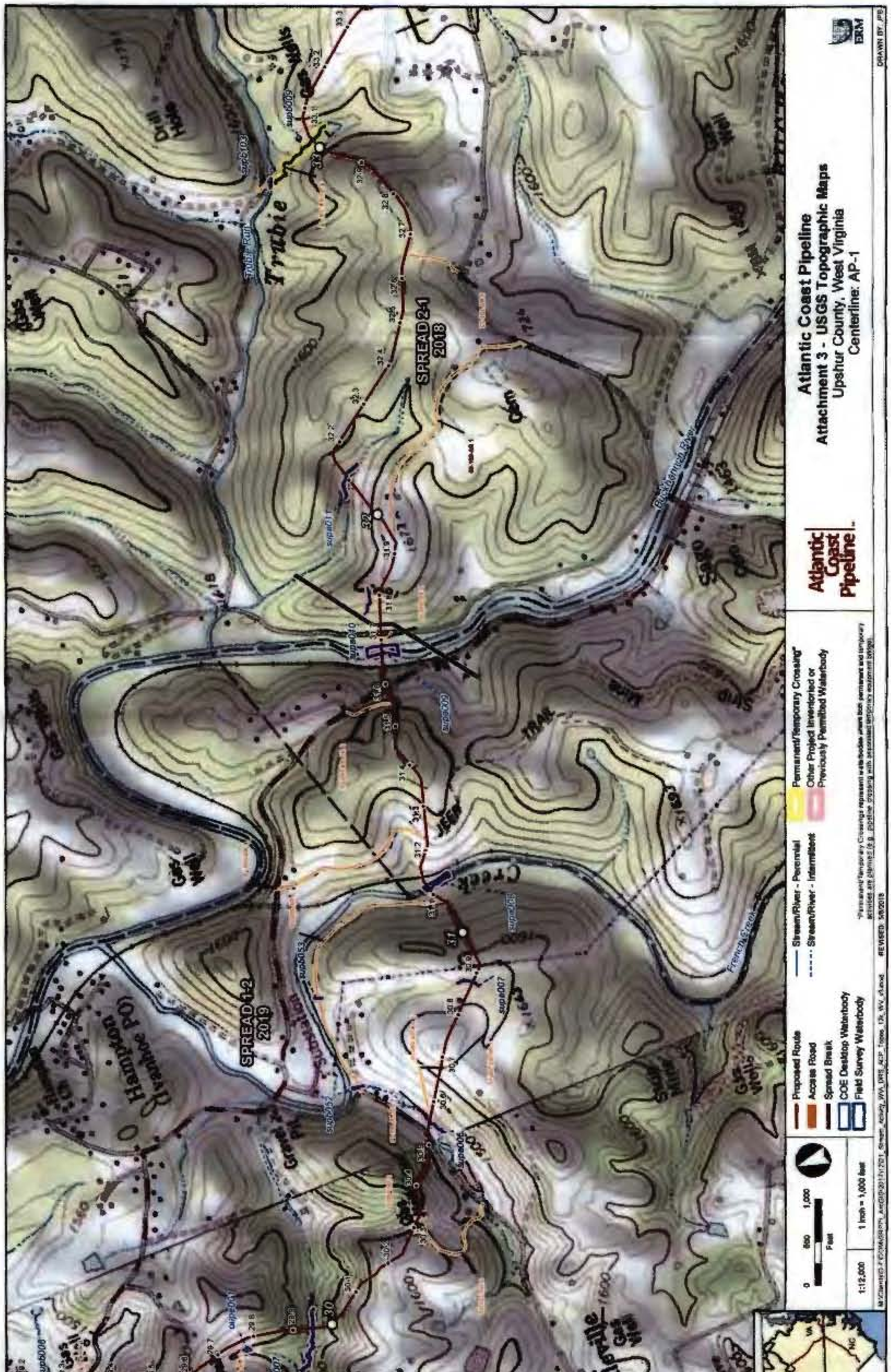

Atlantic Coast Pipeline
Attachment 3 - USGS Topographic Maps
Upshur County, West Virginia
Centerline: AP-1
SPREAD 2-1
2018
SPREAD 1-2
2019
Proposed Route
Access Road
Spread Break
COE Desktop Waterbody
Field Survey Waterbody
Stream/River - Perennial
Stream/River - Intermittent
Permanent/Temporary Crossing*
Other Project Inventoried or Previously Permitted Waterbody
1:12,000
1 inch = 1,000 feet
Buckhannon River
Hampton
Tribble
French Creek

EXHIBIT 6

DIVISION OF NATURAL RESOURCES
324 Fourth Avenue, Room 200
South Charleston, West Virginia 25303-1228
Telephone (304) 558-3225
Fax (304) 558-6048
TDD (304) 558-1439
TDD 1-800-354-6087

Stephen S. McDaniel
Director

May 31, 2018

Division of Natural Resources
Office of Land and Streams
LICENSE and RIGHT of ENTRY

Re: R-18-III/38-1044

Atlantic Coast Pipeline LLC
c/o Dominion Energy Services, Inc.
Attention: Richard Gangle
5000 Dominion Blvd.
Glen Allen, VA 23060-

Dear Sir or Madam:

The West Virginia Division of Natural Resources (WVDNR) hereby grants to you for a term of one (1) years, from the date hereof, a License and Right of Entry to install and maintain a timber mat or low water ford crossing at three (3) separate locations, a timber mat or a minimum sixteen inch (16") by maximum forty foot (40') culvert in the streambed at seven (7) separate locations, and a minimum twenty inch (20") by maximum forty foot (40') culvert in the streambed at one (1) separate location along Douglas Fork, an unnamed tributary of Douglas Fork, Dry Fork, Big Spring Fork, an unnamed tributary of Big Spring Fork, Mill Run, unnamed tributaries of Mill Run, and an unnamed tributary of Sugar Camp Run, near Frost in Pocahontas County, West Virginia.

