SECTION 12.0

AQUATIC RESOURCE SUMMARY REPORT

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Appendices

1. Introduction

Transcontinental Gas Pipe Line Company, LLC (Transco) is proposing the Regional Energy Access Expansion Project (Project) which is an expansion of Transco's existing natural gas transmission system. This report summarizes the results of the wetlands and watercourse delineations (delineations) completed for the Project in Luzerne, Monroe, Bucks, Chester, and Northampton County, Pennsylvania by WHM Consulting, LLC (WHM) where earth disturbance is proposed.

Aquatic Resource delineations were completed on the Project between March of 2020 and November of 2020. Resumes and qualifications of the staff present during the delineations can be found in Appendix A. In 2020, site visits to review the wetland boundaries at various locations was completed with the United States Army Corps of Engineers (USACE) Philadelphia and Baltimore Districts as part of the preliminary jurisdictional determination (pre-JD) associated with the Project.

2. Desktop Analysis

Prior to conducting field investigations, a review of natural resource data associated with the Project site was completed to help establish probable areas where wetlands and watercourses could be located before conducting the onsite field investigation. Specifically, the following information was reviewed:

- U.S. Geologic Survey (USGS) 7.5-minute topographical maps
- Department of Conservation and Natural Resources (DCNR) PAMAP Program – Topographical Contours (2 ft Intervals)
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI)
- USGS National Hydrography Dataset (NHD)
- Natural Resources Conservation Service (NRCS) web soil survey
- Current and historical aerial imagery

3. Wetland and Watercourse Delineation Methodology

WHM conducted investigations on the subject Project areas according to the procedures and technical guidelines outlined in the 1987 USACE Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (April 2012, Version 2.0) and Northcentral and Northeast Region (January 2012, Version 2.0) depending on location. The USACE protocol establishes a three-parameter

approach for identification and delineation of wetlands, which includes confirmation of the following:

I. Hydrophytic Vegetation: This condition exists when greater than 50% of the plant species contain obligate (OBL), facultative-wet (FACW), or facultative (FAC) indicator status.

II. Hydric Soils: Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil (Federal Register, July 13, 1994).

III. Wetland Hydrology: Wetland hydrology is recognized through evidence of inundation and/or saturation to the soil surface for at least 5% of the growing season during most years.

In undisturbed conditions, the three parameters must be confirmed to be present to characterize an area as a wetland. In highly disturbed or problematic wetland situations, USACE guidance details procedures to be used for evaluating these areas and determining which areas are most likely considered wetlands upon review by a USACE representative. Upon completing our investigations, areas exhibiting three of the USACE criteria presented above and which also have surface water connection to other waters of the United States are identified as resources that are likely to be regulated by the USACE as Jurisdictional Wetlands. Areas exhibiting three parameters but without surface water connection to other waters were identified as wetlands or waters, but they may or may not be regulated by the USACE. In many cases, wetland areas not regulated by the USACE are still likely to be regulated by the PADEP.

A Cowardin Classification (or multiple Cowardin Classifications) was assigned to each wetland based on the vegetation, sediment type, and hydrological regime. Wetlands were flagged with pink wetland delineation flagging and labeled according to the team number, unique wetland ID, survey point number, and Cowardin classification. Wetlands with multiple Cowardin classifications will be delineated as one wetland and include a delineation of the boundaries of each Cowardin type within the wetland complex. Wetland and upland data points were surveyed at each wetland with data being recorded.

In addition to wetlands, watercourses likely to be regulated as Waters of the United States, including ephemeral, intermittent and perennial watercourses, were identified in the investigation areas. The term “Jurisdictional Waters of the United States” as used by Section 404 of the CWA

and defined under 33 Code of Federal Register (CFR) Section 328.1, includes adjacent wetlands and tributaries to traditionally navigable waters (TNW) and other waters with a hydrological connection to a TNW.

The waterway type (perennial, intermittent or ephemeral) is noted on the stream data form completed for each delineated water resource. Watercourses were flagged with blue delineation flagging and labeled according to the team number, unique stream ID and survey point number. The ordinary high-water mark on each bank (OHWM) was surveyed. The OHWM is defined in Title 33 of the Federal Code as "by observations of water fluctuation, physical characteristics, such as a clear natural line impressed on the bank, shelving, changes in the soil character, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

For delineations performed in the Commonwealth of Pennsylvania, wetlands and watercourses identified during the wetland delineation are deemed probable "Jurisdictional Waters of the United States" until otherwise reviewed and accepted by the USACE and/or PADEP. If upon agency review the wetland or watercourse is determined to be isolated by the reviewers (i.e. has no significant nexus to "Jurisdictional Waters of the United States"), the regulatory body for such waters then becomes the jurisdiction of the PADEP.

Our determinations are based on our collective "best professional judgment" exercised with the guidance of the USACE's manual and supplements. However, the final determination of the Jurisdictional status of the resources identified lies entirely within the review of the reviewing regulatory agencies. In other words, we identify a technically defensible boundary that must either be accepted or adjusted by the reviewing regulatory agencies in situations where encroachments may occur. As wetland consultants / biologists, we do not have the authority to assign regulatory jurisdiction. For this project a preliminary jurisdictional determination was completed by the USACE, with both the Baltimore and Philadelphia USACE districts.

Wetlands and waterways were surveyed by WHM with a hand-held Spectra SP20 GPS, which is capable of delivering sub-meter accuracy. WHM then provided the GPS data and sketch mapping to Transco surveyors. Transco then re-surveyed the boundaries with a Trimble GNSS R10 Base and Rover and a Nikon D003451 Total Station. The Transco surveyors then provided back to WHM further corrected data points for mapping the resources and incorporation into overall project mapping and the wetland delineation report.

This overall narrative summarizes the methodology for the desktop analysis and aquatic resource delineation completed from the Project. As appendices to this report, wetland and watercourse summary tables of each Project component are included in Appendix B. Mapping of the resource boundaries can be viewed in Section 10.0. Complete Wetland and Watercourse Delineation Reports including photographs, and wetland, upland and watercourse data forms and detailed mapping will be provided in Chapter 102 and Chapter 105 permits submitted for the Project.

4. References

Cowardin, L. M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands deepwater habitats of the United States. U.S. Department of the Interior and the Fish and Wildlife Service, Washington, D.C.

Environmental Laboratory.1987. Corps of Engineers Wetlands Delineation Manual. Tech. Rep. Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, M.S.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 016-30: 1-17. Published 28 April 2016. ISSN 2153 733. http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html

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U.S. Army Corps of Engineers. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountain and Piedmont Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/geo/?cid=nrcs142p2_053587. Accessed 3/2020 thru 10/2020.

United States Fish and Wildlife Service. National Wetland Inventory Map, 7.5 Minute Series, Pennsylvania.

United States Geological Survey. Topographic Quadrangle 7.5-minute Series Quadrangles, Pennsylvania.

U.S. Geological Survey. 2018. Hydrography: National Hydrography Dataset and Watershed Boundary Dataset. http://nhd.usgs.gov/. Accessed 3/2020 through 10/2020.

APPENDIX 12-A

RESUMES

Ryan Nelson, PWS, Senior Project Manager

Education

- *B.S., Environmental Resource Management, with minors in Watershed/Water Resources and Environmental Soil Science, The Pennsylvania State University, 2008*

Certifications

- *Professional Wetland Scientist (PWS) PWS Seal # 2412*

Professional Training

- *ESCGP-2 to ESCGP-3: New PA DEP Reviewer Process and Permit Implementation Seminar; Marcellus Shale Coalition; December 13, 2017*
- *PADEP Technical Workshops - Prepare for The New Aquatic Resource Condition Assessments (Ch. 105) – June 2017*
- *PADEP MS4 Workshop, Harrisburg PA – Sept. 2016*
- *PHMSA's Proposed Rules for Natural Gas, Kinetic Pittsburgh, PA – Aug. 2016*
- *PA Marcellus Shale Coalition, PASPGP-5 Training, Hershey PA July 2016*
- *Identification of Wetland Wildflowers, Swamp School, LLC – June 2016*
- *"River Assessment & Monitoring" May 9-19, 2016 at the National Conservation Training Center Shepherdstown, WV*
- *Chapter 102/NPDES Training for Consultants and Engineers held by Clinton and Centre County Conservations Districts and PADEP – March 2016 – State College, PA*
- *PA DEP ESCGP-2 Training July 10, 2013 State College, PA*
- *Erosion & Sediment (E&S) Manual Training (Northampton Co.) by the PACD in conjunction PADEP August 20, 2012*
- *"Functional Assessment as the Basis for Mitigation of Wetland Impacts - Overview and Discussion", State College, PA – M.N. Gilbert Environmental April 2011*
- *PaDEP—Technical Review of the revised Chapter 102 Regulations, Harrisburg, PA, February 2011.*
- *Natural Channel Design Review Methodology: U.S. Fish & Wildlife Service National Conservation Training Center, Shepherdstown, WV October 2010*
- *"Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual": PAPSS, DCNR Bureau of Forestry, Loyalsock State Forest Resource Mgt Center, Laporte, PA April 2010*
- *Stream Restoration: Elements of Design Workshop II University Park, PA. August 2008*

Mr. Nelson is a Professional Wetland Scientist (PWS) certified by the Society of Wetland Scientists (SWS) that manages the design, permitting, and construction of stream and wetland restoration projects and land development projects for WHM. He has experience dealing with water encroachment permitting, erosion and sediment control, wetland delineations, stream assessments, GIS Analysis and Mapping, and Project Management. He has continuously gained skills through his academic and work experience in various environmental projects dealing with water quality, land development, aquatic resource mitigation and restoration, and currently oversees a variety of development projects.
Mr. Nelson has been professionally trained by Wildland Hydrology in Rosgen's Natural Channel Design and is certified in Levels I, II and III - "Applied Fluvial Geomorphology", "River Morphology & Applications", and "River Assessment & Monitoring.

Professional Experience

Environmental Project Management

- Oversee permitting of development projects, including pipelines, wind power generation, landfills and aquatic resource mitigation/restoration;
- Environmental Permitting for the PA DEP and U.S. Army Corp of Engineers including, but not limited to NPDES, E&S Plans, Joint Permits, and General Permits;
- Threatened & Endangered Species and Cultural Resource consultation for land development projects, including state and federally sensitive resources; and
- Client and regulatory liaison for projects involving land development and environmental restoration.

Wetland and Stream Projects

- Collected and analyzed data associated with stream restoration projects including, Stream Profile and Cross section data, bar sampling, pebble counts, and bathymetric data;
- Construction oversight of multiple stream restoration projects involving channel stabilization and rebuild;
- Performed wetland and stream delineations in PA, OH, and WV; and
- Performed wetland monitoring and maintenance on mitigation wetland sites.

Mapping and Surveying

- Used GIS software for compiling field collected data, land use data, tabular data, and other data to produce figures for analysis and to calculate statistics of various environmental projects;
- Utilized GPS units for surveying various points and boundaries for mapping purposes, including wetland delineations;
- AutoCAD mapping for various projects, including stream restoration and wetland mitigation projects, utilizing field collected data and other associated data;
- Use of survey equipment and AutoCAD Software in characterizing pre and post construction conditions for mapping and design purposes on various projects including stream stabilization, wetland mitigation, and other aquatic resource related projects.

Biological Surveys

- Completed and managed studies for the USFWS, DCNR, PGC, and the PFBC for rare, threatened, endangered, and species of special concern within the purview of all the above agencies.

Conferences and Seminars

- Federal Energy Regulatory Commission (FERC) Environmental Seminar, Marcellus Shale Coalition, State College, PA - May 2017
- Southern Gas Association (SGA) "Technical Conference on Environmental Permitting & Construction" Dallas, TX Feb. 22-24, 2017
- FERC Environmental Review and Compliance for Natural Gas Facilities Seminar - Tampa, Florida – Dec 2015
- Seminar for Hardwood Forest Reforestation on Abandoned Mine Sites. Ebensburg, Pennsylvania, June 2007

Kevin Clark, PWS, Senior Project Manager

Education

- *B.A., Environmental Studies, The Pennsylvania State University, 2006*

Certifications

- *Professional Wetland Scientist (PWS) PWS Seal # 2285*

Professional Training

- *Federal Energy Commission "Environmental Review and Compliance for Natural Gas Facilities Seminar" Orlando, Florida – February 2013*
- *Planning Hydrology, Vegetation, and Soils for Constructed Wetlands – The Wetland Training Institute; State College, Pennsylvania – September 2012*
- *Primary Headwater Habitat Assessment Training – West Woods Metro Park, Geauga County, Ohio – May 2012*
- *Functional Assessment as the Basis for Mitigation of Wetland Impacts – Overview and Discussion," State College, Pennsylvania – M.N. Gilbert Environmental – April 2011*
- *PADEP – Technical Review of the revised Chapter 102 Regulations; Penn Tech Campus, Williamsport, Pennsylvania – December 2010*
- *"Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual": PAPSS, DCNR Bureau of Forestry, Laporte, Pennsylvania – April 2010*
- *DEP "Regulatory Requirements Seminar for Marcellus Shale", Harrisburg, Pennsylvania – March 2010*
- *Wetland Delineator Training Institute for Wetland and Environmental Education and Research, Inc., Timer and Veneman, Albany, New York – July 2008*
- *Plant ID: Wetlands and Their Borders, Institute for Wetland and Environmental Education and Research, Inc., Weldy, Albany, New York – July 2008*
- *Mgt Center, Laporte, PA April 2010*
- *Stream Restoration: Elements of Design Workshop II University Park, PA. August 2008*

Kevin Clark has over 7 years experience with wetland delineation and evaluation, permitting, mitigation design, and the preparation of environmental compliance documents in accordance with national (NEPA), state, and local criteria and guidelines. Mr. Clark is a Professional Wetland Scientist (PWS) certified by the Society of Wetland Scientists (SWS) that manages the design and construction of habitat and wetland restoration, enhancement and replacement projects for WHM. Additionally, Mr. Clark, specializes in the assessment and remediation of polluted mine drainage, primarily by passive treatment techniques. Mr. Clark regulary works with various watershed organizations, townships and municipalities, non-profit organizations, engineering firms, energy companies, and state and federal agencies. Mr. Clark also has been successful in acquiring state and federal grants for non-profit organizations to secure funding for water quality improvement projects.

Professional Experience

Environmental Permitting

- Completed local, state and federal environmental permitting for various types of development and water quality improvement projects, which included detail studies/reports and thorough coordination with regulatory agencies;
- Completed and assisted with NPDES permit applications, Erosion and Sedimentation Control Plans, and Post-Construction Stormwater Management Plans;
- Produced detailed ArcGIS and AutoCAD maps of various projects.

Water Resources Projects

- Completed and assisted with wetland and stream mitigation plans, including designs, in accordance with USACE's *Compensatory Losses of Aquatic Resources* guidance document;
- Construction oversight and monitoring of wetland construction project;
- Completed small to large scale delineations throughout the northeast in accordance with 1987 USACE Wetland Delineation Manual and applicable regional supplements.
- Completed numerous watershed assessments to determine point and non-point source pollution with a focus on Abandoned Mine Lands (AML) and Abandoned Mine Drainage (AMD) impacted streams;
- Assisted with treatment system design and restoration plans for watersheds impacted by AMD;
- Conducted water quality analysis's including macroinvertebrate sampling and identification and habitat assessment.
- Obtained numerous Growing Greener and Chesapeake Bay Small Watershed Grant awards for several non-profit organizations for AMD related issues.
- Utilized GPS units for high accurate field data collection and produce detailed mapping.
- Assisted with threatened and endangered species surveys through the Pennsylvania Natural Diversity Index (PNDI) program for various plant and animal species.

David Wood, PWS, Environmental Specialist

Education

- *B.A., Environmental Studies, The Pennsylvania State University, 2010; Minor in Biology*

Certifications

- *Professional Wetland Scientist (PWS) PWS Seal # 2903*
- *PA DCNR Wild Plant Management Permit #19-658*

Professional Training

- *PADEP Technical Workshops – Prepare for The New Aquatic Resource Condition Assess. (Ch. 5) – June 2017*
- *The Wetland Training Institute – Planning Hydrology, Vegetation, & Soils Constructed Wetlands – July 2016*
- *Swamp School Field Identification of Wetland Sedges, Grasses and Rushes – June 2016*
- *PA Botany Steering Committee – A Consulting Botanist's Toolkit – Dec. 2015*
- *The PNPS – Identification of Grasses, Sedges, and Rushes – July 2015*
- *SWS Mid-Atlantic Chapter Wetland Mitigation, Restoration and Ecology - PA – Apr. 4-5, 2014*
- *PNDI Updates Presentation, PA – Dec. 2013*
- *FERC "Environmental Review and Compliance for Natural Gas", TX – Sept. 2013*
- *PADEP ESCGP-2 Training, PA - July 2015*
- *PASFI® Training: Prof. Timber Harvesting Ess., Wildlife-Young Forest Initiative, Game of Logging, Lev 1 – May 2012*
- *Marcellus Workshop "An Update on PHMSA Pipeline Regulations & Act 127" – Feb 2012*
- *PASPGP-4 Workshop: ACE, Baltimore District– Oct. 2011*
- *Regional Supplement to USACE Delineation Manual, PA – M.N. Gilbert Environmental – Apr. 2011*
- *Ohio Rapid Assessment Method for Wetland v. 5.0 2014 Training Course – April 2015*
- *38-Hour ACOE Wetland Delineation/Waters of the US Training, Richard Chinn – March 2014*

David Wood has more than 8 years of professional work experience in natural resources management, wetland sciences, soil science, field biology, and plant sciences. Mr. Wood is a Professional Wetland Scientist (PWS) certified by the Society of Wetland Scientists (SWS). He has coordinated and/or contributed significantly to a wide variety of environmental projects throughout the North Atlantic Region. He has worked in both the public and private sectors for a diverse clientele that include government agencies, non-profit entities, corporations, and individuals.

Professional Experience

Environmental Surveys

- Performed Pennsylvania rare, threatened and endangered plant surveys and reporting.
- Assisted on several USFWS endangered plant surveys for *Scirpus ancistrochaetus and Isotria medeoloides* with several surveys resulting in the identification of *S. ancistrochaetus*;
- Field assistant on multiple Timber Rattlesnake Phase I and II surveys and Allegheny Wood Rat surveys;
- Conducted water quality analysis's including macroinvertebrate sampling and identification; and
- Performed forest inventory and assessments.

Water Resource Projects

- Performed wetland and water resource delineations and reporting;
- Conducted wetland and riparian buffer mitigation construction and planting oversite on various mitigation projects throughout Pennsylvania;
- Conducted wetland and stream mitigation monitoring and reporting.
- Collected water samples and onsite water quality data.

Environmental Permitting

- Produced mitigation plans for wetland and stream impacts, including grading plans, vegetative design, vegetative planting zones, enhancement species lists;
- Completed local, state and federal environmental permitting for various types of development and water quality improvement projects;
- Performed Erosion and Sediment control inspections on gas well sites and pipeline right-of-way's;
- Assisted with a variety of environmental permitting projects; and

Equipment and Mapping

- Performed task utilizing Trimble GPS equipment;
- Utilized GIS software for mapping and data analysis:
- Performed land analysis utilizing GIS software for determining suitable areas for development; and
- Used survey equipment to characterize pre and post construction conditions for mapping and design purposes on stream and wetlands for various projects.

