Public Notice

U.S. Army Corps of Engineers

In Reply to Application Number CENAB-OPR-P–2014-00475-P12 (Williams Gas Pipeline – Atlantic Sunrise Project

Baltimore District
PN-16-68 Comment Period: December 21, 2016 to January 20, 2017

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

The Baltimore District have received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act (33. U.S.C. 1344) as described below:

APPLICANT:

Transcontinental Gas Pipeline Company, LLC
2800 Post Oak Blvd, Level 6
Houston, Texas 77056

REGULATED ACTIVITIES:

The applicant is proposing to discharge dredged and/or fill material into waters and wetlands in association with the construction of approximately 183.7 miles of new 30- and 42-inch diameter gas pipelines; 11.5 miles of new 36- and 42-inch diameter gas pipeline loops; construction of two new compressor stations; additional compression installation at two existing compressor stations; and construction of two meter stations and three regulator stations in Pennsylvania (Attachment 1 Project Location Map).

This Public Notice describes impacts associated with only waterways and wetlands in Pennsylvania. 2.5 miles of piping replacement would also occur in Virginia and involve impacts to waters and/or wetlands. Installation of additional compression at existing compressor stations, modifications to existing compressor stations to allow for bi-directional flow, and installation of supplemental odorization, odor detection, and odor masking/deodorization equipment at various meter and valve stations are also proposed to occur in Maryland, Virginia and North and South Carolina but are not proposed to involve regulated work in waters and/or wetlands.

WATERWAYS:

Multiple rivers, streams and wetlands in the Susquehanna River Basin.

LOCATION:

The proposed pipeline and supporting compressor stations are located in Susquehanna, Wyoming, Luzerne, Columbia, Lycoming, Clinton, Northumberland, Schuylkill, Lebanon and Lancaster Counties, in Pennsylvania.

A detailed description of the applicant's proposal is within this public notice to assist in your review.

PROJECT PURPOSE

The applicant's stated purpose of the pipeline is to construct, install, and operate the project facilities to provide an incremental 1.7 million dekatherms per day of year-round firm transportation capacity from Marcellus Shale production areas in northern Pennsylvania to their existing market areas, extending to the Station 85 Pooling Point in Choctaw County, Alabama. The project also includes modifications to the existing Transco Mainline system to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets.

BACKGROUND:

The Federal Energy Regulatory Commission (FERC) is the Lead Federal agency for this project. As the lead agency, FERC has prepared a Draft Environmental Impact Statement (DEIS) in accordance with the National Environmental Policy Act (NEPA). The DEIS includes a review under Section 7 of the Endangered Species Act (16 U.S.C. 1531) and Section 106 of the National Historic Preservation Act of 1966 (NHPA), as well as other applicable Federal regulations. The DEIS was published in the Federal Register on May 13, 2016 and the original Corps Public Notice PN-16-30 was published on May 16, 2016. In addition, four public hearings were previously held on the following dates and locations:

Date	Location
June 13, 2016	Manheim Township High School 115 Blue Streak Boulevard Lancaster, PA 17601 (717) 560-3098
June 14, 2016	Lebanon Valley College Lutz Auditorium 101 N. College Avenue Annville, PA 17003 (717) 867-6310
June 15, 2016	Bloomsburg University Haas Center for the Arts – Mitrani Hall 400 E. Second Street Bloomsburg, PA 17815 (570) 389-4291
June 16, 2016	Lake Lehmon High School 1128 Old Route 115 Dallas, PA 18612 (570) 255-2705

As a result of comments received from the DEIS, as well as alternatives suggested in various correspondence, four main alternatives are being investigated. These alternatives include:

a. Quodomine (horse farm) re-route (Alt 24D), located at MP 102.16 to M-0236 MP0.22 on the Central Penn Line South, in Columbia County;

b. Alternative 22, located at MP 8.40 to MP 10.20 on the Central Penn Line South, in Lancaster County;

c. Conestoga easement re-route (MOC-0297), located at MP 11.98 to M-0248 MP 0.04 on the Central Penn Line South, in Lancaster County; and

d. Alternative 12A (Nesbitt alternative), located at MP 25.6 (M-0142) to MP 30.30, in Luzerne County.

This notice is providing the opportunity for comment on additional impacts that have been identified and the additional alternatives. All comments received from our original public notice and testimony received during the four joint public hearings will still be considered in the review of this project.

WORK DESCRIPTION:

The Transcontinental Gas Pipeline Company, LLC, has requested Department of the Army authorization to perform work in various waters and/or wetlands associated with the construction of approximately 182.5 miles of new 30- and 42-inch diameter pipelines; 11.5 miles of new 36-and 42-inch diameter pipeline loops; construction of two new compressor stations; additional compression installation at two existing compressor stations; and construction of two meter stations and three regulator stations in Pennsylvania. The project generally runs in a north-south direction beginning in Susquehanna County, Pennsylvania and terminating in Lancaster County, Pennsylvania.