The issuance of this License and Right of Entry by the WVDNR does not preclude the necessity to obtain permits from the U.S. Army Corps of Engineers (USACE), W.V. Department of Environmental Protection (WVDEP), or the W.V. Division of Homeland Security and Emergency Management (WVDHSEM). The Right of Entry does not negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations.

The applicant must contact the following agencies and abide by the following conditions:

1. The USACE may require either a Clean Water Act 404 permit or a Nationwide Permit. Contact the Huntington District (304-399-5210) or the Pittsburgh District (412-395-7155) from more information. Information can also be found at http://www.lrh.usace.army.mil/Missions/Regulatory.aspx

2. The WVDEP (304-926-0499) may require the following permits:
   a. A Clean Water Act Section 401 Water Quality Certification http://www.dep.wv.gov/WWE/Programs/Pages/401Certification.aspx

EXHIBIT 6

b. Construction Stormwater Site Registration and Notice of Intent. Not needed if disturbance less than 1-acre http://dep.wv.gov/WWE/Programs/stormwater/Pages/sw_home.aspx

3. The WVDEP Erosion and Sediment Control Best Management Practice Manual, Revised 2016, must be followed. Copies of those guidelines are available from the Division of Water and Waste Management, (304) 926-0495 or at http://www.dep.wv.gov/WWE/Programs/stormwater/csw/Pages/ESC_BMP.aspx

4. The WVDHSEM may require a Floodplain Permit. WVDHSEM can be contacted at: (304) 957-2571

5. No in-stream work during the cold water and warm water fish spawning seasons (September 15-March 31 and April 1- June 30, respectively). If in-stream impacts cannot be avoided during the applicable fish spawning season, contact the WVDNR Environmental Coordination Unit at (304) 637-0245.