Paul Fisher, PWS, Project Manager, Health and Safety Officer

Education

- *B.S., Environmental Soil Science, The Pennsylvania State University, 2009*

Certifications

- *Professional Wetland Scientist (PWS) PWS Seal # 2560*
- *Southwestern Energy (SWN) Training Assurance Program(TAP) Instructor Certification – October 2013*
- *Occupational Safety and Health Professional Certification – May 2012*

Professional Training

- *2014 ABE Safety Expo – OSHA & Job Site Safety Training – January 2014*
- *NCCER Performance Verifications – February 2013 – PV151 15.1; PV152 15.2; PV320 32.0*
- *AOCFG – Abnormal Operating Conditions – Field NCCER – September 2013*
- *Custom Pipeline Inspector NCCER – September 2013 – Task 15, 15.1, 15.2 and 32*
- *PA DEP ESCGP-2 Training, State College, PA – July 2013*
- *OSHA 40 Hour HAZWOPER Training: Allprobe Environmental – July 2013*
- *E&S Manual Training – Association of Conservation Districts, Scranton, PA – May 2013*
- *Hydric Soil Indicators Field Seminar – PA Association of Professional Soil Scientists – Wysox, PA – April 2013*
- *Williams Contractor Safety – May 2012*
- *First Aid/CPR; Emergency Care & Safety Institute – May 2012*
- *Primary Headwater Habitat Assessment Training – Geauga County, Ohio 2012*
- *132 Hour Occupational Safety and Health Professional Training – OSHA Academy – May 2012*
- *"Planning Hydrology for Constructed Wetlands", Wetland Training Institute – State College, PA – November 2011*
- *"Grasses, Sedges, and Rushes" Pennsylvania Institute for Conservation Education – Huntingdon, PA – August 2011*
- *Hydrology of Wetlands Rutgers University – New Jersey – May 2011*
- *"Functional Assessment as the Basis for Mitigation of Wetland Impacts – Overview and Discussion, State College, PA – M.N. Gilbert Environmental – April 2011*
- *ACOE Wetland Delineation/Regional Supplemental Training Richard Chinn Environmental Training – State College, PA – March 2010*

Mr. Fisher is a graduate from The Pennsylvania State University in 2009, where he was awarded a Bachelors degree in Environmental Soil Science. Mr. Fisher is a Professional Wetland Scientist (PWS) certified by the Society of Wetland Scientists (SWS) that manages projects and field crews for WHM. Mr. Fisher is also the Health and Safety Officer for WHM in which he oversees and implements the corporate Health and Safety Plan. Mr. Fisher has over 10 years of professional expereince with Project Manangement, GIS Analysis and Mapping, environmental permitting, wetland delineations, stream assessments, pipeline routing, wetland mitigation, functional assessments, ORAM, riparian planting, project management and oversite.

Professional Experience

General Environmental Projects

- Managed different environmental projects in Pennsylvania, Maryland and Ohio.
- Completed local, state and federal environmental permitting for various types of development and water quality projects, which included detail studies/reports and thorough coordination with regulatory agencies;
- Composed various Environmental Reports for landfills, gas companies, wind farms, construction companies, private landowners, and regulatory agencies.
- Performed land analysis's using GIS Software for determining suitable areas for development.

Environmental Projects

- Performed wetland monitoring and maintenance on various wetlands.
- Performed Stream Surveys.
- Practiced wetland delineations using US Army Corps of Engineers Wetlands Delineation Manual 1987 and applicable regional supplements.
- Used surveying equipment to characterize stream profiles for mapping and design purposes.
- Delineated wetlands and water resources at several projects throughout Pennsylvania, Ohio and West Virginia.
-

Health and Safety Experience

- Developed Site Health and Safety Plans for several projects in difference industries.
- Completes Hazard Assessments for all WHM projects.
- Implements the WHM Corporate Health and Safety Plan.
- Overseas all Health and Safety training and record keeping.
- Overseas and conducts company Health and Safety Trainings
- Manages the WHM ISNET world and PEC Safety Compliance Pro accounts.

Jim Haney, PWS, Project Manager

Education

- *B.S., Environmental Resource Management, The Pennsylvania State University, 2008*

Certifications

- *Professional Wetland Scientist (PWS) PWS Seal # 2509*

Professional Training

- *Society of Wetland Scientists Annual Meeting – Baltimore, MD – May 2019*
- *PADEP Technical Workshops – Prepare for The New Aquatic Resource Condition Assessments (Ch. 5) – June 2017*
- *Applied Fluvial Geomorphology Wildland Hydrology, Sheperdstown, WV – April 2016*
- *USACE & PADEP "Pipeline Permitting and Restoration Seminar" – Marcellus Shale Coalition, Pennsylvania – November 2014*
- *Vegetation Identification for Wetland Delineation, Rutgers University, New Jersey – June 2012*
- *Hydrology of Wetlands – Rutgers University, New Jersey – May 2012*
- *Methodology of Delineating Wetlands – Rutgers University, New Jersey – November 2011*
- *Riparian Buffer Design Workshop – Berks County Conservation District, Pennsylvania – March 2011*
- *"Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual": PAPSS, DCNR Bureau of Forestry, Laporte, Pennsylvania – April 2010*

Jim Haney has over 10 years experience with wetland delineation and evaluation, stream restoration, permitting, and environmental monitoring in accordance with national, state, and local criteria and guidelines. Mr. Haney is a Professional Wetland Scientist (PWS) certified by the Society of Wetland Scientists (SWS) who manages wetland delineations, permit preparation, post-construction monitroing, and agency coordination for projects for WHM.

Additionally, Mr. Haney, specializes in stream restoration, including the survey and design aspects of these projects. Jim regulary works with various watershed organizations, townships and municipalities, non-profit organizations, engineering firms, energy companies, and state and federal agencies.

Lastly, Jim serves on the Society of Wetland Scientists Professional Certification Program (SWSPCP) where he reviews applications submitted for professional certificaiton.

Professional Experience

Environmental Permitting

- Completed local, state, and federal environmental permitting for various types of development and water quality projects, which included detail studies/reports and thorough coordination with regulatory agencies; and
- Coordinated threatened and endangered species surveys through the Pennsylvania Natural Diversity Index (PNDI) program, including Pennsylvania Historical and Museum Commission (PHMC) coordination, with national and state agencies, as well as certified biologists.

Water Resource Projects

- Completed and assisted with wetland and stream mitigation plans, including designs, in accordance with USACE's *Compensatory Losses of Aquatic Resources* guidance document;
- Delineated or overseen delineations for stream and wetland delineations on more than 300 miles of utility line corridors, as well as numerous land development and mitigation projects;
- Utilizes GIS mapping software to evaluate project sites, manage environmental field data, and produce mapping for various projects.
- Has helped conduct route development, including crossing locations of stream and wetland features as well as access road placement for utility line corridors;
- Conducted surveys of several impaired streams, assisted in creating restoration designs, and conducted as-built surveys of restoration projects;
- Has served as construction oversight and made necessary in field adjustments on numerous stream restoration and wetland mitigation projects;
- Has performed and oversaw the performance of Pennsylvania Level 2 Rapid Assessment Protocols for Riverine and Wetland systems to calculate impacts and functional gain for development and mitigation projects;
- Conducted and oversaw post-construction monitoring program as part of special conditions required by Joint Permit approvals;
- Conducted water quality analysis's including macroinvertebrate sampling and identification and habitat assessment;
- Utilized GPS units for obtaining accurate field data collection and producing detailed mapping for projects; and
- Utilized total station and laser level surveying equipment to obtain longitudinal and cross section profiles of impaired streams and as-built restoration projects.

Frank Norris, CAD/GIS Technician

Education

- *B.S., Geography (Environmental Science Concentration), Mansfield University of Pennsylvania, 2011*
- *Minor in Geology*

Certifications

- *NASSCO PACP/LACP & MACP Certification*

  Certification # U-1116-07005878

Professional Training

- *OSHA 40 Hour HAZWOPER Training: Compliance Solutions, - November 2019*
- *First Aid/CPR/AED Certification- Heartsaver – September 2019*
- *ESRI 8.0 hour Remote Sensing Training – May 2013*
- *ESRI 8.0 hour Geodetic Awareness Training – May 2013*
- *ESRI Intermediate GIS Concepts Training – October 2013*
- *ESRI ArcGIS for Petroleum Training – October 2012*
- *Regional Supplement to USACE Delineation Manual, PA – MN Gilbert Environmental – April 2011*

Frank Norris is a professional environmental scientist and cartographer with 10 years of experience in mapping and database management programs including ESRI ArcMap, AutoCAD Civil 3D, InfoNet, and EqUIS Database systems. In addition to his experience as a cartographer, he has experience with environmental monitoring, permitting, and performing wetland delineations all in accordance with national, state, and local criteria and guidelines. Mr. Norris graduated in 2011 from Mansfield University with a degree in Geography with a concentration in Environmental Science. Since graduation, he has been associated with various projects and has gained skills through his previous experiences in various industries such as Oil and Natural Gas Exploration, Transportation , Real Estate Development, and Public Infrastructure projects pertaining to wastewater and stormwater systems. Mr. Norris is also a skilled team leader with previous experience improving systems and workflows while communicating initiatives and technicial concepts to project stakeholders, senior project management, and junior staff memebers.

Professional Experience

Mapping and Surveying

- Plan, design, draft and analyze topographic plans and details using AutoCAD Civil 3D 2019 for various projects utilizing field collected data and other associated data
- Organized plotting and locating over 200k acres of Legacy Oil and Gas leases using AutoCAD Civil 3D
- Used GIS software for compiling field collected data, land use data, tabular data, and other data to produce figures for analysis and to calculate statistics of various environmental projects
- Utilized GPS units for surveying various points and boundaries for mapping purposes
- Performed land analysis's using GIS Software for determining suitable areas for development based on environmental parameters
- Updated, configured, and tested files to perform SDE synchronization within InfoNet databases, leading to streamlined engineering and GIS teams utilizing up to date resources
- Developed and initiated web mapping interface for over 250 miles of municipal owned wastewater collection lines and associated documentation
- Collaborated on CCTV and GPS field collection surveys with field mapping and electronic deliverables provided to field crews and client leadership
- Developed mapping and data summary tables for Oil and Gas Pad restoration and extension packages to be submitted to PA DEP

Wetland and Stream Projects

- Environmental Permitting for the PA DEP and U.S. Army Corp of Engineers including; but not limited to NPDES, E&S Plans, Joint Permits, and General Permits;
- Performed wetland and stream delineations in Pennsylvania, Ohio, and New York
- Performed wetland monitoring and maintenance on mitigation wetland sites
- Led wetland delineation team to complete seismic survey of property and rerouting of seismic equipment when necessary
- Collected water samples and water quality data.

Equipment and Mapping

- Performed mapping tasks and collection of field data utilizing Trimble GPS surveying equipment for various types of projects
- Utilized ESRI ArcGIS and AutoCAD software for mapping and data analysis.

Curtis George, Environmental Technician

EDUCATION

- *B.S. Environmental Resource Management, the Pennsylvania State University, 2010*

HEALTH & SAFETY CERTIFICATIONS & TRAINING-

- *ISN-03894196*
- *Atlantic Sunrise safety training – September 2017*
- *Kinder Morgan Safety Orientation – October 2017*
- *Adult First Aid/CPR– American Heart Association, Pennsylvania – June 2015*
- *OSHA 40 Hour HAZWOPER Training; All Probe Environmental; October 2017*

PROFESSIONAL TRAINING

- *Stream Habitat and Measurements Techniques – National Conservation Training Center – Shepherdstown, WV, March 2017*
- *FWS Geospatial Workshop – National Conservation Training Center – Shepherdstown, WV, March 2016*
- *Overview of Wetland Delineation Protocols and the Interim NC/NE Regional Supplement to the USACE Delineation Manual – State College, PA, April 2011*

Curtis George graduated from the Pennsylvania State University with a B.S. degree in Environmental Resource Management and minors in Watershed and Water Resource Management and Wildlife and Fisheries sciences. Throughout his career, Curtis has worked with private, state and federal agencies to gain experience performing a wide range of biological tasks throughout the United States. He has a background with wetlands and watershed management and has gained lots of knowledge performing surveys and using GIS software.

PROFESSIONAL EXPERIENCE

Environmental Experience

- Led wetland crews to perform wetland delineations for proposed construction sites;
- Participated in surveys of biological and physical parameters for stream restoration projects;
- Performed construction oversight for wetland creation projects;
- Performed a variety of biological surveys for birds, macroinvertebrates, herps, fish and plants;
- Controlled invasive plants and animal species using both manual and chemical means;
- Raised fish for stocking in state waterways;
- Contributed to report writing and permit preparation;
- Performed post construction monitoring on various oil and gas related projects.

Mapping and Surveying

- Used survey grade Trimble equipment to perform RTK elevation surveys for various biological and resiliency projects.
- Performed bathymetry surveys for creating sediment and water movement models;
- Utilized GIS software to create maps for various projects and to manipulate survey data;
- Performed surveys and tasks using Trimble Juno Series and GeoHX handheld GPS units;
- Used various GPS units to navigate the back country.

Philip R. Dunning, Senior Biologist, Senior Herpetologist

Education

- *M.S., Biological Science, East Stroudsburg University, 2007*
- *B.S., Wildlife and Fisheries Sciences, Pennsylvania State University 2003*

Certifications

- *Pennsylvania Fish & Boat Commission Approved Timber Rattlesnake Surveyor and Construction Site Monitor*
- *NJ Approved Primary Venomous Snake Monitor*

Health and Safety Training

- *ISN 0323972*
- *40 Hour HAZWOPER – June 2016*
- *8 Hour HAZWOPER Refresher – March 2020*
- *Energy Transfer Contractor Safety Orientation – December 2016*
- *Southwest Energy Training Assurance Program (TAP) – 2015 Core and Supplement – December 2016*
- *Shell Contractor HSE Handbook – September 2016*
- *Adult First Aid/CPR – American Red Heart Association, Pennsylvania – February 2016*
- *Williams Safety Training, April 2020*

Professional Training

- *Army Corps of Engineers Wetland Delineation / Regional Supplement / Waters of the United States Training – April 2016*

Mr. Dunning is recognized by the Pennsylvania Fish & Boat Commission as a Qualified Timber Rattlesnake Surveyor and by the New Jersey Endangered and Threatened Species Program as a Qualified Timber Rattlesnake Biologist and Surveyor. He specializes in surveys and studies of threatened and endangered species, general herpetological surveys, endangered mammal surveys, biological/ecological assessments, and natural resource inventories. He is also experienced in vernal pool surveys, Bog Turtle Surveys, presence/absence determination, and macro invertebrate sampling, wetland delineations, and rare, threatened, and endangered plant surveys

Professional Experience

Timber Rattlesnake Experience

- Oversees All Timber Rattlesnake Projects;
- Led/supervised/managed phase I, II and III timber rattlesnake surveys throughout Pennsylvania and New Jersey;
- Completed and submitted final technical proposals and reports related to phase I, II and III surveys and studies;
- Published presentation abstracts and popular articles in scientific journals or newsletters;
- Conducted Timber Rattlesnake construction monitoring projects; and
- Timber Rattlesnake Historic Den Assessments.

Other Relevant Experience

- Natural Environment Inventories and Analysis;
- Endangered Species Surveys;
- Qualified New Jersey Primary Venomous Snake Monitor;
- Northern Copperhead Habitat Field Work;
- Northern Copperhead Trapping for Telemetry Project;
- Bog Turtle Phase I Habitat Assessments;
- Bog Turtle Phase II Physical Surveys and Trapping Services;
- Wetland Assessments and Delineations;
- Phase I and Phase II Timber Rattlesnake Survey Crew Leader;
- Phase I Allegheny Woodrat Surveys;
- Presence/Absence surveys for Small-footed Myotis;
- Bat Mist-Netting Technician;
- Southern Hognose, Canebrake, Pine Snake Radio Tracking;
- Whip-poor-will and Chuck-Will's-Widow Point Call Survey; and
- Macro-Invertebrate Sampling;
- State Rare, Threatened, and Endangered Plant Surveys;
- Assisted in several Plant Surveys for *Glyceria obtusa*, *Platanthera blephariglottis*, *Solidago uliginosa*, and *Solidago speciosa.*

Cameron Clark, Environmental Technician

Education

- *B.A., Wildlife and Fisheries Science, , The Pennsylvania State University, 2016*

Professional Training

- *OHSA 40 Hour HAZWOPER Training; All Probe Environmental; April 2018*
- *OSHA 8 Hour HAZWOPER Refresher Training; All Probe Environmental; March 2019*
- *Williams Safety Training; April 2018, May 2019*

Cameron Clark is a graduate from The Pennsylvania State University in 2016, where he was awarded a Bachelors degree in Wildlife and Fisheries Science. Mr. Clark is a certified Timber Rattlesnake Monitor of WHM. Mr. Clark has over 2 years of professional experience with handling venomous reptiles and also field experience on pipeline construction projects and wetland delineations.

Professional Experience

General Environmental Projects

- Located and removed Timber Rattlesnakes from pipeline work area;
- Used a Trimble GPS for mapping boundaries for mapping purposes;
- Participated in Phase 2 Timber Rattlesnake Den Habitat surveys;
- Conducted vegetation surveys to map forest density, and;
- Used ratio-telemetry to track Timber Rattlesnakes.

Wetland and Stream Restoration Projects

- Performed wetland monitoring and maintenance on various wetlands;
- Practiced wetland delineations using US Army Corps of Engineers Wetland Delineation Manual 1987 and applicable regional supplements;
- Helped construct dams, cross veins and mud sills to improve stream habitat for trout species;
- Delineated wetlands and water resources at several projects throughout Pennsylvania;
- Carried out small mammal surveys to predict population density;
- Completed trail reconstruction projects to improve recreational opportunities.

Charly Bloom, Environmental Technician

EDUCATION

- *Environmental & Ecological Biology, Bachelor of Science, Lock Haven University, Pennsylvania, 2019.*

PROFESSIONAL TRAINING

- *OSHA 40 Hour HAZWOPER Training; AllProbe Environmental; June 2019*

Ms. Bloom is a graduate from Lock Haven University in 2019, where she was awarded a Bachelors degree in Biological Environmental and Ecological Science. Ms. Bloom is an Environmental Technician that works in the field and wetland crews for WHM.

Professional Experience

General Environmental Projects

- Used GIS software for mapping and analysis
- Used a Trimble GPS for mapping boundaries for mapping purposes
- Composed various Environmental Reports for landfills, gas companies, wind farms, construction companies, private landowners, and regulatory agencies

Environmental Projects

- Performed wetland monitoring and maintenance on various wetlands
- Performed Stream Surveys
- Performed wetland and watercourse delineations using US Army Corps of Engineers Wetlands Delineation Manual 1987 and applicable regional supplements

Peter J. Backhaus, WPIT, Environmental Technician

Education

- *M.S. Geography, The Pennsylvania State University, University Park, PA, 2018*
- *B.S. Environmental Science, SUNY Plattsburgh, Plattsburgh, NY, 2013*

Certifications

- *Wetland Professional in Training (WPIT), 2019-Present*

Professional Training

- *Adult First Aid/CPR – American Heart Association, Pennsylvania, December 2018*
- *OSHA 24-Hour HAZWOPER Training – Allprobe Environmental, March 2015 (8-Hour Refresher December 2019)*
- *Williams Contractor Safety, March 2015*
- *Energy Transfer Contractor Safety Orientation, February 2016*
- *Southwest Energy Training Assurance Program (TAP) – 2015 Core and Supplement, February 2016*

Memberships & Affiliations

- *Society of Wetlands Scientists (2016 – Present)*
- *Association of State Wetland Managers (2018 – Present)*

Mr. Backhaus is a graduate of the Pennsylvania State University, where he was awarded a Master of Science in Geography. As a member of the Riparia research center, his research focused on the use of remote sensing data in wetland assessment. He has conducted specialized rapid assessment protcols and ecological assessments for reference wetlands throughout the Mid-Atlantic Region.

During his time at the WHM, he has assisted with projects including wetland delineation, bog turtle surveys, and wetland maintenance and monitoring. He is certified as a Wetland Professional in Training (WPIT) by the Society of Wetlands Scientists Professional Certification Program and is an active member of the SWS and its Mid-Atlantic Chapter.

