

*Atlantic Sunrise Project – PA DEP Chapter 105 Joint Permit Application  
Transcontinental Gas Pipe Line Company, LLC  
Susquehanna County*

**ATTACHMENT G-2  
THREATENED AND ENDANGERED SPECIES COORDINATION  
PA DEPARTMENT OF CONSERVATION AND NATURAL  
RESOURCES**

*Revised April 2017*

## Talento, Casey

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**From:** Talento, Casey  
**Sent:** Friday, February 14, 2014 3:13 PM  
**To:** 'rbowen@pa.gov'  
**Cc:** 'gpodniesin@pa.gov'  
**Subject:** Introduction Meeting for Transco/Williams Atlantic Sunrise Expansion (ASE) Project

Hello Rebecca,

As a follow-up to my voice message earlier this week, Transco Gas Pipeline Company, LLC (Transco) is proposing the Atlantic Sunrise Expansion (ASE) Project. We would like to request an introduction meeting to address any questions or concerns early in the project planning stages ahead of the upcoming field survey season. We currently have a meeting scheduled for March 12<sup>th</sup> at 2:30 pm at the PA Game Commission Office in Harrisburg and would like to extend the invitation to you and/or your staff to join the meeting in person or via teleconference if needed. Representatives from Transco, Ecology and Environment, Inc. the lead environmental consultant and WHM Group, assisting with the biological surveys will be in attendance. If this time is not convenient we welcome the opportunity to arrange a future meeting to meet and discuss the project.

The ASE Project proposes the follow facilities in PA:

- Central Penn Line (CPL) North: approximately 56 miles of 36-inch diameter pipeline in Susquehanna, Wyoming County, Luzerne, and Columbia Counties, PA. Approximately half of this pipeline will be greenfield with the remaining collocated within existing utility corridors.
- CPL South: approximately 121 miles of 42-inch diameter greenfield pipeline in Lancaster, Lebanon, Schuylkill, Northumberland County, and Columbia County, PA.
- Grugan Loop: approximately 5.5 miles of looping pipeline in Clinton County, PA.
- Unity Loop: approximately 11 miles of looping in pipeline Lycoming County, PA.
- Compressor Stations 520, 517 and 195: modification and up-rating these facilities in Lycoming County, Columbia County, and York County, PA.
- Station 605: a greenfield compressor station in Susquehanna County, PA.
- Station 610: a greenfield compressor station in Columbia County, PA.
- Regulator Stations: construction of regulator stations in Luzerne, Lancaster, and Columbia Counties, PA.
- Zick Station: construction of a receipt meter in Susquehanna County, PA.
- Springville Interconnect: construct an interconnect with the Transco Mainline and Springville pipeline in Wyoming County, PA.

The current project alignment crosses the Ricketts Glen State Park and is adjacent to Swatara State Park and. Listed below is the current contact information for these State Parks.

- Ricketts Glen State Park - Benjamin Stone, Manager - [bestone@pa.gov](mailto:bestone@pa.gov)
- Swatara State Park - Corey Snyder – Manager - [corsnyder@pa.gov](mailto:corsnyder@pa.gov)

Informal consultation letters are currently being prepared and are planned for submission next week providing additional project details and work scope, mapping and shapefiles.

Thank you  
Casey

Casey Talento

**Ecology and Environment, Inc.**

300 Penn Center Blvd., Suite 204, Pittsburgh, PA 15235

Office: 412-825-6525 ext 4450 | Fax: 412 226-5062 | Cell: 412-651-5780

[ctalento@ene.com](mailto:ctalento@ene.com) | [www.ene.com](http://www.ene.com)



## ecology and environment, inc.

International Specialists in the Environment

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BUFFALO CORPORATE CENTER

368 Pleasant View Drive

Lancaster, New York 14086

Tel: (716) 684-8060, Fax: (716) 684-0844

March 7, 2014

Rebecca Bowen, Chief

Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section

400 Market St., PO Box 8552

Harrisburg, PA 17105

Re: Transcontinental Gas Pipe Line Company, LLC.

Atlantic Sunrise Expansion Project

Informal Project Consultation for Threatened and Endangered Species and State Park Crossing

Dear Ms. Bowen:

Ecology and Environment, Inc. (E & E) is supporting Transcontinental Gas Pipeline Company, LLC (Transco) in their development of the proposed Atlantic Sunrise Expansion (ASE) Project (Project). Transco is proposing to expand its current interstate natural gas pipeline system by connecting their existing natural gas facilities and gathering system in Susquehanna County, Pennsylvania to markets in the Mid-Atlantic and Southern U.S. To accomplish this, Transco is proposing to construct and modify a variety of pipelines, compressor stations, meter stations, regulator stations, and interconnections within Pennsylvania, Maryland, Virginia, North Carolina, and Georgia. All together, the ASE Project will include approximately 177 miles of greenfield pipeline, 16 miles of pipeline looping (e.g. installation of new pipeline adjacent to existing pipeline), 2.5 miles of pipeline replacement, two new greenfield compressor stations, and new and up-rated facility modifications across the Project area. Within Pennsylvania, Transco is proposing to construct or modify the following facilities:

- Central Penn Line (CPL) North: construction of approximately 56 miles of 30-inch diameter greenfield pipeline in Susquehanna County (Gibson, Harford and Lenox Townships), Wyoming County (Nicholson, Clinton, Overfield, Falls, Eaton, Northmoreland, Monroe Townships), Luzerne County (Dallas, Lehman, Lake, Ross, Fairmount Townships) and Columbia County (Sugarloaf Township), PA. Approximately half of this pipeline is collocated with an existing Transco pipeline.
- CPL South: construction of approximately 121 miles of 42-inch diameter greenfield pipeline in Lancaster County (Drumore, Martic, Conestoga, Manor, West Hempfield, Columbia, East Donegal, and Mount Joy Townships), Lebanon County (South Londonderry, South Annville, North Annville, Annville, East Hanover, Union, Swatara, and Bethel Townships), Schuylkill County (Pine Grove, Tremont, Porter, Hegins, and Eldred Townships), Northumberland County (East

Cameron, Coal, and Ralpho Townships), and Columbia County (Cleveland, Franklin, Montour, Hemlock, Mt Pleasant, Orange, Greenwood, Jackson, and Sugarloaf Townships), PA.

- Grugan Loop: construction of approximately 5.5 miles of looping 42-inch diameter pipeline in Clinton County (Gallagher Township), PA.
- Unity Loop: construction of approximately 11 miles looping 42-inch diameter pipeline in Lycoming County (Jordan, Franklin, and Penn Townships), PA.
- New Compressor Station 605: construction of a greenfield compressor station in Susquehanna County (Lenox Township), PA.
- New Compressor Station 610: construction of a greenfield compressor station in Columbia County (Hemlock Township), PA.
- Existing Compressor Stations 520 and 517: modification and up-rating these facilities in Lycoming County (Mifflin Township), Columbia County (Jackson Township), and York County (Peach Bottom Township), PA.
- New Regulator Stations: construction of regulator stations in Luzerne County (Dallas Township), Lancaster County (Drumore Township), and Columbia County (Sugarloaf Township), PA.
- Existing Zick Compressor Station: construction of a new receipt meter at the existing station in Susquehanna County (Lenox Township), PA.

A figure showing the location of the proposed Pennsylvania facilities is provided in Attachment A. As you requested during our recent correspondence, USGS topographical maps are provided in Attachment B and a CD containing shapefiles of the proposed facility locations is also enclosed. Within the maps and shapefiles only the preliminary pipeline centerlines have been provided as field surveys have not yet been conducted nor have permanent and temporary workspaces (e.g. disturbance areas) been fully identified. To further assist your review, a Pennsylvania Natural Diversity Inventory (PNDI) Large Project Form is included in Attachment C. Please note that during and following field surveys, the proposed pipeline routes are subject to refinements in order to avoid various natural resource and land use features along with engineering design requirements. Thus, the estimated areas of impact noted on the PNDI Large Project Review from are also subject to change during and following field surveys.

This correspondence is intended to initiate interactions with the PADCNr in relation to the concerns of Transco for compliance with the Wild Resources Conservation Act 32 P.S. §§ 5301 *et seq.* (WRCA) on this Project. E & E, on behalf of Transco, has contacted your office to request a meeting to further discuss WRCA issues. We welcome the opportunity to meet and discuss this project in the near future.

Please note that this Project currently proposes to cross Ricketts Glen State Park within an existing Transco pipeline ROW. In addition to WRCA issues, E & E would like to discuss the process, potential issues, and mitigation measures involved in this parkland crossing.

In summary, E & E is requesting information regarding the presence of T&E and special concern species, the existence of significant natural communities occurring along or in the vicinity of the Project components in Pennsylvania and any potential permitting requirements and/or issues associated with the proposed crossing of the Ricketts Glen State Park.

Atlantic Sunrise Expansion Project

March 7, 2014

Page 3

If you have any questions regarding this correspondence and information request, or require additional Project information, please do not hesitate to call me at (716) 684-8060, or contact me via email at [rsmith@ene.com](mailto:rsmith@ene.com). I appreciate your assistance and thank you for your attention to this request.

Sincerely,

ECOLOGY & ENVIRONMENT, INC.

A handwritten signature in black ink that reads "Rachel Smith". The signature is written in a cursive, flowing style.

Rachel Smith

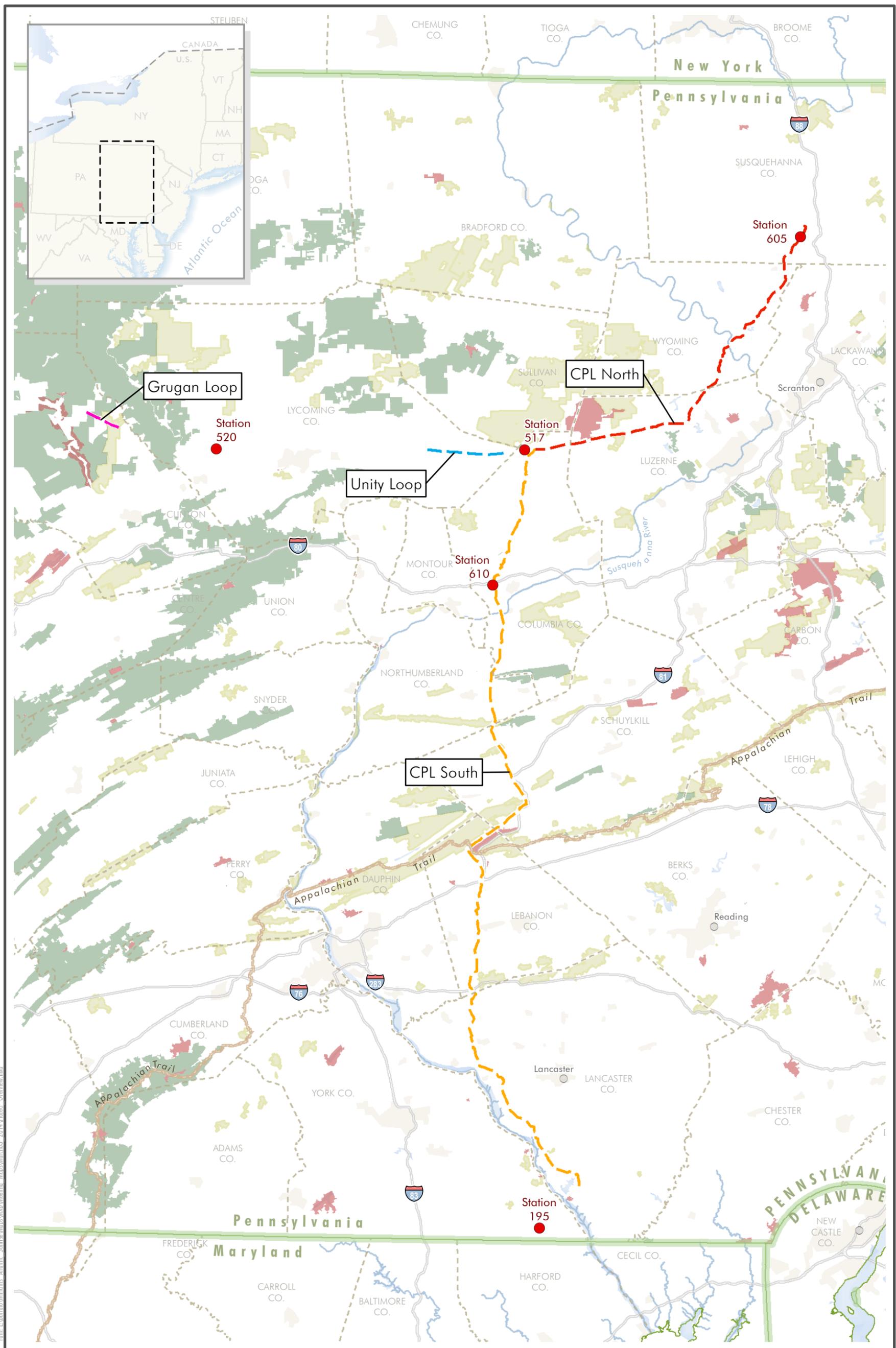
Deputy Project Manager

Attachments: Attachment A: Project Location Map for PA Facilities  
Attachment B: USGS Topographic Maps  
Attachment C: PNDI Large Project Form

Enclosures: CD containing project shapefiles

Cc: Anne Allen, Transco  
Greg Netti, E & E  
Casey Talento, E & E

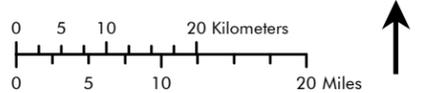
## Attachment A



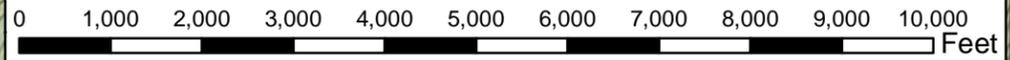
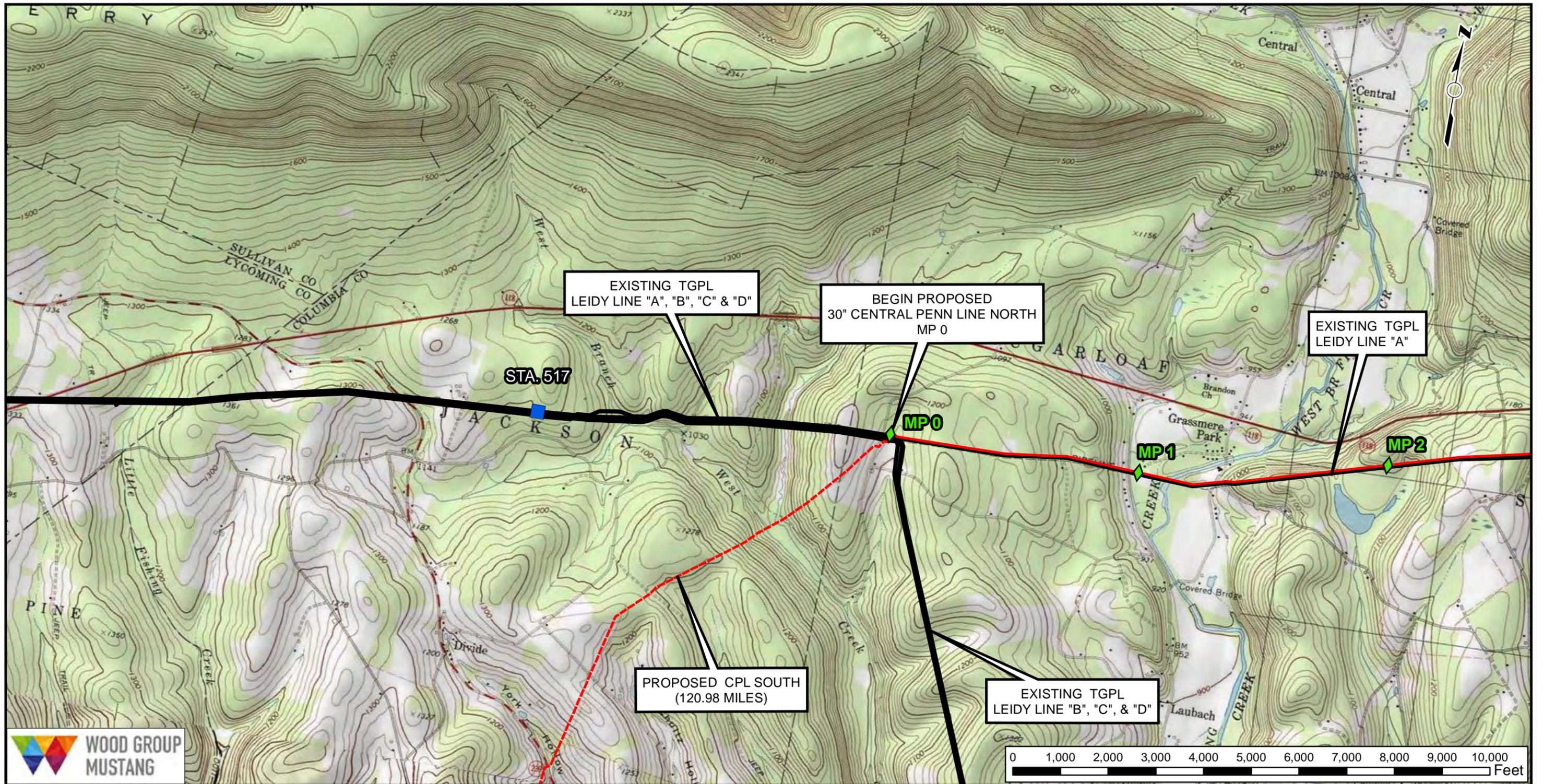
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Project Features	Natural Resources	Administrative Boundaries/Transportation
<span style="color: red;">●</span> Compressor Station	<span style="color: brown;">—</span> Appalachian Trail	<span style="color: green;">—</span> State Boundary
<span style="color: red;">- - -</span> CPL North	<span style="color: red;">■</span> State Park	<span style="color: gray;">- - -</span> County Boundary
<span style="color: orange;">- - -</span> CPL South	<span style="color: green;">■</span> State Forest	<span style="color: gray;">—</span> Interstate
<span style="color: magenta;">- - -</span> Grugan Loop	<span style="color: yellow;">■</span> Gamelands	<span style="color: gray;">—</span> Other Major Road
<span style="color: blue;">- - -</span> Unity Loop		<span style="color: gray;">—</span> Secondary Road

Project Overview Map  
Atlantic Sunrise  
Pennsylvania



## Attachment B



**Legend**

- EXISTING TRANSCO LINE
- EXISTING TRANSCO COMPRESSOR STATION
- PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
- PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
- PROPOSED COMPRESSOR STATION
- MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 ELK GROVE, PA  
 RED ROCK, PA

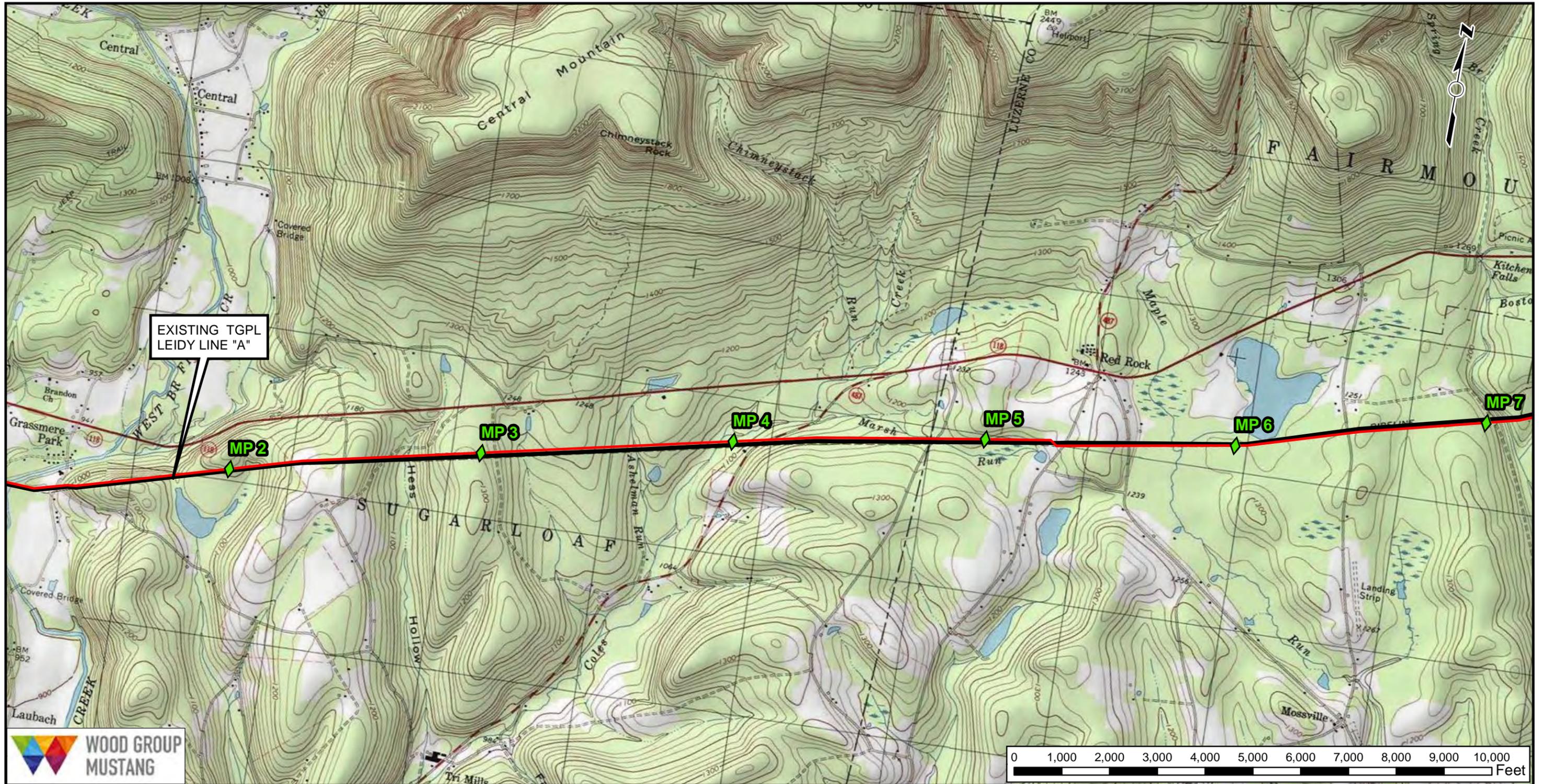
**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
 2/17/2014

**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

Note: Alignment may vary based on field study.  
 Preliminary study area. The information contained on these drawings is not survey grade and should only be used as a reference.

DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.</b> <b>ATLANTIC SUNRISE EXPANSION PROJECT</b> <b>TOPOGRAPHIC ROUTE MAP</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>MP 0 TO MP 55.79</b> <b>COLUMBIA COUNTY, PENNSYLVANIA</b>				
DRAWN BY: CAM CHECKED BY: MJH APPROVED BY:	DATE: 2/17/2014 DATE: 2/17/2014 DATE:	ISSUE FOR BID: ISSUE FOR CONSTRUCTION: DRAWING NUMBER: 24-27-70/11375 3:19 PM 17-Feb-14	SCALE: NOTED SHEET 1 OF 11	



EXISTING TGPL  
LEIDY LINE "A"



- Legend**
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RED ROCK, PA

**CASE# 5D8-1**  
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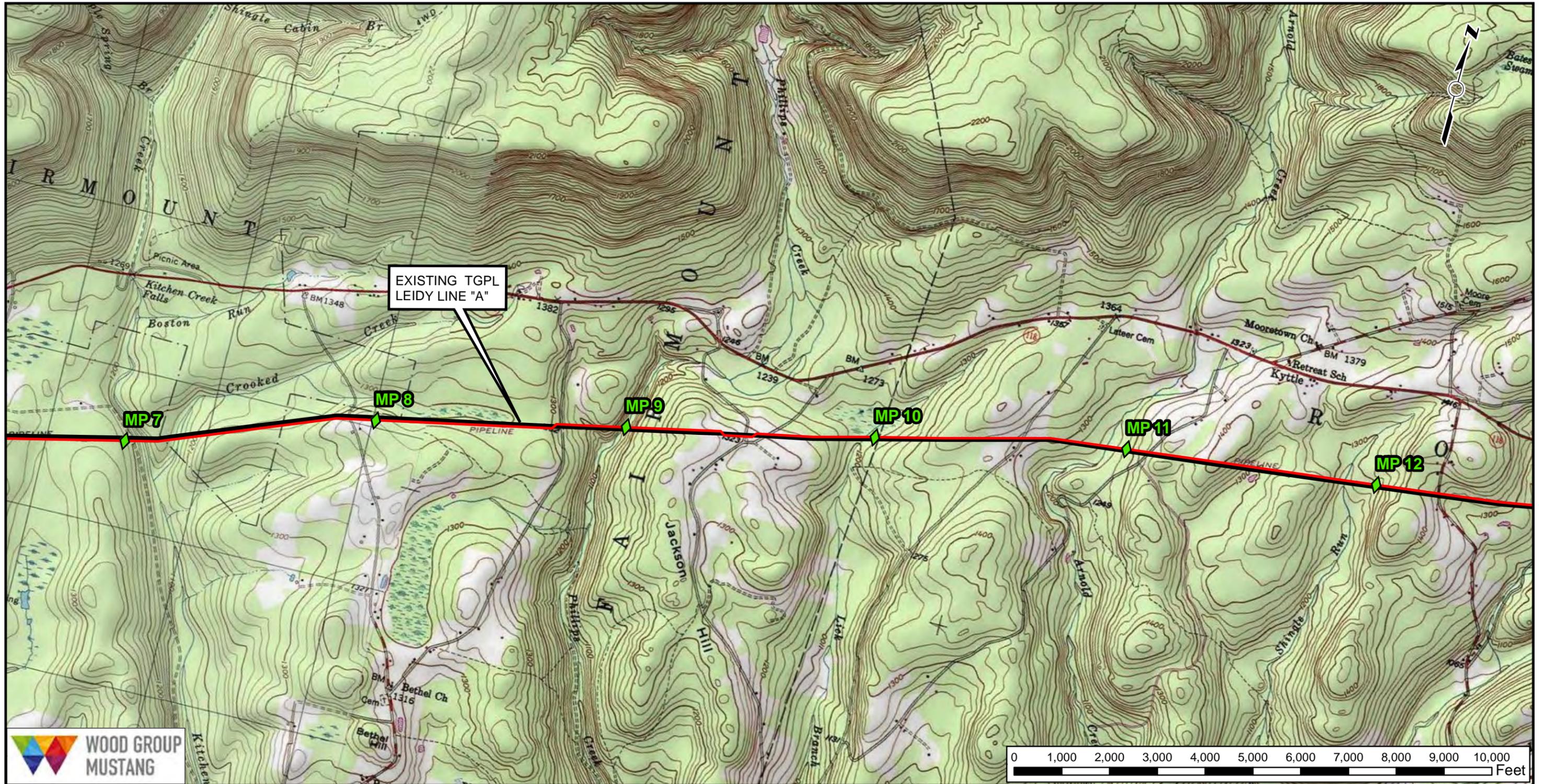
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TOPOGRAPHIC ROUTE MAP  
PROPOSED 30" CENTRAL PENN LINE NORTH  
MP 0 TO MP 55.79  
COLUMBIA & LUZERNE COUNTIES, PENNSYLVANIA

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NOTES:  
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 RED ROCK, PA  
 SWEET VALLEY, PA

**CASE# 5D8-1**  
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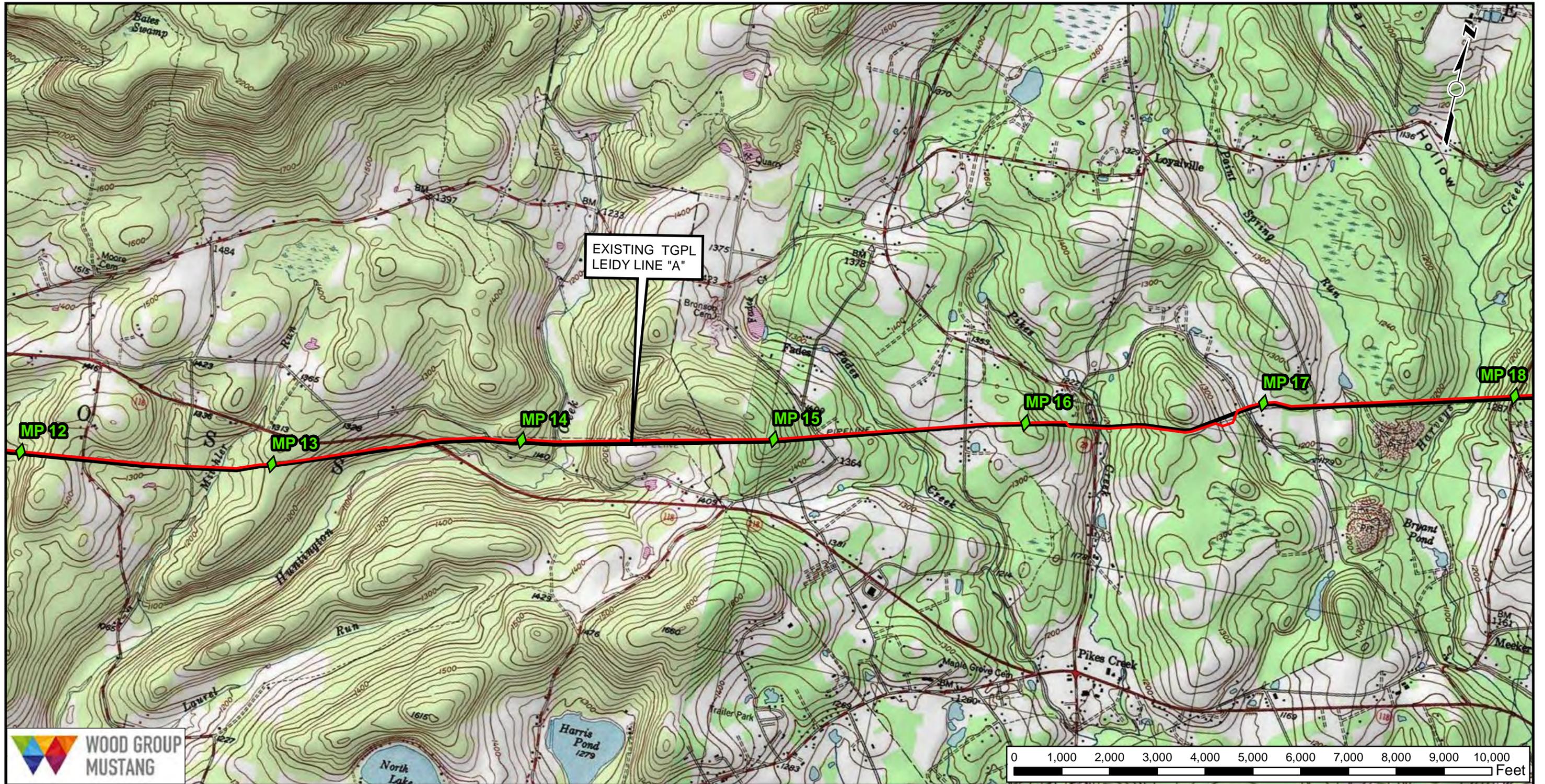
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NOTES:  
 DRG 7.5 MIN. QUAD MAPS:  
 SWEET VALLEY, PA  
 HARVEY LAKE, PA

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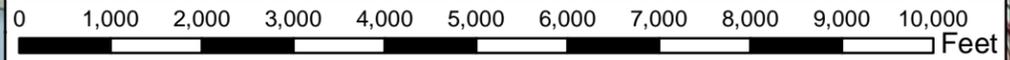
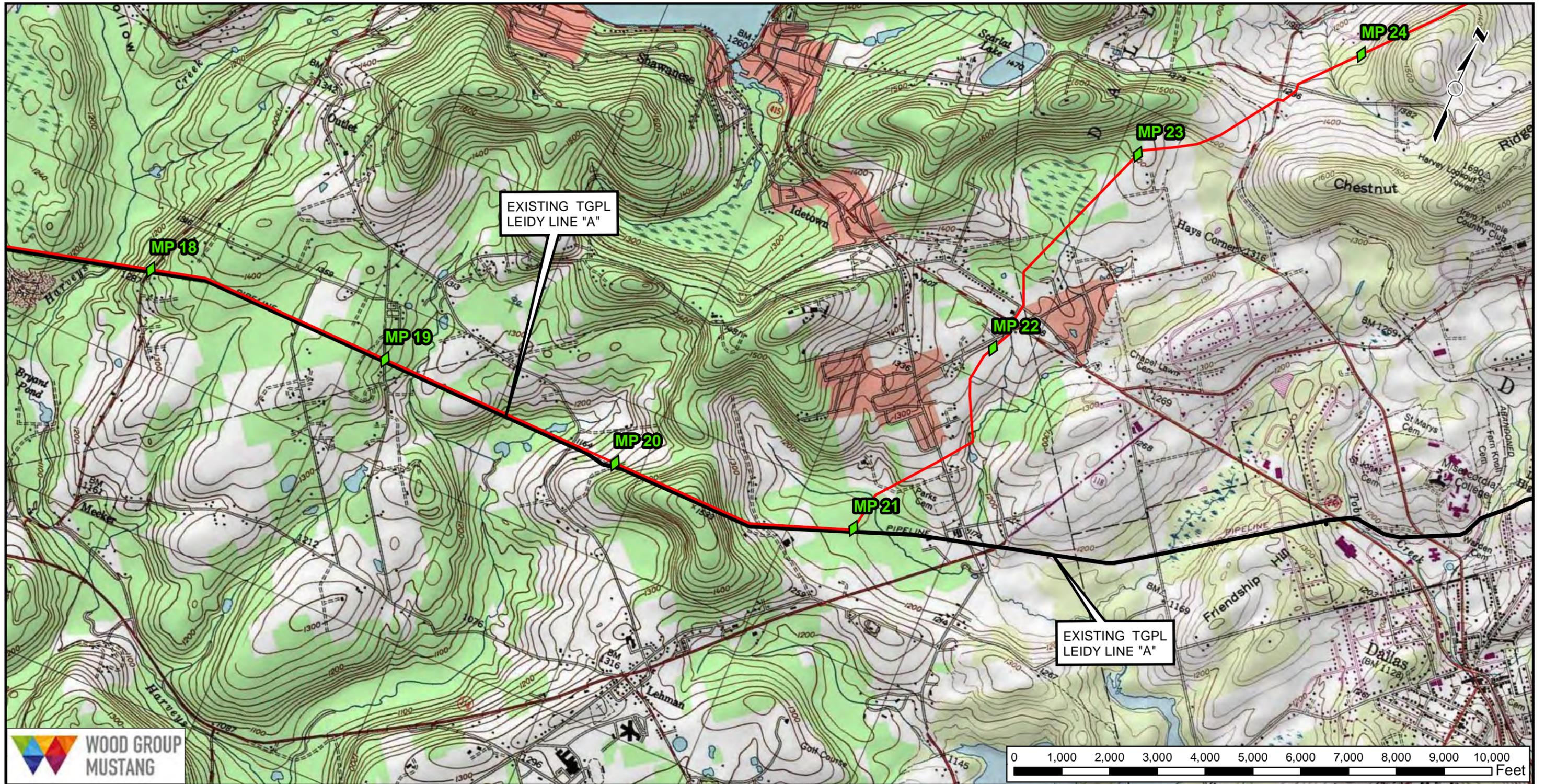
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NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
HARVEY LAKE, PA  
KINGSTON, PA

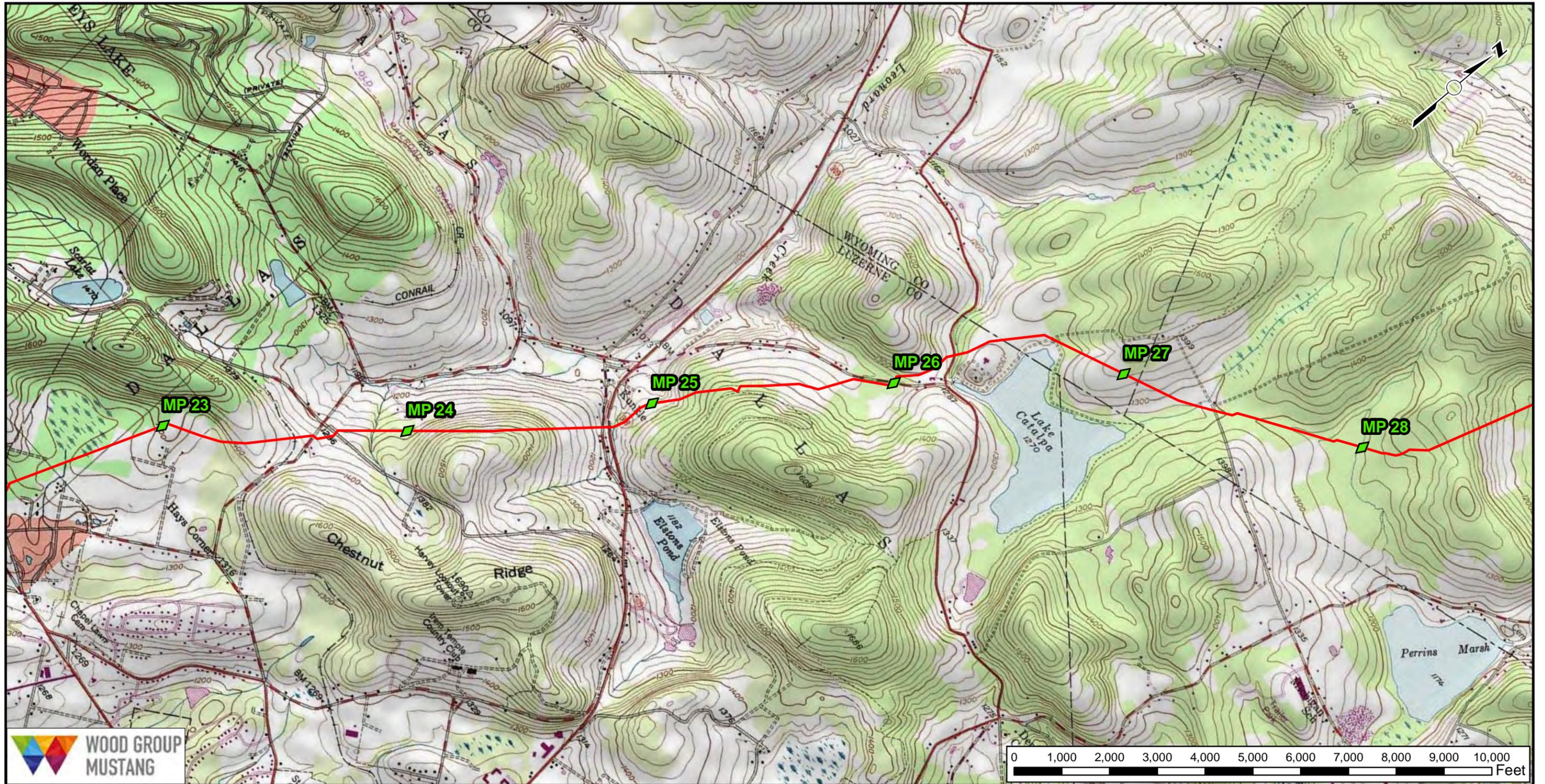
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**MP 0 TO MP 55.79**  
**LUZERNE COUNTY, PENNSYLVANIA**

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 HARVEY LAKE, PA  
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 CENTER MORELAND, PA

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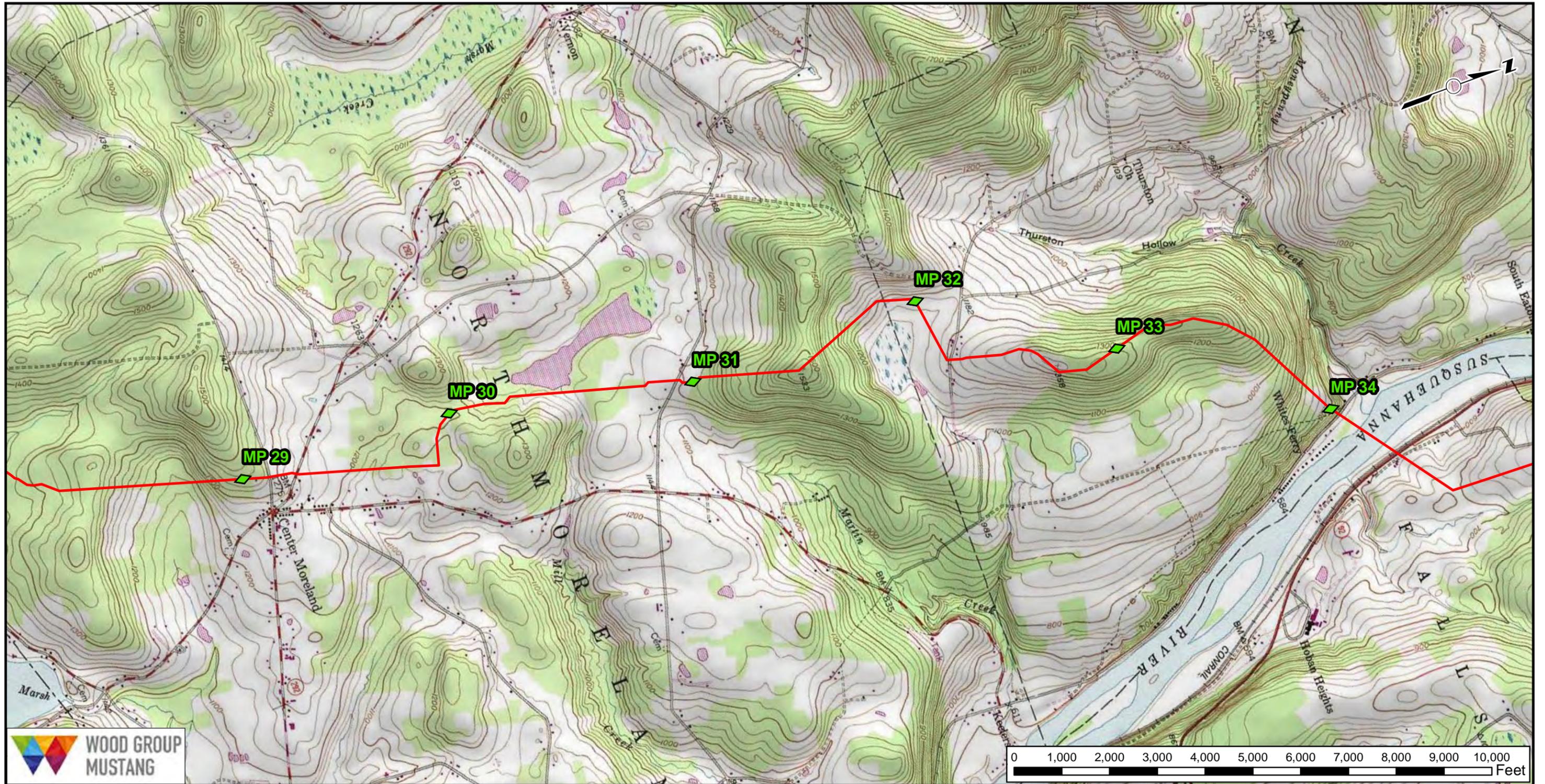
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NOTES:  
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CENTER MORELAND, PA