General alignment sheets are available online at the following locations:

http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14497728

Links to the Quodomine (horse farm) re-route (Alt 24D), Alternative 22, Conestoga easement re-route, and Alternative 12A (Nesbitt alternative)

*Alternative 24D: MP 102.16 to M-0236 MP 0.22

Link: https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20160624-5167
The Alternative 24D map is in file "21 Att_5_ RouteModificationFigures.pdf
Alignment sheets Link: https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20160818-5320
(File "08 Att 4_FERC Alignment Sheets part 3.pdf")

*Alternative 22: MP 8.40 to MP 10.20

Link: https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20161017-5155
Information will be found under "Atlantic Sunrise Supplemental Information Part 1"

*Conestoga River Crossing - MOC-0297: MP 11.98 to M-0248 MP 0.04:

Link: https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20161017-5155
Information will be found under "Atlantic Sunrise Supplemental Information Part 1"

*Alternative 12A: MP 25.6 (M-0142) to MP 30.30.

Link: https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20161114-5176

FERC supplemental filings

May 18, 2016 Supplement - https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20160518-5016

June 24, 2016 Supplement - https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20160624-5167

August 18, 2016 Supplement - https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20160818-5320

Additional information regarding this proposal can be found on the FERC website www.ferc.gov. The FERC Docket Number for this project is CP-15-138.

Summary of Pennsylvania Pipeline Facilities

Facility	County	Length (miles)
CPL North		
30-inch-diameter pipeline	Columbia	5.0
	Luzerne	23.9
	Wyoming	23.0
	Susquehanna	6.7
	CPL North Total	**58.3**
CPL South		
42-inch-diameter pipeline	Lancaster	37.1
	Lebanon	28.4
	Schuylkill	18.5
	Northumberland	9.0
	Columbia	34.3
	CPL South Total	**127.3**
Chapman Loop		
36-inch-diameter pipeline	Clinton	2.5
	Chapman Loop Total	**2.5**
Unity Loop		
42-inch-diameter	Lycoming	8.5
	Unity Loop Total	**8.5**
	Pennsylvania Loop Total	**194**

CPL = Central Penn Line

Summary of Pennsylvania Aboveground Facilities

Facility	Type	Municipality	County
New Aboveground Facilities			
Compressor Station 605	New compressor station	Clinton Township	Wyoming County
Compressor Station 610	New compressor station	Orange Township	Columbia County
Zick Meter Station	New meter Station	Lenox Township	Susquehanna County
Springville Meter Station	New meter Station	Nicholson Township	Wyoming County
North Diamond regulator Station	New regulator station	Lehman Township	Luzerne County
West Diamond Regulator Station	New regulator station	Sugarloaf Township	Columbia County
River Road regulator Station	New regulator station	Drumore Township	Lancaster County
Modifications to Existing Aboveground Facilities			
Compressor Station 520	Upgrade existing compressor station	Mifflin Township	Lycoming County
Compressor Station 517	Upgrade existing compressor station	Benton Township	Columbia County

The proposed project in Pennsylvania is solely located within the Baltimore Corps District.

PIPELINE CONSTRUCTION

In an effort to minimize the project footprint, Transco proposes to co-locate the pipeline facilities within or directly adjacent (i.e. abutting) to existing pipelines. Transco is proposing to utilize the following right-of-ways during construction of the pipeline facilities:

A 90-foot-wide construction right of way is proposed for installation of the 30-inch diameter Central Penn Line (CPL) North Pipeline. For approximately 21.3 miles, the CPL North Pipeline is proposed to be co-located within the existing Transco Leidy Line system right-of-way. Transco would utilize 30 feet of its existing maintained right-of-way and an additional 60 feet of new construction right-of-way for construction of the new pipeline. Approximately 5.0 miles of the CPL North would be co-located with several existing Williams Field Services (midstream) pipelines and 0.3 mile of existing powerline right-of-way. Transco would utilize 5 feet of existing right-of-way and an additional 85 feet of new construction right-of-way for construction in these areas.

A 90-foot-wide construction right-of-way would be used for installation of the 36-inch-diameter Chapman Loop. Transco would utilize approximately 30 feet of its existing Leidy Line system maintained right-of-way and an additional 60 feet of new construction right-of-way for construction.

the pipeline integrity. Palustrine forested wetlands will be converted to PSS/PEM wetlands within the permanently maintained right-of-way. These conversions are proposed to be mitigated for and are discussed later in this public notice. No vegetation clearing or mowing is proposed to occur in wetlands that are between horizontal directional drill entry and exit points.

Contractor/pipe yards and staging areas

During construction of the pipeline facilities, areas off of or adjacent to the construction right-of-way would be required for contractor/pipe yards and staging areas. Contractor/pipe yards and staging areas would be used for temporary field offices, equipment/pipe/material storage, and pipe preparation/field assembly areas. Approximately 650 acres would be needed for contractor /pipe yards. These yards would not have any temporary or permanent wetland or waterbody impacts.