Professional Experience

Wetlands

- Wetland delineations using the US Army Corps of Engineers Wetlands Delineation Manual 1987 and applicable regional supplements
- Assisted with wetland monitoring and maintenance
- Function and value assessments of wetlands

GIS & Mapping

- Spatial data collection with Trimble GeoXH, TDC150, and Juno series GPS units utilizing TerraSync and ArcPad software
- Project mapping and analysis using ERSI ArcGIS

Biological

- Identification and documentation of wetland flora and herptile species
- Assisted with invasive plant control and removal, including herbicidal and biocontrol methods
- Assisted with bog turtle Phase I (habitat), Phase II (presence/absence), and Phase II (trapping) surveys and radio telemetry studies

APPENDIX 12-B

WETLAND AND WATERCOURSE SUMMARY TABLES

APPENDIX 12-B-1

EFFORT LOOP

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W1-T5	W1-T5-1a	PEM	4,733	Yes	DELINEATE	40.914665	-75.386499	EV	UNT to McMichael Creek	HQ-CWF, MF	-	PEM wetland within an existing pipeline ROW and continues into the side of a private landowners yard.
W2-T5	W2-T5-1a	PEM	378	Yes	DELINEATE	40.917549	-75.387275	EV	UNT to McMichael Creek	HQ-CWF, MF	-	PEM wetland that drains a private pond into a culvert under someones driveway.
W3-T5	W3-T5-1a	PEM	3,942	No	ISOLATE	40.917192	-75.388307	Other	UNT to McMichael Creek	HQ-CWF, MF	-	Open water private pond behind someones house.
W4-T2	W4-T2-1c	PFO	14,988	No	ISOLATE	40.919121	-75.389348	EV	UNT to McMichael Creek	HQ-CWF, MF	-	PFO wetland just outside of existing ROW
W4-T6	W4-T6-1a	PEM	7,911	Yes	DELINEATE	40.922705	-75.390745	EV	UNT to McMichael Creek	HQ-CWF, MF	-	PEM/PSS depressional wetland located along the eastern side of existing pipeline ROW.
	W4-T6-1b	PSS	13887									
W3-T6	W3-T6-1a	PEM	1,178	No	NRPWW	40.923383	-75.390935	EV	UNT to McMichael Creek	HQ-CWF, MF	-	Small depressional PEM wetland that is a roadside ditch.
W2-T6	W2-T6-1a	PEM	2,618	Yes	DELINEATE	40.923515	-75.391809	EV	UNT to McMichael Creek	HQ-CWF, MF	-	PEM depressional wetland that is fed by an openwater pond on the western side of the existing pipeline ROW.
	-	POW	5182									
W1-T6	W1-T6-1b	PSS	4,221	Yes	DELINEATE	40.923784	-75.391823	EV	UNT to McMichael Creek	HQ-CWF, MF	-	PSS depressional wetland located on the western side of the existing pipeline ROW.
W1-T2	W1-T2-1a	PEM	38,299	Yes	DELINEATE	40.926404	-75.392307	EV	McMichael Creek	EV, MF	-	Large PEM wetland that is located across the existing pipeline ROW and continues off to the east and western sides.
W2-T2	W2-T2-1a	PEM	1,580	No	ISOLATE	40.928397	-75.395012	Other	McMichael Creek	EV, MF	-	Large PEM/PSS/PFO wetland that crosses the exiting pipeline ROW and continues off the western side.
	W2-T2-1b	PSS	17610									
	W2-T2-1c	PFO	868									
W3-T2	W3-T2-1a	PEM	3,327	No	ISOLATE	40.929033	-75.395606	Other	McMichael Creek	EV, MF	-	Small depressional PEM wetland located to the west of the existing pipeline ROW.
W6-T2	W6-T2-1a	PEM	2,943	Yes	DELINEATE	40.945928	-75.408375	EV	McMichael Creek	EV, MF	-	Small PEM depressisonal wetland located on the eastern side of the existing pipeline ROW.
W1-T1	W1-T1-1a, W1-T1-2a	PEM	13,736	Yes	RPWWD	40.965209	-75.427538	EV	Sugar Hollow Creek	CWF, MF	-	Large PEM/PSS wetland that borders S1-T2 and cross the existing pipeline ROW and continues to the northe
	W1-T1-1b, W1-T1-2b	PSS	13124									
W2-T1	W2-T1-1a	PEM	402	No	RPWWD	41.004098	-75.460922	EV	Poplar Creek	CWF, MF	EV	PEM wetland bordering S2-T1. Crossing the existing pipeline ROW.
W9-T2	W9-T2-1a, W9-T2-2a	PEM	34,361	Yes	RPWWD	41.013697	-75.474806	EV	Mud Run	HQ-CWF, MF	-	Large PEM/PFO wetland that is located in the existing pipeline ROW and surrrounds S5-T2.
	W9-T2-1c, W9-T2-2c	PFO	35,708									
W1-T3	W1-T3-1a	PEM	2,743	No	ISOLATE	41.021346	-75.488825	Other	Mud Run	HQ-CWF, MF	-	PEM wetland in a pipeyard.
W12-T2	W12-T2-1a	PEM	590	Yes	DELINEATE	41.029747	-75.495308	EV	Mud Run Pond	HQ-CWF, MF	EV	PEM/PFO wetland that is located on the eastern side of the existing ROW.
	W12-T2-1c	PFO	4,743									
W10-T2	W10-T2-1a	PEM	3,294	Yes	DELINEATE	41.031232	-75.496635	EV	Mud Run Pond	HQ-CWF, MF	EV	PEM/PFO wetland that is located on the eastern side of the existing ROW.
	W10-T2-1c	PFO	12,403									
W2-T3	W2-T3-1a	PEM	762	No	ISOLATE	41.037168	-75.503983	Other	Tunkhannock Creek	HQ-CWF, MF	-	PEM wetland that is located in the public lands and on the eastern side of the existing ROW.
W3-T3	W3-T3-1a	PEM	71	No	ISOLATE	41.037231	-75.504187	Other	Tunkhannock Creek	HQ-CWF, MF	-	Tiny PEM wetland located in the public lands and on the eastern side of the existing ROW.
W13-T2	W13-T2-1a	PEM	5,074	No	ISOLATE	41.03723	-75.504212	Other	Tunkhannock Creek	HQ-CWF, MF	-	Large PEM wetland located in the existing ROW.
W14-T2	W14-T2-1a	PEM	7,510	No	ISOLATE	41.044071	-75.513309	Other	Tunkhannock Creek	HQ-CWF, MF	-	Large PEM wetland located in the existing ROW.
W4-T3	W4-T3-1a	PEM	171	No	ISOLATE	41.044598	-75.514148	Other	Tunkhannock Creek	HQ-CWF, MF	-	PEM/PFO wetland that is located on the northern side of the existing ROW. The PFO portion is a vernal pool that had egg masses present.
	W4-T3-1c	PFO	843									
W15-T2	W15-T2	PFO	8,061	No	ISOLATE	41.047836	-75.518096	Other	Tunkhannock Creek	HQ-CWF, MF	-	PFO wetland located on the eastern side of existing ROW.
W3-T1	W3-T1-1a	PEM	150,149	Yes	RPWWD	41.048282	-75.519843	EV	Tunkhannock Creek	HQ-CWF, MF	-	Includes W3A-T1. Very Large PEM/PFO wetland that runs mainly on the existing pipeline ROW.
	W3-T1-1c	PFO	15,079									
W4-T1	W4-T1-1a	PEM	166,065	Yes	DELINEATE	41.049805	-75.521467	EV	Tunkhannock Creek	HQ-CWF, MF	-	Large PEM wetland that is located across the existing pipeline ROW and continues off to the east and western sides.
W5-T1	W5-T1-1a	PEM	2,886	No	ISOLATE	41.050709	-75.52319	Other	Tunkhannock Creek	HQ-CWF, MF	-	Includes W5A-T1, W5B-T1, W5C-T1, W5D-T1, W5E-T1, W5F-T1, which are all PEM wetlands and located above the existing pipeline and show similar hydrologic and vegetative regimes.
W6-T1	W6-T1-1a	PEM	4,966	No	ISOLATE	41.051154	-75.523199	Other	Tunkhannock Creek	HQ-CWF, MF	-	PEM wetland that is located in the existing pipeline ROW.
W7-T1	W7-T1-1a	PEM	342	Yes	DELINEATE	41.051198	-75.52245	EV	Tunkhannock Creek	HQ-CWF, MF	-	Small PEM wetland located along an existing access road.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W7A-T1	W7-T1-1a	PEM	1,358	No	ISOLATE	41.051613	-75.523001	Other	Tunkhannock Creek	HQ-CWF, MF	-	Includes W7B-T1, W7C-T1, W7D-T1, which are all PEM wetlands and located along an existing access road and show similar hydrologic and vegetative regimes.
W8-T1	W8-T1-1a	PEM	10,643	Yes	RPWWD	41.052825	-75.52526	EV	Tunkhannock Creek	HQ-CWF, MF	-	Includes W8A-T1. PEM/POW/PSS wetland that run through the existing pipeline ROW and along the eastern I.A. boundary.
	W8-T1-1b	PSS	6,694									
	-	POW	9,624									
W9-T1	W9-T1-1a	PEM	1,565	No	ISOLATE	41.052502	-75.525512	Other	Tunkhannock Creek	HQ-CWF, MF	-	Includes W9A-T1. PEM wetland on the western side of the existing pipeline ROW.
W10-T1	W10-T1-1a	PEM	2,644	No	ISOLATE	41.052806	-75.525738	Other	Tunkhannock Creek	HQ-CWF, MF	-	Includes W10A-T1. PEM wetland running through the existing pipeline ROW.

Total PEM Wetlands	**474,883**
Total PSS Wetlands	**55,536**
Total PFO Wetlands	**92,693**
Total POW Wetlands	**14,806**
TOTAL	**639,276**

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP
WATERCOURSE RESOURCE SUMMARY TABLE

Watercourse ID	Stream Name	Type	Resource Size			Floodway - FEMA & 50ft (ac)	FEMA Floodplain (ac)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Watershed Name	PA Code Chapter 93 Water Quality		PFBC Classification			Watercourse Description
			Length (feet)	Width (feet)	Area (sq. ft.)								PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	Stocked Trout	Naturally Reproducing Trout	Class A Wild Trout	
S2-T5	UNT to McMichael Creek	Ephemeral	36	1	31	0.27	-	Yes	NRPW	40.917627	-75.387307	UNT to McMichael Creek	HQ-CWF, MF	-	No	Yes	No	0-6" water depth, no erosion noted, flows through a culvert fed by W2-T5.
S3-T5	UNT to McMichael Creek	Ephemeral	157	1	149	0.55	-	No	NRPW	40.923471	-75.391337	UNT to McMichael Creek	HQ-CWF, MF	-	No	Yes	No	0-6" water depth, no erosion noted, flows through a culvert fed by W2-T6.
S1-T1	UNT to Pohopoco Creek	Intermittent	309	8	1,683	0.96	-	Yes	RPW	40.955271	-75.416502	Pohopoco Creek	CWF, MF	-	No	Yes	Yes	0-6" water depth, no erosion noted, located on existing pipeline ROW
S1-T2	Sugar Hollow Creek	Perennial	574	15	11,968	1.85	2.37	Yes	RPW	40.965548	-75.427335	Sugar Hollow Creek	CWF, MF	-	No	Yes	Yes	13-24" water depth, no erosion noted, and hydrologically connected to W1-T1.
S2-T2	UNT to Sugar Hollow Creek	Perennial	14	16	223	0.26	-	Yes	RPW	40.965644	-75.427247	Sugar Hollow Creek	CWF, MF	-	No	Yes	No	0-6" water depth, Braided stream that flows into S1-T2, no erosion noted.
S3-T2	UNT to Sugar Hollow Creek	Intermittent	28	6	374	0.27	-	Yes	RPW	40.964948	-75.428058	Sugar Hollow Creek	CWF, MF	-	No	Yes	No	0-6" water depth, downcutting erosion noted, starts at a seep in a W1-T1.
S4-T2	UNT to Poplar Creek	Ephemeral	176	7	1,852	0.64	-	Yes	NRPW	40.982854	-75.442214	Poplar Creek	CWF, MF	EV	No	Yes	No	No water present at time of survey, No erosion noted, man-made ditch that sirects water away from road and into connected Wetland
S2-T1	UNT to Poplar Creek	Perennial	331	24	5,373	1.13	-	Yes	RPW	41.004131	-75.460821	Poplar Creek	CWF, MF	EV	No	Yes	No	7-24" water depth, sloughing erosion in ROW, natural until it meets existing ROW.
S3-T1	UNT to Poplar Creek	Ephemeral	17	8	141	0.24	-	Yes	NRPW	41.00406	-75.461406	Poplar Creek	CWF, MF	EV	No	Yes	No	No water present at time of survey, no erosion noted, stream starts at a waterbar and flows off ROW and into sheet flow.
S5-T2	Mud Run	Perennial	402	9	3,525	1.18	-	Yes	RPW	41.013747	-75.474871	Mud Run	HQ-CWF, MF	-	No	Yes	No	7-12" water depth, wheel rut erosion present, flows through ROW and has hydrologic connection to W9-T2
S7-T2	UNT to Tunkhannock Creek	Intermittent	111	7	806	0.46	-	Yes	RPW	41.048184	-75.518749	Tunkhannock Creek	HQ-CWF, MF	-	No	Yes	No	0-6" water depth, No erosion noted, starts as a seep and flows into S8-T2 outside I.A.
S8-T2	UNT to Tunkhannock Creek	Perennial	341	20	3,903	1.09	-	Yes	RPW	41.04903	-75.519764	Tunkhannock Creek	HQ-CWF, MF	-	No	Yes	No	0-6" water depth, No erosion noted, flows through a wetland and into a culvert and out of the I.A.
S9-T2	UNT to Tunkhannock Creek	Ephemeral	42	12	573	0.33	-	Yes	NRPW	41.049104	-75.519801	Tunkhannock Creek	HQ-CWF, MF	-	No	Yes	No	No water present at time of survey, no erosion detected, man-made swale, flows into S8-T2.
S4-T1	UNT to Tunkhannock Creek	Perennial	669	7	5,267	1.40	-	No	RPW	41.052989	-75.525115	Tunkhannock Creek	HQ-CWF, MF	-	No	Yes	No	0-6" water depth, no erosion noted, runs through existing ROW.
		Total Ephemeral Channels			**2,746**													
		Total Intermittent Channels			**2,863**													
		Total Perennial Channels			**30,259**													
		TOTAL			**35,868**													

APPENDIX 12-B-2

REGIONAL ENERGY LATERAL
(INCLUDES COMPRESSOR STATION 515)

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - COMPRESSOR STATION 515 TO BALD MOUNTAIN ACCESS ROAD
WATERCOURSE RESOURCE SUMMARY TABLE

Watercourse ID	Stream Name	Type	Resource Size			Floodway FEMA & 50ft (ac)	FEMA Floodplain (ac)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Watershed Name	PA Code Chapter 93 Water Quality		PFBC Classification			Watercourse Description
			Length (feet)	Width (feet)	Area (sq. ft.)								PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	Stocked Trout	Naturally Reproducing Trout	Class A Wild Trout	
S77-T2	UNT to Stony Run	Perennial	85	11	633	0.39	-	Yes	RPW	41.158026	-75.662153	Stony Run	HQ-CWF, MF	-	No	Yes	No	Perennial stream that flows under PA-115 through a culvert and meanders through a forested riparian buffer.
S10-T2	UNT to Stony Run	Ephemeral	738	5	3,993	1.98	-	No	NRPW	41.17058	-75.671058	Stony Run	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel flowing down a slope through a wetland and goes to sheet flow at thre bottom of the slope.
S13-T2	UNT to Stony Run	Ephemeral	160	3	583	0.57	-	No	NRPW	41.170871	-75.672007	Stony Run	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel that flows out of a wetland formed from a stormwater basin and goes to sheet flow at the top of a slope.
S11-T2	UNT to Stony Run	Ephemeral	57	4	248	0.33	-	No	NRPW	41.171183	-75.672824	Stony Run	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel flowing out of a stormwater culvert coming out of a compressor station.
S12-T2	UNT to Stony Run	Ephemeral	89	3	329	0.40	-	No	NRPW	41.171023	-75.673163	Stony Run	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel that flows down a slope and turns to sheet flow at the bottom of the slope.
S1-T3	UNT to Shades Creek	Ephemeral	117	4	434	0.46	-	No	NRPW	41.172875	-75.673648	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel flowing out of a culvert into a rock lined channel in a compressor station that turns to sheet flow when in the woods line.
S18-T2	UNT to Shades Creek	Ephemeral	435	5	2,844	1.27	-	Yes	NRPW	41.176338	-75.675808	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel flowing out of a wetland across a pipeline ROW and goes to sheet flow in a wetland on a powerline ROW.
S19-T2	UNT to Shades Creek	Ephemeral	90	10	791	0.42	-	No	NRPW	41.176278	-75.676467	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel formed from runoff in the woods and turns to sheet flow after a short distance.
S20-T2	UNT to Shades Creek	Perennial	608	11	5,271	1.68	0.39	Yes	RPW	41.177938	-75.678046	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream that meanders over bedrock and boulders across a powerline and pipeline ROW and continues through the woods. Fish present.
S21-T2	UNT to Shades Creek	Perennial	35	3	143	0.31	-	Yes	RPW	41.178002	-75.677126	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream flowing out of a swamp through rocks and boulders into S20-T2.
S3-T13	Shades Creek	Perennial	492	16	6,999	1.51	0.29	Yes	RPW	41.184304	-75.68434	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream flowing through a deep gully on across a powerline and pipeline ROW along a road.
S12-T5	UNT to Shades Creek	Ephemeral	39	1	54	0.31	-	Yes	NRPW	41.183601	-75.686354	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel that crosses under an access road through a culvert.
S13-T5	UNT to Shades Creek	Ephemeral	93	1	90	0.40	-	Yes	NRPW	41.183477	-75.686531	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Ephemeral channel that crosses under an access road through a culvert.
S44-T2	UNT to Shades Creek	Perennial	686	11	9,473	2.02	-	Yes	RPW	41.186938	-75.686571	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream at the bottom of a slope flowing across a powerline and pipeline ROW and then continuing through the woods.
S44a-T2	UNT to Shades Creek	Perennial	30	4	148	0.27	-	Yes	RPW	41.187291	-75.68611	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream braid off of S44-T2.
S2-T13	UNT to Shades Creek	Perennial	313	4	2,195	0.95	-	Yes	RPW	41.189896	-75.690616	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream flowing out of a wetland on a pipeline ROW and out through the woods.
S1-T13	UNT to Shades Creek	Perennial	415	6	3,148	1.23	-	No	RPW	41.190201	-75.691092	Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream flowing out of a wetland on a pipeline ROW and out through the woods.
S43-T2	UNT to Little Shades Creek	Perennial	94	14	1,660	0.48	-	Yes	RPW	41.196381	-75.701599	Little Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream with a wetland fringe that forms from a seep at the botton of a slope and eventually flows into S43-T2.
S1-T4	UNT to Little Shades Creek	Intermittent	103	12	1,024	0.46	-	Yes	RPW	41.197137	-75.701259	Little Shades Creek	HQ-CWF, MF	-	No	Yes	No	Intermittent channel that flows through a wetland on a powerline ROW and flows into S43-T2.
S42-T2	Little Shades Creek	Perennial	332	14	4,337	1.07	-	Yes	RPW	41.196925	-75.701735	Little Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream flowing across a powerline and pipeline ROW with an old beaver dam backing up flow in the woods and it continues below the dam.
S10-T3	UNT to Little Shades Creek	Perennial	82	6	462	0.39	-	Yes	RPW	41.202589	-75.711274	Little Shades Creek	HQ-CWF, MF	-	No	Yes	No	Perennial channel flowing out of a wetland on a pipeline ROW and out through the woods.
S5-T11	UNT to Meadow Run	Perennial	141	6	941	0.53	-	Yes	RPW	41.210537	-75.723042	Meadow Run	HQ-CWF, MF	-	No	Yes	No	Perennial stream flowing out of a wetland on a pipeline ROW.
S38-T2	Meadow Run	Perennial	355	21	9,194	1.29	0.33	Yes	RPW	41.212581	-75.725705	Meadow Run	HQ-CWF, MF	-	No	Yes	No	Perennial stream flowing over bedrock and boulders in a deep channel across a powerline and pipeline ROW.
S39-T2	UNT to Bear Creek	Intermittent	128	4	533	0.49	-	Yes	RPW	41.215026	-75.730449	Bear Creek	HQ-CWF, MF	-	No	Yes	No	Intermittent channel that starts from a seep near the bottom of a slope and flows into a wetland.
S40-T2	UNT to Bear Creek	Perennial	517	9	2,818	1.28	-	Yes	RPW	41.215566	-75.730181	Bear Creek	HQ-CWF, MF	-	No	Yes	No	Perennial channel that flows across a recently cleared powerline ROW and a pipeline ROW with a beaver dam that backs up flow along the edge of the ROW. Stream continues through wetland and out of investigation area.
S9-T5	UNT to Bear Creek	Intermittent	157	17	1,403	0.61	-	Yes	RPW	41.217094	-75.733007	Bear Creek	HQ-CWF, MF	-	No	Yes	No	Intermittent channel flowing out of a wetland across a pipeline ROW.
S8-T5	Bear Creek	Perennial	361	36	14,150	1.46	4.92	Yes	RPW	41.217465	-75.733341	Bear Creek	HQ-CWF, MF	-	No	Yes	No	Perennial channel in a valley bottom flowing through a wetland across a powerline and pipeline ROW.
S2-T12	UNT to Little Bear Creek	Perennial	254	4	1,414	0.75	-	Yes	RPW	41.229432	-75.749464	Little Bear Creek	HQ-CWF, MF	-	No	Yes	No	Perennial stream flowing out of a wetland and across a pipeline ROW.
S35-T2	UNT to Little Bear Creek	Intermittent	598	3	2,688	1.37	-	Yes	RPW	41.232311	-75.753081	Little Bear Creek	HQ-CWF, MF	-	No	Yes	No	Intermittent channel flowing through a wetland onto a pipeline ROW where it follows a tire rut until it hits a channel and flows off into the woods.
S36-T2	UNT to Little Bear Creek	Intermittent	79	6	419	0.38	-	Yes	RPW	41.231968	-75.753251	Little Bear Creek	HQ-CWF, MF	-	No	Yes	No	Abandoned channel of S35-T2 that still receives water from a seep and flows down an old road into S35-T2 outside the investigation area.
		Total Ephemeral Channels			**9,366**													
		Total Intermittent Channels			**6,067**													
		Total Perennial Channels			**62,353**													
		TOTAL			**78,419**													

