



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

FEB 13 2017

CERTIFIED MAIL NO. 9171 9690 0935 0123 5442 11

Matthew L. Gordon
Sunoco Pipeline, L.P.
535 Fritztown Road
Sinking Spring, PA 19608

Re: Water Obstruction & Encroachment Permit
Pennsylvania Pipeline Project
DEP File No. E06-701
APS ID No. 879354
New Morgan Borough, Brecknock, Caernarvon, Cumru, Robeson, South Heidelberg, and
Spring Townships, Berks County

Dear Mr. Gordon:

Enclosed is your copy of your State Water Obstruction and Encroachment Permit (WOEP). Please review this permit so that you are aware of the extent of authorization and the conditions that apply to that authorization. The Department will provide you with an acknowledgement letter upon receipt of the fully signed Acknowledgment of Appraisal of Permit Conditions.

Please be advised that you do not have Federal authorizations for this project and such authorization is required prior to starting your project. In accordance with procedures established with the U.S. Army Corps of Engineers, you will be contacted directly by the Corps regarding Federal Authorization.

This WOEP is not effective until a copy of the Acknowledgment of Appraisal of Permit Conditions, signed by you, is received by the Department. Any work conducted prior to the Department's receipt of the signed Acknowledgment of Appraisal of Permit Conditions is a violation of the Dam Safety and Encroachments Act and the Clean Streams Law, and you may be subject to fines and penalties pursuant to those Acts.

A copy of the Permit, Acknowledgment of Appraisal of Permit Conditions, the Erosion and Sediment Control plan, this Issuance Letter, and any other applicable State and Federal authorizations, must be maintained on site during construction and available at the work site for inspection upon request by any officer or agent of the Department or any other Federal, State, County and Municipal agency.

A Completion Report must be submitted to this office within 30 days of completion of the approved project. The Completion Report form must be signed by you and the supervising engineer indicating that the work has been completed as approved.

If you have additional questions, please contact me at 717.705.4799.

Sincerely,



Scott R. Williamson
Program Manager
Waterways & Wetlands Program

Enclosures

cc: Brad Schaeffer, Tetra Tech, Inc.
Pat Strong, U.S. Army Corps of Engineers, Baltimore District Office
U.S. Army Corps of Engineers, Philadelphia District Office
Pennsylvania Fish and Boat Commission, Division of Environmental Services
Pennsylvania DEP, Southwest Regional Office, Waterways and Wetlands Program
Pennsylvania DEP, Southeast Regional Office, Waterways and Wetlands Program
Berks County Conservation District
Berks County Planning Commission
Brecknock Township
Caernarvon Township
Cumru Township
New Morgan Township
Robeson Township
South Heidelberg Township
Spring Township

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

WATER OBSTRUCTION AND ENCROACHMENT PERMIT

The Department of Environmental Protection "DEP", established by the Act of December 3, 1970, P.L. 834 (71 P.S. § 510-1 et seq.) and empowered to exercise certain powers and perform certain duties under and by virtue of the Act of November 26, 1978, P.L. 1375, as amended by the Act of October 23, 1979, P.L. 204 (32 P.S. § 693.1 et seq.) known as the "Dam Safety and Encroachments Act"; Act of October 4, 1978, P.L. 851, (32 P.S. § 679.101 et seq.) known as the "Flood Plain Management Act"; Act of June 22, 1937, P.L. 1987, (35 P.S. § 691.1 et seq.), known as "The Clean Steams Law"; and the Administrative Code, Act of April 9, 1929, P.L. 177, as amended, which empowers DEP to exercise certain powers and perform certain duties by law vested in and imposed upon the Water Supply Commission of Pennsylvania and the Water and Power Resources Board, hereby issues this permit to:

Sunoco Pipeline L.P.
535 Fritztown Road
Sinking Spring, PA 19608

giving its consent to

E06-701, Sunoco Pipeline, LP (SPLP), 535 Fritztown Road, Sinking Spring, PA 19608. Mariner East II Pennsylvania Pipeline Project, in South Heidelberg, Spring, Cumru, Brecknock, New Morgan, Robeson, and Caernarvon Townships, Berks County, ACOE Baltimore and Philadelphia Districts. The project starts at South Heidelberg Township, PA Quadrangle Sinking Spring N: 40°, 17', 7"; W: 76°, 6', 13" and ends at Caernarvon Township, PA Quadrangle Elverson N: 40°, 9', 20"; W: 75°, 50', 34"

