

February 13, 2017

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

Re: Water Obstruction and Encroachment
Permit No. E15-862
Pennsylvania Pipeline Project (a.k.a. Mariner East II)
APS No. 879047, AUTH No. 1087479
West Nantmeal, East Nantmeal, Wallace, Upper Uwchlan,
Uwchlan, West Whiteland, West Goshen, East Goshen,
Westtown Townships and Elverson Borough
Chester County

Dear Mr. Gordon:

Enclosed is your State Water Obstruction and Encroachment Permit. Please review the permit so that you are aware of the extent of authorization and the conditions that apply.

Please be advised this permit does not have Federal authorization for this project and such authorization is required prior to starting your project. We encourage you to contact the U.S. Army Corps of Engineers, 215.656.6728, concerning any Federal permits or approvals you may also need.

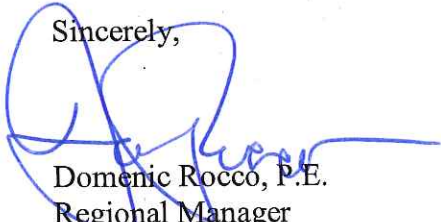
Prior to the commencement of construction, the enclosed *Acknowledgment of Notification of Permit Conditions* must be completed and signed by the permittee and an individual responsible for the supervision or control of the construction work acknowledging and accepting the general and special conditions, if any, contained in the permit. Unless the signed *Acknowledgment of Notification of Permit Conditions* is submitted to this office, the permit is void.

Also, a copy of both the permit and the *Acknowledgment of Notification of Permit Conditions* must be available at the work site for inspection upon request by any officer or agent of DEP or any other Federal, State, County, and Municipal agency.

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

If you have any questions concerning this matter, please call Mr. John Hohenstein at the telephone number located in the first page footer.

Sincerely,



Domenic Rocco, P.E.
Regional Manager
Waterways and Wetlands

Enclosure

cc: Mr. Schaeffer — Tetra Tech, Inc.
U.S. Army Corps of Engineers, Philadelphia District
U.S. Army Corps of Engineers, Baltimore District
Pennsylvania Fish and Boat Commission, Division of Environmental Services
Pennsylvania DEP, Southwest Regional Office, Waterways and Wetlands Program
Pennsylvania DEP, Southcentral Regional Office, Waterways and Wetlands Program
Chester County Conservation District
Chester County Planning Commission
West Nantmeal Township
East Nantmeal Township
Wallace Township
Upper Uwchlan Township
Uwchlan Township
West Whiteland Township
West Goshen Township
East Goshen Township
Westtown Township
Elverson Borough
Mr. Hohenstein, PADEP, SERO, WAW
Mr. Knorr, PADEP, SERO, WAW
Mr. Nassani, PADEP, SERO, WAW
Re 30 (GJS17WAW)41-5

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST REGIONAL OFFICE
WATERWAYS AND WETLANDS**

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 Streams 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. (SPLP)
535 Fritztown Road
Sinking Spring, PA 19608**

giving its consent to install and maintain approximately 24 miles long, of 20-inch and 16 inch pipeline and appurtenant structures. The proposed project impacts in Chester County include a total of 52 linear feet of temporary impacts to Marsh Creek (HQ-TSF,MF), 1 unnamed tributary to Marsh Creek (HQ-TSF,MF), a total of 1,095 linear feet of permanent impacts to Black Horse Creek (HQ-TSF,MF), 2 unnamed tributaries to Black Horse Creek (HQ-TSF,MF), East Branch Chester Creek (TSF,MF), 3 unnamed tributary to East Branch Chester Creek (TSF,MF), Marsh Creek (HQ-TSF,MF), 26 unnamed tributaries to Marsh Creek (HQ-TSF), Shamona Creek (HQ-TSF,MF), 7 unnamed tributaries to Shamona Creek (HQ-TSF,MF), South Branch French Creek (EV,MF), 5 unnamed tributaries to South Branch French Creek (EV,MF), Valley Creek (CWF,MF), 9 unnamed tributaries to Valley Creek (CWF,MF), 2 unnamed tributaries to School House Run (HQ-TSF,MF), 1 unnamed tributary to Ridley Creek (HQ-TSF,MF), and 3.435 acres of permanent floodway impacts, and 1.833 acres of temporary floodway impacts, and 0.001 acres of temporary impacts to Palustrine Emergent (PEM), Palustrine Forested (PFO) and Palustrine Scrub-Shrub (PSS) wetlands and 3.713 acres of permanent impacts to PEM, PFO, and PSS wetlands. No compensation is being proposed by the applicant for the proposed permanent project impacts in Chester County. The proposed project impacts in this permit application are associated with a proposed 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.

