

Environmental Review for Chapter 105 Applications

Permittee: Transcontinental Gas Pipe Line Company, LLC

App. No. E41-667

**Environmental Recommendation:**

Approval

Denial

Withdrawal

Concur

Not Concur

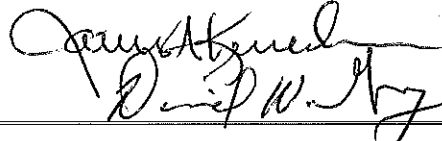
Reviewer: Amanda Allison



Init. Review: \_\_\_\_\_

Review Comp: \_\_\_\_\_

Supv. Name James Kuncelman



Date: 8/30/17

Special Conditions: See page 13

8/30/17

**I. Record of Decision**

Has any portion of the regulated work already occurred?      Yes        No   

Permanent Impacts to Wetlands: 0.17 acres    Wetland Replacement: 0.60 acres

Permanent Impacts to Watercourses: 92 feet

Permanent Impacts to other Waterbodies: 0.00 acres

Temporary Impacts to Wetlands: 1.93 acres

Temporary Impacts to Watercourses: 1,998 feet

Temporary Impacts to other Waterbodies: 0.00 acres

\* the above stream and wetland impacts do not include impacts necessary to construct the Larry's Creek Mitigation Site.  
See Stream and Wetland sections below.

**A. Review of Application --**

**PROJECT PURPOSE AND NEED**

The purpose of the Atlantic Sunrise Pipeline project is to expand the existing Transcontinental Gas Pipe Line Company, LLC natural gas transmission system. The proposed expansion will enable Transco to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania to its existing market areas, extending as far south as the Station 85 Pooling Point in Choctaw County, Alabama. In Pennsylvania, the project will provide for construction of approximately 198.7 miles of 30-inch, 36-inch, and 42-inch pipeline. Portions of the project are located in Susquehanna, Schuylkill, Luzerne, Columbia, Northumberland, Lebanon, Lancaster, Wyoming, Lycoming, and Clinton Counties. Construction of the project is also regulated by the Federal Energy Regulatory Commission (FERC).

The existing Transco facilities in or near the project are not currently designed to transport natural gas from north to south and do not provide adequate pipeline takeaway capacity for transportation of natural gas to meet current transportation demand.

In Lycoming County, the Unity Loop Pipeline consists of approximately 8.5 miles of 42-inch diameter pipeline co-located with the existing Transco Leidy Line system in Jordan, Franklin, and Penn Townships. As a loop of an existing pipeline, the Unity Loop is a separate utility and can function independent of the Central Penn Line. The construction right-of-way (ROW) width for

installation of the pipe will be 100 feet. Transco will utilize 35 feet of its existing Leidy Line system maintained ROW during construction and an additional 65 feet of new construction ROW.

## ALTERNATIVES ANALYSIS

In Attachment P, the applicant has provided an alternatives analysis for both the overall project and portions of the project within each county. Alternatives included a No Action Alternative, Transco Existing System Alternative, Major Route Alternatives, Minor Route Alternatives, Route Deviations, Construction Method Alternatives and Routing Process/Impact Avoidance and Minimization Measures.

The No Action Alternative does not meet the project purpose and need.

Transco Existing System Alternatives evaluated co-location of the project in its entirety along existing pipeline ROWs. This alternative was eliminated from further consideration as the alternative would be approximately 51.1 miles longer than the proposed route and would impact approximately 619 additional acres. Additionally, this alternative would be located in high density population areas with greater impacts to residential, commercial and industrial properties. An additional 51,000 hp of compression would be required and the alternative route would affect more forestland, waterbodies, and wetlands than the proposed project. This alternative would still require construction of the Unity Loop in Lycoming County.

Major Route Alternatives analyzed 3 alternative routes. These alternatives were eliminated from consideration due to greater impacts.

Minor Route Alternatives were considered with a total of 41 minor route alternatives for the Project as a whole. These alternatives are typically shorter than major route alternatives and often identify environmental resources, engineering constraints and/or developed areas to be avoided. As the Unity Loop parallels and existing pipeline, minor route alternatives were not considered in Lycoming County.

Route deviations are typically site-specific and allow for avoidance of localized features such as wetlands. 167 route deviations were accepted for the project as a whole with one deviation accepted in Lycoming County.

Construction Method Alternatives were analyzed and include reduction of construction ROW to 75 feet where practicable, trenchless crossing methods including HDD and conventional boring where conditions will allow, and constructing open cuts as dry crossings (e.g., either dam and pump or flume pipes). An analysis for trenchless crossing methods was provided as an enclosure to the Technical Deficiency Response letter dated August 25, 2016.

Finally, Routing Process/Impact Avoidance and Minimization Measures were evaluated to avoid/minimize impacts along the ROW based on the start and endpoints for the proposed routes. The pipeline route alignment was assessed with regard to engineering and environmental factors, land requirements and potential cultural resources before selecting the final proposed route.

The Department determines that there is no practicable alternative to the proposed project that would not involve a wetland or that would have less effect on wetlands and not have other significant adverse effects on the environment.