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - COMPRESSOR STATION 515 TO BALD MOUNTAIN ACCESS ROAD
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W19-T2	W19-T2-1a	PEM	3,747	No	NRPWW	41.171073	-75.671128	EV	Stony Run	HQ-CWF, MF	-	PEM wetland in an old field receiving hydrology from ephemeral channel S10-T2.
W20-T2	W20-T2-1a	PEM	648	No	ISOLATE	41.171218	-75.671278	OTHER	Stony Run	HQ-CWF, MF	-	Isolated PEM depressional wetland in an old field.
W18-T2	W18-T2-1a	PEM	9,876	No	NRPWW	41.171239	-75.671698	EV	Stony Run	HQ-CWF, MF	-	PEM wetland inside a compressor station fence that was recently disturbed and is receiving hydrology from a stormwater basin and forms channel S13-T2 outside of the fence.
W23-T2	W23-T2-1a	PEM	35,923	Yes	DELINEATE	41.17238	-75.670497	EV	Stony Run	HQ-CWF, MF	-	PEM and PFO depressional wetland on a pipeline ROW and along a fence of a pipeline compressor station.
	W23-T2-1c	PFO	5,042									
W38-T2	W38-T2-1a	PEM	1,890	No	ISOLATE	41.1739653	-75.670309	OTHER	Shades Creek	HQ-CWF, MF	-	Small isolated PEM wetland along the fence of a compressor station and above a stormwater basin.
W5-T3	W5-T3-1a	PEM	9,600	No	ISOLATE	41.1732957	-75.673786	OTHER	Shades Creek	HQ-CWF, MF	-	PEM and PFO wetland formed along recently disturbed stormwater channel S1-T3 and stormwater basin inside a pipeline compressor station.
	W5-T3-1c	PFO	5,503									
W6-T3	W6-T3-1a	PEM	8,771	No	ISOLATE	41.1739651	-75.673371	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a slope receiving hyrology for stormwater culverts from a pipeline compressor station.
W37-T2	W37-T2-1a	PEM	471	No	ISOLATE	41.1727384	-75.674753	OTHER	Shades Creek	HQ-CWF, MF	-	Small PEM wetland by a septic sand mound with hydrology being held back by the mound.
W7-T3	W7-T3-1c	PFO	9,132	No	ISOLATE	41.173812	-75.674758	OTHER	Shades Creek	HQ-CWF, MF	-	Depressional PFO wetland that recieves hydrology from stormwater flowing down slope from the compressor station.
W8-T3	W8-T3-1a	PEM	26,049	Yes	DELINEATE	41.174589	-75.675037	EV	Shades Creek	HQ-CWF, MF	-	PEM and PFO wetland on a pipeline ROW.
	W8-T3-1c	PFO	9,089									
W22-T1	W22-T1-1a, W22-T1-3a	PEM	83,275	Yes	RPWWD	41.17706	-75.676682	EV	Shades Creek	HQ-CWF, MF	-	Large PEM and PFO wetland complex on a pipeline and powerline ROW with associated streams S18-T2 and S20-T2 flowing within the wetland.
	W22-T1-2c	PFO	45,015									
W78-T1	W78-T1-1a	PEM	326	Yes	RPWWD	41.178015	-75.677142	EV	Shades Creek	HQ-CWF, MF	-	PEM wetland along the fringe of two streams.
W79-T1	W79-T1-1a	PEM	8,566	Yes	RPWWD	41.178372	-75.678532	EV	Shades Creek	HQ-CWF, MF	-	PEM and PFO spring seep wetland that spreads across a pipeline ROWN and open ends outside of the investigation area.
	W79-T1-1c	PFO	5,049									
W43-T2	W43-T2-1c	PFO	303	Yes	DELINEATE	41.177971	-75.678591	EV	Shades Creek	HQ-CWF, MF	-	Depressional PFO wetland along the edge of investigation area.
W110-T2	W110-T2-1a	PEM	426	No	ISOLATE	41.178762	-75.678425	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a powerline ROW.
W111-T2	W111-T2-1a	PEM	639	No	ISOLATE	41.179352	-75.679011	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a powerline ROW receiving hydrology through a culvert.
W42-T3	W42-T3-1a	PEM	2,159	No	ISOLATE	41.183908	-75.683152	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a terrace on a powerline ROW.
W41-T3	W41-T3-1b	PSS	238	No	RPWWD	41.184336	-75.684274	EV	Shades Creek	HQ-CWF, MF	-	PSS wetland along the edge of S3-T13 on a pipeline ROW.
W40-T3	W40-T3-1a	PEM	14,859	Yes	DELINEATE	41.185479	-75.684878	EV	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W109-T2	W109-T2-1a	PEM	65	No	ISOLATE	41.185191	-75.684901	OTHER	Shades Creek	HQ-CWF, MF	-	Depressional PEM wetland on a powerline ROW next to an access road.
W55-T1	W55-T1-1a	PEM	4,678	No	ISOLATE	41.186807	-75.686161	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW on a terrace.
W11-T4	W11-T4-1a	PEM	6,035	Yes	RPWWD	41.187235	-75.686096	EV	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW along the fringe of S44-T2.
W10-T4	W10-T4-1a	PEM	51,877	No	RPWWD	41.186974	-75.686665	EV	Shades Creek	HQ-CWF, MF	-	Large PEM/PSS/PFO wetland complex on a gradual slope on a powerline and pipeline ROW.
	W10-T4-1b	PSS	6,329									
	W10-T4-1c	PFO	5,609									

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - COMPRESSOR STATION 515 TO BALD MOUNTAIN ACCESS ROAD
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W54-T1	W54-T1-1a	PEM	2,204	No	ISOLATE	41.188148	-75.686876	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W53-T1	W53-T1-1a	PEM	771	No	ISOLATE	41.188434	-75.687248	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW
W52-T1	W52-T1-1a	PEM	862	No	ISOLATE	41.188714	-75.687801	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W108-T2	W108-T2-1a	PEM	6,137	No	ISOLATE	41.188336	-75.68825	OTHER	Shades Creek	HQ-CWF, MF	-	Depressional PEM wetland on a pieline ROW with overgrown travel lane with open water in ruts.
W9-T4	W9-T4-1a	PEM	8,485	No	ISOLATE	41.188618	-75.687995	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W107-T2	W107-T2-1a	PEM	1,155	No	ISOLATE	41.18853	-75.688551	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a pipeline ROW with hydrology being altered by waterbars.
W8-T4	W8-T4-1a	PEM	37,534	No	ISOLATE	41.189084	-75.688848	OTHER	Shades Creek	HQ-CWF, MF	-	Large PEM wetland on a recently disturded powerline ROW.
W51-T1	W51-T1-1a	PEM	2,151	No	ISOLATE	41.18907	-75.688359	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W106-T2	W106-T2-1a	PEM	1,644	No	ISOLATE	41.188778	-75.689019	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a pipeline ROW with hydrology being altered by waterbars.
W105-T2	W105-T2 -1a	PEM	5,140	No	ISOLATE	41.189297	-75.689778	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a pipeline ROW with hydrology being altered by waterbars.
W50-T1	W50-T1-1a	PEM	3,187	No	ISOLATE	41.189725	-75.689344	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W39-T3	W39-T3-1a	PEM	17,486	Yes	RPWWD	41.190275	-75.690748	EV	Shades Creek	HQ-CWF, MF	-	PEM and PFO wetland complex that seeps across a powerline and pipeline ROW before channelizing into S2-T13.
	W39-T3-1c	PFO	1,317									
W104-T2	W104-T2-1a	PEM	398	No	ISOLATE	41.190102	-75.690956	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland depression on a pipeline ROW.
W103-T2	W103-T2-1a	PEM	29,994	No	RPWWD	41.19075	-75.692089	EV	Shades Creek	HQ-CWF, MF	-	PEM and PFO wetland complex that starts as a seep at the bottom of a slope on a pipeline and recently cut powerline ROW and then channelizes into S1-T13 at the bottom of the wetland.
	W103-T2-1c	PFO	10,553									
W38-T3	W38-T3-1a	PEM	7,101	No	ISOLATE	41.191164	-75.692284	OTHER	Shades Creek	HQ-CWF, MF	-	PEM and PFO depressional wetland athe the bottom of a slope on a powerline ROW.
	W38-T3-2c	PFO	470									
W5-T13	W5-T13-1a	PEM	10,744	No	ISOLATE	41.191442	-75.693258	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a slope on a pipeline ROW.
W4-T13	W4-T13-1a	PEM	174	No	ISOLATE	41.191905	-75.693968	OTHER	Shades Creek	HQ-CWF, MF	-	Small PEM wetland on a pipeline ROW.
W37-T3	W37-T3-1a	PEM	257	No	ISOLATE	41.192962	-75.695234	OTHER	Shades Creek	HQ-CWF, MF	-	PEM wetland on a trail between a pipeline and powerline ROW.
W102-T2	W102-T2-1a	PEM	2,507	No	ISOLATE	41.193662	-75.696845	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM depressional wetland along the edge of a pipeline ROW.
W36-T3	W36-T3-1a	PEM	233	No	ISOLATE	41.194618	-75.697885	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM depressional wetland at the intersection of two pipeline ROWs.
W3-T13	W3-T13-1a	PEM	5,678	No	ISOLATE	41.195796	-75.699689	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM and PFO wetland complex on a slope of a powerline ROW along an access road and along the edge of pipeline ROW.
	W3-T13-1c	PFO	605									
W101-T2	W101-T2-1a	PEM	2,829	No	ISOLATE	41.195668	-75.699843	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM wetland on a slope on a pipeline ROW with hydrology being diverted by a waterbar.
W35-T3	W35-T3-1a	PEM	19,234	No	ISOLATE	41.196075	-75.699843	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW on a slope.
W118-T4	W118-T4-1c	PFO	1,813	Yes	RPWWD	41.196421	-75.701638	EV	Little Shades Creek	HQ-CWF, MF	-	PFO wetland fringe along a spring seep (S43-T2) at the bottom of a slope.
W7-T4 W7a-T4	W7-T4-1a	PEM	22,393	Yes	RPWWD	41.196806	-75.701806	EV	Little Shades Creek	HQ-CWF, MF	-	PEM and PFO wetland complex along the edge of S42-T2 and S1-T4. Beavers have a dam on the stream.
	W7-T4-1a	PFO	10,139									

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - COMPRESSOR STATION 515 TO BALD MOUNTAIN ACCESS ROAD
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W6-T4	W6-T4-1a	PEM	1,039	No	RPWWN	41.197225	-75.701764	EV	Little Shades Creek	HQ-CWF, MF	-	PEM wetland on a powerline ROW on a gradual slope.
W100-T2	W100-T2-1a	PEM	1,078	No	ISOLATE	41.19746	-75.70277	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM depressional wetland on a recently disturbed pipeline ROW.
W5-T4	W5-T4-1a	PEM	476	No	ISOLATE	41.1977	-75.702533	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM wetland on a powerline ROW next to an access road.
W4-T4	W4-T4-1a	PEM	1,103	No	ISOLATE	41.197674	-75.70269	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM wetland on a powerline ROW next to an access road.
W2-T4	W2-T4-1a	PEM	5,001	No	ISOLATE	41.199415	-75.705982	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM wetland along the edge of a recently disturbed pipeline ROW.
W3-T4	W3-T4-1a	PEM	8,042	No	ISOLATE	41.199853	-75.705778	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W99-T2	W99-T2-1a	PEM	8,962	Yes	DELINEATE	41.200633	-75.706967	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM wetland located along the edge of an access road on a powerline ROW, across a path, and on a recently disturbed pipeline ROW on a terrace.
W98-T2	W98-T2-1a	PEM	8,090	No	ISOLATE	41.200438	-75.707424	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM depressional wetland on a recently disturbed powerline ROW near a powerline pole.
W1-T4 W1a-T4	W1-T4-1a	PEM	19,735	No	ISOLATE	41.200945	-75.708262	OTHER	Little Shades Creek	HQ-CWF, MF	-	PEM and PFO wetland complex on a powerline ROW and in a depression on a pipeline ROW.
	W1-T4-1c	PFO	937									
W42-T1	W42-T1-1a	PEM	31,148	Yes	RPWWD	41.202656	-75.71072	EV	Little Shades Creek	HQ-CWF, MF	-	Large PFO/PSS/PEM NWI depressional wetland complex with a stream channel flowing through it. Areas on the pipeline and powerline ROWs were recently disturbed.
	W42-T1-2b	PSS	50,877									
	W42-T1-3c	PFO	23,424									
W43-T1	W43-T1-1a	PEM	4,349	No	ISOLATE	41.207088	-75.716144	OTHER	Meadow Run	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W44-T1	W44-T1-1a	PEM	90	No	ISOLATE	41.208466	-75.718694	OTHER	Meadow Run	HQ-CWF, MF	-	Small PEM seep wetland on a slope on a powerline ROW.
W45-T1	W45-T1-1a	PEM	10,884	No	ISOLATE	41.208823	-75.719081	OTHER	Meadow Run	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW.
W6-T11	W6-T11-1a	PEM	1,097	No	ISOLATE	41.208401	-75.719227	OTHER	Meadow Run	HQ-CWF, MF	-	PEM wetland depression on a pipeline ROW.
W7-T11 W7a-T11	W7-T11-1a	PEM	1,747	No	ISOLATE	41.209079	-75.719102	OTHER	Meadow Run	HQ-CWF, MF	-	PEM wetland on the edge of an access road on a recently disturbed powerline ROW.
W46-T1	W46-T1-1a	PEM	10,081	No	ISOLATE	41.209274	-75.719825	OTHER	Meadow Run	HQ-CWF, MF	-	PEM wetland on gradual slope on a recently disturbed powerline ROW.
W92-T2	W92-T2-1a	PEM	7,536	No	ISOLATE	41.2089	-75.720016	OTHER	Meadow Run	HQ-CWF, MF	-	PEM wetland on a slope with waterbars on a pipeline ROW.
W8-T11	W8-T11-1a	PEM	3,480	No	ISOLATE	41.209735	-75.72052	OTHER	Meadow Run	HQ-CWF, MF	-	PEM wetland on a recently disturbed powerline ROW near a power pole in a depression.
W93-T2	W93-T2-1a	PEM	8,001	No	ISOLATE	41.209613	-75.721	OTHER	Meadow Run	HQ-CWF, MF	-	PEM spring seep wetland on a steep slope on a pipeline ROW.
W94-T2	W94-T2-1a	PEM	295	No	ISOLATE	41.210235	-75.72218	OTHER	Meadow Run	HQ-CWF, MF	-	Small depressional wetland in tire ruts at the toe of a slope on a pipeline ROW.
W31-T3	W31-T3-2a	PEM	23,690	Yes	RPWWD	41.211212	-75.723077	EV	Meadow Run	HQ-CWF, MF	-	Large PEM/PSS/ PFO wetland complex in a bottom land on a pipeline and powerline ROW with a very unconsolidated bottom and has S5-T11 flowing into the wetland.
	W31-T3-1b	PSS	29,836									
	W31-T3-3c, W31-T3-4c	PFO	39,392									
W47-T1	W47-T1-1a	PEM	1,943	No	ISOLATE	41.21187	-75.724712	OTHER	Meadow Run	HQ-CWF, MF	-	PEM wetland depression on a pipeliine ROW.
W32-T3	W32-T3-1a	PEM	16,055	Yes	DELINEATE	41.213387	-75.726173	OTHER	Meadow Run / Bear Creek	HQ-CWF, MF		PEM wetland on a gradual slope on a recently disturbed powerline ROW.
W33-T3	W32-T3-1a	PEM	854	No	ISOLATE	41.213675	-75.726715	OTHER	Bear Creek	HQ-CWF, MF		PEM wetland on a recently disturbed powerline ROW near a n access road.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - COMPRESSOR STATION 515 TO BALD MOUNTAIN ACCESS ROAD
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W14-T5	W14-T5-1a	PEM	7,976	No	ISOLATE	41.214707	-75.728304	OTHER	Bear Creek	HQ-CWF, MF	-	PEM and PSS wetland complex in a depression on a powerline ROW.
	W14-T5-1b	PSS	7,454									
W95-T2	W95-T2-1c	PFO	2,651	Yes	DELINEATE	41.214368	-75.729259	EV	Bear Creek	HQ-CWF, MF	-	PFO wetland depression in the woods near a pipeline ROW.
W96-T2	W96-T2-1a	PEM	4,210	Yes	RPWWD	41.215477	-75.730151	EV	Bear Creek	HQ-CWF, MF	-	Large PEM/PFO/PSS/POW wetland complex receiving hydrology from a stream and multiple seeps on powerline and pipeline ROWs. Powerline ROW was recently logged and ATV trails disturbed the PEM and POW areas. POW area formed by beaver dam on stream.
	W96-T2-1b, W96-T2-2b	PSS	44,891									
	W96-T2-1c	PFO	6,605									
	W96-T2-1d	POW	2,155									
W15-T5	W15-T5-1a	PEM	2,662	Yes	RPWWD	41.217246	-75.732983	EV	Bear Creek	HQ-CWF, MF	-	PEM/PSS/PFO wetland complex in a depression at the bottom of a slope on a powerline and pipeline ROW that becomes S9-T5 when it enters the woods.
	W15-T5-1b	PSS	6,715									
	W15-T5-1c	PFO	5,322									
W48-T1	W48-T1-1a	PEM	505	No	RPWWN	41.217517	-75.733448	EV	Bear Creek	HQ-CWF, MF	-	PEM and PSS wetland in a depression along the fringe of S8-T5 on a powerline and pipeline ROW.
	W48-T1-1b	PSS	203									
W49-T1	W49-T1-1a	PEM	30,846	Yes	RPWWN	41.218056	-75.734373	EV	Bear Creek	HQ-CWF, MF	-	Large PEM/PSS/PFO wetland complex across a pipeline and powerline ROW with hydrology coming from seeps at the bottom of a slope.
	W49-T1-1b	PSS	15,968									
	W49-T1-1c	PFO	46,273									
W1-T13	W1-T13-1c	PFO	371	Yes	DELINEATE	41.218868	-75.734543	EV	Bear Creek	HQ-CWF, MF	-	Small PFO depressional wetland along the edge of a powerline ROW.
W97-T2	W97-T2-1a	PEM	19,111	Yes	DELINEATE	41.220017	-75.73733	EV	Bear Creek	HQ-CWF, MF	-	Large PEM/PSS/PFO wetland bog complex that spans across a recently cut powerline ROW and a pipeline ROW that was disturbed by ATV traffic.
	W97-T2-1b	PSS	41,600									
	W97-T2-1c	PFO	18,848									
W34-T3	W34-T3-1a	PEM	3,509	No	ISOLATE	41.221097	-75.738296	OTHER	Bear Creek	HQ-CWF, MF	-	PEM wetland on a powerline ROW on a gradual slope.
W9-T5	W9-T5-1a	PEM	26,089	Yes	DELINEATE	41.221755	-75.739629	EV	Bear Creek	HQ-CWF, MF	-	PFO and PEM wetland compex in a recently logged area and a disturbed pipeline ROW from ATV traffic on a slope.
	W9-T5-1c	PFO	10,153									
W84-T2	W84-T2-1a	PEM	2,000	No	ISOLATE	41.222093	-75.740403	OTHER	Bear Creek	HQ-CWF, MF	-	PEM wetland on an ATV trail cut through the woods on a gradual hillslope.
W4-T12	W4-T12-1a	PEM	4,246	No	ISOLATE	41.222554	-75.740906	OTHER	Bear Creek	HQ-CWF, MF	-	PEM and PFO wetland complex on a terrace with a deep vernal pool with frogs and salamanders.
	W4-T12-1c	PFO	803									
W5a-T12 W5b-T12 W5c-T12	W5-T12-1a	PEM	409	No	ISOLATE	41.224301	-75.743443	OTHER	Bear Creek	HQ-CWF, MF	-	PEM and PSS wetland complex on an old logging road near a pipeline ROW.
	W5-T12-1b	PSS	275									
W86-T2	W86-T2-1a	PEM	25,967	No	ISOLATE	41.225478	-75.744361	OTHER	Bear Creek / Little Bear Creek	HQ-CWF, MF	-	Large PEM and PFO wetland complex on a pipeline ROW with frogs and salamanders present. ATV trails have greatly disturbed the wetland.
	W86-T2-1b	PFO	1,040									
W10-T5	W10-T5-1c	PFO	3,536	No	ISOLATE	41.22477	-75.744014	OTHER	Bear Creek	HQ-CWF, MF	-	PFO wetland depression near a pipeline ROW.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - COMPRESSOR STATION 515 TO BALD MOUNTAIN ACCESS ROAD
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W11-T5	W11-T5-1a	PEM	470	No	ISOLATE	41.225474	-75.744953	OTHER	Little Bear Creek	HQ-CWF, MF	-	PEM wetland in a depression on an ATV trail near a pipeline ROW.
W6-T12 W6a-T12	W6-T12-1c	PFO	632	No	ISOLATE	41.225798	-75.744306	OTHER	Little Bear Creek	HQ-CWF, MF	-	Depressional PFO wetlands in the woods near a pipeline ROW.
W7-T12	W7-T12-1a	PEM	137	Yes	DELINEATE	41.226268	-75.744744	EV	Little Bear Creek	HQ-CWF, MF	-	PEM wetland on an ATV trail near a pipeline ROW.
W12-T5	W12-T5-1a	PEM	25,982	No	ISOLATE	41.227844	-75.747401	OTHER	Little Bear Creek	HQ-CWF, MF	-	Large PEM and PFO wetland complex on a pipeline ROW with frogs and salamanders present. ATV trails have greatly disturbed the wetland.
	W12-T5-1c	PFO	1,234									
W87-T2	W87-T2-1a	PEM	1,583	No	ISOLATE	41.228461	-75.748058	OTHER	Little Bear Creek	HQ-CWF, MF	-	PEM wetland seep on an ATV trail on a pipeline ROW.
W13-T5	W13-T5-1a	PEM	14,735	Yes	RPWWD	41.229421	-75.749386	EV	Little Bear Creek	HQ-CWF, MF	-	PEM and PFO wetland complex on a pipeline ROW along the fringe of S2-T12. ATV traffic disturbed wetland on ROW. Frogs and salamanders present.
	W13-T5-1c	PFO	38,306									
W89-T2	W89-T2-1a	PEM	9,948	No	RPWWD	41.232177	-75.752822	EV	Little Bear Creek	HQ-CWF, MF	-	Large PEM and PFO wetland complex on a pipeline ROW receiving hydrology from seeps and S35-T2 and eventually terminates into two channels. ATV riders have greatly disturbed the wetland on the pipeline ROW. Frogs and salamanders present.
	W89-T2-1c, W89-T2-2c	PFO	11,811									
W90-T2	W90-T2-1a	PEM	304	No	ISOLATE	41.232586	-75.753245	OTHER	Little Bear Creek	HQ-CWF, MF	-	Depressional PEM seep at the toe of a slope on a pipeline ROW.