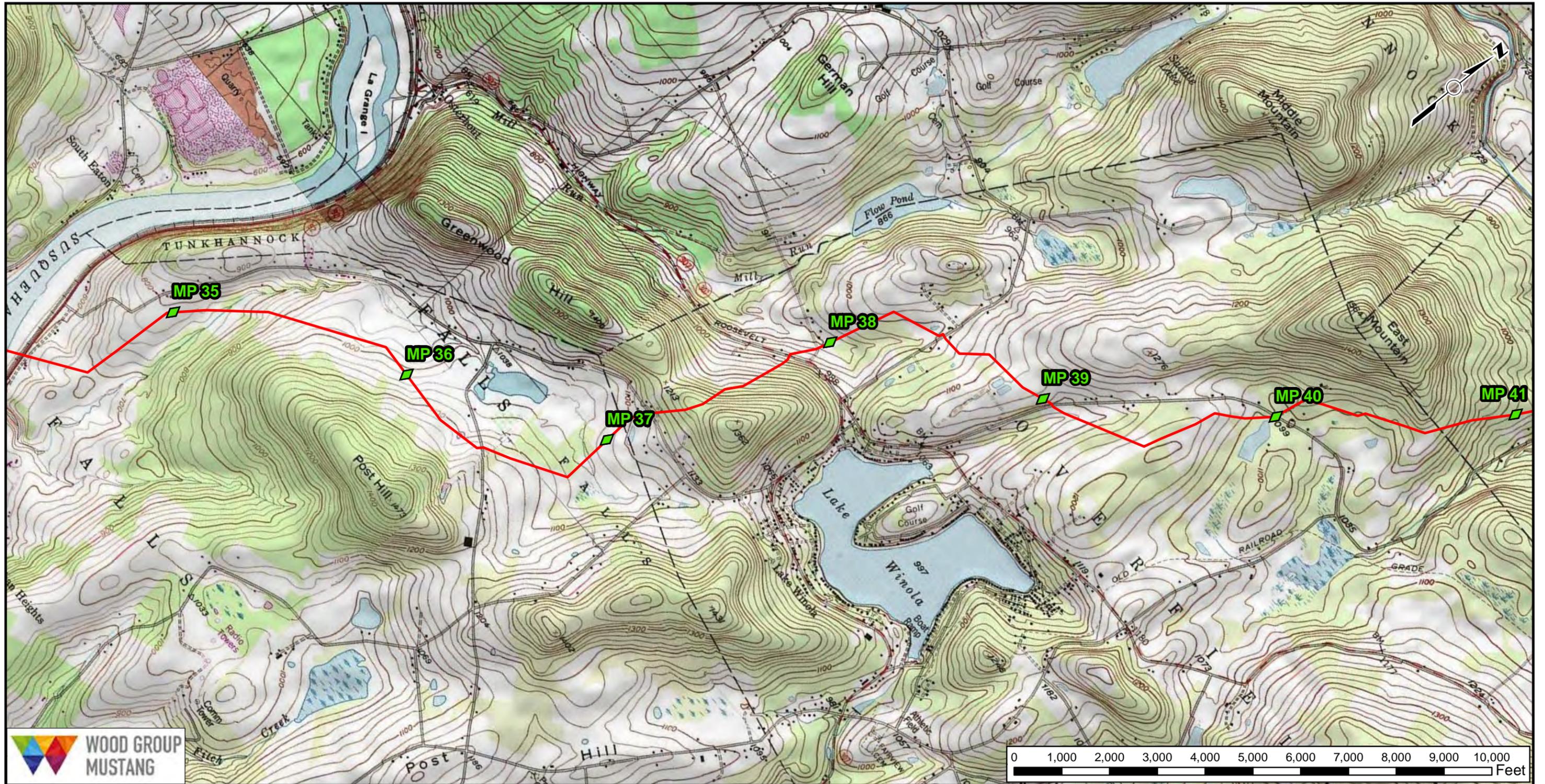
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 CENTER MORELAND, PA  
 RANSOM, PA  
 FACTORYVILLE, PA

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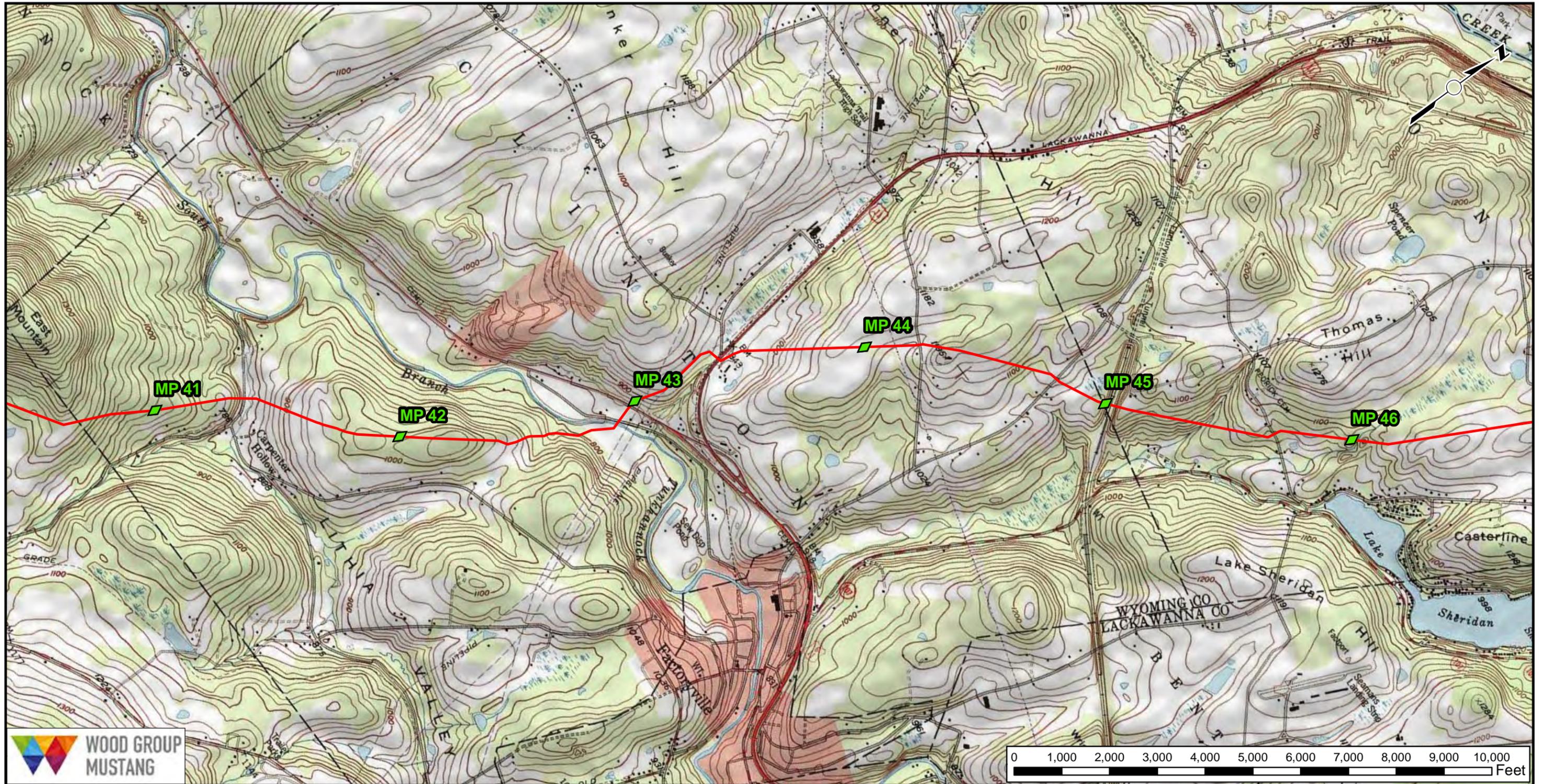
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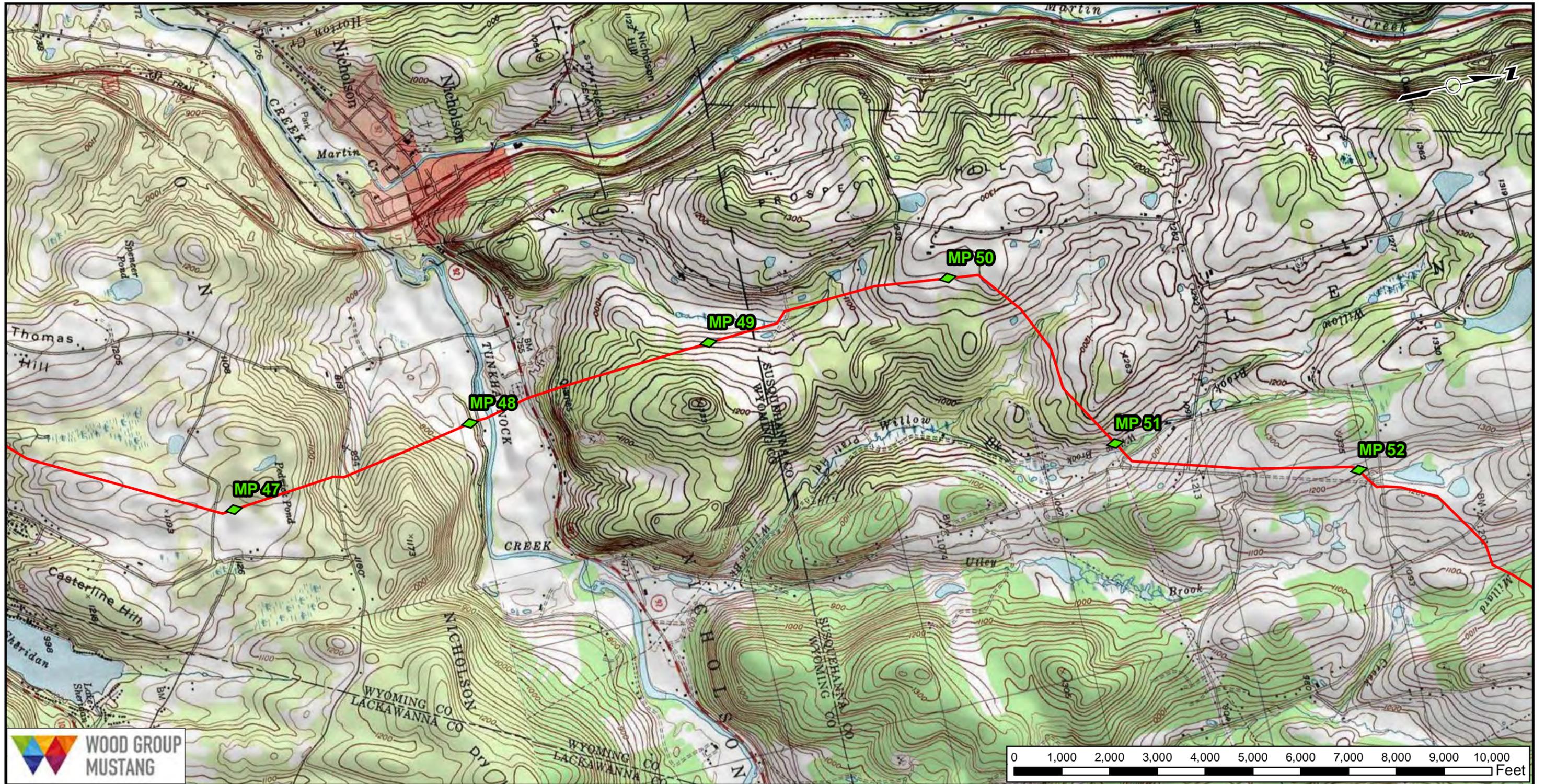
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TOPOGRAPHIC ROUTE MAP  
PROPOSED 30" CENTRAL PENN LINE NORTH  
MP 0 TO MP 55.79  
WYOMING COUNTY, PENNSYLVANIA

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/11375	SHEET 9 OF 11
WO:		3:19 PM 17-Feb-14	



- Legend**
- EXISTING TRANSCO LINE
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
 DRG 7.5 MIN. QUAD MAPS:  
 FACTORYVILLE, PA  
 HOP BOTTOM, PA  
 LENOXVILLE, PA

**CASE# 5D8-1**

**FOR INFORMATION ONLY**  
 2/17/2014

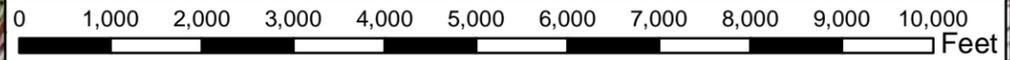
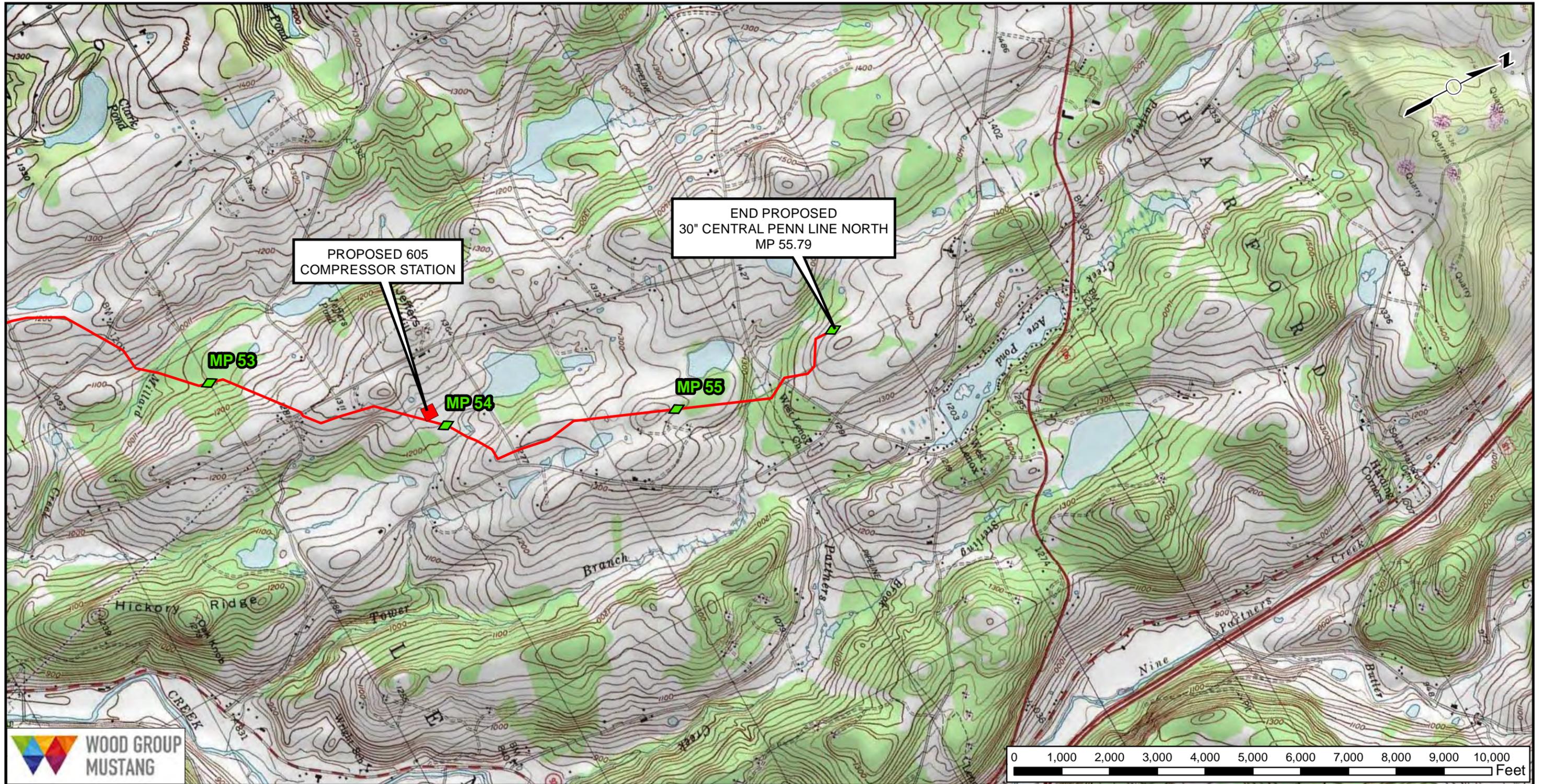
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

Note: Alignment may vary based on field study.  
 Preliminary study area. The information contained on these drawings is not survey grade and should only be used as a reference.

DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**MP 0 TO MP 55.79**  
**SUSQUEHANNA & WYOMING COUNTIES, PENNSYLVANIA**

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: <b>24-27-70/11375</b>	SHEET 10 OF 11
WO:		17-Feb-14	



- Legend**
- EXISTING TRANSCO LINE
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
LENOXVILLE, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

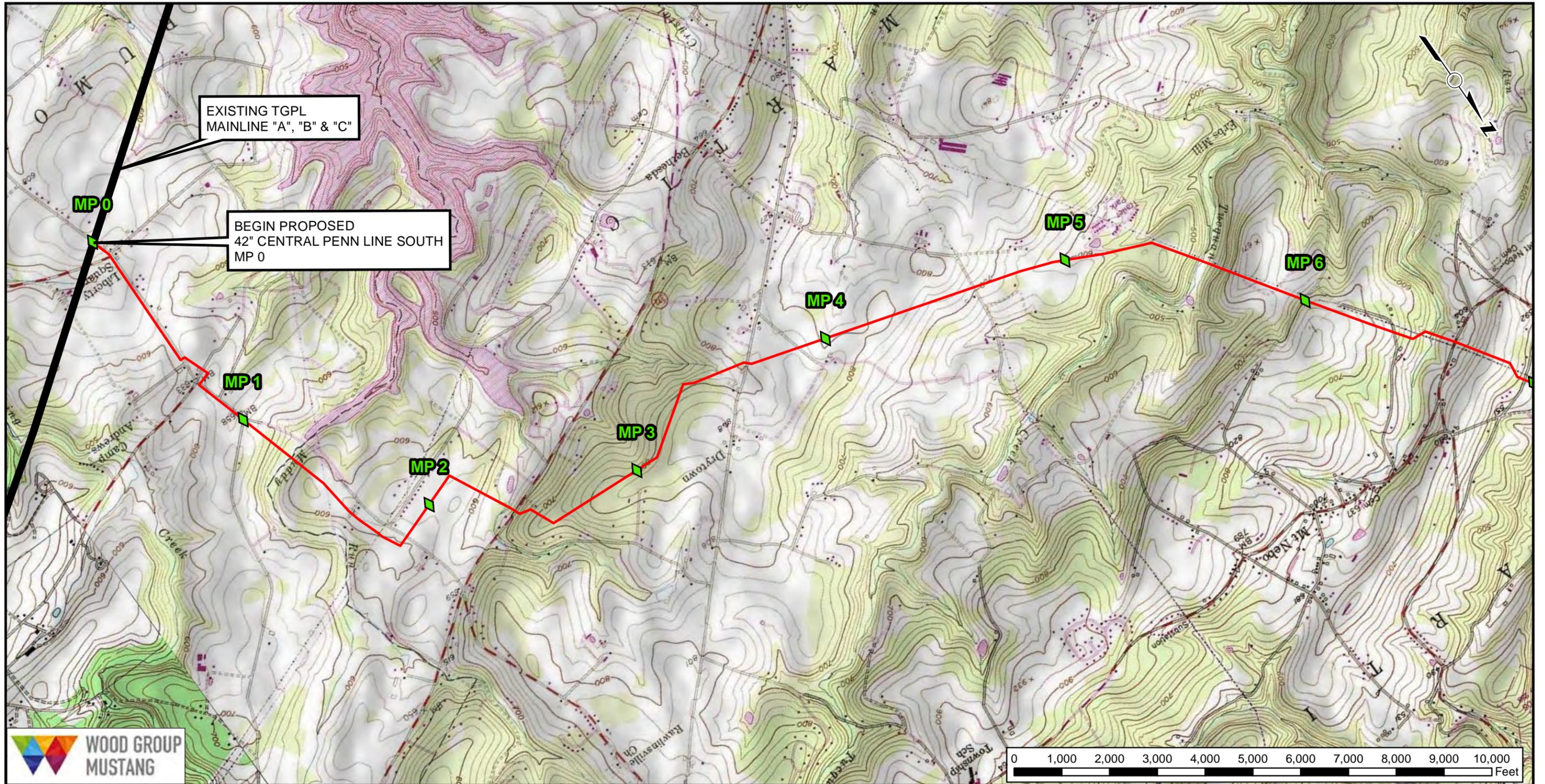
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

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0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
ATLANTIC SUNRISE EXPANSION PROJECT  
TOPOGRAPHIC ROUTE MAP  
PROPOSED 30" CENTRAL PENN LINE NORTH  
MP 0 TO MP 55.79  
SUSQUEHANNA COUNTY, PENNSYLVANIA

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/11375	SHEET 11 OF 11
WO:		3:20 PM 17-Feb-14	



EXISTING TGPL  
MAINLINE "A", "B" & "C"

BEGIN PROPOSED  
42" CENTRAL PENN LINE SOUTH  
MP 0



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
HOLTWOOD, PA  
CONESTOGA, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

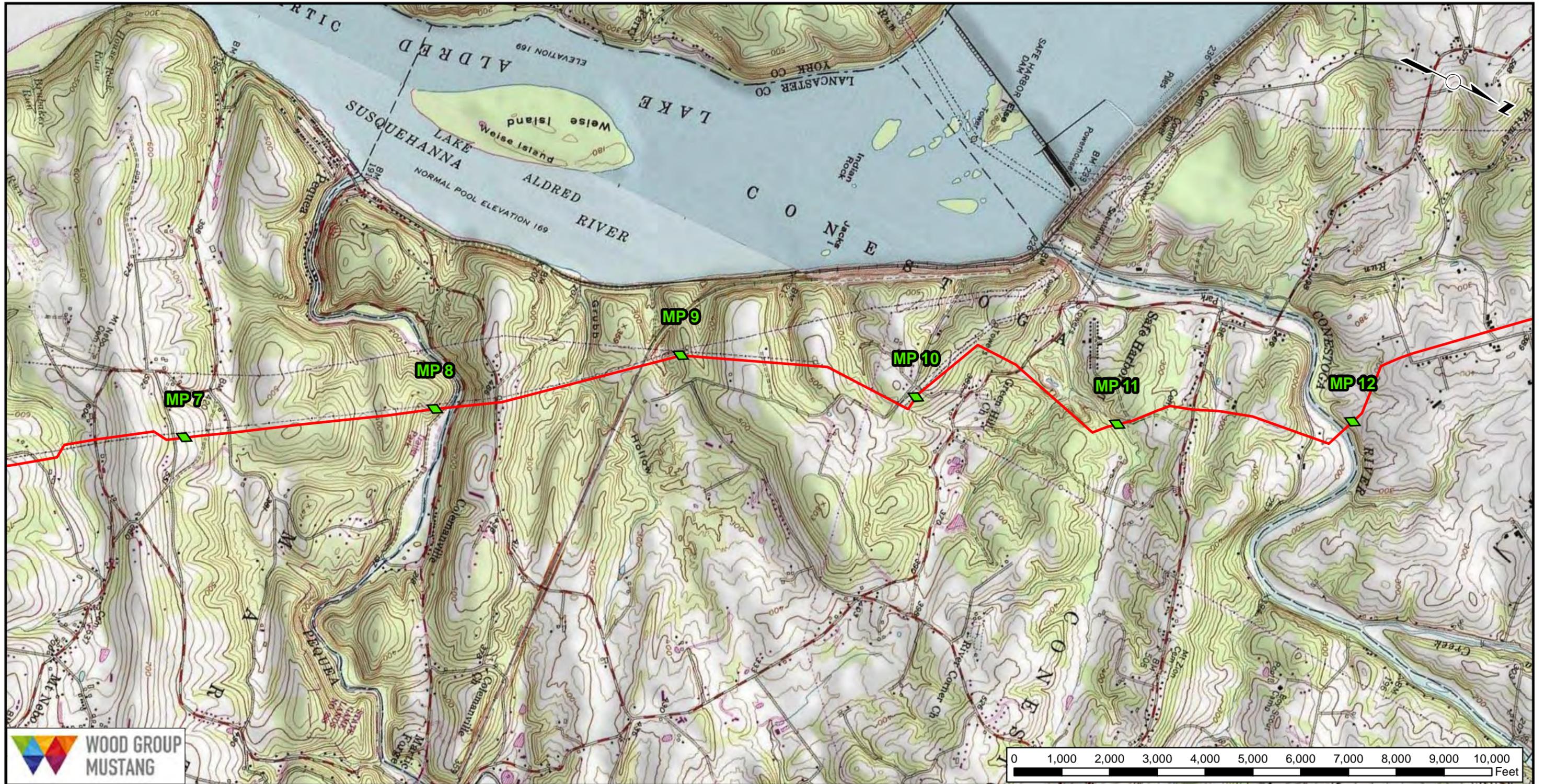
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**SUBJECT TO REVISION**