Contractor/Pipe Yards for the Atlantic Sunrise Project in Pennsylvania

County	Type	Nearest Milepost	Total Acres
CPL North			
Wyoming	Contractor/pipe yard	14.5	14.5
Luzerne	Contractor yard	8.2	9.7
Luzerne	Contractor yard	22.0	33.9
CPL South			
Lancaster	Contractor yard	23.6	23.0
Lebanon	Contractor yard	56.6	15.4
Lebanon	Contractor yard	56.7	9.9
Lebanon	Contractor yard	51.1	24.9
Schuylkill	Contractor yard	73.3	22.0
Schuylkill	Contractor/pipe yard	73.3	23.7
Columbia	Contractor yard	104.2	27.9
Chapman Loop			
Clinton	Contractor yard	186.0	11.4
Unity Loop			
Lycoming	Contractor/pipe yard	121.0	13.2
Lycoming	Contractor/pipe yard	122.3	17.8

Access Roads

Transco proposes to utilize existing and new roads to access project workspace during construction. A total of 119 temporary access roads and 41 permanent access roads are proposed to be used for construction and operation of the project facilities. Areas impacted by temporary access roads would be restored to preconstruction contours, and streams and/or wetland areas would be monitored to ensure successful restoration of the areas following project completion. Transco would maintain permanent access roads during the life of the facility. New temporary and permanent access roads would have a typical width of 20-feet.

Additional Temporary Workspace (ATWS)

Typically, pipeline construction may require ATWS areas at road, railroad, wetland and waterbody crossings, agricultural land locations, and for areas where specialized construction techniques are required, such as areas of steep slopes and bedrock requiring blasting.

Avoidance, Minimization, and Compensation

During development of the project, Transco implemented measures to avoid and minimize impacts on surface waters and wetlands. Other routing constraints influenced the development of the proposed routes and included the following: (1) Identifying crossing locations of the Susquehanna River where, based on terrain, horizontal directional drilling (HDD) appeared to be technically feasible; (2) Minimizing visual impacts on the Appalachian Trail; (3) Crossing areas of significant topographic relief where technically feasible; (4) Avoiding state lands, including state parks, state forests, and state game lands to the maximum extent practicable; and (5) Avoiding densely populated areas to the extent possible.

After taking the above into consideration, Transco narrowed its analysis to 600-foot-wide study corridors for both the CPL North and South pipeline routes. Transco evaluated three major route alternatives prior to selecting its 600-foot-wide study corridor.

In addition, numerous minor route alternatives where investigated in response to landowner and other stakeholder comments. Minor route deviations occurred as well, typically to avoid a specific feature (e.g. topography, sensitive habitat, structures) and/or accommodate requests by specific landowners.

To identify a constructible centerline along CPL North and CPL South corridors, Transco developed a routing process that considered engineering, environmental, land, and cultural constraints.

Waterbody Crossings

As proposed, there will be no permanent fill in or permanent loss of waterways from construction of this project.

The following tables provide a summary of waterbody classifications proposed to be crossed by the project and impact totals. Remotely Sensed waterbody and wetland impacts are located within areas the applicant currently does not have access to complete onsite verification of the resources. Thus Remotely Sensed impacts are calculated with the use of aerial photos and other documentation:

Facility	Perennial waterbody crossings	Intermittent waterbody crossings	Ephemeral waterbody crossings	Open Water	Total
Pennsylvania					
CPL North	81	36	21	2	140
CPL South	135	60	27	2	225
Chapman Loop	1	1	1	0	3

Unity Loop	12	7	1	0	20
Total	227	106	51	4	388

Field Delineated and Remotely Sensed Waterbody Impacts: Atlantic Sunrise Project
Based on Impacts Provided in USACE Supplemental Application #2
August 18, 2016 (Based on FS5 Workspace)

Facility	County	Stream Type	Waterbody Impacts (acres)	Waterbody Linear Impacts (Feet)
CPL North	Columbia	Perennial	0.34	1,219.37
		Intermittent	0.03	273.66
		Ephemeral	0.00	0.00
	Luzerne	Perennial	0.83	3,674.98
		Intermittent	0.17	1,404.24
		Ephemeral	0.12	835.46
	Wyoming	Perennial	0.94	2,482.26
		Intermittent	0.10	876.45
		Ephemeral	0.13	1,147.85
	Susquehanna	Perennial	0.20	640.26
		Intermittent	0.04	310.89
		Ephemeral	0.03	256.62
		TOTAL	**2.92**	**13,122.04**
CPL South	Lancaster	Perennial	1.09	4,006.78
		Intermittent	0.11	720.47
		Ephemeral	0.09	771.91
	Lebanon	Perennial	1.29	3,267.65
		Intermittent	0.25	2,214.83
		Ephemeral	0.05	480.77
	Schuylkill	Perennial	0.59	2,086.42
		Intermittent	0.17	958.93
		Ephemeral	0.04	329.45
	Northumberland	Perennial	0.37	831.07
		Intermittent	0.04	446.81
		Ephemeral	0.07	467.83
	Columbia	Perennial	1.27	3,375.43
		Intermittent	0.24	1,968.64
		Ephemeral	0.04	344.82
		TOTAL	**5.71**	**22,175.24**
Unity Loop	Lycoming	Perennial	0.28	1,308.49