The project consists of the installation and maintenance of approximately 20.4 miles long, 20-inch pipeline, a second 16-inch pipeline, and appurtenant structures. The project impacts in Berks County include a total of 101 linear feet of temporary impacts to Wyomissing Creek (HQ-CWF), an unnamed tributary to Wyomissing Creek (HQ-CWF), an unnamed tributary to Sleepy Hollow Run (CWF) and an unnamed tributary to Rock Run (HQ-TSF), a total of 2,829 linear feet of permanent impacts to 11 unnamed tributaries to East Branch Conestoga River (WWF), East Branch Conestoga River (WWF), 5 unnamed tributaries to Little Cocalico Creek (TSF), Cacoosing Creek (CWF), 16 unnamed tributaries to Cacoosing Creek (CWF), Allegheny Creek (CWF), 9 unnamed tributaries to Allegheny Creek (CWF), Alleghany Creek (CWF), Wyomissing Creek (HQ-CWF), 9 unnamed tributaries to Wyomissing Creek (HQ-CWF), Little Muddy Creek (TSF), 2 unnamed tributaries to Sleep Hollow Run (CWF), 8 unnamed tributaries to Rock Run (HQ-TSF), Hay Creek (EV), 10 unnamed tributaries to Hay Creek (EV), and Rock Run (HQ-TSF), and 7.474 acres of permanent floodway impacts, 3.306 acres of temporary floodway impacts, 0.03 acres of temporary impacts to PEM wetlands and 2.151 acres of permanent impacts to PuB, PEM, PFO, and PSS wetlands. No permanent PFO to PEM wetland conversion is proposed in Berks County. The project impacts in this permit application are associated with a transmission pipeline project extending approximately 306 miles and 255 miles in Pennsylvania between Houston Borough, Washington County, PA and Marcus Hook Borough, Delaware County, PA.

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The issuance of this permit also constitutes approval of a Water Quality Certification under Section 401 of the Federal Water Pollution Control Act [33 U.S.C.A. 1341(a)].

This permit is issued in response to an application filed with DEP on the 17th day of August A.D. 2015, and with the understanding that the work shall be performed in accordance with the maps, plans, profiles and specifications filed with and made a part of the application on the 17th day of August A.D. 2015, the 25th of March A.D. 2016, the 31st of May A.D. 2016, the 25th day of November A.D. 2016, the 6th day of December A.D. 2016, the 20th day of December A.D. 2016, the 24th day of January A.D. 2017, and the 3rd through the 7th day of February A.D. 2017, subject, however, to the provisions of the Dam Safety and Encroachments Act, the Flood Plain Management Act, The Clean Streams Law, the Administrative Code, the rules and regulations promulgated thereunder and the following conditions and restrictions. If the work authorized by this permit is not completed on or before the 31st day of December A.D. 2022, this permit, if not previously revoked or specifically extended by DEP in writing, shall become void without further notification.

1. The permittee shall sign the Acknowledgement of Appraisal of Permit Conditions thereby expressly certifying the permittee's acceptance of, and agreement to comply with, the terms and conditions of this permit. The permittee shall return a signed copy of the Acknowledgement of Appraisal of Permit Conditions to DEP. Unless the Acknowledgement of Appraisal of Permit Conditions form is completed and filed with DEP, this permit is void;
2. DEP, in issuing this permit, has relied on the information and data which the permittee has provided in connection with his permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and DEP may, in addition, institute appropriate legal proceedings;
3. This permit does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement, or interest in, to, or over any land belonging to the Commonwealth of Pennsylvania "Commonwealth"; neither does it authorize any injury to private property or invasion of private rights, nor any infringement of Federal, State, or Local laws or regulations; nor does it obviate the necessity of obtaining Federal assent when necessary;
4. The work shall at all times be subject to supervision and inspection by representatives of DEP, and no changes in the maps, plans, profiles, and specifications as approved shall be made except with the written consent of DEP. DEP, however, reserves the right to require such changes or modifications in the maps, plans, profiles, and specifications as may be considered necessary to assure compliance with the Dam Safety and Encroachments Act and other laws administered by DEP, the Pennsylvania Fish Commission and any river basin commission created by interstate compact. DEP further reserves the right to suspend or revoke this permit for failure to comply with a provision of 25 Pa. Code Chapter 105, an administrative order of DEP or a term or condition of this permit;
5. This permit authorizes the construction, operation, maintenance and normal repair of the permitted structures conducted within the original specifications for the water obstruction or encroachment,

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and in accordance with the regulations of DEP and terms and conditions of this permit. Any repairs or maintenance involving modifications of the water obstruction or encroachment from its original specifications, and any repairs or reconstruction involving a substantial portion of the structure as defined by regulations of DEP shall require the prior written approval and permit of DEP;

6. All construction debris, excavated material, brush, rocks, and refuse incidental to this work shall be removed entirely from the stream channel and placed either on shore above the influence of flood waters, or at such dumping ground as may be approved by DEP;
7. There shall be no unreasonable interference with the free discharge of the river or stream or navigation during construction;
8. If future operations by the Commonwealth of Pennsylvania require modification of the structure or work, or if, in the opinion of DEP, the structure or work shall cause unreasonable obstruction to the free passage of floodwaters or navigation, the permittee shall, upon due notice, remove or alter the structures, work or obstructions caused thereby, without expense to the Commonwealth, so as to increase the flood carrying capacity of the channel or render navigation reasonably free, easy, and unobstructed, in such manner as DEP may require. No claim shall be made against the Commonwealth on account of any such removal or alteration;
9. The permittee shall provide to DEP, in writing, advance notice of commencement of work;
10. If construction work has not been completed within the time specified in the permit and the time limit specified in the permit has not been extended in writing by DEP or if this permit has been revoked for any reason, the permittee shall, at his own expense and in a manner that DEP may prescribe, remove all or any portion of the work as DEP requires and restore the water course and floodplain to their former condition;
11. The permittee shall fully inform the engineer or contractor, responsible for the supervision and conduct of work, of the terms, conditions, restrictions and covenants of this permit. Prior to the commencement of construction, the permittee shall file with DEP in writing, on a form provided by DEP, a statement signed by the permittee and an individual responsible for the supervision or conduct of the construction work acknowledging and accepting the general and special conditions contained in this permit. Unless the acknowledgment and acceptance have been filed, this permit is void. A copy of this permit and the acknowledgment shall be available at the work site for inspection upon request by an officer or agent of DEP or another Federal, State, County, or municipal agency;
12. The permittee shall operate and maintain the structure or work authorized herein in a safe condition in accordance with the permit terms and conditions and the approved maps, plans, profiles and specifications;
13. This permit may not be transferred without prior written approval from DEP, such approval being considered upon receipt of the properly executed "Application for Transfer of Permit" form;