Total PEM Wetlands	**813,643**
Total PSS Wetlands	**205,426**
Total PFO Wetlands	**318,541**
Total POW Wetlands	**2,155**
TOTAL	**1,341,161**

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - BALD MOUNTAIN ACCESS ROAD TO INTERSTATE 81
WATERCOURSE RESOURCE SUMMARY TABLE

Watercourse ID	Stream Name	Type	Resource Size			Floodway FEMA & 50ft (ac)	FEMA Floodplain (ac)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Watershed Name	PA Code Chapter 93 Water Quality		PFBC Classification			Watercourse Description
			Length (feet)	Width (feet)	Area (sq. ft.)								PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	Stocked Trout	Naturally Reproducing Trout	Class A Wild Trout	
S61-T2	UNT to Mill Creek	Perennial	1,010	7	6,194	2.64	-	Yes	RPW	41.240463	-75.758263	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial stream flowing out of a seep wetland at the bottom of a slope and receiving hydrology from other channels as it flows across a powerline ROW and back into the woods out of the investigation area.
S65-T2	UNT to Mill Creek	Perennial	893	7	4,484	1.96	-	Yes	RPW	41.239397	-75.757773	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel that flows out of a wetland, down a slope, and flows into S61-T2.
S62-T2	UNT to Mill Creek	Perennial	375	4	1,618	1.08	-	Yes	RPW	41.240625	-75.758074	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel that flows across a powerline ROW with a wetland fringe and eventually flows into S63-T2.
S63-T2	UNT to Mill Creek	Perennial	234	5	1,352	0.76	-	Yes	RPW	41.240751	-75.758076	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel that flows out of a wetland on a powerline ROW and continues until it leaves the investigation area.
S8-T13	UNT to Mill Creek	Perennial	522	12	4,739	1.31	-	Yes	RPW	41.247754	-75.758396	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial stream flowing through a wetland across a powerline ROW and through the woods down a steep slope into S68- T2.
S69-T2	UNT to Mill Creek	Ephemeral	121	4	377	0.47	-	Yes	NRPW	41.247944	-75.757964	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel flowing down a slope into a wetland on a powerline ROW.
S68-T2	UNT to Mill Creek	Perennial	266	4	1,493	0.83	-	Yes	RPW	41.24805	-75.758584	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial stream flowing out of a wetland on a powerline ROW and into the woods out of the investigation area.
S75-T2	UNT to Mill Creek	Intermittent	265	4	2,525	0.87	-	Yes	RPW	41.252457	-75.75896	Mill Creek	CWF, MF	-	No	Yes	Yes	Intermittent channel that flows out of a wetland and braids down a slope and comes back together again before exiting the investigation area.
S76-T2	UNT to Mill Creek	Ephemeral	150	6	803	0.55	-	No	NRPW	41.252855	-75.759009	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel that receives stormwater and flows downslope towards a road before going to sheet flow on an ATV trail.
S83-T2	UNT to Mill Creek	Ephemeral	566	6	2,819	1.54	-	Yes	NRPW	41.253893	-75.759766	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel taking runoff off a road and down a slope to an old busted impoundment and continues flowing out of the investigation area.
S10-T4	UNT to Mill Creek	Intermittent	126	4	581	0.49	-	No	RPW	41.254624	-75.759486	Mill Creek	CWF, MF	-	No	Yes	Yes	Intermittent channel flowing over bedrock down a slope into S79-T2.
S79-T2	UNT to Mill Creek	Intermittent	743	7	5,135	2.02	-	No	RPW	41.254955	-75.759611	Mill Creek	CWF, MF	-	No	Yes	Yes	Intermittent channel flowing over bedrock down a slope and goes to sheet flow on a powerline ROW.
S70a-T2	UNT to Mill Creek	Ephemeral	58	2	127	0.32	-	No	NRPW	41.254777	-75.758095	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel that flows off an old road and down a slope before going subsurface into some rocks.
S70-T2	UNT to Mill Creek	Ephemeral	271	2.5	903	0.83	-	No	NRPW	41.255289	-75.758591	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel that flows out of a rock pile and along a gravel road and a wetland before fowing into S10-T13 down slope.
S71-T2	UNT to Mill Creek	Ephemeral	241	5	1,165	0.77	-	No	NRPW	41.255201	-75.759156	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel flowing over bedrock, down a slope, and turns to sheet flow when it hits the powerline ROW.
S14-T13	UNT to Mill Creek	Ephemeral	141	3	475	0.52	-	No	NRPW	41.255527	-75.759037	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel flowing down a slope over bedrock into S10-T13.
S10-T13	UNT to Mill Creek	Ephemeral	550	6	3,066	1.52	-	Yes	NRPW	41.255631	-75.758797	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel flowing down a slope on a powerline ROW and goes into the woods and continues to flow outside the investigation area.
S11-T13	UNT to Mill Creek	Ephemeral	193	8	1,572	0.68	-	Yes	NRPW	41.256389	-75.759189	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel in the woods that flows down a slope and out of the investigation area.
S12-T13	UNT to Mill Creek	Ephemeral	11	10	115	0.24	-	Yes	NRPW	41.256644	-75.759406	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel in the woods that flows into S10-T13.
S13-T13	UNT to Mill Creek	Ephemeral	48	6	322	0.31	-	No	NRPW	41.256517	-75.759229	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel that flows through a timbered wood lot and into S10-T13.
S13a-T13	UNT to Mill Creek	Ephemeral	298	9	350	0.35	-	Yes	NRPW	41.256417	-75.758944	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel that flows through a timbered wood lot and into S10-T13.
S11-T4	UNT to Mill Creek	Perennial	282	8	2,015	0.88	-	No	RPW	41.256066	-75.761688	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel flowing out of a wetland along the bottom of a slope and into S9-T13.
S12-T4	UNT to Mill Creek	Perennial	136	6	700	0.52	-	No	RPW	41.25613	-75.761988	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel flowing out of a wetland seep into S11-T4.
S9-T13	Mill Creek	Perennial	905	31	18,633	2.75	4.81	Yes	RPW	41.256708	-75.761195	Mill Creek	CWF, MF	-	No	Yes	Yes	Large perennial channel that flows across a powerline ROW over bedrock and boulders with a bridge crossing over it. Trout present.
S19-T3	UNT to Mill Creek	Perennial	94	3	279	0.41	-	No	RPW	41.257008	-75.762625	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel on a slope connecting two wetlands.
S19a-T3	UNT to Mill Creek	Perennial	30	3	83	0.26	-	No	RPW	41.257061	-75.762651	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel that flows out of a wetland on a slope and into S19-T3.
S15-T13	UNT to Mill Creek	Intermittent	90	2.5	232	0.40	-	No	RPW	41.257546	-75.763113	Mill Creek	CWF, MF	-	No	Yes	Yes	Intermittent channel on a powerline ROW connecting two wetlands on a slope.
S24a-T1	UNT to Mill Creek	Ephemeral	174	4	737	0.61	-	No	NRPW	41.254712	-75.763757	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral drainage channel along a gravel access road.
S24-T1	UNT to Mill Creek	Ephemeral	98	3	340	0.42	-	No	NRPW	41.255503	-75.763733	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral drainage channel along a gravel access road.
S9a-T13	Mill Creek	Perennial	78	25	2,193	0.50	-	Yes	RPW	41.255931	-75.763887	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel with trout present flowing under a bridge on an access road.
S80-T2	UNT to Mill Creek	Ephemeral	102	4	494	0.44	-	No	NRPW	41.256911	-75.765095	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel along an access road that connects two wetlands through a culvert under a road.
S85-T2	UNT to Mill Creek	Ephemeral	193	4	817	0.65	-	No	NRPW	41.267297	-75.78003	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel that flows out of a culvert through a wetland and downslope until it goes subsurface at the railroad tracks.
S73-T2	UNT to Mill Creek	Ephemeral	175	5	238	0.35	-	Yes	NRPW	41.266743	-75.780297	Mill Creek	CWF, MF	-	No	Yes	Yes	Ephemeral channel flowing off a slope through a culvert under some railroad tracks and into an eroded channel into a wetland out of the investigation area.
S30-T2	UNT to Mill Creek	Perennial	243	7	1,447	0.70	-	Yes	RPW	41.268993	-75.783028	Mill Creek	CWF, MF	-	No	Yes	Yes	Perennial channel with a wetland fringe flowing out of a pond, across a pipeline ROW, and through the woods out of the investigation area.
		Total Ephemeral Channels			**14,720**													
		Total Intermittent Channels			**8,473**													
		Total Perennial Channels			**45,230**													
		TOTAL			**68,423**													