6. Threatened or Endangered aquatic species identified by the U.S. Fish and Wildlife Service are listed in Appendix A of the 2017 USACE Nationwide Permits. The U.S. Fish and Wildlife Service Field Office should be contacted (304) 636-6568 for any activity in waterways listed in Appendix A. http://www.lrp.usace.army.mil/Portals/72/docs/regulatory/2017%20Public%20Notices/West%20Virginia%20-%20NWP%20March%202017%20PN.pdf?ver=2017-03-22-095505-870

7. Survey requirements for streams with mussel populations are described in the West Virginia Mussel Survey Protocols. Contact the WVDNR Environmental Coordination Unit for information concerning mussels at (304) 637-0245. http://www.wvdnr.gov/Mussels/West%20Virginia%20Mussel%20Survey%20Protocols%20APR2016.pdf

Additionally, this Right of Entry does not provide for the applicant to work outside the requested boundaries. The State does not assume any liability for the applicant's/landowner's construction activities. By accepting this Right of Entry, the applicant/landowner assumes liability for any/all damages caused by this activity to both upstream and downstream landowners. This License and Right of Entry does not grant any rights or privileges, or permission to enter upon, or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. **In the event the applicant fails or refuses to comply with any of the terms or conditions herein, this License and Right of Entry will be canceled and considered null and void and the WVDNR may reject further applications.**

Your check in the amount of $1100.00 is now due and payable to the Division of Natural Resources covering the one-time fee for this agreement. Your agreement will be effective upon receipt of your payment in full and is valid until construction is complete.

Sincerely,

Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb

EXHIBIT 6

pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers
Danielle Elliott, WV DNR Coordination Unit

EXHIBIT 6

DIVISION OF NATURAL RESOURCES
324 Fourth Avenue, Room 200
South Charleston, West Virginia 25303-1228
Telephone (304) 558-3225
Fax (304) 558-6048
TDD (304) 558-1439
TDD 1-800-354-6087

Stephen S. McDaniel
Director

May 31, 2018

Division of Natural Resources
Office of Land and Streams
LICENSE and RIGHT of ENTRY

Re: P-18-III/38-1043

Atlantic Coast Pipeline LLC
c/o Dominion Energy Services, Inc.
Attention: Richard Gangle
5000 Dominion Blvd.
Glen Allen, VA 23060-

Dear Sir or Madam:

The West Virginia Division of Natural Resources (WVDNR) hereby grants to you for a term of ten (10) years, from the date hereof, a License and Right of Entry to construct, replace, cover, repair, operate, maintain, use and remove a forty-two inch (42") steel pipeline at four (4) separate locations along Douglas Fork, Dry Fork, Big Spring Fork, and an unnamed tributary of Sugar Camp Run, Edray and Huntersville Districts in Pocahontas County, West Virginia, as shown located and highlighted in red on the map attached hereto as Exhibit A - D.

The issuance of this License and Right of Entry by the WVDNR does not preclude the necessity to obtain permits from the U.S. Army Corps of Engineers (USACE), W.V. Department of Environmental Protection (WVDEP), or the W.V. Division of Homeland Security and Emergency Management (WVDHSEM). The Right of Entry does not negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations.

The applicant must contact the following agencies and abide by the following conditions:

1. The USACE may require either a Clean Water Act 404 permit or a Nationwide Permit. Contact the Huntington District (304-399-5210) or the Pittsburgh District (412-395-7155) from more information. Information can also be found at http://www.lrh.usace.army.mil/Missions/Regulatory.aspx

2. The WVDEP (304-926-0499) may require the following permits:
   a. A Clean Water Act Section 401 Water Quality Certification http://www.dep.wv.gov/WWE/Programs/Pages/401Certification.aspx

EXHIBIT 6

b. Construction Stormwater Site Registration and Notice of Intent. Not needed if disturbance less than 1-acre http://dep.wv.gov/WWE/Programs/stormwater/Pages/sw_home.aspx

3. The WVDEP Erosion and Sediment Control Best Management Practice Manual, Revised 2016, must be followed. Copies of those guidelines are available from the Division of Water and Waste Management, (304) 926-0495 or at http://www.dep.wv.gov/WWE/Programs/stormwater/csw/Pages/ESC_BMP.aspx

4. The WVDHSEM may require a Floodplain Permit. WVDHSEM can be contacted at: (304) 957-2571

5. No in-stream work during the cold water and warm water fish spawning seasons (September 15-March 31 and April 1- June 30, respectively). If in-stream impacts cannot be avoided during the applicable fish spawning season, contact the WVDNR Environmental Coordination Unit at (304) 637-0245.