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14. If and when the permittee desires to discontinue use or abandon the activity authorized herein, he must remove all or part of the structure or work authorized and take other actions as are necessary to protect safety and the environment in accordance with a permit issued by DEP;
15. If the use of explosives in any waterways is required, the permittee shall secure the prior written permit from the Pennsylvania Fish and Boat Commission, pursuant to the Pennsylvania Fish and Boat Code, Act 1980-175 Title 30 Pennsylvania Consolidated Statutes, Section 2906. Requests should be directed to the Pennsylvania Fish and Boat Commission, Division of Environmental Services, 450 Robinson Lane, Bellefonte, PA 16823-9620, telephone 814.359.5140;
16. Permittee shall implement and monitor an Erosion and Sediment Control Plan prepared in accordance with Chapter 102 so as to minimize erosion and prevent excessive sedimentation into the receiving watercourse or body of water;
17. The project site shall at all times be available for inspection by authorized officers and employees of the Pennsylvania Fish and Boat Commission. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the Pennsylvania Fish and Boat Commission's Southcentral Regional Office, 1704 Pine Road, Newville, PA 17241; telephone 717.486.7087;
18. The project site shall at all times be available for inspection by authorized officers and employees of the County Conservation District. Prior to commencement and upon completion of the work authorized by this permit, the permittee shall notify the Berks County Conservation District, PO Box 520, 1238 County Welfare Road, Leesport, PA 19533; telephone 610.372.4657;
19. **Work may not commence until a signed copy of the Acknowledgement of Appraisal of Permit Conditions is received by DEP.** Any work authorized by this permit conducted prior to DEP's receipt of a signed copy of the Acknowledgement of Appraisal of Permit Conditions is a violation of the Dam Safety and Encroachments Act and The Clean Streams Law, and you may be subject to fines and penalties pursuant to those Acts;
20. **SPECIAL CONDITIONS.**

Water Supplies:

- a. At least 72 hours in advance of beginning any construction activities, the permittee shall notify all identified public and private water supplies along the project's corridor that may be affected by increased turbidity or other water quality changes caused by the permittee's construction activities.
 - i. If the project results in a pollution event which may impact any public or private water supplies, the permittee shall immediately notify the Department and the potentially affected public or private water supplies of the pollution event.

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- b. In the event the permittee's work causes adverse impacts to a public or private water supply source, the permittee shall also immediately notify the Department and implement a contingency plan, to the satisfaction of the public and private water supply owners that addresses all adverse impacts imposed on the public and private water supply as a result of the pollution event, including the restoration or replacement of the impacted water supply.
- c. At least 72 hours in advance of beginning construction activities, the permittee shall notify all water users with downstream surface water intakes within one mile downstream, including but not limited to, drinking water users, industrial and commercial users that may be impacted by turbidity or water quality changes.
- d. The permittee shall notify such downstream water users immediately of any pollution event or incident at its site that may endanger downstream users. The permittee shall also immediately implement its approved contingency plan to prevent further adverse impacts and remediate all adverse impacts as a result of the pollution event or incident.
- e. If a public or private drinking water source not previously identified by the permittee is discovered by the permittee during construction, the permittee shall immediately notify the Department of the identified water source and shall notify that source of the permittee's construction activities.

PHMC General Conditions:

- f. The permittee and its agents shall visually inspect for archaeological artifacts and shall immediately cease earth disturbance activities upon discovery of archaeological artifacts.
- g. If archaeological artifacts are discovered, the permittee shall immediately notify the DEP Regional Office in the DEP region where the artifact is found and shall concurrently notify the Pennsylvania Historical and Museum Commission (PHMC) at P.O. Box 1026, Harrisburg, PA 17120-1026, telephone 717.783.8947.
- h. At all times, the permittee shall protect historic, cultural and archaeological sites as identified in the latest published version of the Pennsylvania Inventory of Historical Places and the National Register of Historical Places.

PHMC Areas Subject to Phase I or Phase II Surveys:

- i. The permittee shall not begin work in areas subject to Phase I or Phase II archeological investigations recommended by the PHMC until the permittee secures the necessary clearances for these areas from PHMC.

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j. Submerged Lands License Agreements:

- k. This permit does not contain a Submerged Lands License Agreement.