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - BALD MOUNTAIN ACCESS ROAD TO INTERSTATE 81
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W11-T13	W11-T13-1a	PEM	467	Yes	DELINEATE	41.242339	-75.741467	EV	Mill Creek	CWF, MF	-	PEM wetland depression along the edge of an access road.
W47-T3	W47-T3-1a	PEM	172	Yes	DELINEATE	41.242356	-75.741251	EV	Mill Creek	CWF, MF	-	PEM wetland depression along the edge of an access road.
W16-T5	W16-T5-1c	PFO	29,658	Yes	RPWWD	41.237607	-75.760195	EV	Mill Creek	CWF, MF	-	PFO seep wetland at the bottom of a large slope and flows across a pipeline ROW.
W17-T5	W17-T5-1a	PEM	943	No	ISOLATE	41.237961	-75.760114	OTHER	Mill Creek	CWF, MF	-	PEM depressional wetland on a pipeline ROW.
W144-T2	W144-T2-1c	PFO	6,404	No	ISOLATE	41.23811	-75.759065	OTHER	Mill Creek	CWF, MF	-	PFO wetland on a terrace at the bottom of a slope.
W143-T2	W143-T2-1c	PFO	771	Yes	DELINEATE	41.238881	-75.759718	EV	Mill Creek	CWF, MF	-	PFO wetland depression at the bottom of a slope.
W142-T2	W142-T2-1c	PFO	1,904	No	ISOLATE	41.239098	-75.759361	OTHER	Mill Creek	CWF, MF	-	PFO depressional seep wetland on an old logging road.
W12-T13	W12-T13-1a	PEM	4,711	Yes	RPWWD	41.238991	-75.758598	EV	Mill Creek	CWF, MF	-	PFO and PEM seep wetland that starts at the toe of a slope and follows the fringe of multiple streams across a powerline ROW and into the woods.
	W12-T13-1c	PFO	19,395									
W135-T2	W135-T2-1a	PEM	2,005	No	RPWWN	41.240025	-75.757565	EV	Mill Creek	CWF, MF	-	PEM wetland swale on a powerline ROW.
W131-T2	W131-T2-1a	PEM	3,965	Yes	RPWWD	41.240574	-75.757881	EV	Mill Creek	CWF, MF	-	PEM and PSS wetland complex receiving hydrology from seeps and S62-T2 on a powerline ROW.
	W131-T2-1b	PSS	931									
W132-T2	W132-T2-1a	PEM	2,263	No	RPWWD	41.240696	-75.75768	EV	Mill Creek	CWF, MF	-	PEM and PSS wetland complex that starts as a seep on a powerline ROW and then forms S63-T2 when it hits the woods and continues to have a PSS fringe along the stream.
	W132-T2-1b	PSS	3,147									
W132A-T2	W132-T2-1a	PEM	286	No	ISOLATE	41.240685	-75.75748	OTHER	Mill Creek	CWF, MF	-	PEM wetland on a powerline ROW receiving hydrology from a spring outside of the investigation area with water being held back by silt sock from recent powerline construction.
W136-T2	W136-T2-1a	PEM	2,719	No	ISOLATE	41.241133	-75.757698	OTHER	Mill Creek	CWF, MF	-	PEM depressional wetland on a powerline ROW.
W14-T13	W14-T13-1a	PEM	1,323	No	ISOLATE	41.242164	-75.758088	OTHER	Mill Creek	CWF, MF	-	PEM wetland on the egde of a powerline ROW and an access road.
W137-T2	W137-T2-1a	PEM	4,030	No	ISOLATE	41.242438	-75.75796	OTHER	Mill Creek	CWF, MF	-	PEM wetland in a depression on a powerline ROW.
W15-T13	W15-T13-1a	PEM	721	No	ISOLATE	41.245904	-75.757929	OTHER	Mill Creek	CWF, MF	-	PEM wetland swale on a powerline ROW.
W138-T2	W138-T2-1a	PEM	162	No	ISOLATE	41.246714	-75.75786	OTHER	Mill Creek	CWF, MF	-	Isolated PEM wetland in a quarried out area near a powerline pole and access road.
W16-T13	W16-T13-1a	PEM	7,887	Yes	RPWWD	41.247775	-75.758208	EV	Mill Creek	CWF, MF	-	PEM and PFO wetland complex that follows the fringe of S8-T13 and S68-T2 across a powerline ROW and into the woods.
	W16-T13-1c	PFO	5,635									
W139-T2	W139-T2-1a	PEM	2,445	Yes	DELINEATE	41.248336	-75.758087	OTHER	Mill Creek	CWF, MF	-	PEM seep wetland on a powerline ROW.
W140-T2	W140-T2-1a	PEM	13,873	Yes	DELINEATE	41.248951	-75.758116	OTHER	Mill Creek	CWF, MF	-	PEM seep wetland on a powerline ROW.
W141-T2	W141-T2-1a	PEM	930	No	ISOLATE	41.248853	-75.758839	OTHER	Mill Creek	CWF, MF	-	PEM wetland on an old logging road near a powerline ROW.
W151-T2	W151-T2-1a	PEM	238	Yes	DELINEATE	41.249516	-75.75792	OTHER	Mill Creek	CWF, MF	-	PEM wetland depression on a powerline ROW.
W150-T2	W151-T2-1a	PEM	51,147	Yes	RPWWN	41.251688	-75.758225	EV	Mill Creek	CWF, MF	-	PEM wetland on a slight terrace on a powerline ROW that receives hydrology from multiple seeps.
W158-T2	W158-T2-1a	PEM	493	No	ISOLATE	41.252683	-75.758175	OTHER	Mill Creek	CWF, MF	-	PEM wetland swale on a powerline ROW.
W170-T2	W170-T2-1c	PFO	594	No	NRPWW	41.254001	-75.759875	OTHER	Mill Creek	CWF, MF	-	PFO wetland in an old impoundment that receives runoff water from S83-T2.
W180-T2	W180-T2-1a	PEM	1,540	Yes	NRPWW	41.254728	-75.757971	OTHER	Mill Creek	CWF, MF	-	PEM wetland along the edge of a gravel road that holds back hydrology near a powerline ROW.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - BALD MOUNTAIN ACCESS ROAD TO INTERSTATE 81
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W20-T4	W20-T4-1c	PFO	1,728	No	RPWWN	41.254901	-75.759765	OTHER	Mill Creek	CWF, MF	-	PFO wetland on a shallow bedrock slope on the woods.
W146-T2	W146-T2-1a	PEM	1,233	No	NRPWW	41.255139	-75.75835	EV	Mill Creek	CWF, MF	-	PEM wetland on a graded terrace at the toe of a slope near a powerline pole on a powerline ROW.
W149-T2	W149-T2-1a	PEM	91	No	ISOLATE	41.256039	-75.760182	OTHER	Mill Creek	CWF, MF	-	PEM wetland on a graded terrace at the toe of a slope near a powerline pole on a powerline ROW.
W148-T2	W148-T2-1a	PEM	38	No	ISOLATE	41.256344	-75.760123	OTHER	Mill Creek	CWF, MF	-	PFO seep wetland that becomes PEM as it crosses an access road and then flows into a PFO depression near a powerline ROW.
	W148-T2-1c	PFO	1,603									
W48-T3	W48-T3-1a	PEM	9,988	No	RPWWD	41.256304	-75.760824	EV	Mill Creek	CWF, MF	-	PEM depression on a powerline ROW that forms into channel S11-T4.
W147-T2	W147-T2-1a	PEM	7,361	No	RPWWD	41.256182	-75.761752	EV	Mill Creek	CWF, MF	-	PEM and PSS wetland depression on a powerline ROW that turns into a fringe wetland along S11-T4 and S12-T4.
	W147-T2-1b	PSS	2,228									
W154-T2	W154-T2-1a	PEM	431	No	RPWWN	41.256234	-75.762446	EV	Mill Creek	CWF, MF	-	PEM/ PSS wetland on an old logging road.
	W154-T2-1b	PSS	340									
W49-T3	W49-T3-1a	PEM	6,949	No	RPWWD	41.256776	-75.762732	EV	Mill Creek	CWF, MF	-	PEM wetland in a depression at the toe of a slope on a powerline ROW.
W155-T2	W155-T2-1a	PEM	164	Yes	DELINEATE	41.256634	-75.76321	EV	Mill Creek	CWF, MF	-	PSS wetland in a recently timbered area in a depression.
	W155-T2-1b	PSS	1,759									
W50-T3	W50-T3-1a	PEM	8,090	No	RPWWD	41.257212	-75.762906	EV	Mill Creek	CWF, MF	-	PEM wetland seep on a slope on a powerline ROW.
W18-T13	W18-T13-1a	PEM	15,277	No	RPWWD	41.25744	-75.763417	EV	Mill Creek	CWF, MF	-	PEM and PSS wetland seep on a slope on a powerline ROW.
	W18-T13-1b	PSS	1,805									
W54-T3	W54-T3-1a	PEM	11,547	No	ISOLATE	41.257362	-75.764138	OTHER	Mill Creek	CWF, MF	-	PEM and PSS wetland on a gradual slope next to a powerline ROW.
	W54-T3-1b	PSS	9,794									
W17-T13	W17-T13-1a	PEM	7,926	Yes	RPWWD	41.257772	-75.76316	EV	Mill Creek	CWF, MF	-	PEM and PSS wetland on a gradual slope next to a powerline ROW.
	W17-T13-1b	PSS	720									
W51-T3	W51-T3-1a	PEM	1,154	No	ISOLATE	41.257908	-75.763842	OTHER	Mill Creek	CWF, MF	-	PEM wetland on a powerline ROW on a gradual slope.
W162-T2	W162-T2-1a	PEM	449	No	ISOLATE	41.252727	-75.765439	OTHER	Mill Creek	CWF, MF	-	PEM and PFO wetland along and access road on for a powerline ROW.
	W162-T2-1c	PFO	1,352									
W2-T13	W2-T13-1a	PEM	90	No	ISOLATE	41.252872	-75.765229	OTHER	Mill Creek	CWF, MF	-	PEM wetland along an access road on a slope.
W161-T2	W161-T2-1a	PEM	242	No	ISOLATE	41.253351	-75.764206	OTHER	Mill Creek	CWF, MF	-	PEM wetland in a depression along an access road.
W74-T1 W74a-T1	W74-T1-1a	PEM	2,285	Yes	RPWWD	41.255783	-75.76373	EV	Mill Creek	CWF, MF	-	PEM and PSS wetland fringe along S24-T1 and S9-T13.
	W74-T1-1b	PSS	669									
W73-T1	W73-T1-1a	PEM	1,005	Yes	DELINEATE	41.256125	-75.763983	EV	Mill Creek	CWF, MF	-	PEM wetland in a depression along a powerline access road.
W72-T1	W72-T1-1a	PEM	818	Yes	DELINEATE	41.256104	-75.764222	EV	Mill Creek	CWF, MF	-	PEM wetland along a powerline access road.
W70-T1	W70-T1-1a	PEM	1,160	Yes	DELINEATE	41.256565	-75.764805	EV	Mill Creek	CWF, MF	-	PEM wetland along a powerline access road.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - BALD MOUNTAIN ACCESS ROAD TO INTERSTATE 81
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W159-T2	W159-T2-1a	PEM	1,944	Yes	DELINEATE	41.256533	-75.764963	EV	Mill Creek	CWF, MF	-	PEM wetland along a powerline access road that receives hydrology from S80-T2.
W71-T1	W71-T1-1a	PEM	1,132	Yes	DELINEATE	41.256758	-75.764911	EV	Mill Creek	CWF, MF	-	PEM wetland along a powerline access road.
W56-T3	W56-T3-1a	PEM	386	Yes	DELINEATE	41.256942	-75.764858	EV	Mill Creek	CWF, MF	-	PEM wetland along a powerline access road.
W55-T3	W55-T3-1a	PEM	692	Yes	DELINEATE	41.257062	-75.764805	EV	Mill Creek	CWF, MF	-	PEM wetland along a powerline access road.
W156-T2	W156-T2-1a	PEM	19,221	Yes	DELINEATE	41.257302	-75.764944	EV	Mill Creek	CWF, MF	-	PEM depressional wetland in a timbered area next to a powerline ROW.
W173-T2	W173-T2-1a	PEM	193	No	ISOLATE	41.260963	-75.770691	OTHER	Mill Creek	CWF, MF	-	PEM wetland on an old road in the woods next to a powerline ROW.
W53-T3	W53-T3-1a	PEM	378	No	ISOLATE	41.260899	-75.771194	OTHER	Mill Creek	CWF, MF	-	PEM wetland in tire depressions along the edge of a powerline ROW.
W19-T13	W19-T13-1a	PEM	168	No	ISOLATE	41.262197	-75.77507	OTHER	Mill Creek	CWF, MF	-	PEM wetland on a gradual slope on a powerline ROW.
W174-T2	W174-T2-1a	PEM	80	No	ISOLATE	41.263891	-75.77636	OTHER	Mill Creek	CWF, MF	-	Small PEM wetland on a small terrace receiving hydrology from runoff.
W175-T2	W175-T2-1a	PEM	84	No	ISOLATE	41.26437	-75.77719	OTHER	Mill Creek	CWF, MF	-	Small PEM wetland along an access road receiving hydrology from runoff.
W52-T3	W52-T3-1a	PEM	903	Yes	DELINEATE	41.264438	-75.7785	OTHER	Mill Creek	CWF, MF	-	PEM and PSS wetland seep on a slope on a powerline ROW.
	W52-T3-1b	PSS	2,028									
W178-T2 W178a-T2	W178-T2-1a	PEM	1,239	No	ISOLATE	41.264412	-75.778924	OTHER	Mill Creek	CWF, MF	-	PEM wetland along a powerline access road with a culvert under the access road.
W177-T2	W177-T2-1a	PEM	75	No	ISOLATE	41.264766	-75.779017	OTHER	Mill Creek	CWF, MF	-	PEM wetland along the edge of a powerline access road.
W176-T2	W176-T2-1a	PEM	228	No	ISOLATE	41.265826	-75.77868	OTHER	Mill Creek	CWF, MF	-	PEM wetland that crosses a powerline access road on a powerline ROW.
W179-T2	W179-T2-1a	PEM	116	No	ISOLATE	41.266098	-75.778575	OTHER	Mill Creek	CWF, MF	-	PEM depression on a powerline ROW.
W153-T2	W153-T2-1c	PFO	458	No	NRPWW	41.267237	-75.779709	EV	Mill Creek	CWF, MF	-	PFO wetland depression receiving hydrology from a culvert from under the turnpike.
W152-T2	W152-T2-1a	PEM	52	No	ISOLATE	41.267656	-75.780444	OTHER	Mill Creek	CWF, MF	-	Small PEM wetland from a culvert under the railroad tracks.
W181-T2	W181-T2-1a	PEM	41	No	NRPWW	41.267027	-75.780901	EV	Mill Creek	CWF, MF	-	PEM wetland on a graded terrace next to a powerline pole on a powerline ROW.
W182-T2	W182-T2-1a	PEM	1293	Yes	NRPWW	41.266861	-75.78088	EV	Mill Creek	CWF, MF	-	PEM wetland in a depression on a powerline ROW next to an access road.
W24-T4	W24-T4-1a	PEM	3591	No	ISOLATE	41.267664	-75.782085	OTHER	Mill Creek	CWF, MF	-	PEM wetland depression on a powerline ROW next to an access road.
W23-T4	W23-T4-1a	PEM	199	No	ISOLATE	41.267801	-75.782373	OTHER	Mill Creek	CWF, MF	-	PEM wetland depression on a powerline ROW next to an access road.
W36-T1	W36-T1-1a	PEM	5690	Yes	RPWWD	41.268858	-75.783142	EV	Mill Creek	CWF, MF	-	PEM/PSS/PFO/POW wetland complex along a pond and S30-T2 on a pipeline ROW.
	W36-T1-1b	PSS	455									
	W36-T1-1c	PFO	3596									
	W36-T1-1d	POW	5592									
W163-T2	W163-T2-1a	PEM	1465	1465	RPWWN	41.269146	-75.783266	EV	Mill Creek	CWF, MF	-	PEM wetland depression on a pipeline ROW.
W66-T2	W66-T2-1a	PEM	1792	Yes	DELINEATE	41.269954	-75.783591	EV	Mill Creek	CWF, MF	-	PEM and PFO wetland depression on a pipeline ROW and in the woods near a pipeline ROW.
	W66-T2-1c	PFO	15406									
W164-T2	W164-T2-1c	PFO	2144	Yes	DELINEATE	41.27093	-75.783738	OTHER	Mill Creek	CWF, MF	-	PFO wetland depression next to a pipeline ROW.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - BALD MOUNTAIN ACCESS ROAD TO INTERSTATE 81
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W184-T2	W184-T2-1a	PEM	72	No	ISOLATE	41.271844	-75.78193	OTHER	Mill Creek	CWF, MF	-	PFO wetland depression along an ATV access road.
W65-T2	W65-T2-1a	PEM	1618	No	ISOLATE	41.275533	-75.785917	OTHER	Gardner Creek	CWF, MF	-	PEM and PFO wetland depression on a pipeline ROW and an ATV road.
	W65-T2-1c	PFO	1812									
W64-T2	W64-T2-1a	PEM	2661	No	ISOLATE	41.279366	-75.788989	OTHER	Gardner Creek	CWF, MF	-	PEM and PFO wetland depression on a pipeline ROW.
	W64-T2-1c	PFO	250									
		Total PEM Wetlands	**223,931**									
		Total PSS Wetlands	**23,876**									
		Total PFO Wetlands	**92,710**									
		Total POW Wetlands	**5,592**									
		TOTAL	**346,109**									

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - INTERSTATE 81 TO SHOEMAKER AVENUE
WATERCOURSE RESOURCE SUMMARY TABLE

Watercourse ID	Stream Name	Type	Resource Size			Floodway FEMA & 50ft (ac)	FEMA Floodplain (ac)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Watershed Name	PA Code Chapter 93 Water Quality		PFBC Classification			Watercourse Description
			Length (feet)	Width (feet)	Area (sq. ft.)								PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	Stocked Trout	Naturally Reproducing Trout	Class A Wild Trout	
S19-T1	UNT to Gardner Creek	Intermittent	290	7	1,587	0.90	-	Yes	RPW	41.281248	-75.791783	Gardner Creek	CWF, MF	-	No	Yes	No	Intermittent drainage channel between two major roads that flows across a pipeline ROW.
S82-T2	UNT to Gardner Creek	Epemeral	42	6	274	0.30	-	No	NRPW	41.281045	-75.792549	Gardner Creek	CWF, MF	-	No	Yes	No	Ephemeral channel flowing out of a culvert and across an access road before turning to sheet flow.
S32-T2	UNT to Gardner Creek	Intermittent	211	5	941	0.68	-	Yes	RPW	41.282568	-75.792852	Gardner Creek	CWF, MF	-	No	Yes	No	Intermittent channel flowing out of a wetland down a slope through a culvert under a road and continues outside the investigation area.
S31-T2	UNT to Gardner Creek	Intermittent	52	6	305	0.32	-	Yes	RPW	41.282692	-75.79284	Gardner Creek	CWF, MF	-	No	Yes	No	Intermittent channel that flows out of a seep wetland and down a slope into S32-T2.
S33-T2	UNT to Gardner Creek	Epemeral	130	9	1,004	0.52	-	Yes	NRPW	41.283192	-75.793297	Gardner Creek	CWF, MF	-	No	Yes	No	Large ephemeral drainage channel that starts at a culvert pipe and flows down a rip rapped channel outside of the investigation area.
S8-T3	Gardner Creek	Perennial	406	22	9,115	1.40	2.65	Yes	RPW	41.284959	-75.793556	Gardner Creek	CWF, MF	-	No	Yes	No	Perennial stream flowing through a valley bottom across a pipeline ROW over bedrock and cobbles. Old dam structure built on stream. Fish present.
S8a-T3	Gardner Creek	Perennial	494	14	9,250	1.59		Yes	RPW	41.285528	-75.796491	Gardner Creek	CWF, MF	-	No	Yes	No	Perennial stream flowing through a valley bottom over bedrock and cobbles. Fish present.
S8b-T3	Gardner Creek	Perennial	77	15	1,026	0.40		Yes	RPW	41.289103	-75.80286	Gardner Creek	CWF, MF	-	No	Yes	No	Perennial stream flowing through a valley bottom over bedrock and cobbles. Fish present.
S17-T1	UNT to Gardner Creek	Epemeral	547	6	4,224	1.54	-	No	NRPW	41.286984	-75.79632	Gardner Creek	CWF, MF	-	No	Yes	No	Ephemeral channel flowing across a pipeline ROW and down a large slope and turning to sheet flow within a wetland.
S81-T2	UNT to Gardner Creek	Intermittent	160	7	970	0.57	-	Yes	RPW	41.287163	-75.797826	Gardner Creek	CWF, MF	-	No	Yes	No	Intermittent channel flowing out of a wetland, down a slope, and back into the wetland before continuing downslope.
S4-T5	UNT to Gardner Creek	Epemeral	215	11	1,481	0.66	-	Yes	NRPW	41.287578	-75.799249	Gardner Creek	CWF, MF	-	No	Yes	No	Ephemeral channel flowing down a slope and onto an access road where it turns to sheet flow.
S4a-T5	UNT to Gardner Creek	Epemeral	158	5	1,060	0.58	-	No	NRPW	41.288054	-75.800062	Gardner Creek	CWF, MF	-	No	Yes	No	Ephemeral channel flowing down a slope and onto an access road where it turns to sheet flow.
S5-T5	UNT to Gardner Creek	Epemeral	245	4		-	-	No	NRPW	41.288646	-75.80156	Gardner Creek	CWF, MF	-	No	Yes	No	Preliminary - Ephemeral channel that flows down a slope through a yard and into S6-T5.
S6-T5	UNT to Gardner Creek	Epemeral	388	7	2,854	1.14	-	No	NRPW	41.28926	-75.802499	Gardner Creek	CWF, MF	-	No	Yes	No	Ephemeral channel that flows down a slope into a ditch by a baseball field and the flows down a hill into S8-T3.
S18-T1	UNT to Gardner Creek	Epemeral	102	6	612	0.44	-	No	NRPW	41.28981	-75.802396	Gardner Creek	CWF, MF	-	No	Yes	No	Ephemeral channel flowing down a steep slope and turning to sheet flow at the bottom of the slope.
S34-T2	UNT to Gardner Creek	Epemeral	605	4	3,635	1.66	-	Yes	NRPW	41.290085	-75.80271	Gardner Creek	CWF, MF	-	No	Yes	No	Ephemeral channel flowing down a steep slope and then following a drainage channel around a baseball field through a culvert and out of investigation area.
S6-T1	UNT to Gardner Creek	Intermittent	305	5	1,443	0.78	-	Yes	RPW	41.294927	-75.810716	Gardner Creek	CWF, MF	-	No	Yes	No	Intermittent channel flowing out of a roadside ditch, down a slope, through a wetland, and out of the investigation area.
S9-T3	UNT to Susquehanna River	Intermittent	421	4	2,159	1.21	-	Yes	RPW	41.301889	-75.81175	Susquehanna River	WWF, MF	-	No	No	No	Intermittent channel flowing across the bottom of a slope across the investigation area.
S4-T3	UNT to Susquehanna River	Epemeral	128	7	767	0.50	-	No	NRPW	41.303882	-75.823798	Susquehanna River	WWF, MF	-	No	No	No	Ephemeral channel flowing down a gradual slope into a wetland depression.
S1-T5	Susquehanna River	Perennial	783	243	261,879	58.39	46.67	Yes	TNW	41.306946	-75.826498	Susquehanna River	WWF, MF	-	No	No	No	Large perennial river flowing through a river valley. Fish, mussels, and other aquatic fauna present. Cobble, boulder, and silt bottom.
S2-T3	UNT to Susquehanna River	Epemeral	44	4	182	0.30	-	Yes	NRPW	41.301712	-75.842835	Susquehanna River	WWF, MF	-	No	No	No	Ephemeral swale directing water out of a farm field and out of the investigation area.
S14-T2	Abrahams Creek	Perennial	650	35	23,263	8.52	32.06	Yes	RPW	41.307703	-75.848713	Abrahams Creek	CWF, MF	-	No		No	Perennial stream that flows next to a farm field across a pipeline ROW. Beaver sign and fish present.
S15a-T2	UNT to Abrahams Creek	Ephemeral	133	6	874	0.53	-	No	RPW	41.312582	-75.853965	Abrahams Creek	CWF, MF	-	No		No	Ephemeral braid off of a perennial stream that flows on a pipeline ROW and into a wetland.
S15-T2	UNT to Abrahams Creek	Perennial	793	15	9,624	2.25	-	Yes	RPW	41.313363	-75.855095	Abrahams Creek	CWF, MF	-	No		No	Perennial stream that flows through a culvert under a road into a rock lined channel and onto a pipeline ROW where it dissipates into a wetland.
		Total Ephemeral Channels			**16,093**													
		Total Intermittent Channels			**16,933**													
		Total Perennial Channels			**305,503**													
		TOTAL			**338,529**													