		Intermittent	0.08	692.55
		Ephemeral	0.01	100.74
		TOTAL	**0.37**	**2,101.78**
Chapman Loop	Clinton	Perennial	0.01	115.82
		Intermittent	0.01	130.48
		Ephemeral	0.01	81.04
		TOTAL	**0.03**	**327.34**

Transco anticipates that most of the waterbody crossings will be completed using one of the dry ditch crossing methods (dry open cut, dry-ditch crossings, or trenchless crossings). A dry open-cut crossing would be used if a waterbody were dry or frozen. Dry-ditch crossings would use either flume pipe, cofferdam, or dam and pump to divert flows around the stream crossing construction area prior to trenching across the waterbody to enable the work to be completed in the dry, and trenchless methods would include conventional bore, horizontal directional drill (HDD), or a direct pipe method. Wet, open-cut crossings may be utilized on a limited basis upon review and approval by local, state and federal regulatory agencies.

Transco proposes to use HDD for the Conestoga River crossing and two crossings of the Susquehanna River.

To minimize adverse effects at stream crossings Transco proposes to utilize best management practices and procedures such as construction during low or no flow in streams whenever possible, sediment control structures and equipment bridges. Time of year instream work restrictions, for high quality waters would also be followed. A total of 279 Pennsylvania – Designated High-quality Waters, Exceptional Value Waters, and waters with Trout Designations are proposed to be crossed by this proposed project. In addition, this project will cross 40 waterbodies currently listed as impaired on the Pennsylvania Section 303(d) listing.

Once the pipe has been constructed across the waterway, the trench would be backfilled and the original surface water bed and bank contours reestablished. Transco would then seed the banks and may utilized the use of erosion control matting.

In-stream construction activities would be completed within 24 to 48 hours, except for areas that require blasting or other rock-breaking measures.

Water Withdrawal

Transco would be required to perform hydrostatic pressure testing of the new pipeline segments prior to placing them into service. To conduct this testing, approximately 61 million gallons of water would need to be withdrawn from a combination of surface waters and municipal sources to be used for the test.

Transco proposes to use withdrawal methods that would not reduce water flow to a point that will substantially affect base flow conditions, fish habitat and other aquatic wildlife or recreational uses.

Following testing, Transco would depressurize each test section and, if needed, direct water into a filter bag or other erosion-control barrier. Treated water is proposed to be discharged into well-vegetated upland infiltration sites, at discharges rates low enough to not affect surface water. Transco proposes to conduct activities in accordance with applicable regulatory requirements, including monitoring receiving waters before and after discharge for contaminants. If discharging directly to receiving waters, Transco is proposing use of diffusers (energy dissipation devices) to minimize the potential for surface water scour.

Wetland Impacts

There is no permanent filling in or permanent loss of wetlands from construction of this project being proposed.

The project would temporarily impact Palustrine Emergent (PEM), Scrub Shrub (PSS) and Forested (PFO) wetlands during construction, and permanently convert of 6.52 acres of PFO and PSS to PEM within the permanent right-of-way. Transco proposes to restore all temporarily disturbed PEM wetlands to pre-construction conditions. PFO and PSS wetlands within the temporary workspace would be affected during construction, but would be allowed to return to their original state over time (Transco has proposed to mitigate for all temporal impacts to PFO wetlands). A 10 foot-wide corridor centered on the pipeline in wetlands would be annually maintained in an herbaceous state. Transco would permanently maintain a 30 foot-wide corridor through PFO wetlands, and trees taller than 15-feet would be selectively cut and removed on a reoccurring bases on either side of the pipeline to ensure that the root systems do not affect the coating of the pipeline. Transco would be required to mitigate for the permanent conversion of PSS and PFO to PEM.

To minimize impacts to wetlands, the width of the construction right-of-way would be reduced to 75-feet in wetlands, except where Transco has requested an additional 15-feet of additional workspace in specific wetlands.

Field Delineated and Remotely Sensed Wetland Impacts: Atlantic Sunrise Project Based on Impacts Provided in USACE Supplemental Application #2 August 18, 2016 (Based on FS5 Workspace)

Facility	County	Cowardin Classification	Permanent Impacts (acres)[1]	Temporary Impacts (acres)[1]	Total (acres)
CPL North	Columbia	PEM	0.00	3.04	3.04
		PSS	0.00	0.00	0.00
		PFO	0.27	0.40	0.67
	Luzerne	PEM	0.00	6.62	6.62
		PSS	0.15	1.87	1.87
		PFO	2.46	2.15	4.61
	Wyoming	PEM	0.00	5.74	5.74
		PSS	0.17	1.10	1.27