Temporary Road Crossings:

- l. All temporary road crossings of streams and wetlands must meet all of the following conditions:
- i. The permittee shall restore and stabilize all temporary crossing sites, except fords, within five (5) days after termination of its permitted use.
 - ii. Permittee shall not utilize or construct fords on any stream or watercourse within High Quality (HQ) and Exceptional Value (EV) watersheds as specified in 25 Pa. Code Chapter 93, or in watersheds tributary to drinking water intakes or reservoirs for public water supply users, where the ford is within 2,000 feet upstream of such intake or reservoir.
 - iii. The permittee shall adequately block and stabilize all approaches for fords used as temporary crossings within five (5) days after termination of their permitted use in order to prevent future use.
 - iv. The permittee is prohibited from skidding across fords.
 - v. Where a streambed at the site of a ford does not have a rock bottom, a layer of clean rock over geo-fabric must be placed and maintained. This layer of clean rock must not obstruct the stream flow. In addition, the ford's approaches must: (1) be maintained in a firm and stable condition; and (2) enter the stream on less than a 10% grade within 50 feet of the stream with the flow; and (3) exit the stream against the flow on the same grade and distance limitation as specified for the entrance. Permittee shall ensure that all roads cross all watercourses at a right angle to the stream, unless permittee obtains specific and separate approval from the Department.
 - vi. Permittee shall ensure that all culverts provide a waterway area sufficient to adequately discharge the normal flow of the watercourse or stream, and that culverts are of sufficient length to extend beyond the toe of the clean rock fill.
 - vii. Permittee shall ensure that culverts are installed in such manner that overtopping of the roadway will occur within the stream channel. This can be accomplished by providing a depressed roadway embankment.
 - viii. Permittee shall minimize excessive fill and excavation of stream banks by utilizing culverts with as large a diameter as possible. The minimum diameter size of a culvert to be used is no less than 12 inches.

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- ix. Road and causeway embankments shall only consist of clean rock material to prevent stream channel sedimentation during placement, removal, and periods of overtopping.
- x. Bridges shall be single span from top of bank to top of bank, and must be structurally stable.
- xi. Approach roads to temporary road crossings shall utilize original grades. However, clean rock material or gravel to a depth of six inches above original grade can be utilized for approaches, as necessary.
- xii. Causeways shall not extend streamward a distance greater than one-half the width of the stream channel.
- xiii. Temporary road crossings shall be kept open and functioning at all times by maintaining the crossings free of debris and other obstructions.
- xiv. The permittee shall promptly repair any damage resulting from increased backwater caused by a temporary road crossing. The permittee shall remove temporary road crossings in the event of high waters to prevent increased backwater.
- xv. If permittee cannot avoid a wetland crossing, the crossing is permissible if it is located at the narrowest practicable point of the wetland.
- xvi. All wetlands crossing sites shall be stabilized by any appropriate means, including, but not limited to, using removable, temporary mats, pads or other similar devices to ensure minimization of impact on the wetlands ecology.
- xvii. Temporary embankments for roads across wetlands shall be installed to maintain the hydrology of the wetland.
- xviii. Pollution of any waterway with harmful chemicals, fuels, oils, greases, bituminous material, acid, or other harmful or polluting materials, is prohibited.
- xix. Access roads should not approach the stream channel directly downslope, but should traverse the slope obliquely to prevent high velocity road drainage flows from directly entering the stream channel. Road drainage shall include proper erosion and sediment control Best Management Practices.
- xx. The permittee shall remove all or any portion of a temporary road crossing upon written notification to the permittee from the Department in the event the project is causing an adverse impact on public health, safety or the environment or in any other manner violates the requirements of the Pennsylvania Clean Streams Law, 25 Pa. Code Chapter 105, or both.

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- xxi. The permittee shall be responsible for determining and documenting which method of crossing is appropriate for each resource. This documentation shall be provided to the Department with the pre- and post-construction photographs. The permittee shall submit this documentation to the respective DEP Regional Office within ninety (90) days after completion of work under the respective permit.

Site Field Verification, Restoration and Monitoring:

- m. Prior to installation of pipeline crossings, the permittee shall take new pre-construction photographs of the natural resources at each of the crossings. The permittee shall prepare and maintain a record of pre- and post- conditions of each stream and wetland crossing. The permittee shall submit this documentation to the respective DEP Regional Office within ninety (90) days after completion of work under the respective permit.
- n. All wetlands within the project area shall be accurately field-delineated prior to the start of construction activities and up to the time that earth disturbance activities are completed and the site has been stabilized. An acceptable means of field-identification of wetlands includes but not limited to, the use of an orange construction safety fence and/or flags.
- o. For a period of up to 5 years following construction, the permittee shall monitor for secondary impacts to hydrology, i.e., the loss of hydrology, to all watercourses with a drainage area of less than 100 acres, including those watercourses that originate within the project ROW. Reports shall be submitted to DEP in the spring and fall for the first two (2) calendar years following construction and annually for three (3) years thereafter.
 - i. The monitoring reports shall contain information describing the presence or absence of hydrology at the time of inspection, a narrative comparison to hydrology present in the watercourse during pre-permitting field investigation(s), and photographs of the watercourse.
 - ii. If the monitoring identifies a diminution or complete loss of hydrology, the permittee shall evaluate whether the activities authorized by this permit caused the loss of hydrology and submit this evaluation to the Department for review.
 - iii. If the Department determines that the activities authorized by this permit are contributing to the loss of hydrology, the permittee shall prepare a written plan to correct the loss of hydrology to the watercourse. The permittee shall implement the approved plan within ninety (90) and submit this plan to DEP for review and approval. If DEP identifies any deficiencies with permittee's plan, then the permittee shall provide DEP a written response to address the stated deficiencies within 15 days of receiving written notice of DEP's deficiencies, unless DEP extends that timeframe in writing.