## WATERCOURSES/OTHER BODIES OF WATER

19 streams will be impacted by construction of the Unity Loop, including the West Branch Little Muncy Creek and three Unnamed Tributaries (UNTs), Little Indian Run and two UNTs, an UNT to Little Muncy Creek, Beaver Run and four UNTs, Big Run and one UNT, and Sugar Run and three UNTs. Additional impacts are identified in the floodways of streams, but will not directly impact streams. All of the streams are designated Cold Water Fisheries and Migratory Fisheries. The West Branch Little Muncy Creek watershed has an Exceptional Value (EV) existing use. The West Branch Little Muncy Creek, Little Indian Run, Little Muncy Creek, and Beaver Run watersheds are Wild Trout Streams and will require in-stream work restrictions from October 1 to December 31 to protect wild trout spawning. Little Muncy Creek is a stocked trout stream, however, the work area is greater than one mile from the confluence with Little Muncy Creek. Therefore, no in-stream work restriction is required to protect recreational fishing. Impacts are detailed in Attachment E-2 of the permit application. During consultation with the PA Fish and Boat Commission (PFBC), Sugar Run was listed as "under review" for identification as a wild trout stream. Therefore, in Attachment E-2, Sugar Run is conservatively listed as a wild trout stream and its associated wetlands are listed as EV. As of PFBC's July 2017 list of wild trout waters Sugar Run was not identified as a wild trout stream.

Permanent impacts to streams will total 92 feet (0.04 acres). The permanent impacts include all areas that require surface maintenance as well as the footprint of the pipeline beneath the water resource. Temporary stream impacts total 1,998 feet (0.72 acres) and include all areas within the Limits of Disturbance (LOD) needed for pipeline construction, including stream crossings and dewatering of the stream. To minimize impacts, the LOD was minimized to the maximum extent possible for safety and constructability through watercourses and open-cut crossings will be made under dry conditions either when the stream is not flowing or through the use of dam-and-pump or other dry crossing methods. All areas will be restored to pre-existing elevations and stabilized following construction.

In addition to impacts for pipeline construction, the project will impact Larry's Creek during construction of the mitigation site. 1,917 linear feet (0.21 acres) will be permanently impacted from stream re-alignment and grade control structures proposed as mitigation. In addition, 323 linear feet (0.05 acres) will be temporarily impacted for mitigation site construction. Impacts to Larry's Creek are anticipated to provide stabilization and sediment reduction. See Mitigation below for additional information

## WETLANDS

14 wetlands will be impacted by the Unity Loop. Impacts to different cover types within the same wetland were identified as separate impacts in Attachment E-2. 8 of the wetlands are defined as Exceptional Value (EV) under 25 Pa. Code §105.17, as they are located in the floodplain of a wild trout stream. See Attachment E-2 for individual impacts. Attachment E-2 conservatively identify wetlands associated with Sugar Run as EV. As of the PFBC's July 2017 list of wild trout waters, Sugar Run was not listed as a wild trout stream and so the wetlands are not considered EV at this time.

Permanent impacts to wetlands total 0.17 acres for Unity Loop. Permanent impacts include the footprint of the pipeline, a ten-foot (10') width over the pipeline for maintenance mowing, and all areas within fifteen feet (15') of the pipeline in palustrine forested (PFO) wetlands due to tree cutting. 0.11 acres of the wetland impacts are considered permanent due to ongoing maintenance activities, but will occur in palustrine emergent (PEM) wetlands. These areas will be restored to PEM wetlands following construction. The remaining 0.06 acres of permanent impacts are to PFO wetlands, which will be converted to palustrine scrub-shrub (PSS) or PEM wetlands due to maintenance activities. Off-site replacement will be required for functions and values lost due to permanent conversion of PFO wetlands. See Mitigation section below.

Overall temporary impacts to wetlands total 1.93 acres for Unity Loop. Temporary impacts include all areas of the LOD which may be impacted during construction for excavation of the trench, placement of the pipe, equipment access and crossings, and other construction activities. Timber matting will be used to minimize impacts. In addition, root mass will be left in place, where feasible. All areas will be restored to pre-existing elevations following construction. Temporary wetland impacts include 0.18 acres of PFO wetlands. Although the wetlands will be allowed to revert naturally to pre-construction conditions, due to the inability to guarantee re-establishment of the PFO wetlands on-site and the temporal impacts resulting from the slow growth of trees, all PFO impacts, including those considered "temporary" will be mitigated off-site. See Mitigation section below.

Additionally, wetland impacts will occur for construction of the mitigation site. 2.13 acres of PEM wetland will be temporarily impacted for equipment access and regrading necessary to re-establish a stable stream channel. 0.11 acres of PEM wetlands will be permanently impacted as a result of the stream re-establishment. The permanent impacts at the Larry's Creek mitigation site have been subtracted from the overall total mitigation anticipated at the Larry's Creek mitigation site.

## MITIGATION

Prior to the use of replacement for mitigation, wetland impacts were first avoided or minimized, where possible. The Alternatives Analysis provides information for the minimization of impacts. The Unity Loop Pipeline ROW overlaps and parallels the existing pipeline to minimize the total area of the ROW. Also, the temporary LOD was reduced, where feasible, to minimize or avoid impacts to water resources.

Wetlands are to be restored to existing elevations, with no permanent fill or excavation to be authorized beyond the placement of the pipe. Therefore, no loss in wetland area will occur. In aquatic resources, a ten-foot (10') wide area over the pipeline will be periodically maintained through mowing. In addition, all trees within fifteen feet (15') of the pipeline will be cut. Compensation for the loss of wetland functions and values will be required for all PFO wetlands that will be permanently converted to PSS or PEM. In addition, PFO wetlands within the ROW will be cleared for construction. To the maximum extent possible, trees will be cut leaving the stump in place to accelerate re-forestation in the construction ROW. Although these areas will not be actively maintained and may revert naturally back to PFO wetland, additional off-site mitigation is proposed for temporary impacts to PFO wetlands due to temporal impacts from slow tree growth and the difficulty of ensuring on-site success of the restoration of PFO wetlands.