		PFO	1.17	0.96	2.13
	Susquehanna	PEM	0.00	2.62	2.62
		PSS	0.02	0.09	0.11
		PFO	0.30	0.18	0.48
		TOTAL	**4.54**	**24.77**	**29.16**
CPL South	Lancaster	PEM	0.00	1.67	1.67
		PSS	0.00	<0.01	<0.01
		PFO	0.35	0.28	0.63
	Lebanon	PEM	0.00	2.69	2.69
		PSS	0.01	0.12	0.13
		PFO	0.90	0.45	1.35
	Schuylkill	PEM	0.00	2.13	2.13
		PSS	0.04	0.48	0.52
		PFO	0.19	0.20	0.39
	Northumberland	PEM	0.00	0.20	0.20
		PSS	0.00	0.00	0.00
		PFO	0.08	0.12	0.12
	Columbia	PEM	0.00	2.14	2.14
		PSS	0.01	0.28	0.29
		PFO	0.44	0.08	0.52
		TOTAL	**2.02**	**10.84**	**12.78**
Unity Loop	Lycoming	PEM	0.00	2.04	2.04
		PSS	0.00	<0.01	<0.01
		PFO	0.13	0.12	0.25
		TOTAL	**0.13**	**2.16**	**2.29**
Chapman Loop	Clinton	PEM	0.00	0.02	0.02
		PSS	0.00	0.00	0.00
		PFO	0.00	0.00	0.00
		TOTAL	**0.00**	**0.02**	**0.02**

[1] All impacts in the USACE waters upload sheet are reported as temporary. In this summary table, permanent PSS impacts are reported as a 10-foot wide corridor that will be permanently converted from scrub-shrub to emergent wetland. Permanent PFO impacts are reported as a 30-foot wide corridor that will be permanently converted from forested to scrub-shrub or emergent wetland. The remaining PSS and PFO impacts within the construction workspace are reported as temporary impacts.

Transco proposes to use one of the four following methods to install the pipeline within wetlands: (1) Standard Pipeline Construction (not saturated or inundated wetland); (2) Conventional Wetland Construction (saturated wetland); (3) Push-Pull technique (inundated wetland); and/or (4)Trenchless Construction.

Standard pipeline construction would be used in wetlands where soils are not saturated or inundated and able to support construction equipment at the time of the crossing. This method requires segregation of topsoil from subsoil along the trench line. Where present, Transco would segregate 12-inches of topsoil from the area disturbed. Transco would then conduct trench excavation, pipe laying, backfilling, and grade restoration. Immediately after backfilling is complete, Transco would replace the segregated topsoil and install applicable erosion control measures.

Transco would use Conventional wetland construction for wetlands with saturated soils or soils unable to support construction equipment without considerable soil disturbance. Prior to crossing and movement of construction equipment through these wetlands, Transco would stabilize the right-of-way using equipment mats to prevent significant rutting/soil disturbance. Transco would temporarily store spoil in a ridge along the pipeline trench, leaving gaps at appropriate intervals to provide for natural circulation or drainage of water. Topsoil would not be segregated where standing water is present or soils are saturated. While digging the trench, Transco would attempt to assemble the pipeline in a staging area located in an upland area unless the wetland is dry enough to support skids and pipe. The pipe would then be lowered into the trench. Transco would then work from the mats to backfill, cleanup and grade the area if necessary.

The push-pull technique can be used in large inundated wetland areas (>300 feet crossing length) where sufficient water is present to float the pipeline in the trench and where grade elevation over the length of the push-pull area will not require damming to maintain adequate water levels for flotation of the pipe. This technique would be used when inundated conditions prevent the use of conventional open-cut wetland construction techniques.This method involves pushing the pipe from the edge of the wetland or pulling the pipe with a winch from the opposite side of the wetland into the trench. Limited clearing within the wetland will be needed to install the pipeline. Transco would use an amphibious excavators (pontoon-mounted backhoes) or tracked backhoes (supported by mats or floats) and store the excavated material next to the trench, if practicable. If storage is not practicable, the material would be stored in an upland area near the trench, in construction vehicles, or an approved offsite staging location. The pipe is proposed to be stored and joined outside of the wetlands. The pipe would then be floated into place, floats removed, and the pipe allowed to settle into place. Once installed the excavated material would be used to backfill the trench.

Trenchless construction is the use of conventional bore or HDD method. This technique would be utilized in several wetlands located immediately adjacent to roadways.

To further minimize impacts to wetlands, temporary sediment control devices are proposed to be utilized between the upland construction areas and the wetlands, and removal of the root mats for woody vegetation would only be allowed directly over the trench area, or where required to ensure a safe work area. Compaction of wetland soils and rutting within wetlands is proposed to be minimized by using low-ground-pressure equipment and temporary equipment mats.

In general, storage of equipment, hazardous materials, chemicals, fuels, and lubricating oils, would occur at least 100 feet from wetlands and waterbodies.

Following construction, wetland areas within the right-of-way would be restored to preconstruction contours and revegetated with annual ryegrass where standing water is not present.