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- iv. The permittee shall implement the DEP-approved plan within 90 days of receiving written approval from DEP, unless DEP extends that timeframe in writing.
- v. In the event that loss of hydrology from activities conducted under this permit cannot be restored, the permittee shall submit a mitigation plan to DEP that sets forth the manner in which full loss of hydrology and associated water will be compensated for. If DEP identifies any deficiencies with the permittee's mitigation plan, then the permittee shall provide DEP a written response to address the stated deficiencies within 15 days of receiving written notice of DEP's deficiencies, unless DEP extends that timeframe in writing. The permittee shall implement the DEP-approved mitigation plan within 90 days of receiving written approval from DEP, unless DEP extends that timeframe in writing.
- p. Wetland excavation shall segregate the soil horizons and replace the soil horizons to match pre-construction conditions. For areas where bore pits are proposed in or adjacent to wetlands, or if a restrictive layer, including but not limited to clay or fragipans, is encountered during the trench excavation, the permittee shall have a knowledgeable wetlands scientist on the Environmental Inspection Team that shall oversee backfilling of the trench and installation of trench plugs, in order to maintain wetland hydrology.
- q. Topsoil shall be segregated from subsoil in all wetland areas.
- r. All disturbed areas are to be restored, stabilized and shall be replanted with indigenous plant species. Excess fill from disturbed areas and construction activities shall be located outside of the floodway, floodplain and wetlands. The permittee is responsible for stabilizing any excess materials spoiled onsite or offsite, whether the permittee owns the site or others own the site.
- s. Rock riprap shall be used in the stream bed only where a shear stress analysis has determined that scour protection is necessary to ensure stability of the resource.
- t. A trench in which the pipeline will be laid shall be backfilled in a manner that does not create the formation of a permanent ridge in a streambed or wetland.
- u. Restored streams shall use a minimum of six (6) inches of native stream bed material. For streams where riprap is necessary to prevent scour, the riprap shall be depressed sufficiently to allow six (6) inches of native stream bed material over the riprap.
- v. All PFO and PSS wetlands within the temporary ROW shall be replanted with woody species present in the wetland prior to the permittee conducting construction activities. The plantings need not mirror pre-construction maturity.
- w. Forested Riparian Areas in the temporary ROW along watercourses shall be replanted with native tree species for a minimum distance of fifty (50) feet landward from the top of both banks

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- of warm water fisheries and trout stocked fisheries, 100 feet from cold water fisheries, and 150 feet from HQ/EV streams, in a similar density as the trees existed prior to the permittee conducting construction activities. The density of replanted trees shall be similar to the density that existed prior to the permittee conducting construction activities but shall provide no less than 60% uniform canopy cover upon maturation and shall be appropriate to the geographic location. Maintenance and inspections shall ensure survival and growth of plantings and protection from competing plants and animals including noxious weeds and invasive species over a 5-year establishment period to ensure and proper functioning of riparian forest buffers, and shall include measures to repair damage to the buffer from storm events greater than the 2-year/24-hour storm.
- x. Each stream channel shall be restored and properly stabilized upon completion of the associated stream crossing. Where riprap is proposed, the riprap shall be depressed and covered with a minimum of 6-inches of streambed material. The restored streambed elevation shall not exceed the pre-existing streambed elevation.
 - y. The permittee shall avoid wetland impacts, to the extent practicable, and minimize any such impacts. The permittee shall immediately restore all disturbed wetland areas to original contours, and replant with indigenous wetland vegetation in accordance with their restoration plans as presented in their permit application. Streambank and wetland disturbances shall be minimized and stabilized with indigenous vegetation within ten (10) calendar days of final earthmoving to prevent erosion and provide cover, shading, and food source for aquatic life. Any temporary wetland crossings shall be made by low ground pressure machinery and wetland mats or similar devices. Excess fill shall not be deposited in any wetland, watercourse, floodway, floodplain, or other body of water.
 - z. For a period of up to five years, the permittee shall monitor the stream and wetland plantings. Monitoring reports shall be submitted to the respective DEP Regional Office in the spring (May 15) and fall (November 15) for the first two (2) calendar years following construction and annually (November 15) for four (4) years thereafter.
 - i. The monitoring reports shall contain information describing the success of the site at the time of each inspection, an inventory of the surviving plant species and percent areal coverage, photographs of the replacement site with plans showing the location and orientation of each of the photographs, and a written plan to correct any deficiencies identified during the monitoring phase.
 - aa. Permittee shall ensure at least an 85 percent survival rate. Additional plantings and or reports in subsequent years beyond the initial five (5) years may be required if an 85 percent survivability of planted species is not achieved.

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- bb. For a period of at least three years, the permittee shall monitor any exceptional value wetlands under 25 Pa. Code §§ 105.17(1)(i) and 105.17(1)(ii) that are disturbed, as authorized pursuant to this permit. Monitoring reports shall be submitted to the respective DEP regional office in the spring (May 15) and fall (November 15) for the first two (2) calendar years following construction and once (November 15) in the third year. The monitoring reports shall contain information describing the wetland restoration and function and values at the time of inspection, photographs of the wetland with plans showing the location and orientation of each photograph, and a written plan to correct any deficiencies identified during the monitoring phase.
- cc. Streambank disturbance shall be minimized and stabilized with indigenous vegetation within 24 hours upon completion of final earthmoving to prevent erosion and provide cover, shading, and food source for aquatic life.