For the Unity Loop, 0.06 acres of permanent PFO and 0.18 acres of temporary PFO wetland impacts will require off-site mitigation to compensate for impacts to the wetlands functions and values. Of the 0.24 acres of impacts, 0.23 acres of the impacts will occur to EV wetlands. Other wetlands will

be mitigated at a 2:1 ratio, whereas EV wetlands will be mitigated at a 2.5:1 ratio to account for their greater environmental value and specialized functions. Therefore, 0.60 acres of mitigation will be required for the 0.24 acres of PFO wetland impacts in Lycoming County. Additional stream mitigation beyond on-site restoration of existing stream bed and banks is not required for this project.

Transco has proposed to mitigate for wetland impacts associated with construction of the Unity Loop at the Headwaters to Larry's Creek, located at a site along Windy Ridge Road in Anthony Township, Lycoming County (41° 18' 24.1" N, 77° 11' 17.0" W). The mitigation site consists of a total of 9.98 acres, with 5.50 acres of PEM wetlands currently on site. Larry's Creek traverses the site from east to west. As Larry's Creek is an EV watershed and a Wild Trout stream, the wetlands on the mitigation site are EV. The proposed mitigation is anticipated to provide for 3.86 acres of mitigation, through wetland creation along with rehabilitation and enhancement of existing wetlands. The Headwaters to Larry's Creek Mitigation Site will also be used to mitigate for impacts in part of Wyoming County. A total of 2.54 acres of mitigation will be required at the Headwaters to Larry's Creek Mitigation Site. See attached Mitigation Summary Tables for detailed information.

Details of the Mitigation Plan can be found in Attachment Q of the permit application. In summary, the goal of the mitigation plan is to reconnect the stream to its floodway by stabilizing the stream, thereby improving hydrology to the adjacent wetlands. In addition, the site will be planted with shrub and tree species to promote restoration of the riparian buffer and conversion of the existing wetlands to PFO. The mitigation site will be monitored to ensure that the goals outlined in the mitigation plan are met. The applicant provided an analysis to demonstrate that the functional uplift of the mitigation is equivalent to the functions and values impacted by the project.

#### ANTIDegradation

The project will impact the West Branch Little Muncy Creek, which has an Existing Use of EV, and wetlands that meet the definition of EV waters. Impacts have been avoided and minimized where possible. An Erosion and Sedimentation Control Plan (E&S Plan) and a Post-Construction Stormwater Management (PCSM) plan have been developed and will be required to be implemented and includes appropriate Best Management Practices (BMPs) to minimize impacts to the resources. The plans include appropriately sized silt sock, timber matting, and dry pipeline installation techniques such as dam-and-pump crossings. All disturbed areas will be stabilized and seeded following construction. In addition, time of year in-stream work restrictions will apply. The proposed measures are designed to maintain and protect these special protection water resources.

#### PNDI

Due to the size of the project, the applicant sent a large project submission for Pennsylvania Natural Diversity Index (PNDI) to PA Fish and Boat Commission (PFBC), PA Game Commission (PGC), PA Department of Conservation and Natural Resources (DCNR) and US Fish and Wildlife Service (USFWS) individually, beginning coordination in 2014. Project updates were submitted as the project evolved. Each agency reviewed the complete project and determined potential impacts for threatened and endangered species and species of special concern under their jurisdiction, resulting in ongoing coordination, target species surveys, and avoidance and mitigation measures, as needed. Below is a summary of coordination with each agency regarding species under its jurisdiction. Details were provided in Attachment G of the permit application. The Department has reviewed the agency letters, including the proposed avoidance and conservation measures, and determines that the

application meets the applicable requirements for the protection of threatened and endangered species and species of special concern. Below is a brief summary of the coordination.

PFBC – The PFBC identified the Timber Rattlesnake (*Crotalus horridus*), freshwater mussel species, and the Bog Turtle (*Glyptemys muhlenbergii*) with potential impacts from the overall project. The areas where these species may occur, however, are not located in Lycoming County. Therefore, no further investigation or coordination was required for Lycoming County.

PGC – PGC identified the Allegheny Woodrat (*Neotoma magister*), the Eastern Small-Footed Bat (*Myotis leibii*), the Indiana Bat (*Myotis sodalist*) and the Northern Long-Eared Bat (*Myotis septentrionalis*) as species which may be potentially impacted by the overall project. The areas where the Allegheny Woodrat and the Eastern Small-Footed Bat may occur are not located in Lycoming County. For the Indiana Bat and Northern Long-Eared Bat, PGC defers comments to the USFWS for these federally listed endangered and threatened species.

DCNR – A variety of state-listed threatened, endangered, and species of special concern were identified across the overall project. Surveys for state-listed species were conducted throughout 2015 and 2016 and reports were provided to DCNR. For Lycoming County, the Dwarf Juniper (*Juniperus communis var. depressa*) and Vasey's Pondweed (*Potamogeton vaseyi*) were identified for potential impacts. The surveys did not find populations of either species within the area of the Unity Loop. DCNR cleared the project through letters dated April 2, 2015, May 28, 2015, August 5, 2015, February 23, 2016 and May 24, 2016, and August 31, 2016 which represent all areas to be impacted by construction of the Unity Loop.

USFWS – The USFWS identified the Bog Turtle, Northeastern Bulrush, Indiana Bat, and the Northern Long-Eared Bat (NLEB) as federally listed threatened or endangered species. The areas of concern for the Bog Turtle and Northeastern Bulrush do not occur in Lycoming County. Mist net surveys were conducted for the Indiana Bat and NLEB. No known maternity roosts or hibernacula were identified for either species within the area of the project in Lycoming County. USFWS cleared both bat species in a letter dated December 21, 2016.