Wetlands are proposed to be monitored for a period of three to five years after completion to ensure successful restoration and revegetation of the project area. Revegetation will be considered successful when the vegetative cover returns to 80% of the type, density, and distribution of the native vegetation in adjacent, undisturbed portions of the wetland. If success is not met, the applicant would be required to continue monitoring and/or complete remedial actions to ensure successful reestablishment of the wetland.

Pipeline Maintenance

Transco proposes to limit annual vegetation maintenance within wetlands along the permanent ROWs to only within a 10-foot-wide corridor centered over the pipelines to facilitate route patrols and emergency access. Transco would selectively cut and remove trees within wetlands that are located within 15 feet of the pipelines. In all other respects, wetland crossings would be allowed to return to preconstruction conditions.

Wetland Mitigation

The project is proposed to permanently convert 6.52 acres of PFO and PSS to PEM wetlands. In addition, a temporal loss 5.57 acres of PFO and PSS wetlands will occur.

In order to compensate for the proposed wetland impacts (conversion and construction impacts), associated with their proposal, the applicant is designing a wetland mitigation plan. The objective of the wetland mitigation sites are to restore, enhance, and preserve wetland and riparian resources to replace the functions and values that are lost in association with temporary construction impacts and permanent operational (conversion) impacts to PFO and PSS wetlands.

The primary functions and values of the existing wetlands being impacted include; wildlife habitat, flood flow alteration, nutrient removal and retention and sediment/toxicant reduction.

The mitigation for the project is proposed to occur across five sites that include the following: Headwaters of Larrys Creek in Lycoming County; Towanda Creek, in Bradford County; Hibred Farms in Lancaster County; Briar Creek in Columbia County; and Swatara Creek in Schuylkill County, Pennsylvania.

Mitigation Approach Summary Table

PRM Site	Mitigation Approach	Wetland Type	Site Acreage	Mitigation Ratio	Mitigation Acreage
Headwaters of Larrys Creek Lycoming County Watershed 10	Re-establishment	NA	0.77	1:1	0.77
	Rehabilitation	PEM	3.03	1.5:1	2.02
	Enhancement	PEM	2.36	2:1	1.18
	Permanent Impact from Restoration[1]	PEM	(0.11)	1:1	(0.11)
	TOTAL		**6.16**		**3.86**

Towanda Creek Bradford County Watershed 4	Re-establishment	NA	1.37	1:1	1.37
	Rehabilitation	-	-	1.5:1	-
	Enhancement	PEM/PSS	6.60	2:1	3.30
	Preservation	PFO	8.05[2]	-	-
	TOTAL		**16.02**		**4.67**
Hibred Farms Lancaster County Watershed 7	Re-establishment	-	-	1:1	-
	Rehabilitation	PEM/PUB	5.96	1.5:1	3.97
	Enhancement	PEM/PUB	6.11	2:1	3.06
	TOTAL		**12.07**		**7.03**
Briar Creek Columbia County Watershed 5	Re-establishment	NA	0.46	1:1	0.46
	Rehabilitation	-	-	1.5:1	-
	Enhancement	PEM/PSS	16.96	2:1	8.48
	TOTAL		**17.42**		**8.94**
Swatara Creek Schuylkill County Watershed 7	Re-establishment	NA	3.97	1:1	3.97
	Rehabilitation	-	-	1.5:1	-
	Enhancement	PEM/PSS	2.81	2:1	1.40
	TOTAL		**6.78**		**5.37**

Notes:

1 – Please note the 0.11-acre of permanent wetland impact associated with the Headwaters of Larrys Creek PRM Site mitigation activities has been removed from the mitigation total.

2 – The Towanda Creek PRM Project will preserve 8.05 acres of PFO wetlands within the Chippewa easement. While the USACE recognizes preservation as mitigation at a ratio of 6.66:1, the PADEP does not and therefore PFO preservation was not included in the final mitigation acreage total.

IMPACT PER BASIN								
Subbasin	**IMPACT TYPE**	**NON-EV PASS 91.5:1)**	**EV PSS (1.75:1)**	**NON-EV PFO (2:1)**	**EV PFO (2.5:1)**	**TOTAL IMPACT**	**MITIGATION NEED**	**TOTAL MITIGATION NEED**
4	Delineated	0.17	0.02	0.20	0.95	3.34	7.57	7.57
	Remote Sensed	-	-	-	-	-	-	
5	Delineated	0.02	0.16	2.38	2.99	5.55	12.55	12.75
	Remote Sensed	-	-	0.10	-	0.10	0.20	
6	Delineated	-	-	0.23	-	0.23	0.46	0.46
	Remote Sensed	-	-	-	-	-	-	
7	Delineated	0.04	0.01	1.29	0.87	2.21	4.83	4.83

	Remote Sensed	-	-	-	-	-	-	
9	Delineated	-	-	-	-	-	-	
	Remote Sensed	-	-	-	-	-	-	
10	Delineated	-	-	0.01	0.26	0.27	0.67	0.67
	Remote Sensed	-	-	-	-	-	-	
TOTAL		**0.23**	**0.19**	**4.21**	**5.07**	**11.70**	**26.28**	**26.28**