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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
ATLANTIC SUNRISE EXPANSION PROJECT  
TOPOGRAPHIC ROUTE MAP  
PROPOSED 42" CENTRAL PENN LINE SOUTH  
MP 0 TO MP 120.98  
LANCASTER COUNTY, PENNSYLVANIA

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/168265	SHEET 1 OF 21
WO:		3:22 PM 17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 CONESTOGA, PA  
 SAFE HARBOR, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
 2/17/2014

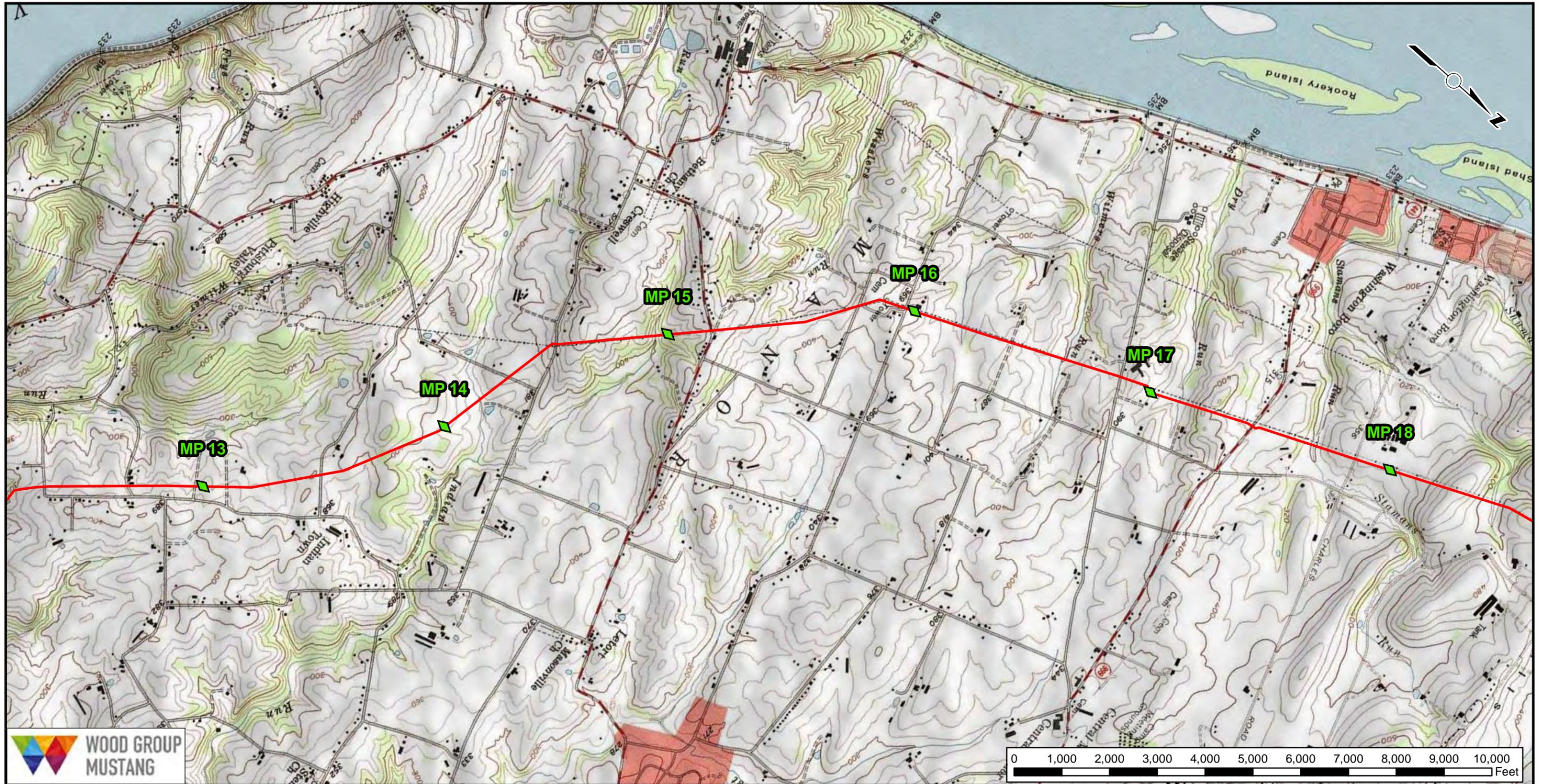
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**LANCASTER COUNTY, PENNSYLVANIA**

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/168265	SHEET 2 OF 21
WO:		3:22 PM 17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 SAFE HARBOR, PA  
 COLUMBIA EAST, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

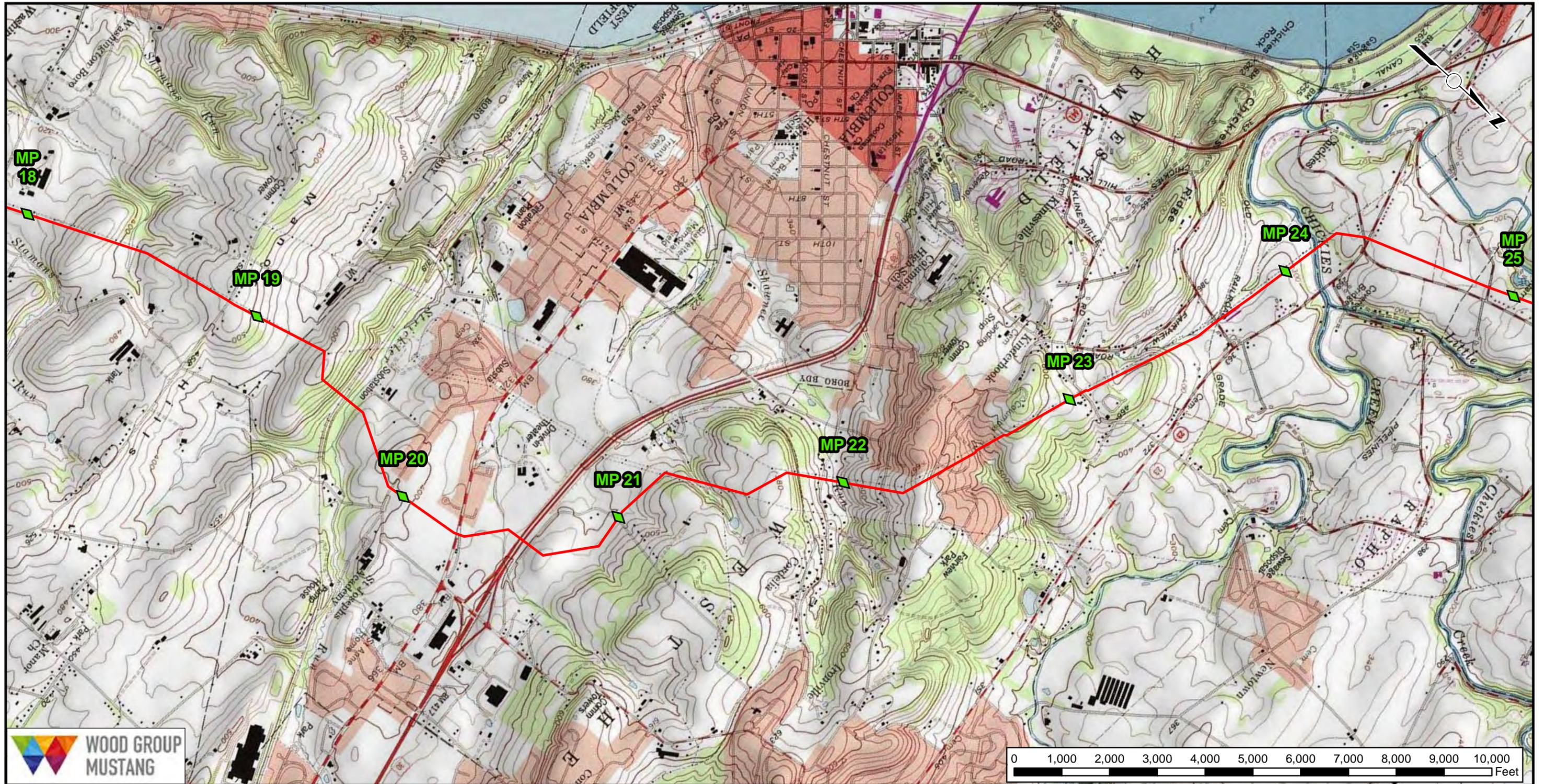
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

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0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**LANCASTER COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 3 OF 21  
 WO:    DATE:    3:22 PM    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 COLUMBIA EAST, PA  
 COLUMBIA WEST, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
 2/17/2014

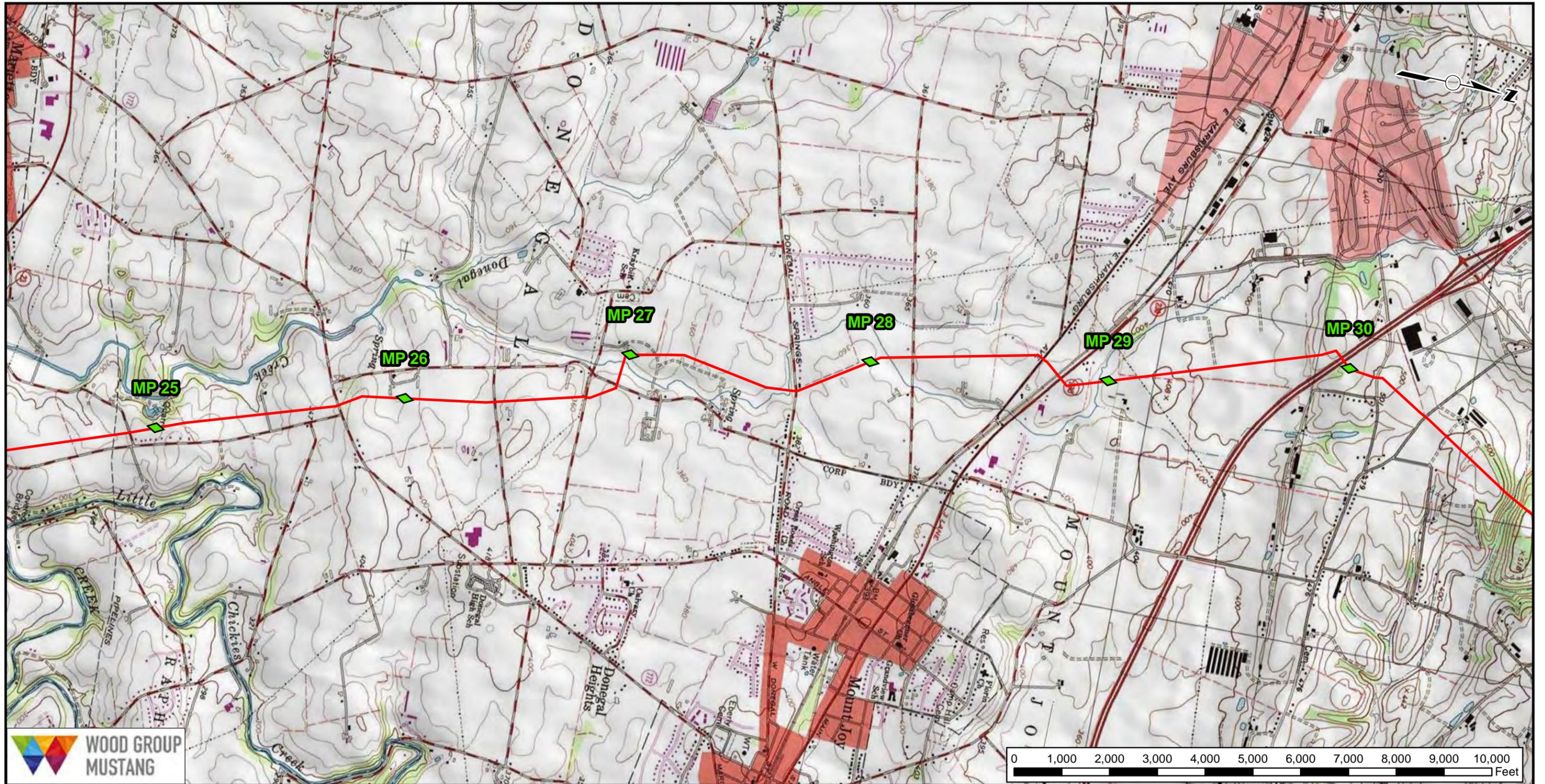
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**SUBJECT TO REVISION**

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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**LANCASTER COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 4 OF 21  
 WO:    3:22 PM    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 COLUMBIA WEST, PA  
 ELIZABETHTOWN, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
 2/17/2014

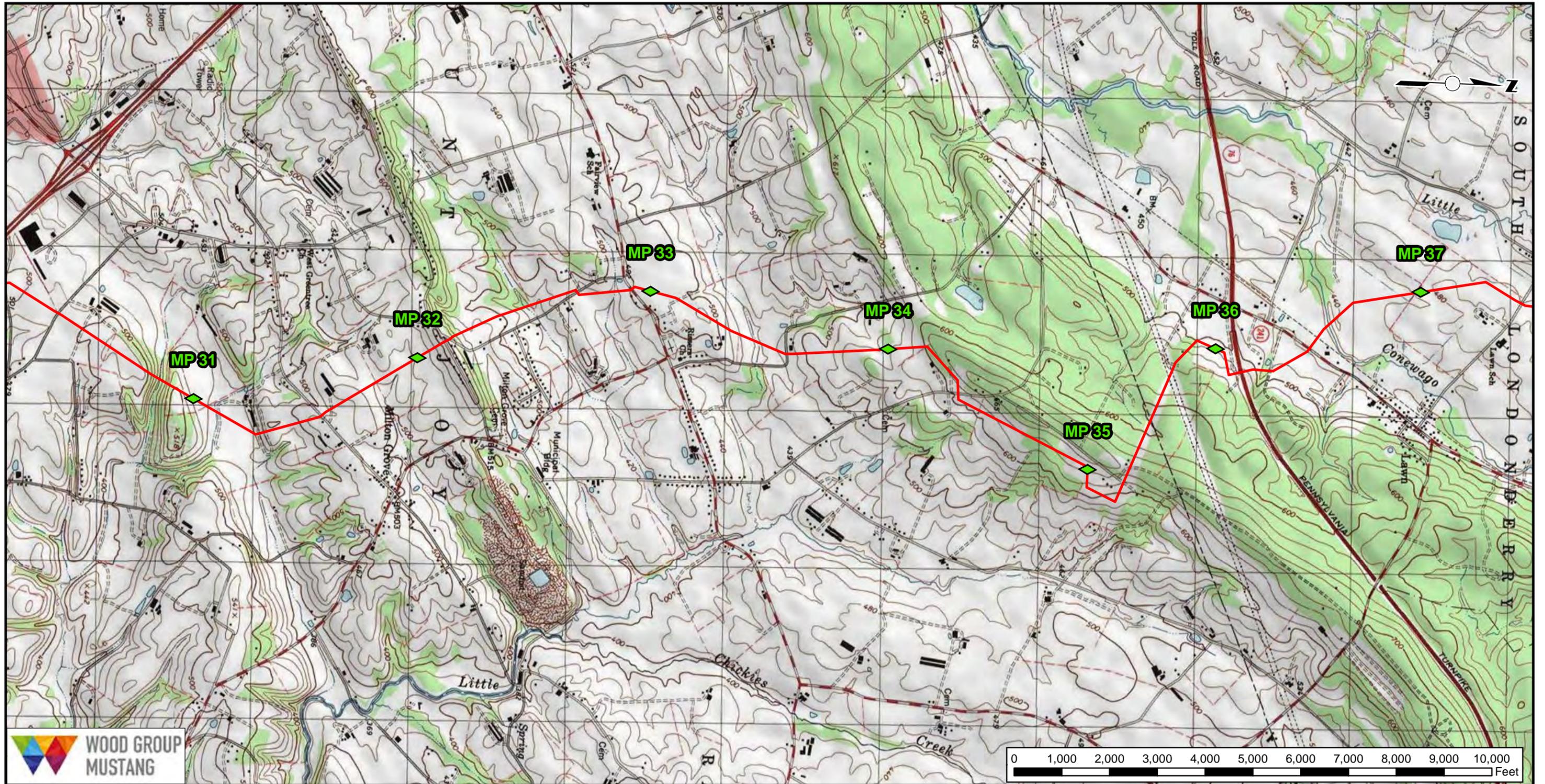
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**SUBJECT TO REVISION**

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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**LANCASTER COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 5 OF 21  
 WO:    3:22 PM    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
ELIZABETHTOWN, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

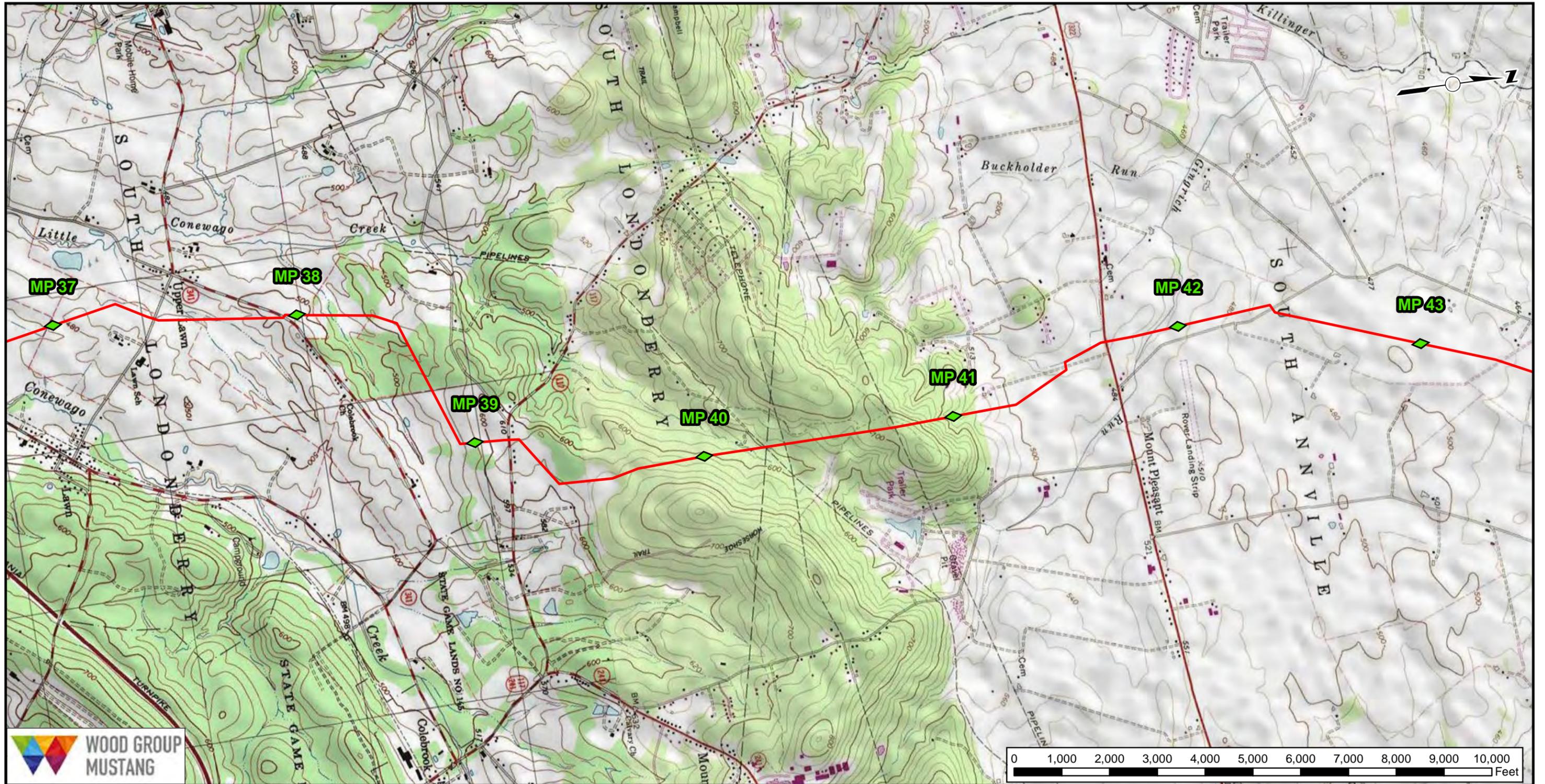
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TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.  
ATLANTIC SUNRISE EXPANSION PROJECT  
TOPOGRAPHIC ROUTE MAP  
PROPOSED 42" CENTRAL PENN LINE SOUTH  
MP 0 TO MP 120.98  
LANCASTER & LEBANON COUNTIES, PENNSYLVANIA

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
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APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/168265	SHEET 6 OF 21
WO:		17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
 DRG 7.5 MIN. QUAD MAPS:  
 ELIZABETHTOWN, PA  
 PALMYRA, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