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - INTERSTATE 81 TO SHOEMAKER AVENUE
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W165-T2	W165-T2-1a	PEM	123	No	ISOLATE	41.281009	-75.79317	OTHER	Gardner Creek	CWF, MF	-	PEM depressional wetland along an access road that receives hydrology from stormwater runoff.
W37-T1	W37-T1-1a	PEM	6,751	No	RPWWD	41.282582	-75.792628	EV	Gardner Creek	CWF, MF	-	PEM wetland on a pipeline ROW at the toe of a slope receiving hydrology from multiple seeps. Frogs and salamanders present.
W37a-T1	W37-T1-1a	PEM	156	No	ISOLATE	41.281992	-75.792309	OTHER	Gardner Creek	CWF, MF	-	PEM wetland on a pipeline ROW.
W72-T2	W72-T2-1b	PSS	527	No	ISOLATE	41.282244	-75.792781	OTHER	Gardner Creek	CWF, MF	-	PSS seep wetland on a gradual slope.
W73-T2	W73-T2-1b	PSS	741	Yes	DELINEATE	41.282326	-75.793109	EV	Gardner Creek	CWF, MF	-	PSS seep wetland on a terrace below a gradual slope.
W71-T2	W71-T2-1b	PSS	152	No	RPWWD	41.282669	-75.792891	EV	Gardner Creek	CWF, MF	-	PSS wetland at the toe of a slope receiving hydrology from two streams.
W157-T2	W157-T2-1a	PEM	122	Yes	ISOLATE	41.282786	-75.792071	OTHER	Gardner Creek	CWF, MF	-	PEM wetland next to an access road below a large pile of fill.
W74-T2	W74-T2-1a	PEM	1,538	No	ISOLATE	41.284461	-75.793358	OTHER	Gardner Creek	CWF, MF	-	Depressional PEM wetland on a pipeline ROW in a stream botton below a large slope and crosses an ATV road.
W75-T2	W75-T2-1a	PEM	851	No	ISOLATE	41.284604	-75.793424	OTHER	Gardner Creek	CWF, MF	-	Depressional PEM wetland on a pipeline ROW in a stream bottom that crosses and ATV trail near a stream.
W27-T3	W27-T3-1c	PFO	267	Yes	RPWWD	41.284592	-75.793834	EV	Gardner Creek	CWF, MF	-	PFO wetland near the fringe of a perennial stream near an ATV road.
W28-T3	W28-T3-1c	PFO	129	No	RPWWN	41.284914	-75.793331	EV	Gardner Creek	CWF, MF	-	Depressional PFO wetland adjacent to a stream next to a pipeline ROW.
W26-T3	W26-T3-1c	PFO	745	Yes	RPWWD	41.285283	-75.793166	EV	Gardner Creek	CWF, MF	-	PFO wetland at the toe of a slope and adjacent to a perennial stream next to a pipeline ROW.
W40-T1	W40-T1-1a	PEM	687	No	ISOLATE	41.285761	-75.794107	OTHER	Gardner Creek	CWF, MF	-	PEM wetland on a gradual slope on a pipeline ROW.
W1-T10	W1-T10-1a	PEM	1,049	No	RPWWN	41.286252	-75.796833	EV	Gardner Creek	CWF, MF	-	PEM and PSS wetland complex at the toe of a slope next to a gravel road. Wetland receives hydrology from an ephemeral channel.
	W1-T10-1b	PSS	699									
W39-T1	W39-T1-1c	PFO	445	No	ISOLATE	41.287275	-75.796423	OTHER	Gardner Creek	CWF, MF	-	Depressional PFO wetland on a terrace at the toe of a slope in the woods.
W2-T10	W2-T10-1a	PEM	2,415	No	RPWWD	41.287126	-75.797708	EV	Gardner Creek	CWF, MF	-	PFO seep wetland on a slope that flows down to an old road that is a PEM wetland before it turns into a channel.
	W2-T10-1c	PFO	7,656									
W3-T1	W3-T1-1c	PFO	1,302	No	RPWWN	41.287364	-75.7975	EV	Gardner Creek	CWF, MF	-	Depressional PFO seep wetland at the toe of a steep slope.
W4-T10	W4-T10-1c	PFO	1,627	No	ISOLATE	41.287522	-75.797669	OTHER	Gardner Creek	CWF, MF	-	Depressional PFO seep wetland at the toe of a steep slope.
W160-T2	W160-T2-1c	PFO	1,147	No	ISOLATE	41.287561	-75.798264	OTHER	Gardner Creek	CWF, MF	-	Depressional PFO wetland at the base of a steep slope next to an ATV trail.
W76-T2	W76-T2-1a	PEM	895	No	NRPWW	41.289521	-75.802491	EV	Gardner Creek	CWF, MF	-	PEM wetland depression at the toe of a slope next to a baseball field and walking path.
W46-T2	W46-T2-1b	PSS	59	No	ISOLATE	41.293705	-75.808265	OTHER	Gardner Creek	CWF, MF		Small PSS depression near some piles of fill along the edge of an access road.
W25-T1	W25-T1-1c	PFO	832	No	ISOLATE	41.29337	-75.809051	OTHER	Gardner Creek	CWF, MF	-	PFO wetland at the bottom of a gradual slope next to an access road.
W24-T1	W24-T1-1c	PFO	7,487	No	ISOLATE	41.293396	-75.809562	OTHER	Gardner Creek	CWF, MF	-	PFO wetland in a depression at the bottom of a slope next to an access road.
W23-T1	W23-T1-1a	PEM	4,559	Yes	DELINEATE	41.294845	-75.809971	EV	Gardner Creek	CWF, MF	-	PEM/PSS/PFO wetland compex on a terrace below a road in an area with distrubed soils.
	W23-T1-1b	PSS	1,002									
	W23-T1-1c	PFO	4,071									
W44-T2	W44-T2-1c	PFO	5,515	Yes	RPWWD	41.295044	-75.810492	EV	Gardner Creek	CWF, MF	-	PFO wetland on a gradual slope with a small channel flowing through it and multiple depressions where the water settles.
W20-T3	W20-T3-1a	PEM	5,406	No	ISOLATE	41.303531	-75.817528	OTHER	Susquehanna River	WWF, MF	-	PEM wetland at the bottom of a steep slope near an access road.
	W20-T3-1c	PFO	803									

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - INTERSTATE 81 TO SHOEMAKER AVENUE
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W19-T3	W19-T3-1a	PEM	538	No	ISOLATE	41.301757	-75.821039	OTHER	Susquehanna River	WWF, MF	-	PEM wetland on a powerline ROW next to a powerline access road.
W18-T3	W18-T3-1b	PSS	926	No	ISOLATE	41.301654	-75.821129	OTHER	Susquehanna River	WWF, MF	-	PSS wetland on a powerline ROW next to a powerline access road.
W17-T3	W17-T3-1b	PSS	480	Yes	DELINEATE	41.303147	-75.823537	OTHER	Susquehanna River	WWF, MF	-	PSS wetland in a depression at the bottom of a slope.
W16-T3	W16-T3-1c	PFO	1,704	Yes	NRPWW	41.303806	-75.824021	OTHER	Susquehanna River	WWF, MF	-	PFO wetland on a terrace receiving hydrology from S4-T3 in the woods.
W75-T1	W75-T1-1a	PEM	7,683	Yes	RPWWD	41.308769	-75.827055	OTHER	Susquehanna River	WWF, MF	-	PEM/PSS/PFO wetland compex in a depression in the floodplain of the Susquehanna River.
	W75-T1-1b	PSS	1,263									
	W75-T1-1c	PFO	7,623									
W11-T1	W11-T1-1a	PEM	321	No	ISOLATE	41.308228	-75.827489	OTHER	Susquehanna River	WWF, MF	-	Small PEM wetland on a powerline ROW.
W12-T1	W12-T1-1a	PEM	2,775	No	ISOLATE	41.308728	-75.827987	OTHER	Susquehanna River	WWF, MF	-	Large PFO depression at the bottom of a steep slope next to an access road.
	W12-T1-1c	PFO	19,833									
W77-T1	W77-T1-1a	PEM	759	No	ISOLATE	41.308513	-75.827369	OTHER	Susquehanna River	WWF, MF	-	PEM wetland depression on a powerline ROW.
W76-T1	W76-T1-1c	PFO	574	Yes	DELINEATE	41.309007	-75.827827	OTHER	Susquehanna River	WWF, MF	-	PFO wetland depression in the floodplain of the Susquehanna River.
W29-T2	W29-T2-1c	PFO	1,361	No	ISOLATE	41.306991	-75.830465	OTHER	Susquehanna River	WWF, MF	-	Small PFO wetland depression that appears to be on an old water line ROW.
W61-T1	W61-T1-1c	PFO	545	No	ISOLATE	41.30762	-75.83166	OTHER	Susquehanna River	WWF, MF	-	PFO wetland depression at the bottom of a steep slope. Lots of trash in wetland.
W61a-T1	W61-T1-1c	PFO	284	No	ISOLATE	41.307665	-75.831566	OTHER	Susquehanna River	WWF, MF	-	PFO wetland depression at the bottom of a steep slope. Lots of trash in wetland.
W61b-T1	W61-T1-1c	PFO	126	No	ISOLATE	41.307481	-75.831943	OTHER	Susquehanna River	WWF, MF	-	PFO wetland depression at the bottom of a steep slope. Lots of trash in wetland.
W61c-T1	W61-T1-1c	PFO	95	No	ISOLATE	41.307413	-75.832027	OTHER	Susquehanna River	WWF, MF	-	PFO wetland depression at the bottom of a steep slope. Lots of trash in wetland.
W62-T1	W62-T1-1c	PFO	895	No	ISOLATE	41.307209	-75.832347	OTHER	Susquehanna River	WWF, MF	-	PFO wetland depression at the bottom of a steep slope. Lots of trash in wetland.
W13-T3	W13-T3-1a	PEM	6,303	No	ISOLATE	41.306225	-75.832857	OTHER	Susquehanna River	WWF, MF	-	PEM wetland in an old stormwater basin with a rock lined channel leading in and out of it.
W4-T5	W4-T5-1a	PEM	3,585	Yes	DELINEATE	41.305604	-75.834416	OTHER	Susquehanna River	WWF, MF	-	PEM wetland at the edge of a farm field in a depression.
W57-T3	W57-T3-1a	PEM	1,358	Yes	DELINEATE	41.305639	-75.83576	OTHER	Susquehanna River	WWF, MF	-	PEM and PFO wetland along the edge of a farm field.
	W57-T3-1c	PFO	519									
W9-T3	W9-T3-1a	PEM	1,407	No	ISOLATE	41.30464	-75.837984	OTHER	Susquehanna River	WWF, MF	-	PEM wetland at the edge of a farm field in a depression.
W10-T3	W10-T3-1b	PSS	876	No	ISOLATE	41.304727	-75.838103	OTHER	Susquehanna River	WWF, MF	-	PSS wetland near a farm field in a depression.
W5-T5	W5-T5-1a	PEM	2,541	Yes	DELINEATE	41.304468	-75.838713	OTHER	Susquehanna River	WWF, MF	-	PEM and PFO wetland in a swale at the bottom of a steep slope next to a farm field.
	W5-T5-1c	PFO	3,159									
W12-T3	W12-T3-1a	PEM	1,076	No	NRPWW	41.301846	-75.842645	OTHER	Susquehanna River	WWF, MF	-	PEM wetland depression along the edge of a farm field.
W6-T5	W6-T5-1a	PEM	5,918	No	ISOLATE	41.304317	-75.843121	OTHER	Susquehanna River	WWF, MF	-	PEM wetland in a swale along the edge of a farm field..
W11-T3	W11-T3-1a	PEM	7,004	Yes	DELINEATE	41.303894	-75.846247	OTHER	Susquehanna River	WWF, MF	-	PEM and PFO wetland in a depression at the bottom of a steep slope near a farm field.
	W11-T3-2c	PFO	13,126									
W25-T2	W25-T2-1a	PEM	4,321	Yes	DELINEATE	41.305821	-75.849376	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland in a depression between a steep slope and farm field.
W27-T2	W27-T2-1a	PEM	1,478	No	ISOLATE	41.308506	-75.849604	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland depression on a pipeline ROW that appears to receive hydrology from flooding and surface water discharge.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - INTERSTATE 81 TO SHOEMAKER AVENUE
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W26-T2	W26-T2-1a	PEM	8,309	No	ISOLATE	41.308711	-75.850023	OTHER	Abrahams Creek	CWF, MF	-	PFO and POW wetland depression on a pipeline ROW that appears to receive hydrology from flooding and surface water discharge. Frogs and salamanders present. Beaver damage also present.
	W26-T2-1c	PFO	1,543									
W30-T2	W30-T2-1b	PSS	3,287	No	ISOLATE	41.309485	-75.850999	OTHER	Abrahams Creek	CWF, MF	-	PSS wetland depression along the edge of a pipeline ROW.
W28-T2	W28-T2-1a	PEM	964	Yes	DELINEATE	41.311774	-75.843785	OTHER	Abrahams Creek	CWF, MF		PEM wetland in the middle of an old round about in a maintained field.
W13-T1	W13-T1-1d	POW	37,138	Yes	DELINEATE	41.309897	-75.850721	OTHER	Abrahams Creek	CWF, MF	-	Old quarry pond along the edge of a pipeline ROW that has fish and frogs living in it.
W14-T1	W14-T1-1b	PSS	755	Yes	DELINEATE	41.310201	-75.850913	OTHER	Abrahams Creek	CWF, MF	-	PSS wetland depression on a pennisula between two large bodies of water.
W15-T1	W15-T1-1a	PEM	431	No	ISOLATE	41.309822	-75.851081	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland depression along the edge of an ATV road on a pipeline ROW.
W32-T2	W32-T2-1a	PEM	461	No	ISOLATE	41.310144	-75.851488	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland in a depression on a pipeline ROW.
W31-T2	W31-T2-1a	PEM	2,253	Yes	DELINEATE	41.310051	-75.851563	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland in a swale next to a pipeline ROW
W14-T3	W14-T3-1a	PEM	647	No	ISOLATE	41.310629	-75.851784	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland along an ATV trail on a pipeline ROW.
W33-T2	W33-T2-1a	PEM	435	No	ISOLATE	41.31075	-75.851977	OTHER	Abrahams Creek	CWF, MF		PEM wetland along an ATV trail on a pipeline ROW.
W16-T1	W16-T1-d	POW	16,091	Yes	DELINEATE	41.310611	-75.852366	OTHER	Abrahams Creek	CWF, MF	-	Old quarry pond near a pipeline ROW that has fish, frogs, and salamanders living in it.
W15-T3	W15-T3-1a	PEM	33,175	Yes	RPWWD	41.311936	-75.853238	OTHER	Abrahams Creek	CWF, MF	-	Large PFO/ PSS/ PEM wetland complex that receives hydrology from S15-T2 and spreads across a pipeline ROW.
	-	PSS	2,998									
	W15-T3-1c, W15-T3-2c	PFO	36,444									
W34-T2	W34-T2-1a	PEM	9,513	Yes	DELINEATE	41.311514	-75.853423	OTHER	Abrahams Creek	CWF, MF	-	PEM and PSS wetland depression that receives water from a drainage ditch behind a quarry and drive inn theater.
	W34-T2-1b	PSS	1,219									
W35-T2	W35-T2-1a	PEM	2,067	Yes	DELINEATE	41.312278	-75.854229	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland depression next to a drive-in movie theater parking lot.

Total PEM Wetlands	**129,874**
Total PSS Wetlands	**14,984**
Total PFO Wetlands	**119,857**
Total POW Wetlands	**53,229**
TOTAL	**317,944**

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - SHOEMAKER AVENUE HILDEBRANDT ROAD
WATERCOURSE RESOURCE SUMMARY TABLE

Watercourse ID	Stream Name	Type	Resource Size			Floodway FEMA & 50ft (ac)	FEMA Floodplain (ac)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Watershed Name	PA Code Chapter 93 Water Quality		PFBC Classification			Watercourse Description
			Length (feet)	Width (feet)	Area (sq. ft.)								PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	Stocked Trout	Naturally Reproducing Trout	Class A Wild Trout	
S15c-T2	UNT to Abrahams Creek	Perennial	381	9	5267	1.21	-	Yes	RPW	41.315689	-75.857771	Abrahams Creek	CWF, MF	-	No	Yes	No	Perennial channel flowing over bedrock down a mountain slope and across a pipeline ROW.
S15b-T2	UNT to Abrahams Creek	Perennial	569	18	9,948	1.76	-	Yes	RPW	41.317669	-75.862876	Abrahams Creek	CWF, MF	-	No	Yes	No	Perennial channel flowing down a steep bedrock slope with multiple waterfalls near a pipeline ROW. Channel has an armored bank by pipeline and an old dam structure where it exits investigation area.
S23-T2	UNT to Abrahams Creek	Intermittent	65	6	335	0.34	-	No	RPW	41.317878	-75.863823	Abrahams Creek	CWF, MF	-	No	Yes	No	Intermittent channel flowing out of a spring and going subsurface before coming back out down slope for a little bit and goes subsurface again.
S23a-T2	UNT to Abrahams Creek	Intermittent	18	3	52	0.23	-	Yes	RPW	41.318068	-75.864042	Abrahams Creek	CWF, MF	-	No	Yes	No	Intermittent channel flowing out of a spring and going subsurface before coming back out down slope for a little bit and goes subsurface again.
S29-T2	UNT to Abrahams Creek	Intermittent	236	4	931	0.75	-	Yes	RPW	41.32268	-75.874138	Abrahams Creek	CWF, MF	-	No	Yes	No	Intermittent channel flowing from a spring on a slope and flowing downhil into a wetland where it exits the investigation area.
S26-T2	UNT to Abrahams Creek	Perennial	410	6	3,299	1.12	-	Yes	RPW	41.322565	-75.878117	Abrahams Creek	CWF, MF	-	No	Yes	No	Perennial stream that drains from a pond outside the investigation area under an access road, across a pipeline ROW, and downhill out of the investigation area.
S24-T2	UNT to Abrahams Creek	Ephemeral	541	4	2,080	1.46	-	Yes	NRPW	41.322882	-75.87885	Abrahams Creek	CWF, MF	-	No	Yes	No	Ephemweral channel that forms from a seep on a slope and flows through a wetland on a pipeline ROW and through a culvert under and access road out of the investigation area.
S50-T2	UNT to Toby Creek	Intermittent	326	8	3,268	1.02	-	Yes	RPW	41.325688	-75.899559	Toby Creek	CWF, MF	-	No	Yes	No	Intermittent channel with a wetland fringe meandering along the bottom of a slope out of a yard and through the woods and continues out of the investigation area.
S51-T2	UNT to Toby Creek	Intermittent	122	6	995	0.50	-	Yes	RPW	41.325583	-75.899417	Toby Creek	CWF, MF	-	No	Yes	No	Intermittent channel flowing out of a culvert pipe through a wetland into S50-T2.
S47-T2	UNT to Abrahams Creek	Intermittent	492	4	1,743	0.87	-	Yes	RPW	41.344256	-75.916766	Abrahams Creek	CWF, MF	-	No	No	No	Intermittent channel flowing through a bottomland wetland all the way across the investigation area.
S4-T13	UNT to Abrahams Creek	Intermittent	290	4	1,074	1.27	-	No	RPW	41.344557	-75.916413	Abrahams Creek	CWF, MF	-	No	No	No	Intermittent channel that starts as a spring in a bottomland wetland and flows into S47-T2.
S48-T2	UNT to Abrahams Creek	Ephemeral	84	3	290	0.39	-	Yes	NRPW	41.345053	-75.918019	Abrahams Creek	CWF, MF	-	No	No	No	Ephemeral channel that flows from a swale in a farm field down a slope and into a wetland.
S11-T3	UNT to Trout Brook	Ephemeral	270	5	1,524	0.86	-	Yes	NRPW	41.345693	-75.919668	Trout Brook	CWF, MF	-	No	Yes	No	Ephemeral erosional channel on a slope that flows through an old field and into a wetland.
S72-T2	UNT to Trout Brook	Ephemeral	225	4	1,766	0.76	-	Yes	NRPW	41.345809	-75.919835	Trout Brook	CWF, MF	-	No	Yes	No	Ephemeral erosional channel on a slope that flows through an old field and into a wetland.
S49-T2	UNT to Trout Brook	Perennial	294	8	2,537	0.95	0.92	Yes	RPW	41.346051	-75.925039	Trout Brook	CWF, MF	-	No	Yes	No	Perennial stream that flows across the investigation area through a wetland next to a road. Fish present.
S52-T2	Trout Brook	Perennial	444	11	6,739	1.41	1.69	Yes	RPW	41.343482	-75.938869	Trout Brook	CWF, MF	-	No	Yes	No	Perennial stream flowing through a bottomland wetland next to a road and under a bridge. Lots of garbage in stream. Fish present.
S52a-T12	UNT to Trout Brook	Ephemeral	314	10	1,933	0.74	-	Yes	NRPW	41.343607	-75.939092	Trout Brook	CWF, MF	-	No	Yes	No	Ephemeral channel flowing off a gravel road and into S52-T2.
S3-T11	UNT to Trout Brook	Ephemeral	308	5	1,529	0.92	-	No	NRPW	41.343865	-75.939636	Trout Brook	CWF, MF	-	No	Yes	No	Ephemeral channel on a slope that goes to sheet flow at the bottom of the slope.
S4-T11	UNT to Trout Brook	Ephemeral	284	9	3,149	0.96	-	Yes	NRPW	41.3441	-75.940096	Trout Brook	CWF, MF	-	No	Yes	No	Ephemeral drainage channel that flows along an access road across a slope on a pipeline ROW.
S2-T11	UNT to Trout Brook	Perennial	116	4	493	0.47	-	Yes	RPW	41.34526	-75.942727	Trout Brook	CWF, MF	-	No	Yes	No	Perennial channel flowing out of a wetland and through a culvert down a slope out of the investigation area.
S1-T11	UNT to Trout Brook	Perennial	231	6	1,364	0.75	-	Yes	RPW	41.345203	-75.943023	Trout Brook	CWF, MF	-	No	Yes	No	Perennial channel flowing out of a wetland downslope and continues out of the investigation area.
S1-T12	UNT to Toby Creek	Perennial	282	5	1,438	0.87	-	Yes	RPW	41.348989	-75.947602	Toby Creek	CWF, MF	-	No	Yes	No	Perennial stream that flows under an access road through a culvert, through a wetland, and then flows out of the investigation area.
		Total Ephemeral Channels			**12,271**													
		Total Intermittent Channels			**8,393**													
		Total Perennial Channels			**31,085**													
		TOTAL			**51,754**													