Subbasin	IMPACT TYPE	TOTAL MITIGATION PROVIDED	MITIGATION PROVIDED FROM	MITIGATION PROVIDED FROM				
				Towanda Creek	Headwaters of Larry's Creek	Briar Creek	Hybird Farms	Swatara Creek
4	Delineated	7.57	7.57	4.67		2.90		
	Remote Sensed							
5	Delineated	12.75	12.55		3.19	6.04		3.32
	Remote Sensed		0.20					0.20
6	Delineated	0.46	0.46					0.46
	Remote Sensed							
7	Delineated	4.83	4.83				4.46	0.37
	Remote Sensed							
9	Delineated							
	Remote Sensed							
10	Delineated	0.67	0.67		0.67			
	Remote Sensed							
TOTAL		**26.28**	**26.28**	**4.67**	**3.86**	**8.94**	**4.46**	**4.35**

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed project. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments provided will become part of the public record for this action. Comments are also used to determine the need for a public hearing and to determine the overall

public interest of the proposed activity. Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the District Engineer at U.S. Army Corps of Engineers, Baltimore District, State College Field Office, 1631 South Atherton Street, Suite 101, State College, Pennsylvania 16801, Attention: Mr. Michael Dombroskie Field Office within the comment period specified above.

The United States Army Corps of Engineers neither favors nor opposes the proposed work. The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonable may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal, will be considered, including the cumulative effects thereof; among those are conservation, economic, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, and consideration of property ownership and in general, the needs and welfare of the people.

The evaluation of the impact of this project on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 of the Clean Water Act.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). The Corps has determined this project will not affect any EFH.

WATER QUALITY CERTIFICATION: The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act from the Pennsylvania Department of Environmental Protection. The Section 401 certifying agency has a statutory limit of one year from the date of this public notice to make its decision.

COASTAL ZONE MANAGEMENT PROGRAMS: This project does not require an approval from an approved Coastal Zone Management Program.

The applicant must obtain any state or local government permits which may be required.

Pursuant to Section 7 of the Endangered Species Act (16 U.S.C.1531). The U.S. Fish and Wildlife Service is reviewing the proposal to determine if the proposed project will have an impact on any federally listed or proposed endangered species.

Currently, the Pennsylvania Historical and Museum Commission is reviewing the proposal to determine if the proposed project will impact sites that are eligible for listing or are included in theNational Register of Historic Places. Currently unknown archeological, scientific, prehistoric, or historical data may be lost or destroyed by the work to be accomplished under the request permit.

Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received by the District Engineer at U.S. Army Corps of Engineers, Baltimore District, State College Field Office, 1631 South Atherton Street, Suite 101, State College, Pennsylvania 16801, Attention: Mr. Michael Dombroskie, within the comment period as specified above to receive consideration. Also, it must clearly set forth the interest which may be adversely affected by this activity and the manner in which the interest may be adversely affected.

It is requested that you communicate this information concerning the proposed work to any persons know by you to be interested and not being known to this office, who did not receive a copy of this notice.

Wade B. Chandler
Chief, Pennsylvania Section
Regulatory Branch

PROPOSED PROJECT SCOPE
ATLANTIC SUNRISE PROJECT

	PIPELINE	LENGTH IN MILES	MILEPOSTS
1)	42" Central Penn Line South	127.31	Mainline MP 1683.32 (River Road tie-in) to LEIDY MP 113.95 (West Diamond)
2)	30" Central Penn Line North	58.66	LEIDY MP 113.95 (West Diamond) to Zick MS at M-0119 M.P. 0.01
3)	36" Chapman Loop (Line D)	2.50	LEIDY MP 186.01 to LEIDY MP 188.51
4)	42" Unity Loop (Line D)	8.45	LEIDY MP 120.42 to LEIDY MP 128.87
5)	30" Mainline "A" and "B" Virginia Replacements	2.52	Between Station 185 and the 180-20 valve site

FACILITIES/MODIFICATIONS

6) Proposed STA 605 - Construct a greenfield Compressor Station in Wyoming County with 2 x 15,000 HP electric compressor packages

7) Proposed STA 610 - Construct a greenfield Compressor Station in Columbia County with 2 x 20,000 HP electric compressor packages

8) STA 520 - Add 1 ea. Solar Mars 100S (16,000 ISO HP ea.)

9) STA 517 - Add 1 ea. Solar Mars 100S (16,000 ISO HP ea.)