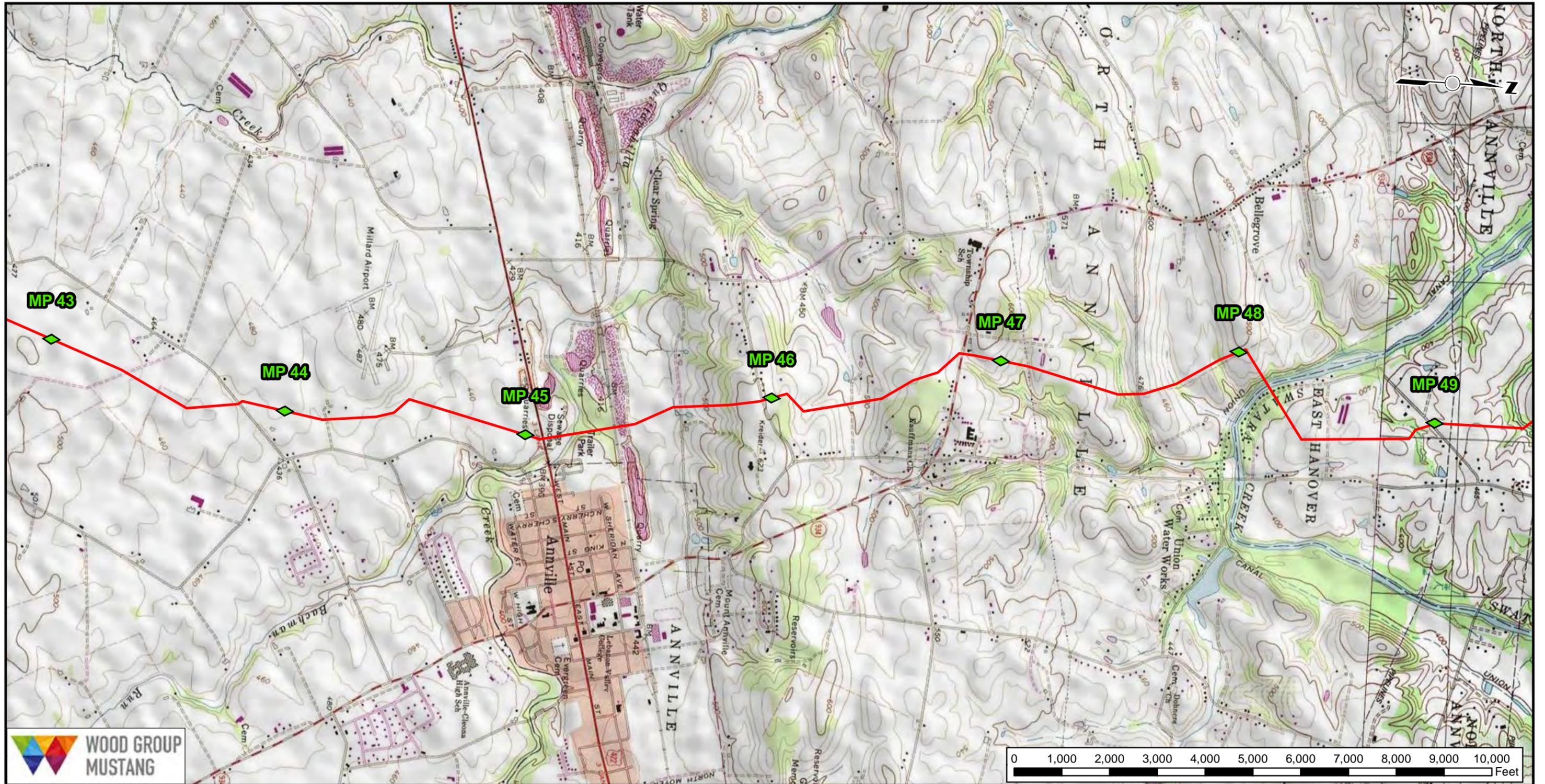
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**LEBANON COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:     
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 7 OF 21  
 WO:    3:22 PM    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
 DRG 7.5 MIN. QUAD MAPS:  
 PALMYRA, PA  
 INDIANTOWN GAP, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

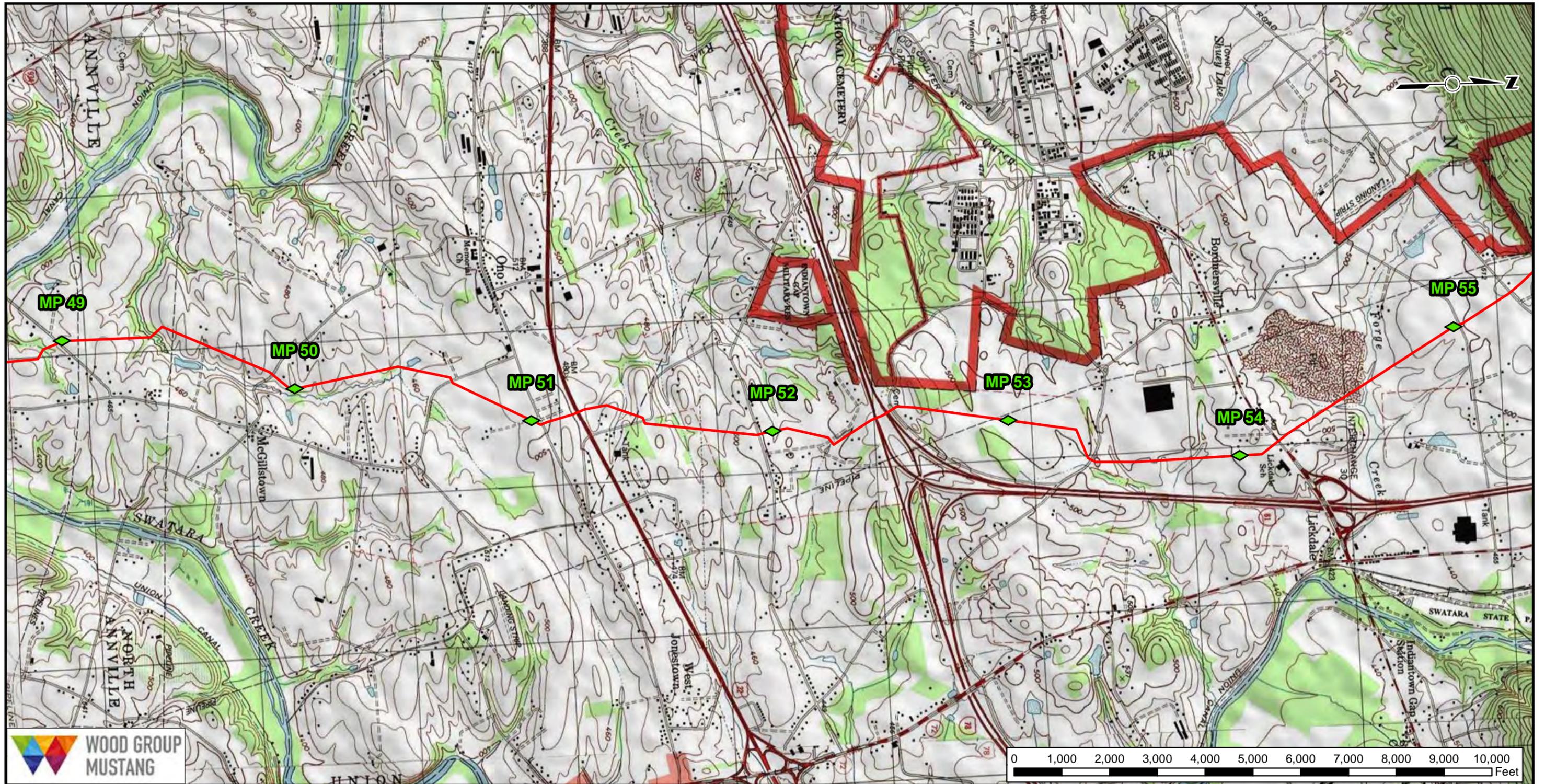
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**LEBANON COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:    SHEET 8 OF 21  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265  
 WO:    3:22 PM    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
INDIANTOWN GAP, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

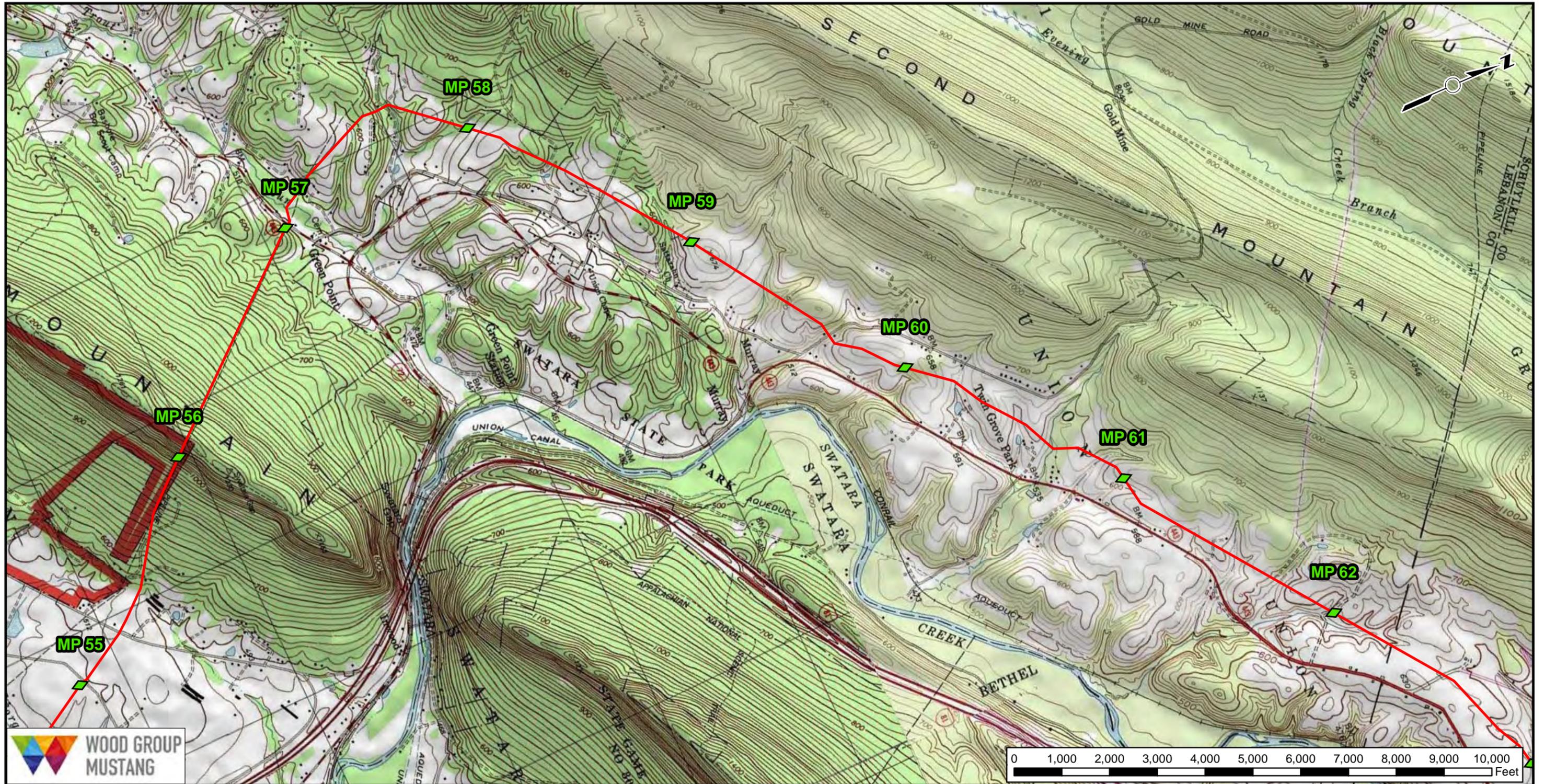
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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**LEBANON COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
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- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - ◆ MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 INDIANTOWN GAP, PA  
 TOWER CITY, PA  
 PINE GROVE, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
 2/17/2014

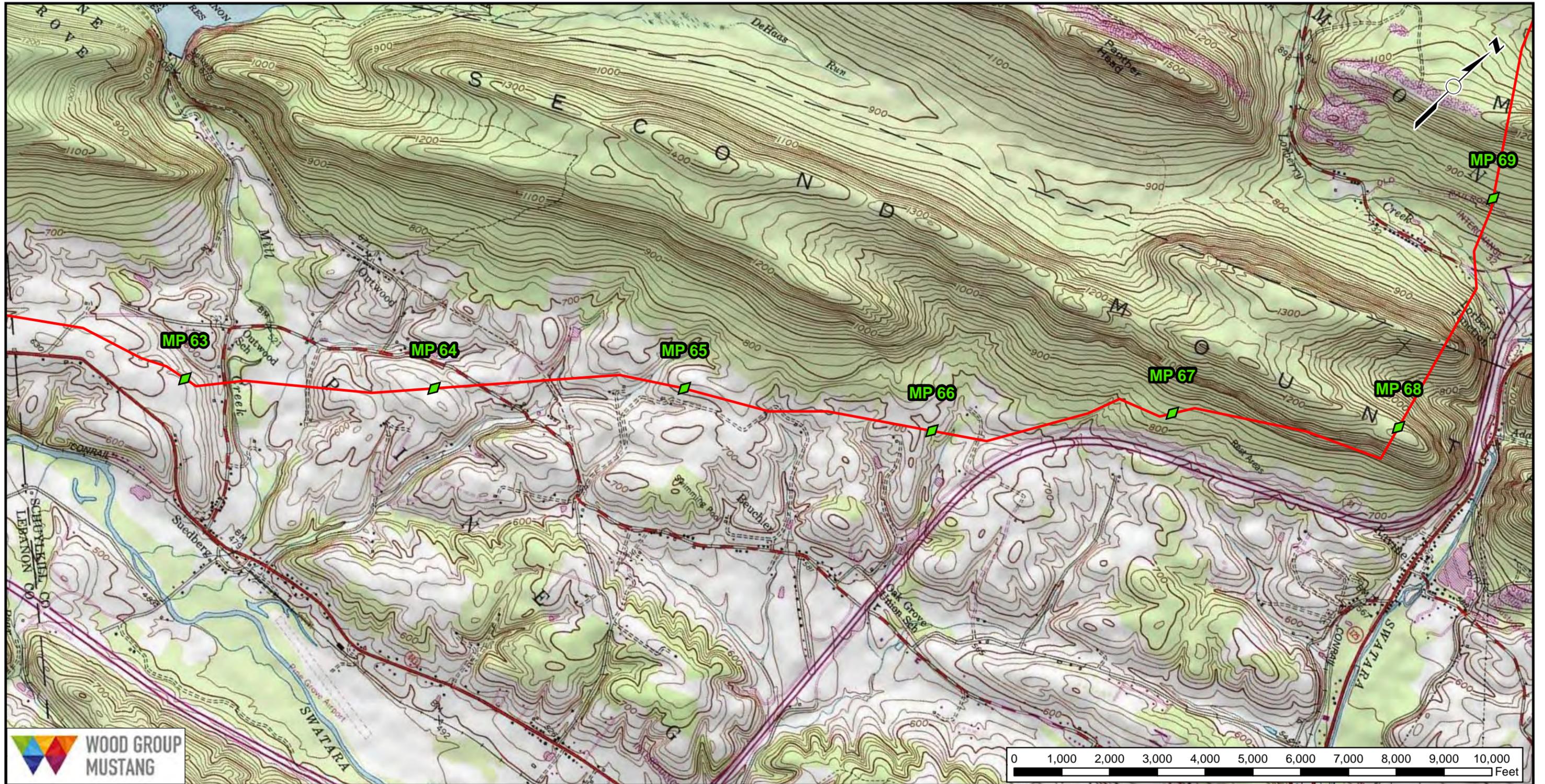
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**LEBANON COUNTY, PENNSYLVANIA**

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
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- Legend**
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  - EXISTING TRANSCO COMPRESSOR STATION
  - - - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - ◆ MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
PINE GROVE, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

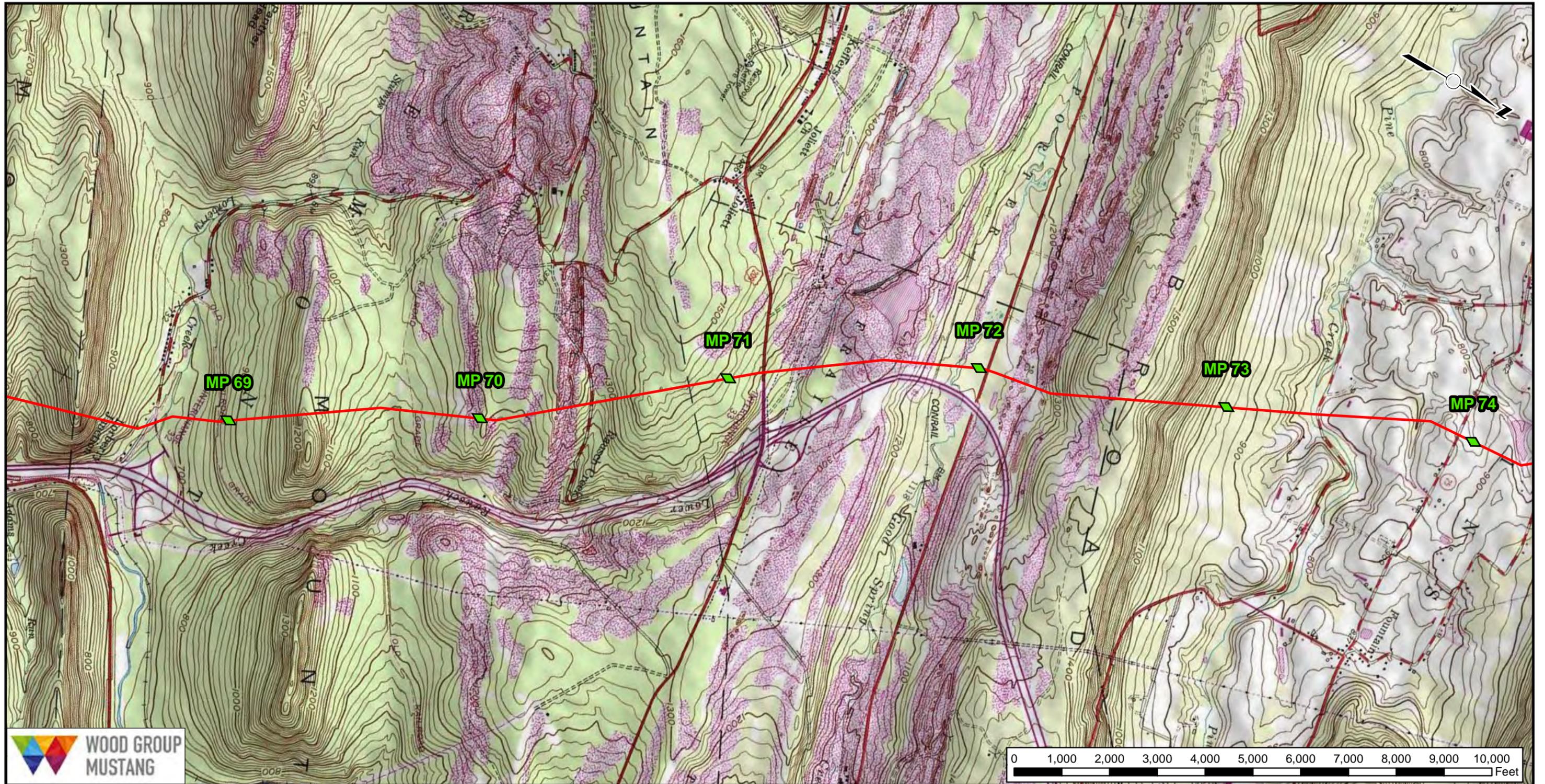
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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**SCHUYLKILL COUNTY, PENNSYLVANIA**

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
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APPROVED BY:	DATE:	DRAWING NUMBER: <b>24-27-70/168265</b>	SHEET 11 OF 21
WO:		3:22 PM 17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
 DRG 7.5 MIN. QUAD MAPS:  
 PINE GROVE, PA  
 TREMONT, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

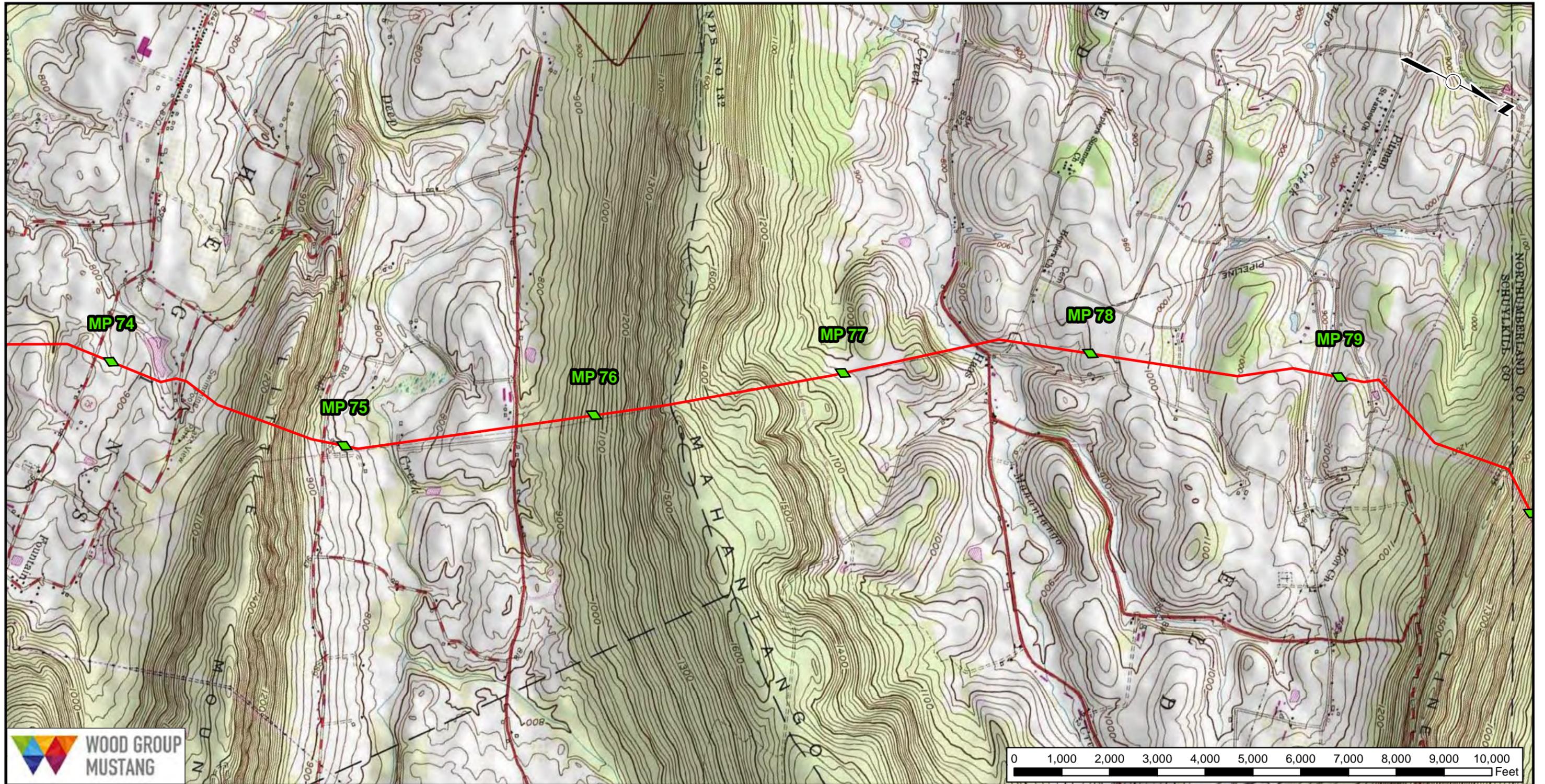
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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**SCHUYLKILL COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 12 OF 21  
 WO:    3:22 PM    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
 DRG 7.5 MIN. QUAD MAPS:  
 TREMONT, PA  
 VALLEY VIEW, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