#### PHMC

Coordination with PHMC was provided in Attachment D of the permit application, including correspondences and clearance letters. In summary, coordination with PHMC began in March 2015. Addendum reports were submitted as surveys were completed. PHMC provided concurrence letters dated September 21, 2015, March 8, 2016, and July 14, 2016. Although PHMC coordination for the overall project continued, the three reports submitted and cleared by PHMC account for 100% of project impacts in Lycoming County. No archeological resources were identified. Two above-ground resources were identified as being potentially eligible for listing on the National Register of Historic Places. PHMC determined that no impacts were anticipated to these potentially eligible resources.

#### PUBLIC COMMENTS

No public comments were received on the Unity Loop application. However, many comments were received for the overall Atlantic Sunrise Project for the CPL North and CPL South pipelines. See the respective applications and associated Comment Response Document.

**B. Potential Project Impacts**

|  | YES                                 | NO                                  |
|--|-------------------------------------|-------------------------------------|
| 1. Potential Threats to life or Property   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 2. Potential Threats to Safe Navigation  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Riparian Rights above, below or adjacent to Project                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. Regimen and Ecology of:   |                                     |                                     |
| a. Watercourse <b><u>See impact table</u></b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Body of Water <b><u>See impact table</u></b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. National / State Natural areas, Wildlife Sanctuary / Refuge                             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 6. National / State / Local Park or Recreation Area  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 7. National / State / Local cultural, Archaeological, or Historical Site                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Public Water Supply   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 9. Non-compliance with applicable laws   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. Non-water dependent project  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11. Future development potential   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12. State water plan program area  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13. Coastal Zone management program area   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 14. Scenic River corridor (Status: <b><u>n/a</u></b> )                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 15. Antidegradation Consistency / Chapter 93 Classification <b><u>See impact table</u></b> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| a. Exceptional Value Watershed   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. High Quality Watershed  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 16. Secondary Impacts  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 17. Cumulative Impacts (temporary and permanent)   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 18. Wetlands   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| a. Vegetation (NWI Designation: <b><u>PEM, PFO</u></b> )                                   |                                     |                                     |
| b. Soils (NRCS Designation: <b><u>see Wetland Delineation Report</u></b> )                 |                                     |                                     |
| c. Hydrology <b><u>see Wetland Delineation Report</u></b>                                  |                                     |                                     |
| 19. Exceptional Value Wetlands   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 20. Stocked trout stream   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 21. Wild trout stream  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 22. Threatened or Endangered species   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 23. Other species of special concern   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**C. Record of Decision for Project Impacts (Any adverse findings must be documented in the Record of Decision)**

**1. Exceptional Value Wetlands – (check the criteria that makes the wetland EV)**

N/A

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Natural or wild areas                  | <input type="checkbox"/> wild or scenic river | <input checked="" type="checkbox"/> wild trout stream |
| <input type="checkbox"/> Public & Private Drinking water supply | <input checked="" type="checkbox"/> EV water  | <input type="checkbox"/> T&E species habitat          |
| <input type="checkbox"/> T&E species (PNDI)                     |   |   |

a. Describe the primary function(s) or value(s) of the wetland:

Overall, functions of EV wetlands are primarily Wildlife Habitat, Sediment Stabilization, and Production Export. Also, Floodflow Alteration and Fish Habitat. See Functions and Values

assessments included with the Environmental Assessment (EA) in Attachment L for individual wetland assessments.

Yes NO

- b. Will the project have an adverse impact on the wetlands functions or values?

Explain: Impacts have been avoided and minimized. Wetland topsoil will be segregated during construction and elevations will be re-established and seeded following construction. Wetland areas will be monitored to ensure re-establishment. These measures will restore wetland hydrology, soils, and vegetation to the wetland areas. Maintenance of ROW will result in permanent conversion of four PFO areas, which will be mitigated off-site. Areas outside the ROW will continue to provide the same functions and values.

If yes, has applicant affirmatively demonstrated that project is necessary to abate a substantial threat to the public health and safety?

Has applicant demonstrated that requirements of Section 105.18a(a)(2)-(7) are met?

- c. Is project water-dependent? (requires access or proximity to or siting within the wetland or waters to fulfill the basic purpose of the project.)

Explain: The project is water dependent because the Pipeline is a linear infrastructure project that needs to cross wetland areas to convey natural gas to the desired location, and there is no practicable alternative that avoids or results in fewer environmental impacts.

- d. Is project the least environmentally damaging alternative:

List alternatives considered and provide rationale that the least damaging alternative has been selected. See Alternatives Analysis Section above.

- e. Will project violate a State water quality standard?

Explain: The applicant is required to obtain all permits necessary to demonstrate compliance with Pennsylvania water quality standards, including permits under other Chapters of the Pennsylvania regulations, such as an Erosion and Sediment Control Permit (E&S Permit) which will minimize risk of pollution of Waters of the Commonwealth and protect water quality. The applicant also has obtained a hydrostatic testing water discharge permit.

- f. Will project contribute to the pollution of groundwater or surface water or diminution of resources sufficient to interfere with their uses?

Explain: The project involves the installation of an underground pipeline. Excavation of the trench and construction of the pipeline will have the potential to contribute to pollution due to silt and sediment impacts from construction activities. However, the construction activities are required to be conducted in accordance with the E&S Permit that require the implementation and maintenance of the certain best management practices to minimize accelerated erosion and the potential for the discharge of sediment pollution from construction activities. Further, trench plugs will be installed in accordance with specified construction plans where the pipeline crosses wetlands.

- g. Will the cumulative effect of this project and other projects result in impairment to exceptional value wetland resources?

Explain: The EA in Attachment L of the application provided detailed information regarding wetland impacts from this project. Impacts for this project are temporary in nature, with the



exception of PFO wetland conversion. Additionally, the Department evaluated cumulative impacts for this project and existing projects in the area, including the paralleling pipelines, other infrastructure crossed by the project and other known projects in the vicinity of the ROW. The Unity Loop is co-located with existing pipelines and will overlap a portion of the existing Leidy Line ROW. The Department has determined that the applicant has demonstrated compliance with 25 Pa. Code §105.14(b)(14), §105.18a(a), and §105.18a(b).