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)].

If this work 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.

This permit is issued in response to an application filed with DEP on the **31st** 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 **January 30, 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:

1. The permittee shall sign the *Acknowledgement of Notification 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 Notification of Permit Conditions* to DEP. Unless the *Acknowledgement of Notification 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; 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. DEP further reserves the right to suspend or revoke this permit if in its opinion the best interest of the Commonwealth will be subserved thereby.
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, 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. Waste materials, scrap, or excess construction materials may not be disposed of in any watercourse, floodway or body of water, but shall be collected, stored, and disposed of in accordance with the Solid Waste Management Act (35 P.S. §§ 6018.101–6018.1003), the Municipal Waste, Planning, Recycling and Waste Reduction Act (53 P.S. §§ 4000.101–4000.1904), the Clean Streams Law (35 P.S. §§ 691.1–691.1001) and related rules and regulations.
7. There shall be no unreasonable interference with the free discharge of the river or stream or navigation during construction.

8. If, in the future, DEP determines that the water obstruction or encroachment causes unreasonable obstruction to the free passage of floodwaters or navigation, the permittee shall, upon due notice remove or alter the water obstruction or encroachment, without expense to the Commonwealth of Pennsylvania, 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 of Pennsylvania 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 a 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 the permit. Unless the acknowledgment and acceptance have been filed, the permit is void. A copy of the 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 of Transfer of Permit" form.

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, Pennsylvania 16823-9616, Telephone: 814.359.5140.

16. Permittee shall implement and monitor the Erosion and Sedimentation 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 Southeast Regional Office, P.O. Box 8, Elm, Pennsylvania 17521, Telephone: 717.626.0228.

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 following:

Chester County Conservation District
688 Unionville Road
Suite 200
Kennett Square, PA 19348
Telephone: 610.925.4920

19. **Work may not commence until a signed copy of the *Acknowledgement of Notification 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 Notification 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.

SPECIAL CONDITIONS

Permittee shall be responsible for compliance with each of the following special conditions. The Pennsylvania Department of Environmental Protection shall be referred to hereinafter as either "DEP" or the "Department."

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.
 - 1. 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.
- 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. (Permit specific condition as applicable. Specify location in each permit.)

Submerged Lands License Agreements:

- J. The permittee shall comply with all terms and conditions of the Submerged Lands License Agreement entered into between the Department and the permittee.

Temporary Road Crossings:

- K. All temporary road crossings of streams and wetlands must meet all of the following conditions:
 - 1. The permittee shall restore and stabilize all temporary crossing sites, except fords, within five (5) days after termination of its permitted use.
 - 2. 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.

3. 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.
4. The permittee is prohibited from skidding across fords.
5. 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.
6. 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.
7. 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.
8. 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.
9. Road and causeway embankments shall only consist of clean rock material to prevent stream channel sedimentation during placement, removal, and periods of overtopping.
10. Bridges shall be single span from top of bank to top of bank, and must be structurally stable.
11. 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.
12. Causeways shall not extend streamward a distance greater than one-half the width of the stream channel.
13. Temporary road crossings shall be kept open and functioning at all times by maintaining the crossings free of debris and other obstructions.

14. 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.
15. If permittee cannot avoid a wetland crossing, the crossing is permissible if it is located at the narrowest practicable point of the wetland.
16. 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.
17. Temporary embankments for roads across wetlands shall be installed to maintain the hydrology of the wetland.
18. Pollution of any waterway with harmful chemicals, fuels, oils, greases, bituminous material, acid, or other harmful or polluting materials, is prohibited.
19. 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.
20. 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.
21. 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:

- L. 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.
- M. 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.

- N. 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:
1. 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.
 2. 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.
 3. 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.
 4. The permittee shall implement the DEP-approved plan within 90 days of receiving written approval from DEP, unless DEP extends that timeframe in writing.
 5. 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.
- O. 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.
- P. Topsoil shall be segregated from subsoil in all wetland areas.
- Q. 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.

- R. 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.
- S. 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.
- T. 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.
- U. 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.
- V. 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 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.
- W. 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.
- X. 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.
- Y. 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.
- 1. 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.

- Z. 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.
- AA. 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.
- BB. 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:

- CC. 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.
- DD. 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.
- EE. 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:
 - 1. 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.

2. 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.
- FF. Restored and enhanced habitats shall be considered successful when they meet the design objectives.
- GG. Wetland compensation construction shall occur prior to or concurrently with wetland impacts requiring compensation as authorized by this permit.
- HH. 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.
- II. 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:

- JJ. 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.
- KK. The permittee shall take measures to avoid mine voids and utilities.
- LL. 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.
- MM. 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.