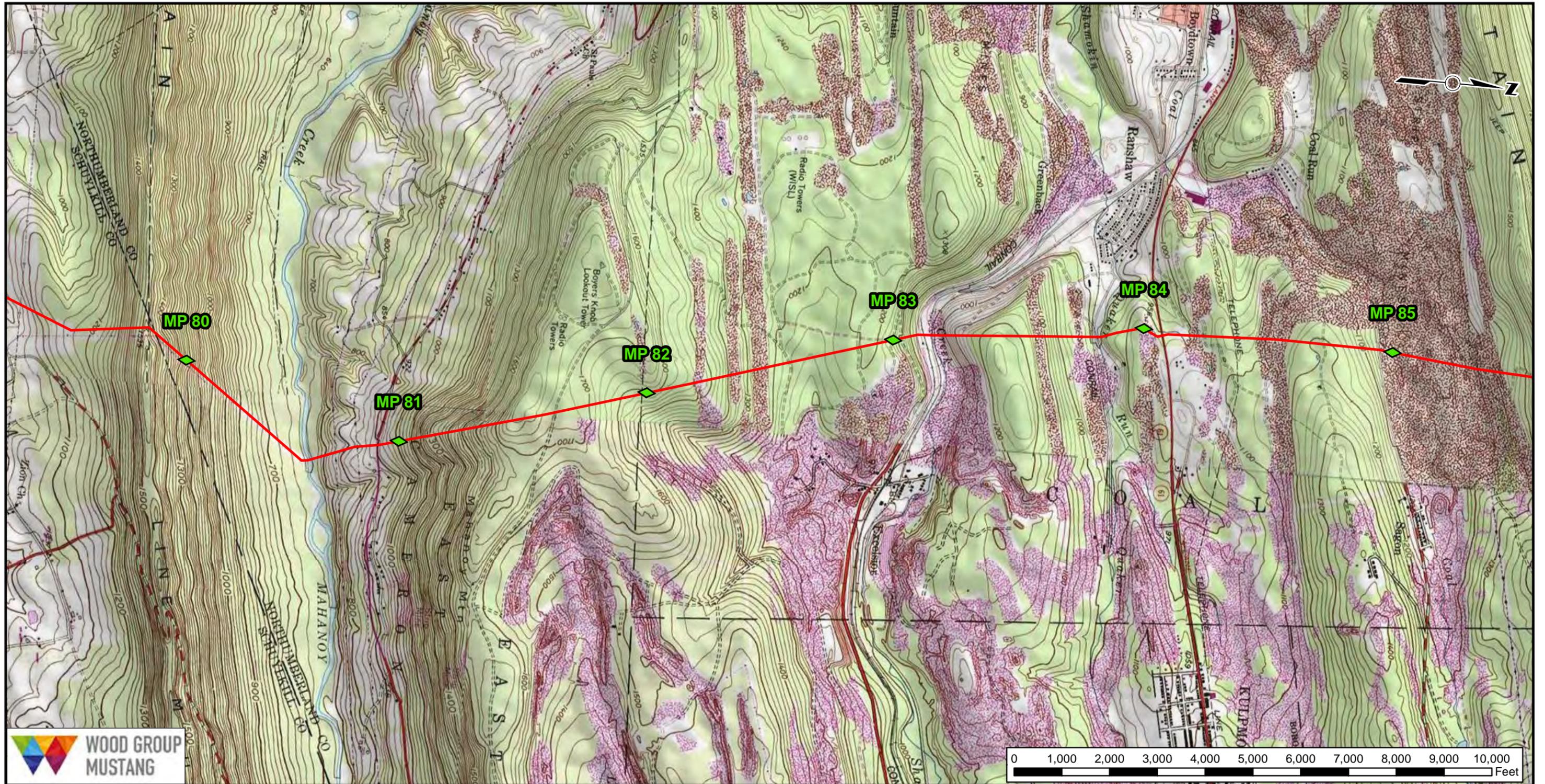
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

Note: Alignment may vary based on field study.  
 Preliminary study area. The information contained on these drawings is not survey grade and should only be used as a reference.

DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**SCHUYLKILL COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 13 OF 21  
 WO:    3:23 PM    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 VALLEY VIEW, PA  
 TREMONT, PA  
 MOUNT CARMEL, PA  
 SHAMOKIN, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
 2/17/2014

**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

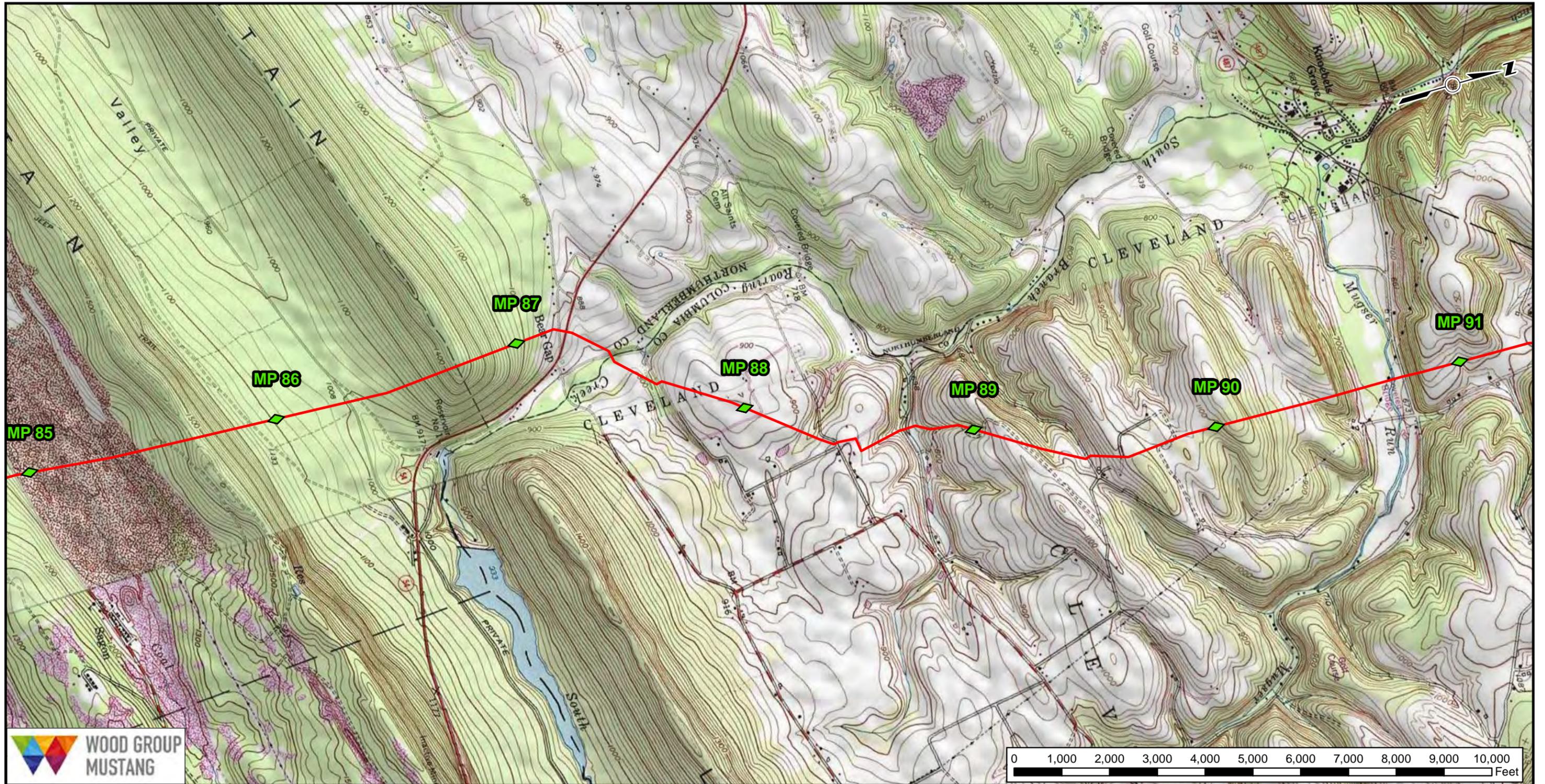
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DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**

**SCHUYLKILL & NORTHUMBERLAND COUNTIES, PENNSYLVANIA**

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/168265	SHEET 14 OF 21
WO:		3:23 PM 17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 SHAMOKIN, PA  
 MOUNT CARMEL, PA  
 CATAWISSA, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

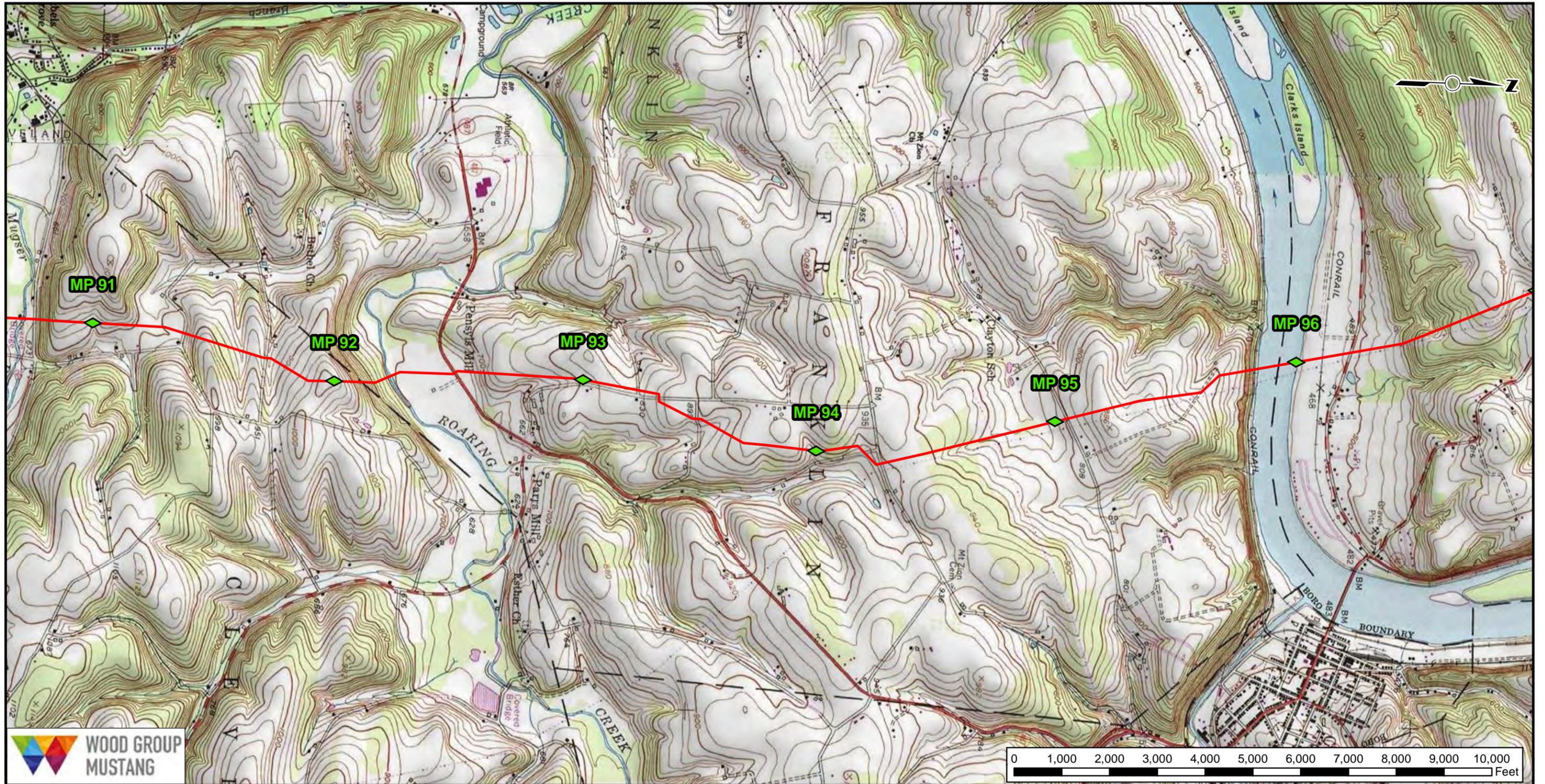
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**NORTHUMBERLAND & COLUMBIA COUNTIES, PENNSYLVANIA**

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/168265	SHEET 15 OF 21
WO:		17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
CATAWISSA, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

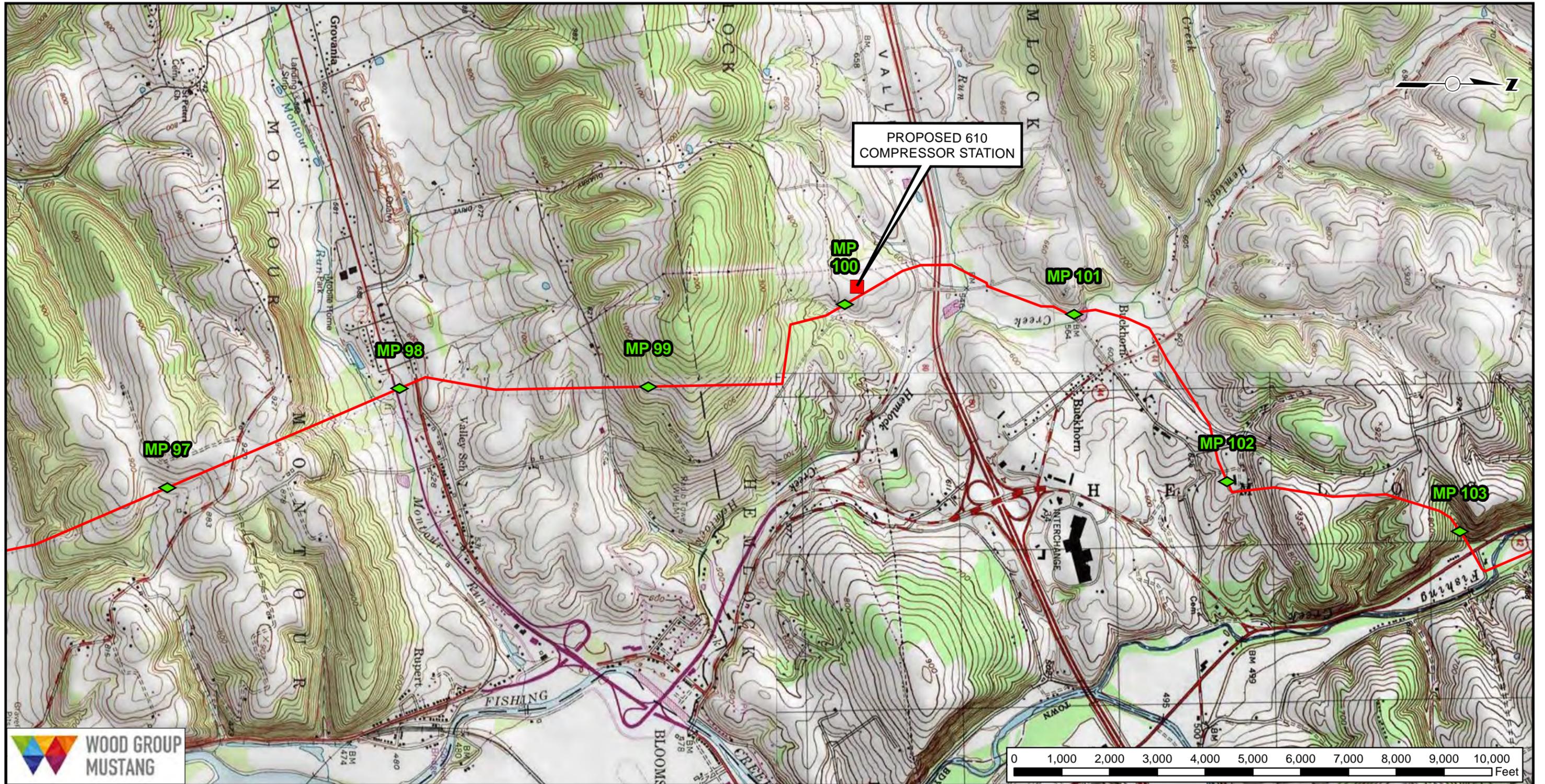
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/168265	SHEET 16 OF 21
WO:		3:23 PM 17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - ◆ MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 CATAWISSA, PA  
 DANVILLE, PA  
 MILLVILLE, PA  
 BLOOMSBURG, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
 2/17/2014

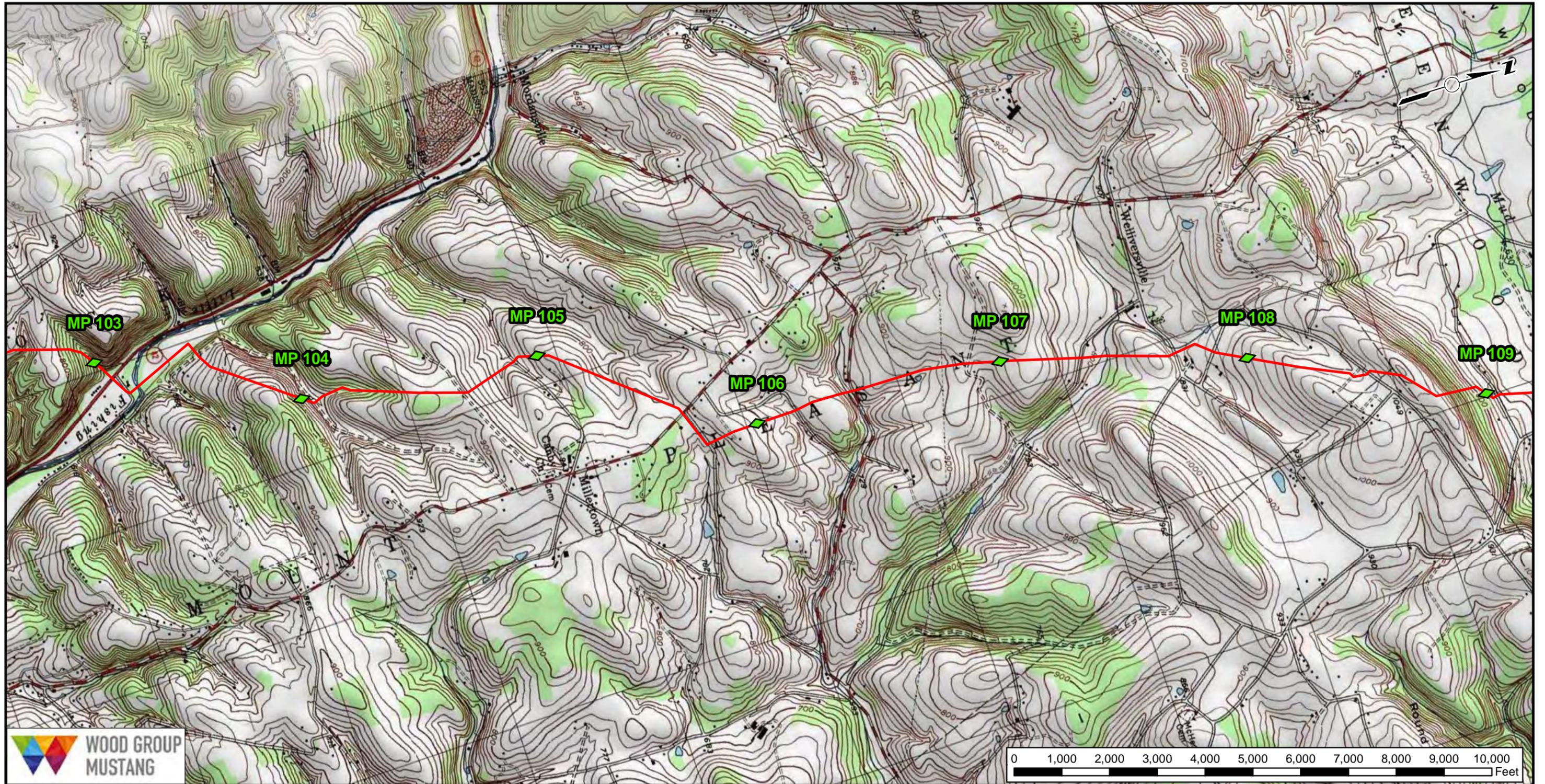
**FOR DISCUSSION PURPOSES ONLY  
 SUBJECT TO REVISION**

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 Preliminary study area. The information contained on these drawings is not survey grade and should only be used as a reference.