10) Proposed Zick Meter Station (with pig launcher)

11) Proposed Springville Meter Station and Modifications at existing Puddlefield Meter Station

12) Proposed North Diamond Regulator Station at Transco tie-in LEIDY MP 92.70

13) Tie-in at LEIDY MP 113.95 with LEIDY B, C, and D lines

14) Proposed West Diamond Regulator Station at Transco tie-in LEIDY MP 113.95 with pig launcher & receiver

15) Proposed River Road Regulator Station at Transco MP 1683.32 with tie-in to three mainlines "A", "B" & "C" with pig receiver

16) STA 190 - Modify valves and yard piping for bi-directional gas flow

17) STA 190 - Add 1 ea. Solar Titan 250 (30,000 ISO HP ea.) for bi-directional flow

18) STA 185 - Modify valves and yard piping for bi-directional gas flow

19) STA 170 - Modify valves and yard piping for bi-directional gas flow

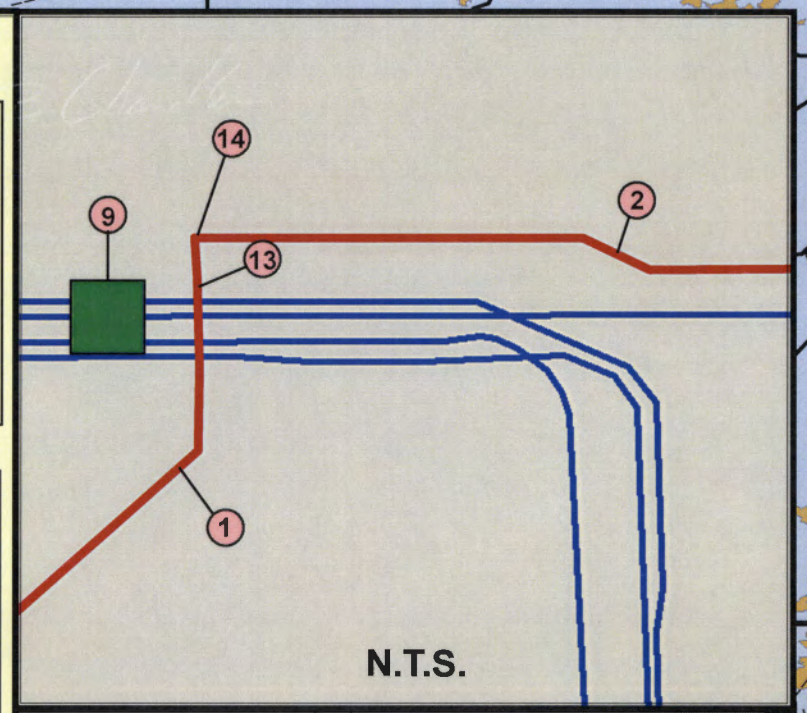
20) STA 160 - Modify valves, yard piping,and regulation for bi-directional gas flow

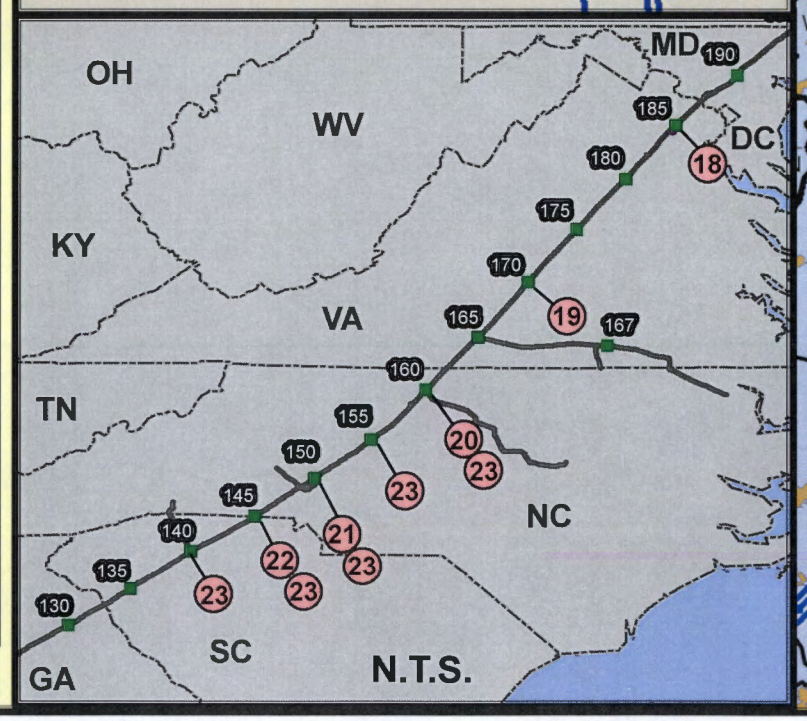
21) STA 150 - Modify valves and yard piping for bi-directional gas flow

22) STA 145 - Modify valves and yard piping for bi-directional gas flow

23) Supplemental Odorization from STA 140 to STA 160
- i. Odor masking / de-odorization at 15 mainline valve locations
- ii. Odor masking / de-odorization of valves at 4 Compressor Stations (145, 150, 155, 160)
- iii. Odor Detection and supplemental odorization at 42 Meter and/or Regulator Stations

FOR DISCUSSION PURPOSES ONLY SUBJECT TO CHANGE





TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
PROJECT LOCATION MAP
ATLANTIC SUNRISE PROJECT

FIGURE 1.1-1
F-FQ-ASR-A-01 Rev 3
08/01/16

Williams
(WO 1161503)