- h. List which compensatory replacement method was used.

List: Off-site mitigation for PFO wetland impacts. See Mitigation section above.

2. *Other wetlands*

N/A

- a. Describe the primary function(s) or value(s) of the wetland:

Explain: Overall, functions of other wetlands are primarily Wildlife Habitat and Floodflow Alteration. Also, Production Export and Sediment Stabilization. See the Functions and Values Assessment included with the EA in Attachment L of the application for information regarding individual wetlands.

Yes NO

- b. Will the project have a significant adverse impact on the wetland's functions or values?

Explain: Impacts have been avoided and minimized. Wetland topsoil will be segregated during construction and elevations will be re-established and seeded following construction. Wetland areas will be monitored to ensure re-establishment. These measures will restore wetland hydrology, soils, and vegetation to the wetland areas. Maintenance of ROW will result in permanent conversion of four PFO areas, which will be mitigated off-site. Areas outside the ROW will continue to provide the same functions and values.

If yes, has applicant affirmatively demonstrated that project is necessary to abate a substantial threat to the public health and safety?

- c. Have adverse impacts been avoided or reduced to maximum extent possible?

Explain: Impacts were avoided and minimized prior to replacement being proposed. See Mitigation Section above.

- d. Is the project the least environmentally damaging alternative?

List alternatives considered and provide rationale that the least damaging has been selected: See Alternatives Analysis Section above.

- e. Will project violate a State water quality standard?

Explain: The applicant is required to obtain all permits necessary to demonstrate compliance with Pennsylvania water quality standards, including permits under other Chapters of the Pennsylvania regulations, such as an Erosion and Sediment Control Permit (E&S Permit) which will minimize risk of pollution of Waters of the Commonwealth and protect water quality. The applicant also has obtained a hydrostatic testing water discharge permit.

- f. Will project contribute to the pollution of groundwater or surface water or diminution of resources sufficient to interfere with their uses?

Explain: The project involves the installation of an underground pipeline. Excavation of the trench and construction of the pipeline will have the potential to contribute to pollution due to silt and sediment impacts from construction activities. However, the construction activities are required to be conducted in accordance with the E&S Permit that require the implementation and maintenance of the certain best management practices to minimize accelerated erosion and the potential for the discharge of sediment pollution from construction activities. Further, trench plugs will be installed in accordance with specified construction plans where the pipeline crosses wetlands.

- g. Will the cumulative effect of this project and other projects result in a major impairment to wetland resources?

Explain: The EA in Attachment L of the permit application provides detailed information regarding wetland impacts from this project and an analysis of effects when considering other projects. Impacts for this project are temporary in nature, with the exception of PFO wetland conversion. Additionally, the Department evaluated cumulative impacts for this project and existing projects in the area, including the paralleling pipelines, other infrastructure crossed by the project and other known projects in the vicinity of the ROW. The Unity Loop is co-located with existing pipelines and will overlap a portion of the existing Leidy Line ROW. The Department has determined that the applicant has demonstrated compliance with 25 Pa. Code §105.14(b)(14), §105.18a(a), and §105.18a(b).

- h. List which compensatory replacement method was used.

List: Off-site mitigation for PFO wetland impacts. See Mitigation section above.

3. **Watercourse/Other Bodies of Water [Non-wetland] (check all that apply)**  N/A

- Watercourse    Floodway    Pond    Reservoir  
 TSF    HQ    CWF    Wild Trout    EV    WWF    MF

- a. Name See Watercourses/Other Bodies of Water section.

- b. Will the project have an adverse impact on the following values of the environment?

- |              |                          |                                     |
|--------------|--------------------------|-------------------------------------|
| 1. Natural   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Scenic    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Historic  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Aesthetic | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- c. Have impacts been avoided and minimized?

Explain: Through the Alternatives Analysis provided in Attachment P of the permit application, route and construction alternatives have been evaluated. Project impacts have been minimized by route changes, co-location with other facilities and low impact construction practices, including drilling and reducing the crossing width at watercourses.

- d. Is project the least environmentally damaging alternative?

List alternatives considered and provide rationale that the least damaging is being proposed. See Alternatives Analysis Section above.

- |   | Yes                                 | NO                                  | N/A                                 |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| e. If the project has an adverse impact on the environment, has the applicant demonstrated that the public benefits of the proposed project outweigh the harm to the environment? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 1. Correction and prevention of pollution   | <input type="checkbox"/>            |                                     |                                     |
| 2. Protection of public health and safety   | <input type="checkbox"/>            |                                     |                                     |
| 3. Reduction of flood damages   | <input type="checkbox"/>            |                                     |                                     |
| 4. Development of energy resources  | <input type="checkbox"/>            |                                     |                                     |
| 5. Creation or preservation of significant employment   | <input type="checkbox"/>            |                                     |                                     |
| 6. Provision of public utility services   | <input type="checkbox"/>            |                                     |                                     |
| 7. Other essential social and economic development which benefits a substantial portion of the public.  | <input type="checkbox"/>            |                                     |                                     |
| Explain: <u>n/a</u>   |                                     |                                     |                                     |
| f. Is the project located in or within 100 feet of a National or State wild or scenic River   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| g. Is the project located in or within 100 feet of a Federal wilderness area  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| h. Is the project located within an area which serves as habitat for T&E species  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| i. Is the project located in waters classified as EV in Chapter 93  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| j. If yes to any "f" thru "i", has the applicant demonstrated that the project will not have an adverse impact upon the public natural resource?                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |

| <u>D. Sources utilized for review</u>  | Yes                                 | NO                                  |
|--|-------------------------------------|-------------------------------------|
| 1. Start: Quad Sheet <b>Sonestown</b> North <u>41° 15' 41.4"</u> West <u>76° 31' 36.9"</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| End: Quad Sheet <b>Picture Rocks</b> North <u>41° 16' 7.9"</u> West <u>76° 41' 23.9"</u>   |                                     |                                     |
| 2. National Wetlands Inventory Map   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Chapter 93 designation (existing and designated uses)                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Scenic Rivers candidate map   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Coastal Zone management map   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 6. County Soil Survey sheet no. <u>n/a</u> soil types <u>varied</u>                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. PNDI search area <u>large project</u> acres   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 8. State Water Plan  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Other agencies reviews (see section E)  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10. Environmental Review Committee (see section F)   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11. Site Inspection <u>October 16, 2014</u> (date)   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 12. Jurisdictional Determination from ACOE   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13. Applicants Environmental Assessment  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 14. Wilderness Trout Stream Map  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 15. Aerial Photographs   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 16. Other _____  | <input type="checkbox"/>            | <input type="checkbox"/>            |

| <u>E. Other Agencies' Comments</u>                               | Approve                             |                                     | Deny**                   | Comments*                | N/A                                 |
|--|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
|  | Approve                             | w/cond                              |                          |                          |                                     |
| 1. Pennsylvania Fish and Boat Commission                         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2. Pennsylvania Game Commission                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 3. Pennsylvania Historical & Museum Commission                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4. U.S. Fish and Wildlife Service                                | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 5. U.S. Army Corps of Engineers                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. National Marine Fisheries                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Environmental Protection Agency                               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. County Conservation District                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 9. Pennsylvania Department of Conservation and Natural Resources | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10. Other _____  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |

\* Provide explanation of how agency comments were addressed, and attach letters, memo's, etc.:

PFBC – in-stream work restrictions were requested for wild trout streams, as identified in the Streams Section above. A special condition will address the in-stream work restrictions.

USFWS – avoidance measures are required to minimize impacts to federally listed threatened and endangered species. No impacts to the species were identified in Lycoming County.

USACE – The Corps is issuing an individual permit for the overall Atlantic Sunrise project. Therefore, Corps review is occurring independently of DEP review. Corps approval will be required prior to commencement of work, however, DEP approval may precede Corps approval.

\*\* If "Deny" is checked, provide response to agency recommendations:

\_\_\_\_\_

|  |  |
|--|--|
| F. Environmental Review Committee Comments | Date Presented: <u>n/a</u>   |
| <u>n/a</u>                                 |  |
| <input type="checkbox"/> Minutes attached  | Do minutes accurately reflect discussion? <input type="checkbox"/> Yes <input type="checkbox"/> No |

G. Attach Meeting minutes if available or provide a summary of pre-application meeting. (include date and attendees)

The initial pre-application meeting for the Atlantic Sunrise project was held on September 19, 2014 and described the overall project. On-site field visits to impacted resources for the Unity Loop was held on October 16, 2017. Additional pre-application meetings for the project were held throughout 2015. In addition, meetings to discuss Technical Deficiencies were held in 2016 and 2017.

**SPECIAL CONDITIONS**

Recommended by Amanda Allison

PERMIT NO. E41-667

| COND. # | INSERTS/JUSTIFICATION  |
|---------|--|
|         | <p>Special conditions will address the following county-specific conditions:</p>   |
|         | <p><b><u>In-stream work restriction for the following wild trout streams.</u></b></p> <p>West Branch Little Muncy Creek (WW-T01-22016) and its unnamed tributaries (WW-T01-22016A, WW-T01-22015, WW-T01-22015A), Little Indian Run (WW-T01-22014) and its unnamed tributaries (WW-T01-22012, WW-T01-22012A), UNT to Little Muncy Creek (WW-T01-22011) and Beaver Run (WW-T01-22009) and its unnamed tributaries (WW-T01-22010, WW-T01-22008, WW-T01-22008A, and WW-T01-22008B)</p> <p>Sugar Run had been listed by the PFBC as “under review” for wild trout listing. As of July 2017, it is not identified as wild trout. Should it be identified as a wild trout stream prior to construction, then in-stream work restrictions would apply to Sugar Run and its UNTs.</p> |
|         |  |
|         |  |
|         |  |

DIVISION OF WATERWAYS, WETLANDS AND EROSION CONTROL  
105 PERMIT ACTIVITY REPORT

REGION: **NCRO** Permit Number: **E41-667** Wetland:  Stream:   
 Floodway:  Other Water:  Action: **A** SPGP: Yes  No   
 Location: **See Attachment E-2** N \_ W Quad Name: Sub-Watershed: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Date Submitted: **1/30/15** Env. Review Complete: **8/10/17** Final Action: \_\_\_\_\_

**STREAM IMPACTS (in linear feet)**

Total Length: Requested: \_\_\_\_\_ Approved: **92 feet permanent (0.04 acres)**  
 Activity Code: 09 Utility Facilities Stream Classification: **See Attachment E-2**

| Type of Impact    | Length of: | Requested | Approved | Replacement of Existing W.O. |
|-------------------|------------|-----------|----------|------------------------------|
| Micellaneous/Type | _____      | _____     | _____    | <input type="checkbox"/>     |
| Enclosure         | _____      | _____     | _____    | <input type="checkbox"/>     |
| Enclosure         | _____      | _____     | _____    | <input type="checkbox"/>     |
| Enclosure         | _____      | _____     | _____    | <input type="checkbox"/>     |
| Enclosure         | _____      | _____     | _____    | <input type="checkbox"/>     |
| Enclosure         | _____      | _____     | _____    | <input type="checkbox"/>     |
| Enclosure         | _____      | _____     | _____    | <input type="checkbox"/>     |