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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
 ATLANTIC SUNRISE EXPANSION PROJECT  
 TOPOGRAPHIC ROUTE MAP  
 PROPOSED 42" CENTRAL PENN LINE SOUTH  
 MP 0 TO MP 120.98  
 COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/168265	SHEET 17 OF 21
WO:		17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
BLOOMSBURG, PA

CASE# 5D8-1

**FOR INFORMATION ONLY**  
2/17/2014

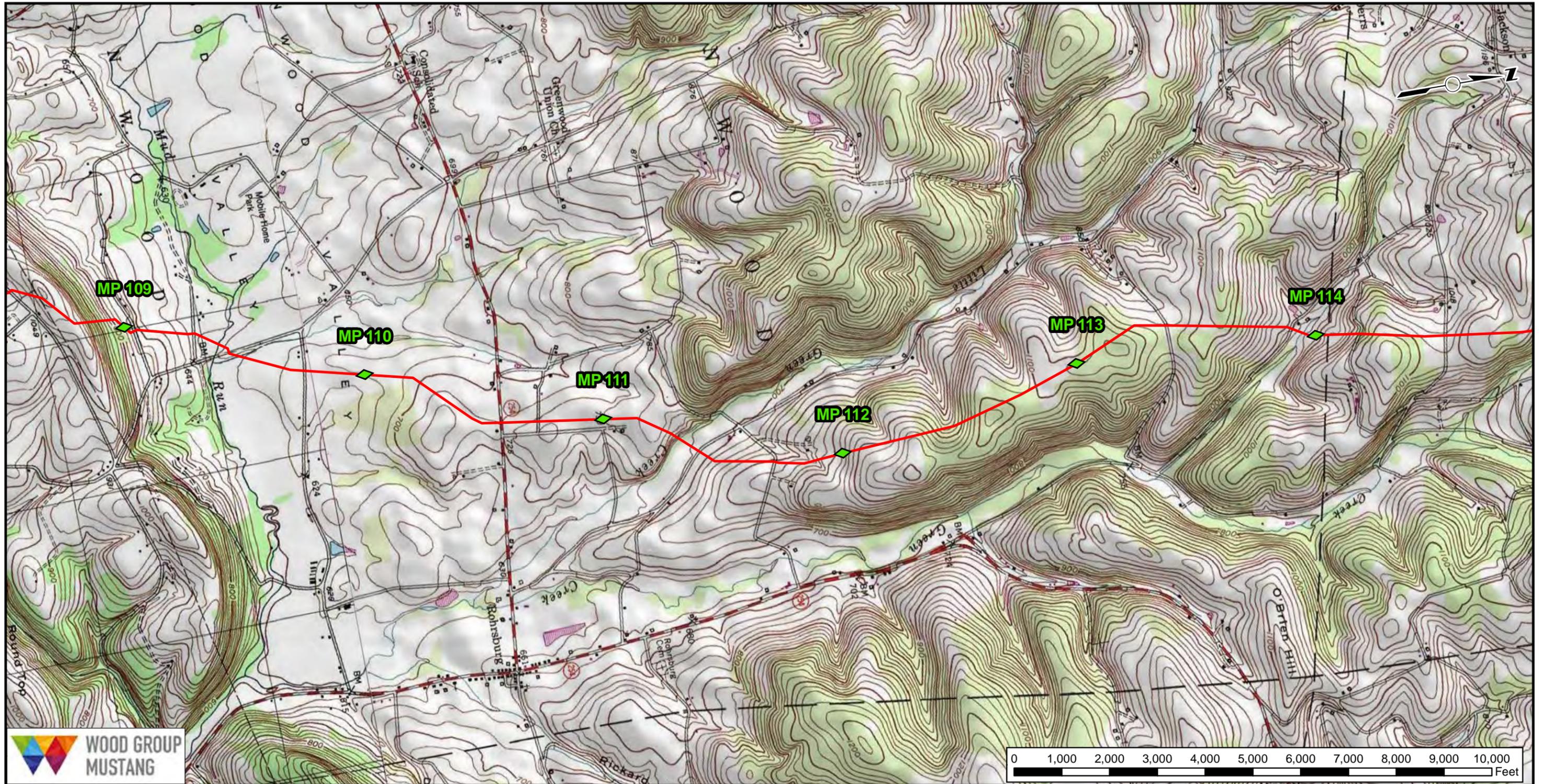
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

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Preliminary study area. The information contained on these drawings is not survey grade and should only be used as a reference.

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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CAM	ISSUED FOR CLIENT REVIEW			

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.  
ATLANTIC SUNRISE EXPANSION PROJECT  
TOPOGRAPHIC ROUTE MAP  
PROPOSED 42" CENTRAL PENN LINE SOUTH  
MP 0 TO MP 120.98  
COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: CAM	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 24-27-70/168265	SHEET 18 OF 21
WO:		17-Feb-14	



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
 DRG 7.5 MIN. QUAD MAPS:  
 BLOOMSBURG, PA  
 BENTON, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

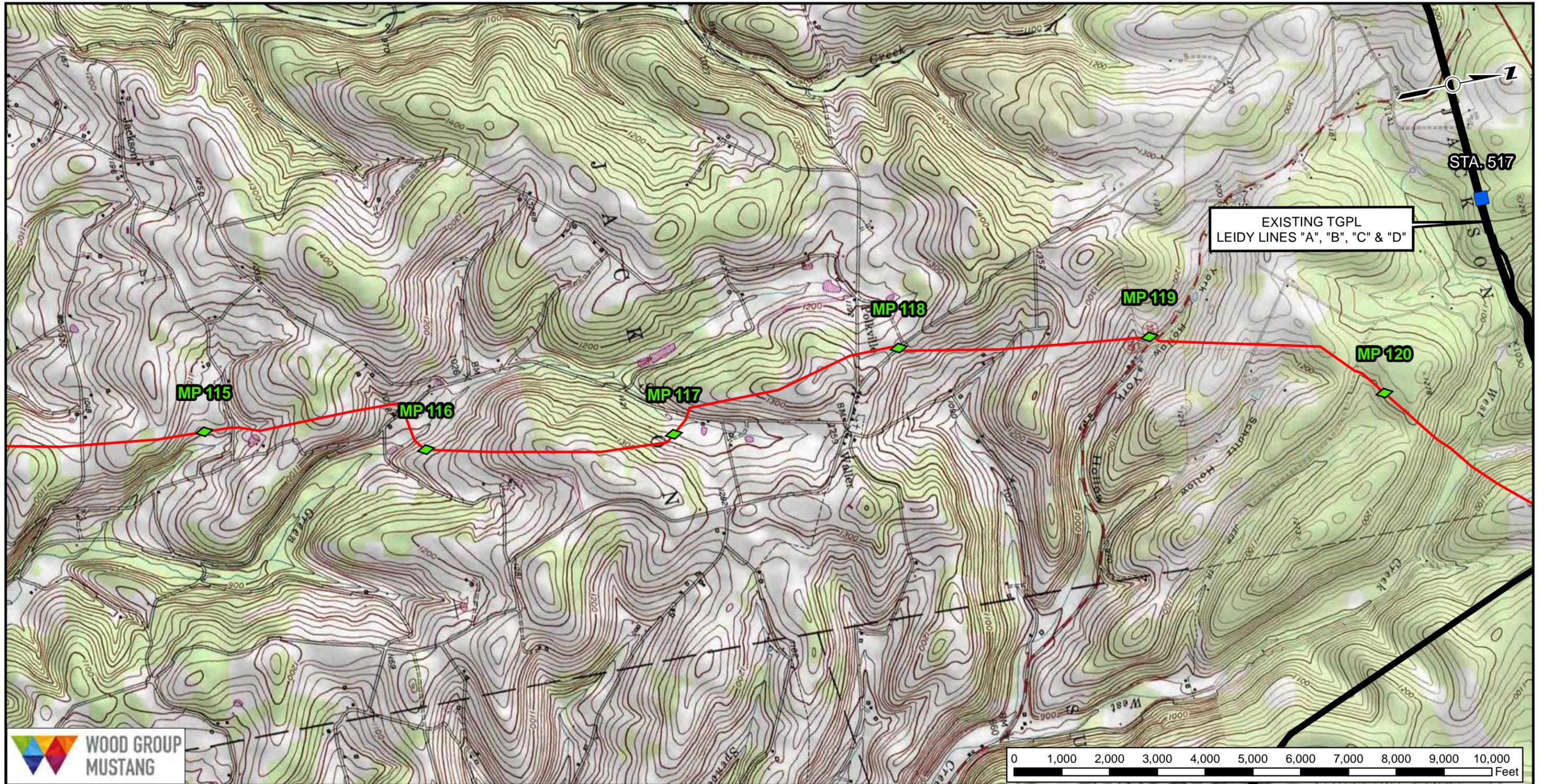
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

Note: Alignment may vary based on field study.  
 Preliminary study area. The information contained on these drawings is not survey grade and should only be used as a reference.

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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 19 OF 21  
 WO:    DATE:    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 BENTON, PA  
 ELK GROVE, PA

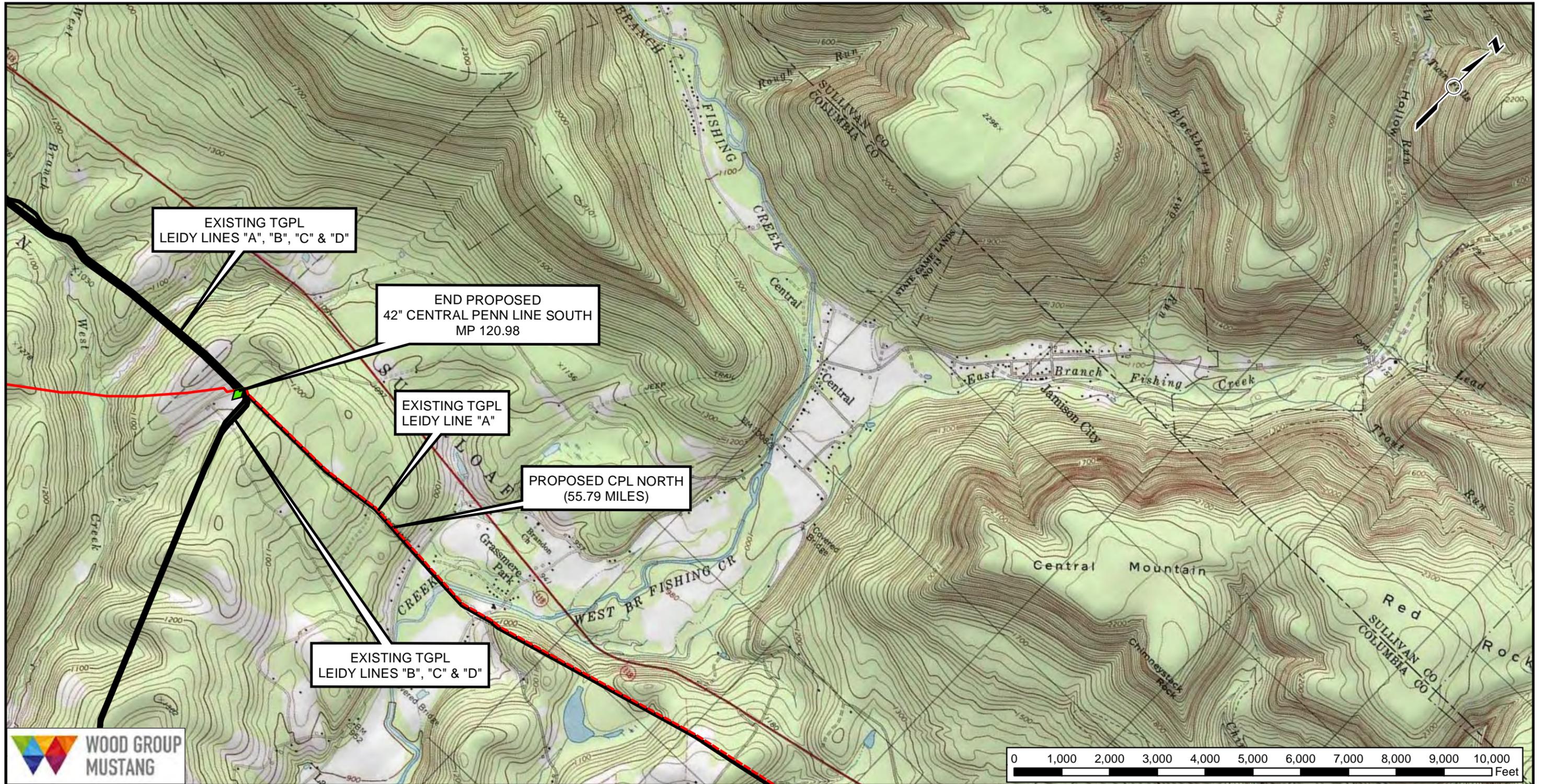
**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
 2/17/2014

**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**  
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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 20 OF 21  
 WO:    DATE:    3:23 PM    17-Feb-14



EXISTING TGPL LEIDY LINES "A", "B", "C" & "D"

END PROPOSED 42" CENTRAL PENN LINE SOUTH MP 120.98

EXISTING TGPL LEIDY LINE "A"

PROPOSED CPL NORTH (55.79 MILES)

EXISTING TGPL LEIDY LINES "B", "C" & "D"



- Legend**
- EXISTING TRANSCO LINES
  - EXISTING TRANSCO COMPRESSOR STATION
  - PROPOSED 30" CENTRAL PENN LINE NORTH (55.79 MILES)
  - PROPOSED 42" CENTRAL PENN LINE SOUTH (120.98 MILES)
  - PROPOSED COMPRESSOR STATION
  - MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
ELK GROVE, PA  
RED ROCK, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

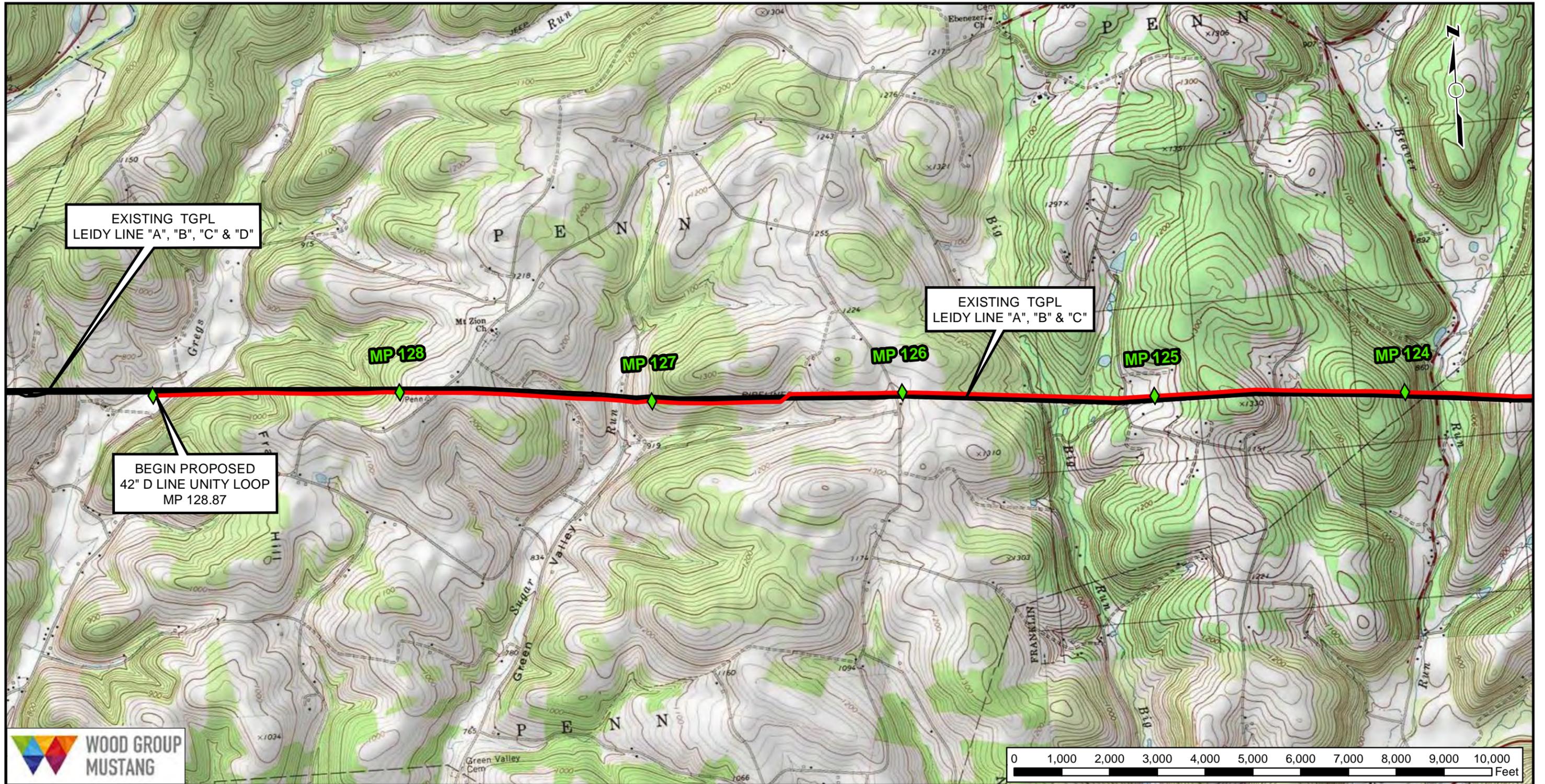
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

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**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**MP 0 TO MP 120.98**  
**COLUMBIA & LUZERNE COUNTIES, PENNSYLVANIA**

DRAWN BY: CAM    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 24-27-70/168265    SHEET 21 OF 21  
 WO:    3:23 PM    17-Feb-14



- Legend**
- EXISTING TRANSCO LINES
  - PROPOSED 42" D LINE UNITY LOOP (10.78 MILES)
  - ◆ MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 PICTURE ROCKS, PA  
 SONESTOWN, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

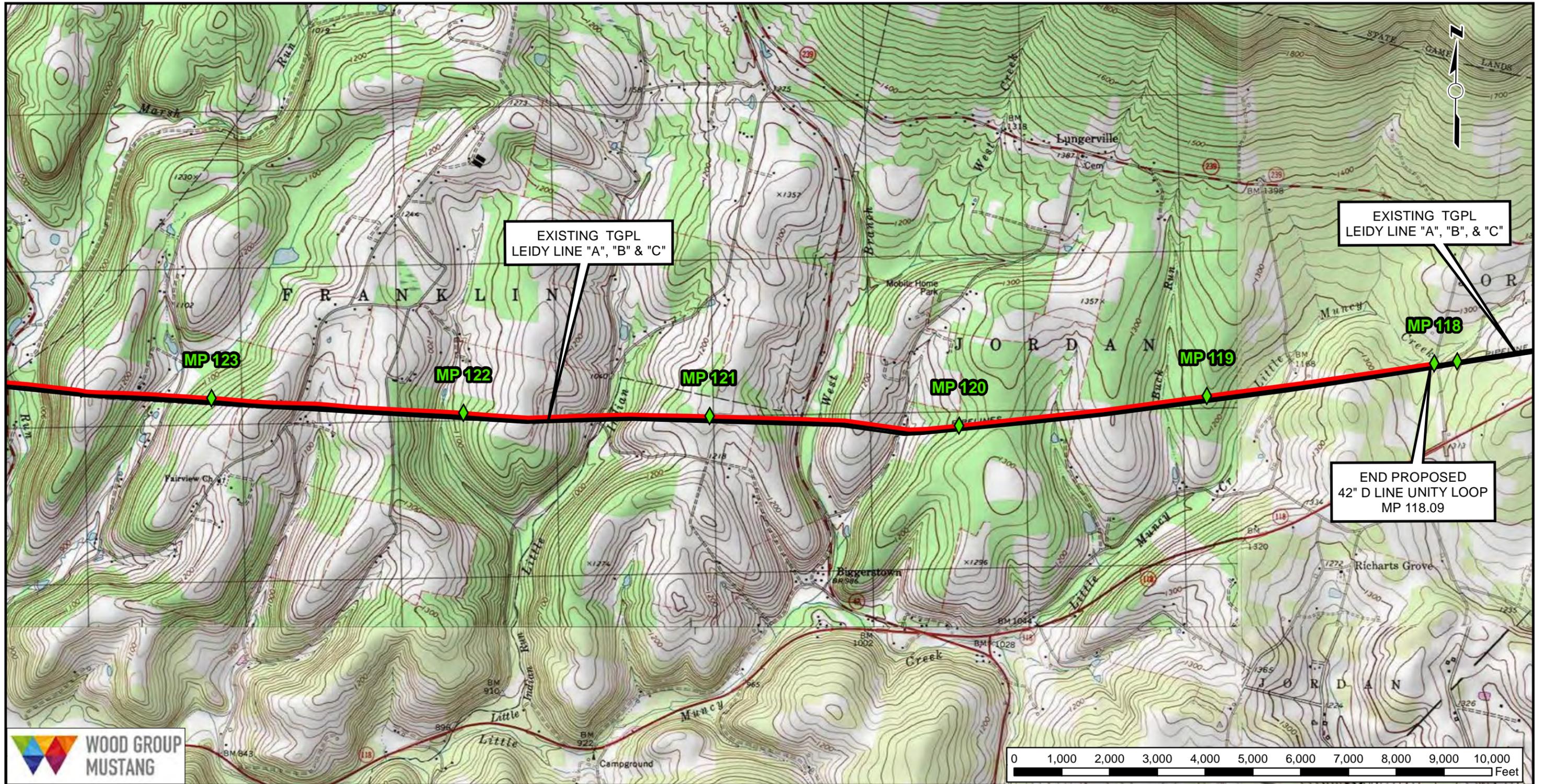
**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

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DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CNC	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" D LINE UNITY LOOP**  
**MP 118.09 TO MP 128.87**  
**LYCOMING COUNTY, PENNSYLVANIA**

DRAWN BY: CNC    DATE: 2/17/2014    ISSUE FOR BID:    SCALE: NOTED  
 CHECKED BY: MJH    DATE: 2/17/2014    ISSUE FOR CONSTRUCTION:  
 APPROVED BY:    DATE:    DRAWING NUMBER: 25-27-70/11809    SHEET 1 OF 2  
 WO:    DATE: 2/11 PM    2/17/2014



- Legend**
- EXISTING TRANSCO LINES
  - PROPOSED 42" D LINE UNITY LOOP (10.78 MILES)
  - ◆ MILE MARKERS

**NOTES:**  
 DRG 7.5 MIN. QUAD MAPS:  
 SONESTOWN, PA  
 ELK GROVE, PA

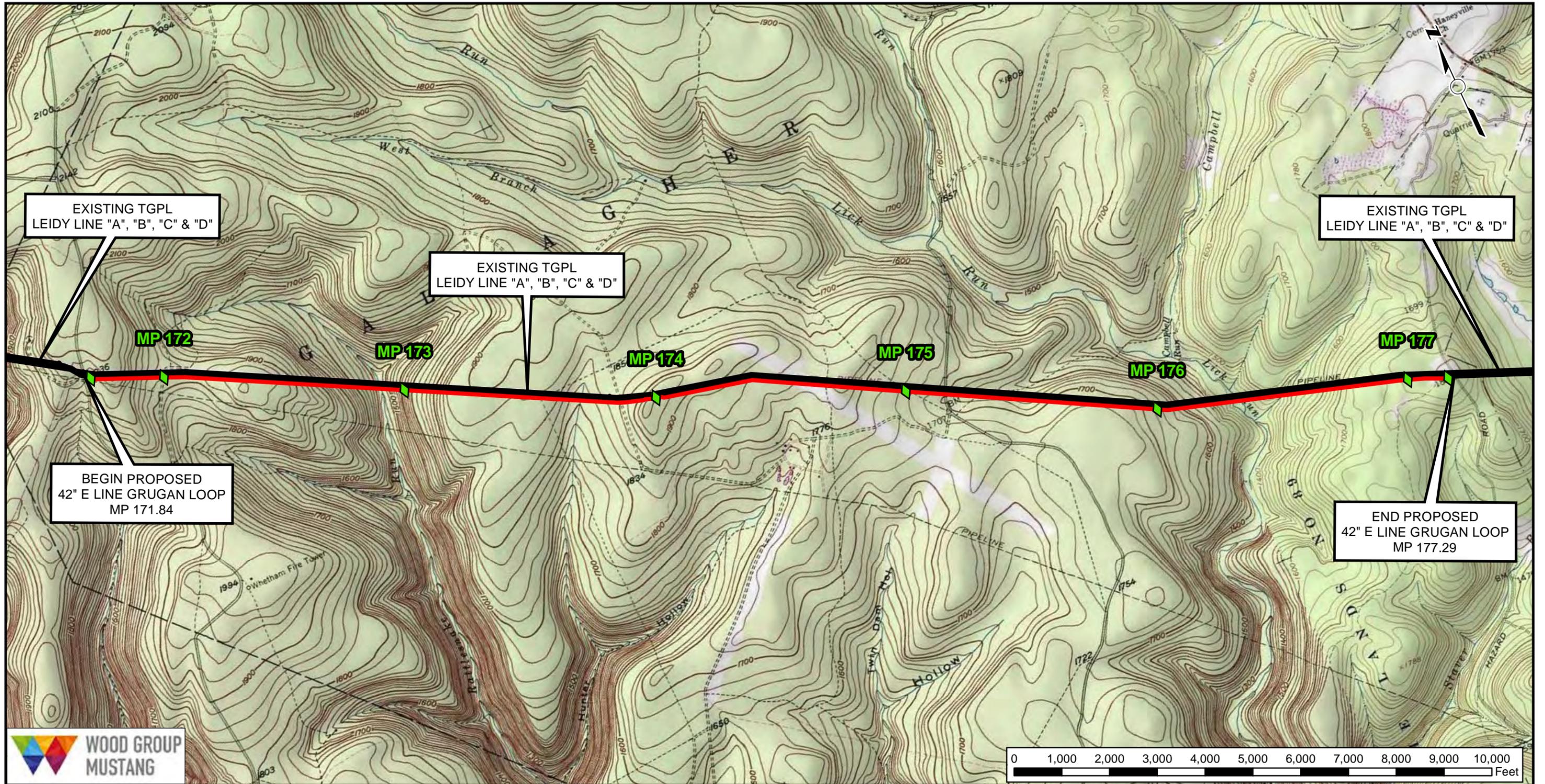
**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**  
 Note: Alignment may vary based on field study.  
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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	2/17/2014	CNC	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
**ATLANTIC SUNRISE EXPANSION PROJECT**  
**TOPOGRAPHIC ROUTE MAP**  
**PROPOSED 42" D LINE UNITY LOOP**  
**MP 118.09 TO MP 128.87**  
**LYCOMING COUNTY, PENNSYLVANIA**