NN. 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:

- OO. 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.
- PP. 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.
- QQ. 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.
- RR. The permittee shall implement all Avoidance Measures identified by the jurisdictional resource agencies for any threatened or endangered species or species of special concern.
- SS. 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 the USFWS as occupied, potentially occupied or adjacent habitats, unless otherwise specified by the USFWS.
- TT. The permittee shall comply with all protocols set forth by the USFWS for protection of the Rusty Patch Bumble Bee.
- UU. 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:

- VV. 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.

- WW. 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.
- XX. 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. (In addition to those listed in the application this special condition also applies to streams S-CJ2, S-CJ3, S-CJ4. (the specific streams listed are permit specific).
- YY. 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.

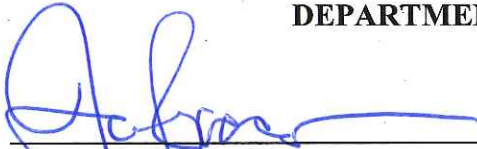
Miscellaneous:

- ZZ. 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.
- AAA. 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.
- BBB. The permittee may not commence construction activities on Pennsylvania Game Commission (PGC) lands without prior written approval from PGC.
- CCC. 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.
- DDD. 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.
- EEE. Trench plugs shall be placed at each of the following locations:
1. At ten (10) feet from the top of each bank of a stream
 2. At fifty (50) feet from the top of each bank of a stream
 3. At ten (10) feet from the edge of a wetland
 4. At fifty (50) feet from the edge of a wetland

- FFF. 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.
- GGG. If during excavation, a groundwater seep is encountered, a trench plug shall be placed at ten (10) feet from each side of the seep.
- HHH. Any french drains installed as part of de-watering for construction activities shall be removed or otherwise rendered inoperable prior to final site restoration.
- III. 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.
- JJJ. 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.
1. 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.
 2. 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.
- KKK. 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.
- LLL. 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.
- MMM. 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.
- NNN. 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.
- OOO. 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.

- PPP. 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.
- QQQ. 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.
- RRR. The permittee shall follow the measures specified in the Preparedness, Prevention, and Contingency Plan during construction.
- SSS. The permittee shall maintain a copy of the Preparedness, Prevention, and Contingency Plan 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.

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Domenic Rocco, P.E.
Regional Manager
Waterways and Wetlands

February 13, 2017

Issue Date

Re 30 (GJS17WAW)41-5a



Commonwealth of Pennsylvania
Department of Environmental Protection
Southeast Region – Field Operations
Waterways and Wetlands Program – Dams and Waterways Section

ACKNOWLEDGEMENT OF NOTIFICATION OF PERMIT CONDITIONS

Project Location: 24 Miles of SPLP Right of Way associated with a proposed 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.

County: Chester

Township: West Nantmeal, East Nantmeal, Wallace, Upper Uwchlan, Uwchlan, West Whiteland, West Goshen, East Goshen, Westtown Townships and Elverson Borough

Gentlemen:

Acknowledgement is made that I, Matthew L. Gordon
(Permittee Name)

and _____
(Name, address, and telephone of individual responsible for supervision of work)

have been notified of and are familiar with the terms and conditions of Permit No. E15-862

issued to Sunoco Pipeline, L.P. giving its consent to install and maintain approximately 24 miles
(Permittee) (Work authorized as stated on permit)

long, of 20 inch and 16 inch pipeline and appurtenant structures.

Return to:

Department of Environmental Protection
Southeast Region
Waterways and Wetlands Program
Dams and Waterways Section
2 East Main Street
Norristown, PA 19401

(Permittee signature)

(Date)

(Signature of individual responsible for supervision of work)

(Date)



Commonwealth of Pennsylvania
Department of Environmental Protection
Southeast Region – Field Operations
Waterways and Wetlands Program – Dams and Waterways Section

WATER OBSTRUCTION AND ENCROACHMENT PERMIT COMPLETION REPORT

Project Location: 24 Miles of SPLP Right of Way associated with a proposed 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.

County: Chester

Township: West Nantmeal, East Nantmeal, Wallace, Upper Uwchlan, Uwchlan, West Whiteland, West Goshen, East Goshen, Westtown Townships and Elverson Borough

Dear

I (We) hereby certify that the Work authorized by the above referenced permit
(Work authorized by permit)

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

Name: _____
(Type or Print)

Signature: _____

Title: _____

Firm: _____

Date: _____

Return to:

Department of Environmental Protection
Southeast Region – Field Operations
Waterways and Wetlands Program
Dams and Waterways Section
2 East Main Street
Norristown, PA 19401

NOTICE OF APPEAL RIGHTS:

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.