Wetland Compensatory Mitigation and Monitoring:

- dd. The permittee shall create Palustrine Forested (PFO) wetlands in accordance with their "Permittee-Responsible Compensatory Wetland Mitigation Plan" to compensate for the function and value loss associated with permanently converting 0.405 acres of PFO wetlands to Palustrine Emergent (PEM) wetlands.
- ee. The proposed compensatory wetland mitigation site in Cumberland County: The permittee shall only plant the 0.58 acres in the seasonally saturated areas identified in the Compensatory Wetland Mitigation Plan and shall not plant in the areas identified as saturated in the present condition in the Compensatory Wetland Mitigation Plan.
- ff. For at least five (5) years after the restoration activities are completed, the permittee shall monitor the compensatory mitigation sites, wetland restoration sites, streams restoration sites and floodway restoration sites. Within sixty (60) days of completing construction, the permittee shall submit "as-built" drawings for the forested wetland creation project to the DEP. Monitoring reports shall be submitted to the respective DEP Regional Office where the mitigation project(s) is(are) located at a frequency of every six (6) months for the first two (2) years after mitigation site construction and annually for three (3) years thereafter.
 - i. The monitoring reports shall contain information describing the success of the site at the time of inspection, an inventory of the surviving plant species and percent aerial coverage, photographs of each site with plans showing the location and orientation of each of the photographs, and a written plan to correct any deficiencies identified during the monitoring phase.

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- ii. If the restoration sites and compensatory forest wetland enhancement sites have not achieved design objectives within the monitoring period, the permittee will undertake remedial work to assure establishment of functional wetland habitats.
- gg. Restored and enhanced habitats shall be considered successful when they meet the design objectives.
- hh. Wetland compensation construction shall occur prior to or concurrently with wetland impacts requiring compensation as authorized by this permit.
- ii. Compensatory wetland mitigation shall be started and completed within one (1) growing season from the commencement of the activities authorized by this permit. Within thirty (30) days of completing the planting plan, the permittee shall submit revised plans to the respective DEP Regional Office if as-built conditions are significantly different from the original approved plans.
- jj. The permittee shall provide copies of the recorded deed restrictions or conservation easements for the compensatory wetland mitigation sites within 60) days after permit issuance. Time-stamped copies of the instruments shall be sent to the respective DEP Regional Office.

Horizontal Directional Drilling:

- kk. The permittee shall construct and operate the Horizontal Directional Drilling (HDD) crossings at wetlands, streams and floodways in accordance with Tables 2, 3, and 4 of the Joint Permit Application (Section F, Attachments, Environmental Assessment, Attachment 11, Resource Tables) in a manner to prevent a release of drilling fluid to "Regulated waters of this Commonwealth" (RWC). The permittee shall immediately notify the Department at 866-825-0208 in the event of an Inadvertent Return occurring, and immediately activate and implement the Pollution Prevention Control Plans (PPC Plans) including the HDD Inadvertent Return Contingency Plan (IRCP), Water Supply and Karst PPC Plans to prevent any impacts to RWC and other natural resources.
- ll. The permittee shall take measures to avoid mine voids and utilities.
- mm. The permittee shall visually monitor the ground surface and within RWC generally along the path of the Horizontal Directional Drilling while drilling operations are occurring. This monitoring shall include walking, wading and use of a boat, as necessary to effectively observe and monitor for any return to the surface during all RWC crossings. If loss of circulation of drilling fluid occurs or drilling fluid pressure is lost, the permittee shall immediately investigate the drilling pathway and general surrounding area for an inadvertent return. If an inadvertent return is discovered, then drilling shall immediately cease.

nn. Inadvertent returns that impact or discharge to streams, floodways or wetlands during the Horizontal Directional Drilling operations shall be remediated in compliance with the Inadvertent Return Contingency Plans. If clean-up operations differ from the submitted plans, prior approval from the respective DEP Regional Office will be necessary for any modifications to the Inadvertent Return Contingency Plan for additional mitigation.

oo. HDD additives which are certified for conformance with ANSI/NSF Standard 60 (Drinking Water Treatment Chemicals - Health Effects) are deemed acceptable to DEP, when used in the manner indicated in the certification of the additive. All conditions included as part of the additive's certification should be followed. A current listing of certified drilling fluids is maintained by NSF at <http://www.nsf.org/Certified/PwsChemicals/Listings.asp?ProductFunction=Drilling+Fluid&>. Use of drilling additives certified for conformance with ANSI/NSF Standard 60 does not relieve operators from the requirement to obtain the necessary permits to conduct HDD operations. Use of certified additives does not relieve the operator of liability should an inadvertent return or other pollution of the waters of the Commonwealth occur as a result of drilling operations.