**WETLAND IMPACTS (in acres 0.00)**

Total Wetland: 0.17 perm EV: **0.13** Other: **0.04** Tidal:  CZM:   
 PEM: **0.11** PSS: **0.00** PFO: **0.06** POW: **0.00** Temporary Impacts: **1.93**  
 Wetland Area: Requested \_\_\_\_\_ Approved **0.17 (perm)** Replaced **0.60** de minimus   
 PWRP

PREAPPLICATION MEETINGS

Wetlands Yes  No  Impact Reduced \_\_\_\_\_  
 Streams Yes  No  Impact Reduced \_\_\_\_\_  
 After the fact Permit: Yes  No

Mitigation Summary Tables – Headwaters to Larry’s Creek Site

| Headwaters to Larry’s Creek Mitigation Site Summary |             |                  |                  |
|---|-------------|------------------|------------------|
| Mitigation Type                                     | Acres       | Mitigation Ratio | Mitigation Acres |
| Enhancement   | 2.36        | 1:2              | 1.18             |
| Rehabilitate  | 3.03        | 1:1.5            | 2.02             |
| Re-establishment                                    | 0.77        | 1:1              | 0.77             |
| Impact  | -           | -                | -0.11            |
| <b>Total Proposed</b>                               | <b>6.16</b> |                  | <b>3.86</b>      |

Required Mitigation Summary Tables

| Lycoming County – Required Mitigation Summary |                |                  |                     |
|---|----------------|------------------|---------------------|
| Wetland Type                                  | Impact Acreage | Mitigation Ratio | Required Mitigation |
| EV PFO  | 0.23           | 2.5:1            | 0.58                |
| Non-EV PFO                                    | 0.01           | 2.0:1            | 0.02                |
| EV PSS  | 0.00           | 1.75:1           | 0.00                |
| Non-EV PSS                                    | 0.00           | 1.5:1            | 0.00                |
| <b>Total Required</b>                         | <b>0.24</b>    |                  | <b>0.60</b>         |

| Wyoming County – Required Mitigation Summary |                |                  |                          |
|--|----------------|------------------|--------------------------|
| Wetland Type                                 | Impact Acreage | Mitigation Ratio | Required Mitigation      |
| EV PFO                                       | 0.87           | 2.5:1            | 2.18                     |
| Non-EV PFO                                   | 1.06           | 2.0:1            | 2.12                     |
| EV PSS                                       | 0.02           | 1.75:1           | 0.04                     |
| Non-EV PSS                                   | 0.17           | 1.5:1            | 0.26                     |
| <b>Total Required</b>                        | <b>2.12</b>    |                  | <b>4.59 (2.65/1.94)*</b> |

\*mitigation in Wyoming County will be divided between Towanda Creek and the Headwaters to Larry’s Creek Mitigation site. 2.65 acres of mitigation will be provided for at Towanda Creek and 1.94 acres of mitigation will be provided at the Headwaters of Larry’s Creek Mitigation Site to account for the total 4.59 acres of required mitigation for Wyoming County.

Summary of Required and Proposed Mitigation

|                        | Mitigation at Towanda Creek | Mitigation at Larry’s Creek | Total       |
|------------------------|-----------------------------|-----------------------------|-------------|
| Susquehanna            | 1.02                        |                             | 1.02        |
| Wyoming                | 2.65                        | 1.94                        | 4.59        |
| Lycoming               |                             | 0.60                        | 0.60        |
| <b>Total Required:</b> | <b>3.67</b>                 | <b>2.54</b>                 | <b>6.21</b> |
| <b>Total Proposed:</b> | <b>4.67</b>                 | <b>3.86</b>                 | <b>8.53</b> |

Overall Project Mitigation Summary Table (Acres)

|                        | Towanda<br>Creek | Headwaters to<br>Larry's Creek | Briar<br>Creek | Swatara<br>Creek | Hibred<br>Farms | Total        |
|------------------------|------------------|--------------------------------|----------------|------------------|-----------------|--------------|
| Clinton                | 0.00             | 0.00                           | 0.00           | 0.00             | 0.00            | 0.00         |
| Columbia               | 0.00             | 0.00                           | 0.00           | 2.03             | 0.00            | 2.03         |
| Lancaster              | 0.00             | 0.00                           | 0.00           | 0.00             | 1.11            | 1.11         |
| Lebanon                | 0.00             | 0.00                           | 0.00           | 0.00             | 2.35            | 2.35         |
| Luzerne                | 0.00             | 0.00                           | 8.70           | 0.00             | 0.00            | 8.70         |
| Lycoming               | 0.00             | 0.60                           | 0.00           | 0.00             | 0.00            | 0.60         |
| Northumberland         | 0.00             | 0.00                           | 0.00           | 0.35             | 0.00            | 0.35         |
| Schuykill              | 0.00             | 0.00                           | 0.00           | 0.74             | 0.00            | 0.74         |
| Susquehanna            | 1.02             | 0.00                           | 0.00           | 0.00             | 0.00            | 1.02         |
| Wyoming                | 2.65             | 1.94                           | 0.00           | 0.00             | 0.00            | 4.59         |
| <b>Total Required:</b> | <b>3.67</b>      | <b>2.54</b>                    | <b>8.70</b>    | <b>3.12</b>      | <b>3.46</b>     | <b>21.49</b> |
| Total Proposed:        | 4.67             | 3.86                           | 8.94           | 5.36             | 7.03            | 29.86        |



**SUBJECT:** Transcontinental Gas Pipeline Company LLC

Lycoming County  
Franklin, Township of; Jordan, Township of;  
Penn, Township of