6. Threatened or Endangered aquatic species identified by the U.S. Fish and Wildlife Service are listed in Appendix A of the 2017 USACE Nationwide Permits. The U.S. Fish and Wildlife Service Field Office should be contacted (304) 636-6568 for any activity in waterways listed in Appendix A. http://www.lrp.usace.army.mil/Portals/72/docs/regulatory/2017%20Public%20Notices/West%20Virginia%20-%20NWP%20March%202017%20PN.pdf?ver=2017-03-22-095505-870

7. Survey requirements for streams with mussel populations are described in the West Virginia Mussel Survey Protocols. Contact the WVDNR Environmental Coordination Unit for information concerning mussels at (304) 637-0245. http://www.wvdnr.gov/Mussels/West%20Virginia%20Mussel%20Survey%20Protocols%20APR2016.pdf

Additionally, this Right of Entry does not provide for the applicant to work outside the requested boundaries. The State does not assume any liability for the applicant's/landowner's construction activities. By accepting this Right of Entry, the applicant/landowner assumes liability for any/all damages caused by this activity to both upstream and downstream landowners. This License and Right of Entry does not grant any rights or privileges, or permission to enter upon, or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. **In the event the applicant fails or refuses to comply with any of the terms or conditions herein, this License and Right of Entry will be canceled and considered null and void and the WVDNR may reject further applications.**

Your payment in the amount of $2200.00 is now due and payable to the Division of Natural Resources covering the (10) ten-year fee of this agreement. Your agreement will be effective upon receipt of your payment in full.

Sincerely,

Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb

EXHIBIT 6

pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers
Danielle Elliot, WV DNR Coordination Unit