Habitat Conservation Plans and Threatened and Endangered Species Protection:

pp. The permittee shall comply with all applicable provisions of the Habitat Conservation Plan submitted and approved by the U.S. Fish and Wildlife Service (USFWS), PA Game Commission (PGC), PA Fish and Boat Commission (PFBC) and PA Department of Conservation and Natural Resources (DCNR) to protect federal and state listed species. Provide a copy of the plan to the Department prior to initiation of any work under this permit.

qq. The permittee shall implement the approved Habitat Conservation Plan and in accordance with all PA Game Commission approvals for the Allegheny Woodrat (*Neotoma magister*). This includes no blasting or the use of herbicide on the project or in the vicinity of the project on PA DCNR lands as identified in the PGC clearance. Provide a copy of the plan to the Department prior to initiation of any work under this permit.

rr. The permittee shall implement the Migratory Bird Conservation Plan approved by the USFWS. Provide a copy of the plan to the Department prior to initiation of any work under this permit.

ss. The permittee shall implement all Avoidance Measures identified by the jurisdictional resource agencies for any threatened or endangered species or species of special concern. (permit specific avoidance measures should be listed).

tt. The permittee shall implement the Avoidance Measures identified in Appendix A of the permit for all open trench wetland crossings in bog turtle (*Clemmys muhlenbergii*) counties identified by

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the USFWS as occupied, potentially occupied or adjacent habitats, unless otherwise specified by the USFWS.

- uu. The permittee shall comply with all protocols set forth by the USFWS for protection of the Rusty Patch Bumble Bee.
- vv. Prior to conducting any future maintenance activities on the pipeline or right of way which involves disturbance, the Permittee shall conduct a then current Pennsylvania Natural Diversity Inventory search, shall obtain clearance(s) for any species or resource where a potential impact is identified, provide the avoidance and mitigation plan to the Department prior to initiating such maintenance work and shall implement and adhere to all avoidance measures outlined in such clearance(s).

Seasonal Restrictions:

- ww. The permittee shall not perform any in-stream work in waters listed by the PAFBC as trout stocked streams and their tributaries between March 1 and June 15 without the prior written approval from the Pennsylvania Fish & Boat Commission's Division of Environmental Services, 450 Robinson Lane, Bellefonte, PA 16823-9620; telephone 814.359.5147.
- xx. The permittee shall not perform any in-stream work in waters listed by the Pennsylvania Fish and Boat Commission as Class A wild trout fishery streams and their tributaries between October 1 and April 1 without the prior written approval of the Pennsylvania Fish & Boat Commission's Division of Environmental Services, 450 Robinson Lane, Bellefonte, PA 16823-9620; telephone 814.359.5147.
- yy. The permittee shall not perform any in-stream work in waters listed by the Pennsylvania Fish and Boat Commission's other wild trout streams or their tributaries between October 1 and December 31 without the prior written approval of the Pennsylvania Fish and Boat Commission's Division of Environmental Services, 450 Robinson Lane, Bellefonte, PA 16823-9620; telephone 814.359.5147.
- zz. Other seasonal restrictions stated in the various Habitat Conservation Plans shall be complied with unless a written variance is issued by the appropriate resource agency.

Miscellaneous:

- aaa. Maintenance mowing or herbicide spraying of wetlands is not authorized by this permit. The permittee shall place and maintain signs or other demarcation around the boundary of each wetland to clearly delineate the areas where this maintenance is not authorized. The permittee shall place the signs or other demarcations when all restoration work is completed and prior to permit termination.

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- bbb. This permit does not convey any real property rights or interests or authorization to trespass on privately-owned riparian land. By accepting this permit, the permittee certifies that he/she holds title, easement, right or other real interest in the riparian land. Any dispute over ownership of this land is solely a matter for private litigation.
- ccc. The permittee may not commence construction activities on Pennsylvania Game Commission (PGC) lands without prior written approval from PGC.
- ddd. Riprap and stone used throughout the project, including the construction of causeways and coffer dams, shall be free of fines and silts, or other non-erodible material.
- eee. All temporary water withdrawal intake structures and all appurtenant works shall be removed from the watercourse, body of water, floodway, and floodplains within sixty (60) days of initial placement, unless otherwise extended in writing by the Department.
- fff. Trench plugs shall be placed at each of the following locations:
- i. At ten (10) feet from the top of each bank of a stream
 - ii. At fifty (50) feet from the top of each bank of a stream
 - iii. At ten (10) feet from the edge of a wetland
 - iv. At fifty (50) feet from the edge of a wetland
- ggg. Place a minimum of one (1) trench plug at a maximum spacing of 100 feet between trench plugs within a wetland. Wetland crossings less than fifty (50) feet do not require an internal trench plug.
- hhh. If during excavation, a groundwater seep is encountered, a trench plug shall be placed at ten (10) feet from each side of the seep.
- iii. Any french drains installed as part of de-watering for construction activities shall be removed or otherwise rendered inoperable prior to final site restoration.
- jjj. Water pumped from any construction area shall be diverted into a sediment trap, basin, or a filter bag discharging into an appropriate vegetated filter area to prevent sediment from being discharged into any waters of the Commonwealth.
- kkk. Open Trench Crossings: The permittee shall construct open trench pipeline crossings in dry conditions by constructing during periods of no water flow and/or by installing stream flow bypass systems (flumed or pumped) through the affected area.