**TO:** Pennsylvania Fish and Boat Commission-  
(DES)  
450 Robinson Lane  
Bellefonte, PA 16823

**FROM:** (check one)

NWRO    SWRO    NERO    Central  
 NCRO    SCRO    SERO    Office

Date Received By PFBC: 10/6/2015

Permit No.: E41-667

Permit Type: Encroachment

Contact Information:

DEP-Reviewing Biologist: Erin Gocek

PFBC Reviewer: Heather Smiles

**Project Description**

**Type of work:** The Atlantic Sunrise Project is an expansion of the existing Transco natural gas transmission system that will enable Transco to provide 1.7 million dekatherms per day (MMDth/d) of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania to its existing market areas, extending to as far south as the Station 85 Pooling Point1 in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline system to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Unity Loop portion consists of the installation of 8.6 miles of 42" diameter pipeline looping, total disturbance 164.9 acres.

**NOTE:** Please review the attached application for a Water Obstruction and Encroachment Permit for the project described above, and return comments to this office within 30 days.

**Project Location/PFBC Stream Management:**

| Latitude  | Longitude  | Primary Water                  | Receiving Water    | Stocked | Wild |
|-----------|------------|--------------------------------|--------------------|---------|------|
| 41.261850 | -76.531740 | West Branch Little Muncy Creek | Little Muncy Creek | No      | Yes  |
| 41.262140 | -76.548000 | Little Indian Run              | Little Muncy Creek | No      | Yes  |
| 41.263910 | -76.592700 | Beaver Run                     | Little Muncy Creek | No      | Yes  |
| 41.265070 | -76.622480 | Big Run                        | Little Muncy Creek | No      | No   |
| 41.266700 | -76.655840 | Sugar Run                      | Gregs Run          | No      | No   |
| 41.269120 | -76.691590 | Gregs Run                      | Muncy Creek        | No      | No   |

**Specific Project Comments:**

The Pennsylvania Fish and Boat Commission manage **West Branch Little Muncy Creek, Little Indian Run, Beaver Run and Little Muncy Creek** as naturally reproducing, wild trout streams. The PFBC recommends an instream construction restriction from October 1 through December 31 to protect spawning and egg deposition behavior of the wild trout population. The PFBC recommends that the applicant and contractor understand the implications of this restriction and plan any and all instream construction work accordingly. The PFBC will not issue seasonal restriction waivers for crossings on these streams. The PFBC recommends directional boring or similar technology if the applicant finds it necessary to cross these streams during the seasonal restriction periods.

The Pennsylvania Fish and Boat Commission found no significant impact to the aquatic resources of **Big Run, Sugar Run and Greg's Run** as a result of the proposed actions of this project. This finding was a result of a permit application review. An actual field assessment may reveal additional information not presented in the permit application.

In the impacts table Resource ID **WW-T01-22011** is listed as an UNT to Beaver Run (near MP 122.56); however, from the maps it appears that this stream should be an UNT to Little Muncy Creek.

| Resource ID   | Resource Name                         | Latitude | Longitude | Instream Restriction     |
|---------------|---------------------------------------|----------|-----------|--------------------------|
| WW-T01-22016  | West Branch Little Muncy Creek        | 41.26185 | -76.53174 | October 1 to December 31 |
| WW-T01-22014  | Little Indian Run                     | 41.26214 | -76.54800 | October 1 to December 31 |
| WW-T01-22012  | UNT to Little Indian Run              | 41.26230 | -76.56057 | October 1 to December 31 |
| WW-T01-22010  | UNT Beaver Run                        | 41.26327 | -76.58225 | October 1 to December 31 |
| WW-T01-22009  | Beaver Run                            | 41.26391 | -76.59270 | October 1 to December 31 |
| WW-T01-22008  | UNT to Beaver Run                     | 41.26465 | -76.60409 | October 1 to December 31 |
| WW-T01-22008B | UNT to Beaver Run                     | 41.26470 | -76.60449 | October 1 to December 31 |
| WW-T01-22006B | UNT Big Run                           | 41.26494 | -76.62088 | none                     |
| WW-T01-22007  | Big Run                               | 41.26507 | -76.62248 | none                     |
| WW-T01-22002  | Sugar Run                             | 41.26670 | -76.65584 | none                     |
| WW-T46-22001  | Greg's Run                            | 41.26912 | -76.69159 | none                     |
| WW-T01-22016A | UNT to West Branch Little Muncy Creek | 41.26190 | -76.53191 | October 1 to December 31 |

|               |  |          |           |                          |
|---------------|--|----------|-----------|--------------------------|
| WW-T01-22015  | UNT to West Branch<br>Little Muncy Creek | 41.26190 | -76.53247 | October 1 to December 31 |
| WW-T01-22015A | UNT to West Branch<br>Little Muncy Creek | 41.26199 | -76.53256 | October 1 to December 31 |
| WW-T01-22012A | UNT to Little Indian<br>Run              | 41.26234 | -76.56072 | October 1 to December 31 |
| WW-T01-22011  | UNT Beaver Run                           | 41.26269 | -76.56980 | October 1 to December 31 |
| WW-T01-22008A | UNT to Beaver Run                        | 41.26475 | -76.60401 | October 1 to December 31 |
| WW-T01-22006  | UNT Big Run                              | 41.26488 | -76.61876 | none                     |
| WW-T01-22003  | UNT to Sugar Run                         | 41.26643 | -76.64225 | none                     |

*Heather Smiles*

(PFBC Division of Environmental Services)

Approved  Not Approved

See Comments  Withdrawn

(Approved)

11/5/2015

(Date)

**Pennsylvania Fish & Boat Commission**