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - SHOEMAKER AVENUE HILDEBRANDT ROAD
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W63-T2	W63-T2-1b	PSS	665	No	ISOLATE	41.317701	-75.864835	OTHER	Abrahams Creek	CWF, MF	-	PSS wetland seep on a slope next to a pipeline ROW.
W49-T2	W49-T2-1a	PEM	5,762	No	ISOLATE	41.317869	-75.864631	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland seep on a slope on a pipeline ROW.
W48-T2	W48-T2-1a	PEM	1,048	No	ISOLATE	41.318379	-75.866162	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland seep on a slope on a pipeline ROW.
W62-T2	W62-T2-1a	PEM	1,513	No	ISOLATE	41.319544	-75.87369	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland located in a swale on a terrace above a stormwater basin by a pipeline meter station.
W61-T2	W61-T2-1a	PEM	562	No	ISOLATE	41.321886	-75.872105	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland depression next to an access road on a powerline ROW.
W59-T2	W59-T2-1a	PEM	1,982	Yes	DELINEATE	41.322003	-75.872209	EV	Abrahams Creek	CWF, MF	-	PEM and PSS wetland seep on a terrace of a steep slope on a powerline ROW.
	W59-T2-1b	PSS	233									
W60-T2	W60-T2-1a	PEM	5,376	No	ISOLATE	41.322064	-75.872658	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland seep on a terrace on a powerline ROW.
W63-T1	W63-T1-1c	PFO	1,011	No	RPWWD	41.322827	-75.873788	EV	Abrahams Creek	CWF, MF	-	PFO wetland along the fringe of S29-T2 on a slope near a pipeline ROW.
W56-T2	W56-T2-1c	PFO	2,608	No	RPWWN	41.322587	-75.874615	EV	Abrahams Creek	CWF, MF	-	PFO wetland seep on a gradual slope near some old logging roads.
W55-T2	W55-T2-1a	PEM	1,984	No	ISOLATE	41.321972	-75.876345	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland depression in some old tire ruts on a pipeline ROW. Frogs and salamanders present.
W54-T2	W54-T2-1a	PEM	411	No	RPWWD	41.322578	-75.878061	EV	Abrahams Creek	CWF, MF	-	PEM wetland along the fringe of S26-T2 on a pipeline ROW.
W53-T2	W53-T2-1a	PEM	178	No	ISOLATE	41.322514	-75.878513	OTHER	Abrahams Creek	CWF, MF	-	Small PEM wetland next to a gravel access road.
W52-T2	W52-T2-1a	PEM	698	No	NRPWW	41.32304	-75.878846	EV	Abrahams Creek	CWF, MF	-	PEM wetland depression receiving hydrology from a seep and a stream. Wetland is being impounded by an access road with a culvert pipe.
W51-T2	W51-T2-1a	PEM	1,978	No	NRPWW	41.32286	-75.878937	EV	Abrahams Creek	CWF, MF	-	PEM wetland depression on a gradual slope on a pipeline ROW next to an access road.
W78-T2	W78-T2-1c	PFO	126	No	ISOLATE	41.322721	-75.888822	OTHER	Toby Creek	CWF, MF		PFO wetland depression over bedrock on a gradual slope.
W79-T2	W79-T2-1a	PEM	355	Yes	DELINEATE	41.319912	-75.89182	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland that connects to a pond in a bottomland maintained field.
W6-T13 W6a-T13	W6-T13-1a	PEM	5,519	Yes	RPWWD	41.325473	-75.899353	EV	Toby Creek	CWF, MF	-	PFO and PEM wetland in a bottom area between two slopes next to two stream channels receiving hydrology from those streams and seeps off the slopes. Area has old logging roads.
	W6-T13-2c	PFO	31,342									
W58-T3	W58-T3-1c	PFO	220	No	ISOLATE	41.331834	-75.907087	OTHER	Abrahams Creek	CWF, MF	-	PFO wetland seep in a depression that turns into a channel outside the investigation area.
W43-T3	W43-T3-1a	PEM	7,684	Yes	DELINEATE	41.334022	-75.911972	EV	Toby Creek	CWF, MF	-	PEM/PSS/PFO wetland complex next to a POW pond at the bottom of a slope.
	W43-T3-2b	PSS	4,065									
	W43-T3-1c	PFO	1,085									
	W43-T3-2d	POW	3,149									
W117-T2	W117-T2-1a	PEM	1,077	No	ISOLATE	41.334584	-75.911978	OTHER	Toby Creek	CWF, MF	-	PEM wetland seep on a pipeline ROW.
W58-T1	W58-T1-1a	PEM	1,481	No	ISOLATE	41.342674	-75.915676	OTHER	Abrahams Creek	CWF, MF	-	PEM wetland in an old field between a horse fence and a road at the bottom of a gradual slope.
W115-T2	W115-T2-1a	PEM	21,831	Yes	DELINEATE	41.342691	-75.914814	OTHER	Abrahams Creek	CWF, MF	-	PEM seep wetland at the bottom of a gradual slope between a horse pasture and a road.
W59-T1	W59-T1-1a	PEM	1,137	No	ISOLATE	41.342564	-75.915446	OTHER	Abrahams Creek	CWF, MF	-	PEM and PSS wetland in an old field between a horse fence and a road at the bottom of a gradual slope.
	W59-T1-1b	PSS	434									
W19-T4	W19-T4-1b	PSS	5,868	Yes	DELINEATE	41.343415	-75.914761	EV	Abrahams Creek	CWF, MF	-	PFO and PSS wetland depression next to a road.
	W19-T4-1c	PFO	33,069									
W116-T2	W116-T2-1c	PFO	523	Yes	DELINEATE	41.344022	-75.915409	OTHER	Abrahams Creek	CWF, MF	-	Small PFO wetland depression at the bottom of a gradual slope.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - SHOEMAKER AVENUE HILDEBRANDT ROAD
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W60-T1 W60a-T1	W60-T1-1a	PEM	24,043	Yes	RPWWD	41.344385	-75.916798	EV	Abrahams Creek	CWF, MF	-	Bottomland PFO/PSS/PEM wetland complex with springs seeps and streams flowing through it.
	W60-T1-1b	PSS	12,058									
	W60-T1-1c	PFO	59,734									
W12-T4	W12-T4-1a	PEM	7,002	Yes	NRPWW	41.345867	-75.92027	EV	Trout Brook	CWF, MF	-	PEM/PSS/PFO wetland complex on a slope receiving hydrology from channels and seeps.
	W12-T4-1b	PSS	13,723									
	W12-T4-1c	PFO	25,977									
W13-T4	W13-T4-1c	PFO	6,991	No	ISOLATE	41.346727	-75.921257	OTHER	Trout Brook	CWF, MF	-	PFO seep wetland on a slope.
W14-T4	W14-T4-1a	PEM	742	No	ISOLATE	41.34704	-75.922234	OTHER	Trout Brook	CWF, MF	-	PEM seep wetland on an old logging road on a slope.
W15-T4	W15-T4-1b	PSS	32,221	Yes	RPWWD	41.346094	-75.924969	EV	Trout Brook	CWF, MF	-	PFOand PSS wetland complex in a bottomland depression with a stream flowing through it near a road. Lots of bottles and garbage in wetland.
	W15-T4-2c	PFO	24,331									
W83-T2	W83-T2-1a	PEM	1,036	Yes	DELINEATE	41.345978	-75.925204	EV	Trout Brook	CWF, MF	-	PEM/PSS/PFO wetland seep complex at the bottom of a slope near a road.
	W83-T2-1b	PSS	857									
	W83-T2-1c	PFO	2,210									
W82-T2	W82-T2-1a	PEM	102	No	ISOLATE	41.34319	-75.938209	OTHER	Trout Brook	CWF, MF	-	PEM seep wetland on a slope in an old field above a road.
W131-T3	W131-T3-1a	PEM	927	No	RPWWN	41.343242	-75.938443	EV	Trout Brook	CWF, MF	-	PEM wetland ditch along the edge of a road.
W44-T3	W44-T3-1b	PSS	13,632	No	RPWWD	41.343387	-75.938714	EV	Trout Brook	CWF, MF	-	PSS wetland adjacent to a stream next to a road and a house.
W2-T12	W2-T12-1a	PEM	2,444	No	ISOLATE	41.345838	-75.941644	OTHER	Trout Brook	CWF, MF	-	PEM wetland seep along the edge of a tree line near a pipeline meter station.
W81-T2	W81-T2-1a	PEM	7,651	Yes	RPWWD	41.34603	-75.943615	EV	Trout Brook	CWF, MF	-	Large PEM/PSS/PFO wetland depression on a terrace near a pipeline ROW. Frogs and salamanders in wetland.
	W81-T2-1b	PSS	52,363									
	W81-T2-1c	PFO	45,374									
W4-T11	W4-T11-1a	PEM	14,846	No	RPWWD	41.345419	-75.943638	EV	Trout Brook	CWF, MF	-	PEM and PFO wetland complex on a pipleline ROW next to an access road.
	W4-T11-1c	PFO	768									
W3-T12	W3-T12-1a	PEM	782	No	ISOLATE	41.345689	-75.943966	OTHER	Trout Brook	CWF, MF	-	PEM wetland depression between two access roads on a pipeline ROW.
W5-T11	W5-T11-1a	PEM	5,619	No	ISOLATE	41.345986	-75.944242	OTHER	Trout Brook	CWF, MF	-	PEM wetland on a pipeline ROW near a meter station.
W3-T11	W3-T11-1a	PEM	1,706	No	ISOLATE	41.346127	-75.945139	OTHER	Trout Brook	CWF, MF	-	PEM wetland on a pipeline ROW near an access road.
W2-T11	-	PEM	391	Yes	DELINEATE	41.346127	-75.945834	EV	Trout Brook / Toby Creek	CWF, MF	-	PEM and PFO wetland in a depression near a pipeline ROW and meter station.
	W2-T11-1c	PFO	49,070									
W1-T11	W1-T11-1a	PEM	1,507	No	ISOLATE	41.346298	-75.946069	OTHER	Trout Brook / Toby Creek	CWF, MF	-	PEM wetland on a pipeline ROW near an access road and meter station.
W16-T4	W16-T4-1a	PEM	33,500	Yes	DELINEATE	41.347168	-75.9474	EV	Toby Creek	CWF, MF	-	Large PEM/PSS/PFO wetland complex in a bottomland that crosses a pipeline ROW.
	W16-T4-3b	PSS	16,715									
	W16-T4-2c	PFO	181,317									
W30-T3	W30-T3-1a	PEM	2,354	Yes	DELINEATE	41.347614	-75.947172	OTHER	Toby Creek	CWF, MF	-	PEM wetland near an access road.

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TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - REGIONAL ENERGY LATERAL - SHOEMAKER AVENUE HILDEBRANDT ROAD
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W80-T2	W80-T2-1c	PFO	3,443	No	ISOLATE	41.34785	-75.946968	OTHER	Toby Creek	CWF, MF	-	PFO wetland along a constructed berm along the edge of the woods.
W29-T3	W29-T3-1a	PEM	4,048	No	ISOLATE	41.348292	-75.947368	OTHER	Toby Creek	CWF, MF	-	Constructed PEM wetland in a berm with water control structure next to an access road.
W117-T4	W117-T4-1a	PEM	1,440	No	ISOLATE	41.347772	-75.947912	OTHER	Toby Creek	CWF, MF	-	Constructed PEM wetland berm next to a pipeline ROW.
W1-T12 W1a-T12	W1-T12-1a	PEM	11,116	Yes	RPWWD	41.348986	-75.947816	EV	Toby Creek	CWF, MF	-	PEM/PSS/PFO wetland complex along an access road and a stream.
	W1-T12-2b	PSS	3,649									
	W1-T12-3c	PFO	28,787									
Total PEM Wetlands			**181,832**									
Total PSS Wetlands			**156,483**									
Total PFO Wetlands			**497,986**									
Total POW Wetlands			**3,149**									
TOTAL			**839,450**									

APPENDIX 12-B-3

COMPRESSOR STATION 200

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - COMPRESSOR STATION 200
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W66-T1	W66-T1-01a	PEM	6,660	NO	ISOLATE	40.050669	-75.586758	OTHER	Valley Creek	EV, MF	-	PEM/PFO wetland depression in an old wetland creation area near a compressor station.
	W66-T1-01c	PFO	5,075									
W67-T1	WW67-T1-01a	PEM	79	NO	ISOLATE	40.050945	-75.58607	OTHER	Valley Creek	EV, MF	-	PEM wetland in a depression along the edge of a patch of woods near a maintained fenceline.
W68-T1	W68-T1-1b	PSS	376	Yes	ISOLATE	40.051019	-75.589502	OTHER	Trib 00279 to Valley Creek	CWF, MF	-	PSS/PFO/POW wetland fringe along the edge of a pond that is becoming overgrown.
	W68-T1-1c	PFO	1,580									
	-	POW	106									
W69-T1	W69-T1-1c	PFO	102	NO	ISOLATE	40.052616	-75.587081	OTHER	Valley Creek	EV, MF	-	PFO wetland depression near a road where stormwater runoff settles.
W-T10-001a-1		PEM	160	NO	ISOLATE	40.049621	-75.586154	OTHER	Valley Creek	EV, MF	-	PEM wetland in a maintained field near a compressor station.

Total PEM Wetlands	**6,899**
Total PSS Wetlands	**376**
Total PFO Wetlands	**5,283**
Total POW Wetlands	**106**
TOTAL	**14,138**

APPENDIX 12-B-4

DELAWARE RIVER REGULATOR

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - DELAWARE RIVER REGULATOR
WATERCOURSE RESOURCE SUMMARY TABLE

Watercourse ID	Stream Name	Type	Resource Size			Floodway - FEMA & 50ft (ac)	FEMA Floodplain (ac)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Watershed Name	PA Code Chapter 93 Water Quality		PFBC Classification			Watercourse Description
			Length (feet)	Width (feet)	Area (sq. ft.)								PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	Stocked Trout	Naturally Reproducing Trout	Class A Wild Trout	
S20-T3	Mud Run	Perennial	138	41	5,479	0.05	0.008	Yes	RPW	40.763427	-75.196686	Mud Run	CWF, MF	-	No	No	No	0-6" water depth, concrete culvert through investigation area

APPENDIX 12-B-5

MAIN LINE A REGULATOR

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - MAINLINE A REGULATOR
WETLAND RESOURCE SUMMARY TABLE

Wetland ID	Dataform ID	Cowardin Code	Area (sq. ft.)	Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Chapter 105.17 Wetland Designation	Watershed Information			Wetland Description
									Watershed Name	PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	
W6-T10	W6-T10-1c	PFO	1,831	NO	DELINEATE	40.267589	-74.857035	Other	Dyers Creek	WWF	N/A	PFO wetland depression adjacent to Dyers Creek
W5-T10	W5-T10-1c	PFO	905	NO	DELINEATE	41.267461	-74.856858	Other	Dyers Creek	WWF	N/A	PFO wetland depression adjacent to Dyers Creek

Total PEM Wetlands	**0**
Total PSS Wetlands	**0**
Total PFO Wetlands	**2,736**
Total POW Wetlands	**0**
TOTAL	**2,736**

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC (TRANSCO)
REGIONAL ENERGY ACCESS EXPANSION PROJECT - MAINLINE A REGULATOR
WATERCOURSE RESOURCE SUMMARY TABLE

Watercourse ID	Stream Name	Type	Resoure Size			Open-Ended Boundary	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Watershed Name	PA Code Chapter 93 Water Quality		PFBC Classification			Watercourse Description
			Area (sq. ft.)	Floodway - FEMA & 50ft (ac)	FEMA Floodplain (ac)						PA Code Chapter 93 Water Quality Designated Use	PA Code Chapter 93 Water Quality Existing Use	Stocked Trout	Naturally Reproducing Trout	Class A Wild Trout	
S1-T10	Dyers Creek	Perennial	3,848	1.7	-	Yes	RPW	40.267536	-74.856992	Dyers Creek	WWF	-	No	No	No	0-6" water depth, no erosion noted, adjacent to W5-T10 and W6-T10.
S2-T10	UNT to Dyers Creek	Perennial	145	0.29	-	No	RPW	40.267711	-74.85661	Dyers Creek	WWF	-	No	No	No	0-6" water depth, no erosion noted, flows into S1-T10.

Total Ephemeral Channels	**0**
Total Intermittent Channels	**0**
Total Perennial Channels	**3,993**
TOTAL	**3,993**