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- i. Each crossing shall be conducted in an uninterrupted process in the shortest period of time possible. Impacts to *RWC* shall be avoided, to the extent practicable, and if not practicable, then minimized in accordance with the permittee's approved plans.
- ii. The permittee may cross dry channels, swales and ephemeral streams without the use of stream flow bypass systems if the channel has no flow and the stream crossing and stabilization can be completed in dry conditions and within twenty-four (24) hours. Standby sandbag dams and pumps shall be located on-site and installed in the event of precipitation resulting in channel flow.
- iii. The permittee shall cross intermittent and perennial streams through the use of trenchless methods (HDD or Direct Boring [DB]) or through the use of stream flow bypass systems. Bypass systems must stay in use until streambeds and banks are adequately stabilized. Downstream flow must be maintained during the construction.
- mmm. Depth of Pipeline in Stream Bed: The permittee shall locate all pipelines under stream beds such that there will be a minimum of three feet of cover between the top of the pipe or encasement and the lowest point in the stream bed, unless the pipeline is in rock, where a minimum cover of one foot shall be provided.
- mn. Aids to Navigation Plan: The permittee shall implement the approved Aids to Navigation (ATON) Plan as received under the Fish and Boat Code, 30 Pa C.S. §§5121-5124, and 58 Pa Code Chapter 113.
- ooo. This permit authorizes specific impacts to *RWC* that were specifically described in the permit applications and revisions. Any proposed changes regarding the specific impacts will require a permit modification.
- ppp. Any additional impacts to *RWC*, such as temporary access roads, lay-down areas, staging areas, or temporary work spaces that have not been specifically identified in the permit application are not authorized by this permit.
- qqq. No deviation in the construction methodology or project design that is shown on the approved drawings is authorized under this permit unless approved through an amendment by the Department.
- rrr. This permit does not relieve the permittee of the obligation of complying with all Federal, interstate compact, State laws, regulations and standards, and local ordinances applicable to the construction, operation or maintenance of the water obstruction or encroachment.
- sss. The permittee shall follow the measures specified in the Preparedness, Prevention, and Contingency Plan during construction.

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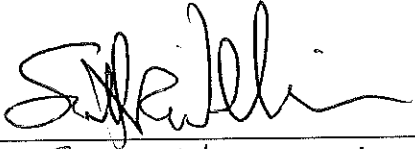
ttt. The permittee shall maintain a copy of the Preparedness, Prevention, and Contingency Plan is on-site at all times during construction, train all staff to use and implement this plan, and have this plan available to provide at the request of any Department inspector.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

Permittee (signature)

Date

DEPARTMENT OF ENVIRONMENTAL PROTECTION



FEB 13 2017

Name *SCOTT R. WILLIAMSON*
Title *PROGRAM MANAGER*

Issue Date

E06-701 Special Conditions Appendix A: Bog Turtle (*Clemmys muhlenbergii*) Avoidance Measures

Construction shall take place between November 1 and March 31, when bog turtles are hibernating, or a pre-construction survey will be performed if construction occurs between March 1 and October 31, during which time bog turtles are active. If construction takes place during the active season the following measures will be followed.

1. Prior to performing any construction work in wetlands, streams, or uplands within 300 feet of potential bog turtle habitat, all areas of the expected disturbance must be surveyed by a qualified bog turtle surveyor for the presence of bog turtles immediately prior to construction commencement.
2. Prior to the survey, herbaceous vegetation will be cut to a height of 4 to 6 inches using hand-held trimmer/weed-cutter, and then carefully raked away from the area to be searched. A qualified bog turtle surveyor will be present when this vegetation clearing occurs.
3. Immediately following the survey, silt-fencing will be placed between the wetland and the proposed construction zone while the bog turtle surveyor is present to ensure that the fencing is properly installed in the correct location. The silt-fencing will be removed immediately following construction.
4. If any bog turtles are located during these searches, the U.S. Fish and Wildlife Service (FWS) and Pennsylvania Fish and Boat Commission (PFBC) will be contacted immediately, and construction will not proceed until further consultation occurs. Survey results shall be submitted to the FWS and PFBC.

If the permittee is unable to implement all of the proposed avoidance measures or if project plans change, further consultation with the FWS is required, pursuant to the Endangered Species Act.

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

ACKNOWLEDGMENT OF APPRISAL OF PERMIT CONDITIONS

Project Location:

County _____

Township _____

Ladies and Gentlemen:

Acknowledgment is made that I, _____
(permittee name)

and _____
(name, address and telephone of individual responsible for supr. of work)

have been apprised of and are familiar with the terms and conditions of Permit No. _____

issued to _____ giving its consent to _____
(permittee) (work authorized as stated on permit)

APPROXIMATE WORK START DATE _____

RETURN TO:

Clerical Support
DEP – Waterways & Wetlands Program
Permits Section
Southcentral Regional Office
909 Elmerton Avenue, 2nd Floor
Harrisburg, PA 17110

(permittee signature)

(date)

(signature of individual responsible
for supervision of work)

(date)

Commonwealth of Pennsylvania
Department of Environmental Protection
Southcentral Regional Office
Waterways and Wetlands Program

**WATER OBSTRUCTION & ENCROACHMENT PERMIT
COMPLETION REPORT**

Project Location:

County _____

Township _____

Ladies and Gentlemen:

I (We) hereby certify that the _____
(work authorized by permit)

was completed on _____, in accordance with the plans approved and that all
unauthorized obstruction have been removed.

Name: _____
(typed or printed)

Signature: _____

Title: _____

Firm: _____

Date: _____

RETURN TO:

Clerical Support
DEP – Waterways & Wetlands Program
Permits Section
Southcentral Regional Office
909 Elmerton Avenue, 2nd Floor
Harrisburg, PA 17110

(permittee signature)

(date)

(signature of individual responsible
for supervision of work)

(date)