EXHIBIT 6

Exhibit A

P-18-III/38-1043

EXHIBIT 6

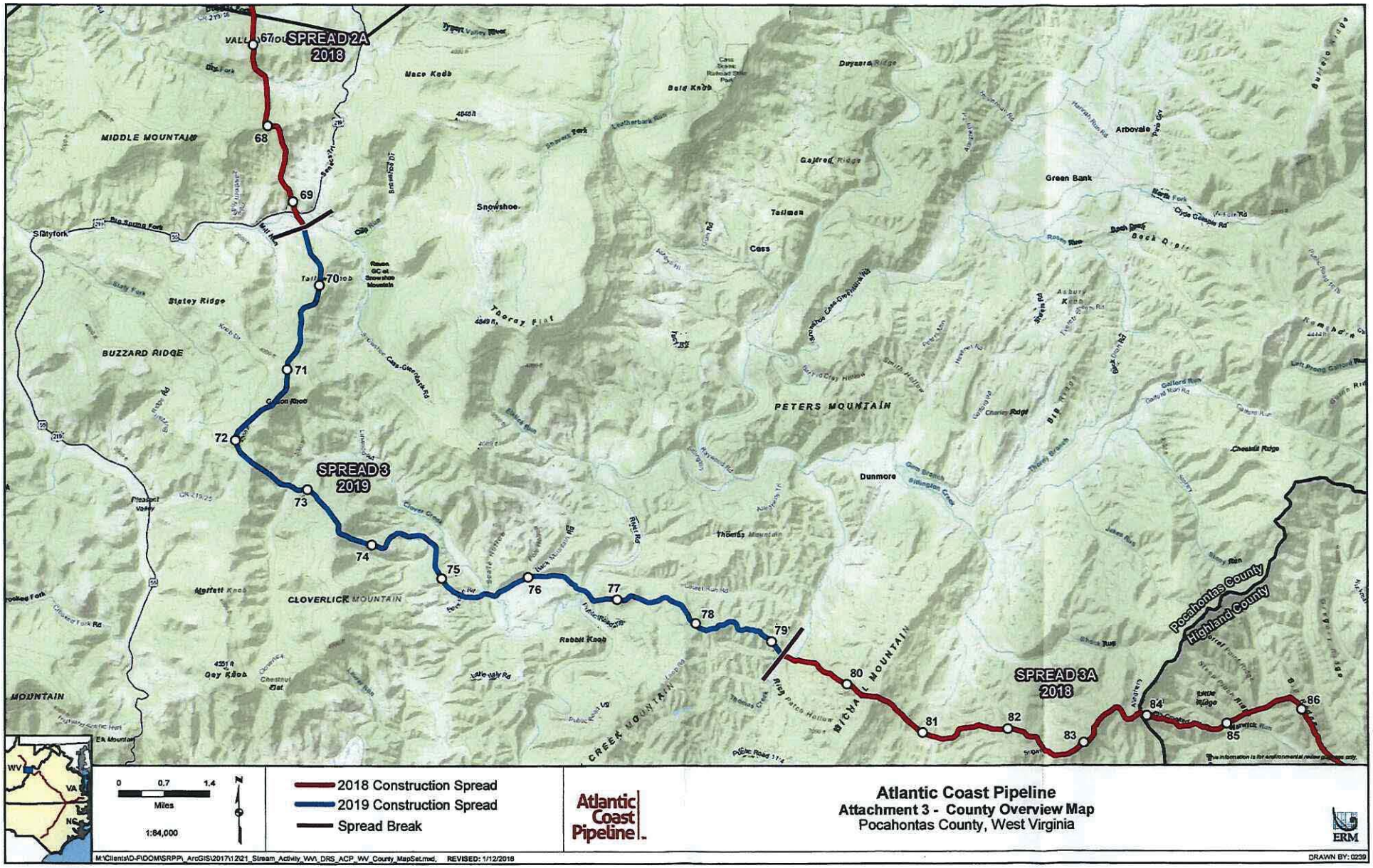


Exhibit B

P-18-III/38-1043

EXHIBIT 6

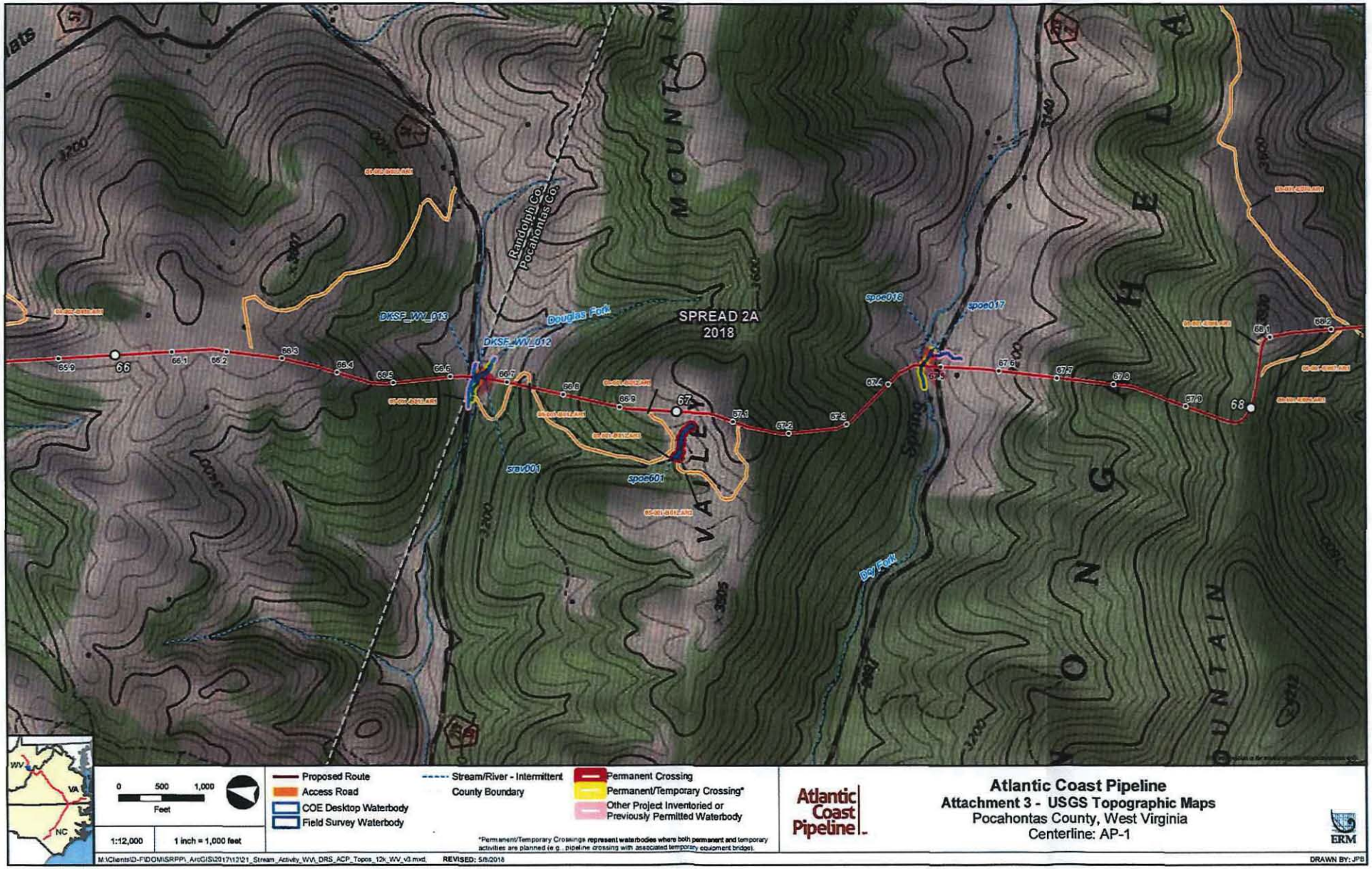


Exhibit C

P-18-III/38-1043

EXHIBIT 6

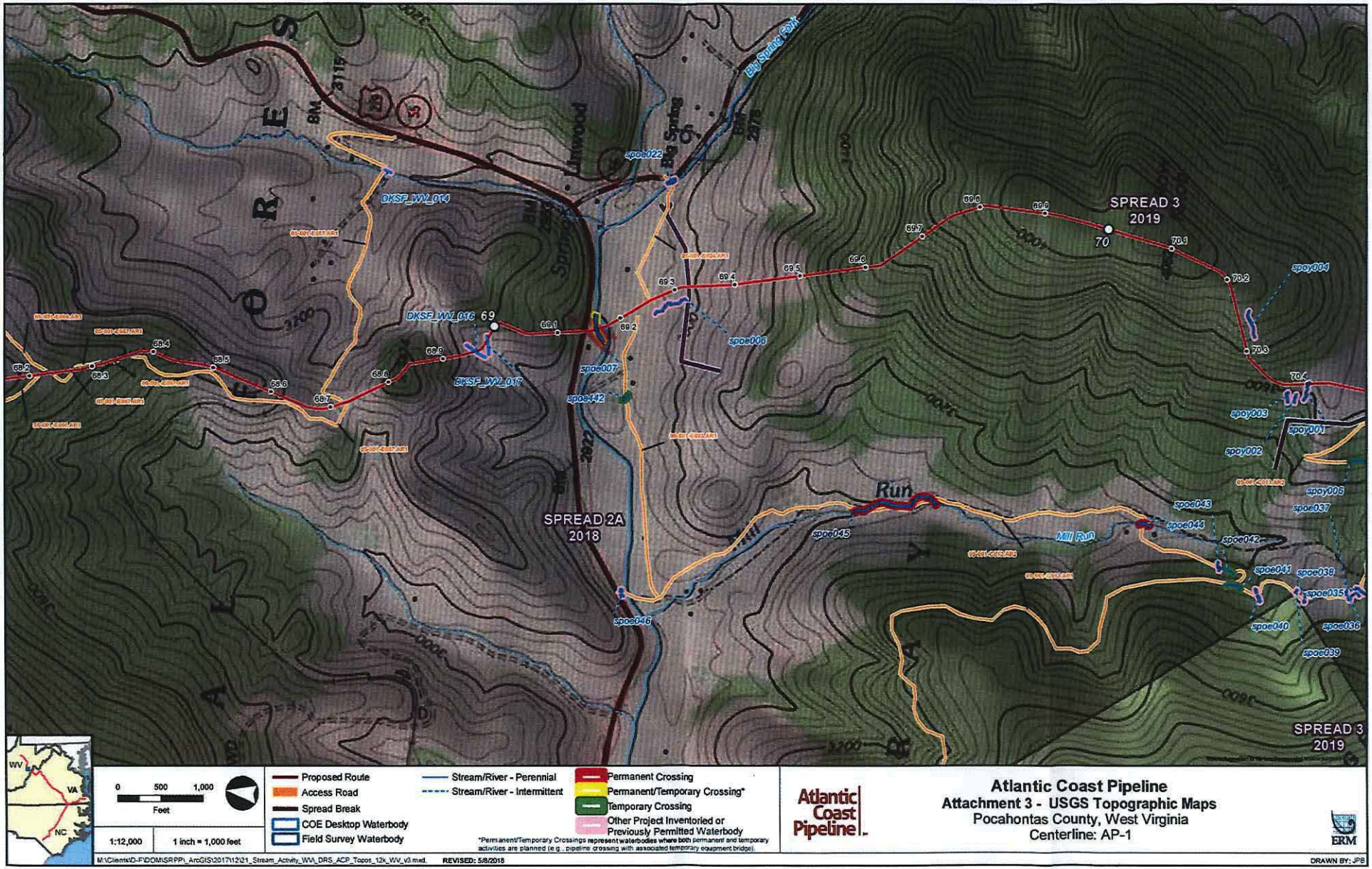


Exhibit D

P-18-III/38-1043

EXHIBIT 6

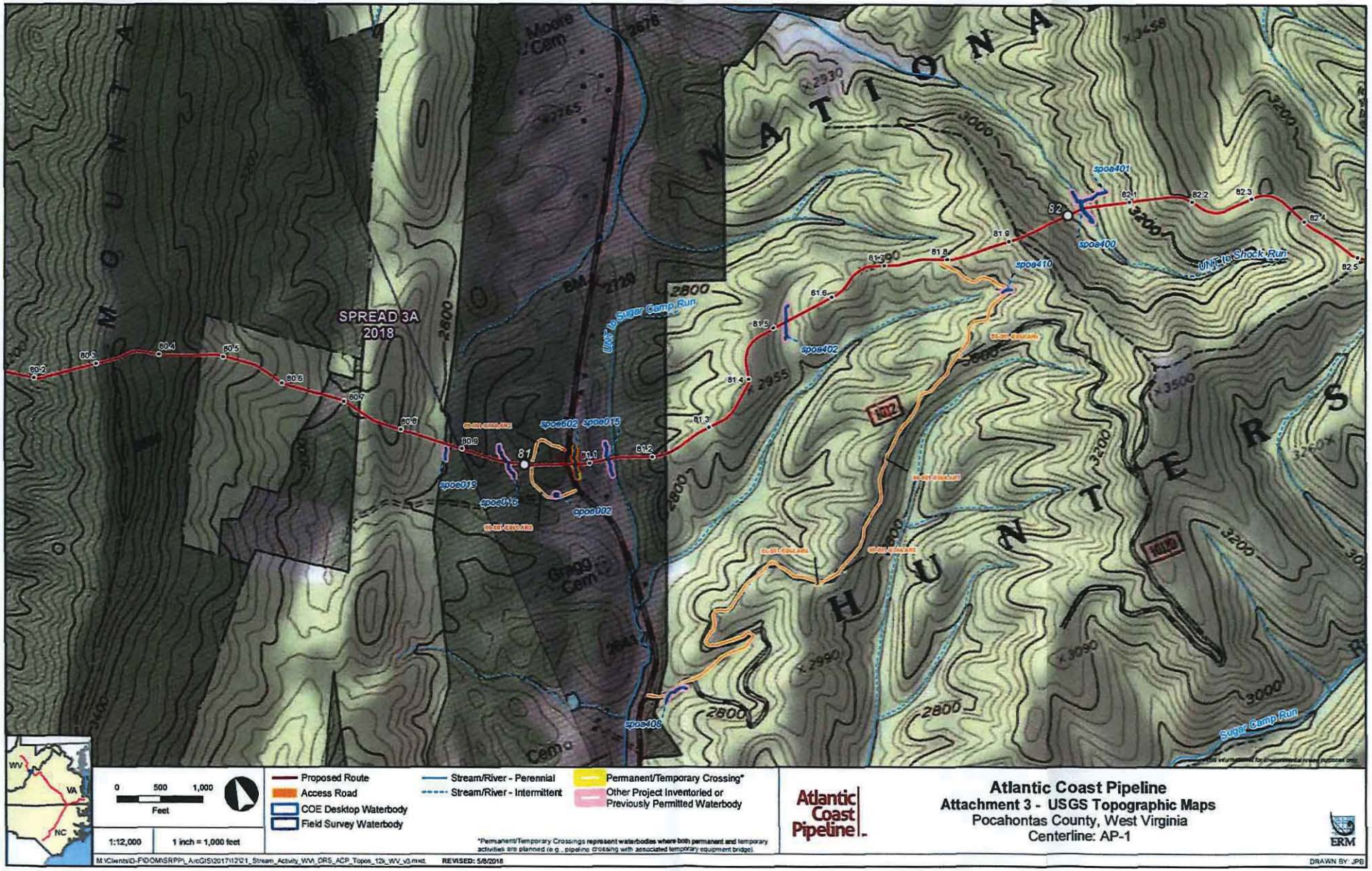


EXHIBIT 7

FILED: June 21, 2018

UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

No. 18-1173
(LRH-2015-582-GBR)

SIERRA CLUB; WEST VIRGINIA RIVERS COALITION; INDIAN CREEK WATERSHED ASSOCIATION; APPALACHIAN VOICES; CHESAPEAKE CLIMATE ACTION NETWORK

Petitioners

v.

UNITED STATES ARMY CORPS OF ENGINEERS; MARK T. ESPER, in his official capacity as Secretary of the U.S. Army; TODD T. SEMONITE, in his official capacity as U.S. Army Chief of Engineers and commanding General of the U.S. Army Corps of Engineers; PHILIP M. SECRIST, in his official capacity as District Commander of the U.S. Army Corps of Engineers, Huntington District; MICHAEL E. HATTEN, in his official capacity as Chief, Regulatory Branch, U.S. Army Corps of Engineers, Huntington District

Respondents

MOUNTAIN VALLEY PIPELINE, LLC

Intervenors

O R D E R

Upon consideration of the submissions relative to petitioners' second motion

for preliminary relief, the court grants the motion and stays the Corps's verification of NWP 12 for the pipeline pending resolution of the petition for review.

Entered at the direction of Chief Judge Gregory, with the concurrence of Judge Traxler and Judge Thacker.

For the Court

/s/ Patricia S. Connor, Clerk