DRAWN BY: CNC	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 25-27-70/11809	SHEET 2 OF 2
WO:		2-11 PM	



EXISTING TGPL  
LEIDY LINE "A", "B", "C" & "D"

EXISTING TGPL  
LEIDY LINE "A", "B", "C" & "D"

EXISTING TGPL  
LEIDY LINE "A", "B", "C" & "D"

BEGIN PROPOSED  
42" E LINE GRUGAN LOOP  
MP 171.84

END PROPOSED  
42" E LINE GRUGAN LOOP  
MP 177.29



- Legend**
- EXISTING TRANSCO LINE
  - PROPOSED 42" E LINE GRUGAN LOOP (5.45 MILES)
  - MILE MARKERS

NOTES:  
DRG 7.5 MIN. QUAD MAPS:  
GLEN UNION, PA, PA  
JERSEY MILLS, PA

**CASE# 5D8-1**  
**FOR INFORMATION ONLY**  
**2/17/2014**

**FOR DISCUSSION PURPOSES ONLY**  
**SUBJECT TO REVISION**

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0	2/17/2014	CNC	ISSUED FOR CLIENT REVIEW			

**TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC.**  
ATLANTIC SUNRISE EXPANSION PROJECT  
TOPOGRAPHIC ROUTE MAP  
PROPOSED 42" E LINE GRUGAN LOOP  
MP 171.84 TO MP 177.29  
CLINTON COUNTY, PENNSYLVANIA

DRAWN BY: CNC	DATE: 2/17/2014	ISSUE FOR BID:	SCALE: NOTED
CHECKED BY: MJH	DATE: 2/17/2014	ISSUE FOR CONSTRUCTION:	
APPROVED BY:	DATE:	DRAWING NUMBER: 25-27-70/17184	SHEET 1 OF 1
WO:		2:15 PM	

## Attachment C

### How to Use the PNDI Large Project Form

***If your Project is a “Large Project”***— too large/long to search on the online system  
Projects are considered “Large Projects” when the ENTIRE project is:

- Linear/Large Projects that exceed the PNDI online project size limits of 10 miles in length or 5165 acres
- Township-wide, Countywide or Statewide Projects. Examples: Act 537 Sewage Plans, Wind Farms, Roadway Improvements exceeding map limits above.

Due to system limitations and agency requirements, projects should not be submitted piecemeal. The entire project area including roads and infrastructure should be submitted as a single unit.

### What to Send to Jurisdictional Agencies

Send the following information to all of the agencies listed on the Large Project Form.

#### **Check-list of Minimum Materials to be submitted:**

- \_\_\_ Completed Large Project Form
- \_\_\_ Supplemental project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.
- \_\_\_ USGS 7.5-minute Quadrangle with project boundary clearly indicated, and quad name on the map

#### **The inclusion of the following information may expedite the review process.**

- \_\_\_ GIS shapefiles depicting the project extent
- \_\_\_ A basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)
- \_\_\_ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)
- \_\_\_ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams

### PNDI Large Project Form Definitions

***Applicant:*** Person that owns the property or is proposing the project or activity

***Contact Person:*** Person to receive response if different than applicant (e.g. Consultant)

***Project Name:*** Descriptive title of project (e.g. Twin Pines Subdivision, Miller Bridge Replacement)

***Proposed Activity:*** Include ALL earth disturbance activities for project (e.g. for a timber sale—include stream crossings, cutting areas and new roadway accesses). Also include Current Conditions (e.g. housing, farmland, current land cover), and how Construction/Maintenance Activity is to be accomplished

***Total Acres of Property:*** Entire site acreage (e.g. timber sale property—including road access (200 acres)

***Acreage to be Impacted:*** Disturbance acreage (e.g. timber sale—if the property is 200 acres, but only 100 acres will be disturbed, for example: cutting on 90 acres, a road impacting 10 acres); include all temporary and permanent activities



# Pennsylvania Natural Diversity Inventory

## LARGE PROJECT FORM

This form provides site information necessary to perform an Environmental Review for special concern species and resources listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the Pennsylvania Game and Wildlife Code.

### Applicant Information

Name: Transcontinental Gas Pipe Line Company, Llc  
Address: Anne Allen, Senior Environmental Scientist  
Phone Number: 713-215-2406 Fax Number: 713-215-4551

### Contact Person Information - if different from applicant

Name: Greg Netti  
Address: 368 Pleasant View Drive, Lancaster, NY 14086  
Phone Number: 716-684-8060 Fax Number: 716-684-0844  
Email: gnetti@ene.com

### Project Information

Project Name: Atlantic Sunrise Expansion Project  
Project Reference Point (center point of project): Latitude: 40°19'34.08"N Longitude: 76°31'39.15"W  
Datum: NAD 1983  
Municipality: Various County: Various  
 Attach a copy of a U.S.G.S. 7 ½ Minute Quadrangle Map with Project Boundaries clearly marked.  
U.S.G.S. Quad Name: Various  
Provide GIS shapefiles showing the project boundary (strongly recommended)

### Project Description

#### Proposed Project Activity (including ALL earth disturbance areas and current conditions)

Transcontinental Gas Pipeline Company, LLC (Transco) is proposing to expand its current interstate natural gas pipeline system by connecting their existing natural gas facilities and gathering system in Susquehanna County, Pennsylvania to markets in the Mid-Atlantic and Southern U.S. To accomplish this, Transco is proposing to construct and modify a variety of pipelines, compressor stations, meter stations, regulator stations, and interconnections within Pennsylvania, Maryland, Virginia, North Carolina, and Georgia. All together, the ASE Project will include approximately 177 miles of greenfield pipeline, 24 miles of pipeline looping (e.g. installation of new pipeline adjacent to existing pipeline), 2.5 miles of pipeline replacement, two new greenfield compressor stations, and new and up-rated facility modifications across the Project area. Please note that during and following field surveys, the proposed pipeline routes are subject to refinements in order to avoid various natural resource and land use features along with engineering design requirements. Thus, the estimated areas of impact noted below also subject to change during and following field surveys.

Total Acres of Property: N/A Acreage to be Impacted: +/- 2,000

1. Will the entire project occur in or on an existing building, parking lot, driveway, road, maintained road shoulder, street, runway, paved area, railroad bed, or maintained lawn? Yes  No
2. Are there any waterways or waterbodies (intermittent or perennial rivers, streams, creeks, tributaries, lakes or ponds) in or near the project area, or on the land parcel? If so, how many feet away is the project? Yes  0 Feet No
3. Are wetlands located in or within 300 feet of the project area? Yes  No  If No, is this the result of a wetland delineation?
4. How many acres of tree removal, tree cutting or forest clearing will be necessary to implement all aspects of this project? +/- 500

**Dept. of Conservation and Natural Resources**

Bureau of Forestry, Ecological Services Section  
400 Market St., PO Box 8552  
Harrisburg, PA 17105  
fax: 717-772-0271

**PA Game Commission**

Bureau of Wildlife Habitat Management  
Division of Environmental Planning & Habitat Protection  
2001 Elmerton Avenue  
Harrisburg, PA 17110-9797

**PA Fish and Boat Commission**

Natural Diversity Section  
450 Robinson Lane  
Bellefonte, PA 16823

**US Fish and Wildlife Service**

Endangered Species Biologist  
315 South Allen St., Suite 322  
State College, PA 16801  
no faxes please



# Meeting Summary

## Attendees:

*Transco:* Anne Allen, Perry Luu, Mark Wuollet, Aaron Blair, John Purvis, and Dino Taylor

*E & E:* Greg Netti, Rachel Smith, and Casey Talento

*PGC:* Nathan Havens and John Taucher

*PADCNR:* Greg Podniesinski and Emilee Boyer

<b>Meeting Date:</b>	12 March 2014
<b>Project Segment:</b>	Atlantic Sunrise Expansion Project
<b>Project Segment:</b>	PA Facilities (Susquehanna, Wyoming, Luzerne, Sullivan, Lycoming, Clinton, Columbia, Northumberland, Schuylkill, Lebanon, and Lancaster Counties)
<b>Meeting Location:</b>	PGC Office: 2001 Elmerton Avenue, Harrisburg, PA 17110-9797
<b>Meeting Time:</b>	2:30 PM
<b>Issues/Keywords:</b>	Project overview; threatened and endangered species; invasive species; state game lands; field surveys

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Transcontinental Gas Pipe Line Company, LLC (Transco) held a meeting with the Pennsylvania Game Commission (PGC) and Pennsylvania Department of Conservation and Natural Resources (PADCNR) to introduce the Atlantic Sunrise Expansion (ASE) Project (Project).

Notes:

## Project Overview

- After introductions, Mr. Luu began the meeting by providing an overview of the proposed Project.
  - Project consists of construction of new greenfield pipeline, pipeline looping, and new and modified compressor stations in Pennsylvania; pipeline replacement in Virginia; and facility modifications to existing facilities located along Transco's Mainline from Maryland to Georgia. The Project will add 1.7 bcf of natural gas to Transco existing Mainline.
- Ms. Allen provided an overview of the purpose and need for the Project and state this is a significant project for Williams in that it will allow for gas to flow bi-directionally by adding southward flow to the Transco system. Large volumes of gas are currently generated from the Marcellus Shale Basin, but transportation of this gas to markets is constrained by lack of interstate pipeline infrastructure. The ASE Project will allow for multiple points of delivery for gas from the Marcellus Shale Basin to markets along the eastern seaboard.
- Ms. Allen provided an overview of the Federal Energy Regulatory Commission (FERC) process and the current schedule for the Project.
  - Ms. Allen states the FERC Project Manager is anticipated to be Jennifer Kerrigan. The FERC pre-filing meeting is scheduled for March 18, 2014.
  - A 11 month pre-filing process (although it could be extended) is anticipated with the FERC 7(c) application expected to be submitted in the 1<sup>st</sup> Quarter of 2015. Transco is working towards receiving a FERC Order in the 3<sup>rd</sup> Quarter of 2016, beginning construction in July 2016, and having the Project in-service on July 1, 2017.

- The typical construction right-of-way (ROW) width for new pipeline is expected to be 100-110 feet, with extra work space designated based on site-specific conditions. The new permanent ROW will be 50 feet wide.

### **Threatened and Endangered (T/E) Species**

- E & E, on behalf of Transco, sent T/E information request letters to PGC and PADCNr on March 7, 2014 with Project specific mapping and shapefiles to assist with the Project review. PGC and PADCNr will respond to the request with Project-specific T/E species information.

### T/E Species under PADCNr Jurisdiction

- PADCNr has regulatory jurisdiction over T/E plant species.
- Presence/absence surveys for state-listed T/E plant species should be focused in areas of suitable habitat for any species identified by PADCNr as having potential to occur in the Project area. She also state that surveys must be conducted by individuals who are familiar with the target species. Survey protocols are posted on the PADCNr website.
- A rare plant permit must be obtained in advance of field surveys. Permits are normally issued within 1-2 months from the date of application.
- Ms. Boyer stated surveys for T/E plants should be completed in a large enough buffer so indirect impacts during construction can be avoided. The planned 300-foot wide survey corridor should be sufficient to account for populations of T/E plant species that could potentially be impacted in the construction corridor, which may be up to 125-feet wide.
- Ms. Boyer stated that avoidance should be the first protection measure for any populations of T/E plant species discovered during surveys. If complete avoidance is not possible, monitoring should be completed during and after construction to ensure the remaining population is not impacted with invasive species.
- Because T/E plant surveys will need to be completed during spring/summer/fall flowering periods, Transco will perform separate surveys and reports, as necessary, for each seasonal survey effort.

### T/E Species under PGC Jurisdiction

- PGC has regulatory jurisdiction over T/E bird and mammal species.
- Habitat-level surveys should be completed first for any T/E species identified by PGC as potentially occurring in the Project area. PGC will review the results of the habitat surveys and provide recommendations for any additional follow-up presence/absence surveys.
- Mist-netting for listed bat species should follow US Fish and Wildlife Service survey protocols.

### **Invasive Species**

- PADCNr recommends that any populations of invasive species in the Project area be documented during environmental field surveys.
- The current list of invasive species in PA is available on the PADCNr website.
- PADCNr has guidelines for invasive species management specific to oil and gas development – also on the PADCNr website.

### **State Game Lands**

- Access approval to complete environmental surveys on state game lands is managed through PGC's regional offices. PGC requests that Transco designate a single representative to contact each regional office in order to streamline the coordination process.
- Discussions with regional offices for game land crossings should be started early in the permitting process. PGC might request changes in the alignment through game lands or other mitigation measures that could affect other applications.
- The ROW application for crossing approval will require at least 6 months to process from submittal of complete applications. The applications will need to indicate whether any new access roads (temporary or permanent) will be located on the game lands.
- Transco presented maps of proposed crossings at:
  - CPL North:
    - State Game Land #206 (parallel with existing Transco Leidy Lines)
  - CPL South:
    - State Game Land #84 (parallel with existing power line corridor)
    - State Game Land #132 (parallel with existing Sunoco 14" pipeline)
- Transco also presented a potential alternative for the crossing of the Appalachian Trail through State Game Land No. 211. Mr. Taucher stated that a crossing of the Appalachian Trail through State Game Land No. 211 may be problematic. PGC recommends that Transco evaluate options outside of State Game Land No. 211.

### Closing

- Ms. Allen stated that follow-up meetings at the conclusion of the 2014 field season will be requested to discuss survey results, to provide an overall Project update, and to solicit input on the route prior to submittal of the draft Environmental Resource Report to the FERC in 3<sup>rd</sup> or 4<sup>th</sup> quarter of 2014..
- The next step for PADCNR and PGC is to review the T/E information request letters and provide letter responses with T/E species location information relative to the Project area and survey requirements for each species noted.
- The meeting concluded at approximately 4:00 PM.

- End of Notes -

May 28, 2014

PNDI Number: 22297

**Casey Talento**  
**Ecology and Environment**  
Email: ctalento@ene.com

**Re: Atlantic Sunrise Expansion Project**  
**Transcontinental Gas Pipe Line Company, LLC.**

Dear Ms. Talento,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number **22297** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only. The proposed project will affect State Forest Lands within the Sproul State Forest District. **Further coordination with the Bureau of Forestry is required. Additional information regarding this coordination is provided under the heading "Projects on State Forest Lands."**

### **Potential Impact Anticipated**

PNDI records indicate species or resources under DCNR's jurisdiction are located in the project vicinity. Based on a detailed PNDI review, DCNR determined potential impacts to the threatened or endangered species or species of special concern listed in the attached charts.

### **Survey Request**

There are species known nearby that use habitat types that may be present within the project footprint; therefore, we are requesting a qualified botanist conduct a survey for the species listed in the attached charts (habitat and flowering time information from *The Plants of Pennsylvania, 2<sup>nd</sup> Edition*, by Rhoads and Block) at *the appropriate time of year and then submitted to our office for review.*

Your botanist should carefully review the new DCNR Botanical Survey Protocols available at <http://www.gis.dcnr.state.pa.us/hgis-er/Login.aspx>. These protocols are recommended to ensure that the all necessary information is collected and that survey reports are prepared properly. It is the expectation of DCNR that these protocols will be followed when conducting surveys for species under our jurisdiction. Contact our office prior to the survey for detailed information about the species, or for a list of qualified surveyors.

**Any target and non-target state-listed species found during the site visit should be reported to our office.** Mitigation measures and monitoring may be requested if species or communities of special concern are found on or adjacent to site. If the land type(s) does not exist onsite a survey may not be necessary; please submit a habitat assessment report describing current land cover, habitat types and species found onsite.

## Projects on State Forest Lands

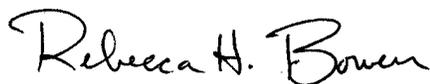
This project takes place on the Sproul State Forest District. The DCNR Bureau of Forestry's *State Forest Resource Management Plan* sets forth guidelines for ecologically-sound management of State Forest Lands and resources including protection of wetlands, wildlife, native wild plants and invasive species management. As such, the DCNR Bureau of Forestry may request additional surveys in association with this project. **This letter applies to PNDI impacts only and does not authorize the initiation of any work on State Forest lands. Further coordination with the Bureau of Forestry is required.** If you have not already done so, please contact Douglas D'Amore, District Forester for Sproul State Forest, at 570.923.6011 for additional information.

This project also directly impacts two rare plant communities: County Natural Heritage Inventory (CNHI) area Safe Harbor East Woods and Shenk's Ferry Wildflower Preserve. Pennsylvania Power and Electric Corporation owned Shenk's Ferry Wildflower preserve is touted to be one of the most impressive wildflower viewing areas in the eastern United States and is a popular spring ephemeral viewing area for many wildflower enthusiasts and botanists in Pennsylvania. DCNR recommends avoiding these areas that harbor many rare and threatened plants. If avoidance is not possible diligent botanical surveying is necessary, as well as mitigation and monitoring for any rare and threatened plants that will be directly impacted.

This response represents the most up-to-date review of the PNDI data files and is valid for two years. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. For PNDI project updates, please see the PNHP website at [www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us) for guidance. As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

**Should you have any questions or concerns, please contact Emilee Boyer Euker, Ecological Information Specialist at 717.787.7067 or [c-eboyer@pa.gov](mailto:c-eboyer@pa.gov).**

Sincerely,



Rebecca H. Bowen, Section Chief  
Bureau of Forestry, Ecological Services Section  
Pennsylvania Natural Heritage Program

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Target Species for Clinton County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Bartonia paniculata</i>	Screw-stem	N	PR	OBL	flowers August - October	bogs and peaty lake margins
<i>Lupinus perennis</i>	Lupine	PR	PR	n/a	flowers April - July	stream banks, open fields, woods edges, and roadsides in acidic sandy soils
<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	PE	PT	OBL	fruits in July	intermittently wet or inundated depressions

Target Species for Columbia County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Dodecatheon radicum</i>	Jeweled Shooting-star	PT	PT	FACU	late April - May	open wooded slopes, bluffs and meadows on limestone
<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	PE	PT	OBL	fruits in July	intermittently wet or inundated depressions
Calcareous opening/cliff community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/factsheets/16076.pdf">http://www.naturalheritage.state.pa.us/factsheets/16076.pdf</a> .						
Herbaceous vernal pond community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=30027">http://www.naturalheritage.state.pa.us/Community.aspx?=30027</a> .						

Target Species for Lancaster County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Ammannia coccinea</i>	Scarlet Ammannia	PE	PT	OBL	flowers July -August	wet, sandy or silty shores
<i>Aplectrum hyemale</i>	Puttyroot	PR	PR	FAC	flowers May - August; leaf visible in winter and fall only	moist, rich wooded slopes and bottomlands
<i>Asplenium bradleyi</i>	Bradley's Spleenwort	PT	PE	n/a	Year-round (evergreen)	crevices of dry, shaded , acid rock outcrops
<i>Asplenium pinnatifidum</i>	Lobed Spleenwort	N	PR	n/a	Year-round (evergreen)	crevices of dry, lightly shaded cliffs of non-calcareous rocks
<i>Chasmanthium latifolium</i>	Wild Oat	TU	PE	FACU	July - September	river and stream banks and alluvial woods
<i>Chionanthus virginicus</i>	Fringe-tree	N	PT	FAC+	flowers in May	moist woods
<i>Cyperus lancastriensis</i>	Many-flowered Umbrella Sedge	N	PT	FACU	fruits July - September	dry slopes, open woods and fields
<i>Dodecatheon radicum</i>	Jeweled Shooting-star	PT	PT	FACU	late April - May	open wooded slopes, bluffs and meadows on limestone
<i>Dryopteris clintoniana</i>	Clinton's Wood Fern	N	PT	FACW+	deciduous; survey summer - fall	swampy woods, especially red maple swamps
<i>Ellisia nyctelea</i>	Ellisia	PT	PT	FACU	flowers in May	damp, shady banks and rich alluvial woods
<i>Erigenia bulbosa</i>	Harbinger-of-spring	PT	PR	n/a	flowers March - April	seeps and spring heads on wooded slopes, only a concern in the East
<i>Erythronium albidum</i>	White Trout-lily	N	TU	FACU	flowers April - May	moist woods and rich slopes, especially on limestone
<i>Eupatorium godfreyanum</i>	Godfrey's Thoroughwort	N	PT	n/a	flowers August - October	stream banks, wooded roadsides and shaley slopes along the lower Susquehanna River

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Target Species for Lancaster County Continued						PNDI # 22297
<i>Euphorbia purpurea</i>	Glade Spurge	PE	PE	FAC	flowers May - July	swamps or moist thickets on rich soil
<i>Gentiana villosa</i>	Striped Gentian	TU	PE	n/a	flowers September - October	dry open woods and serpentine barrens
<i>Hypericum stragulum</i>	St Andrew's-cross	N	PT	FACU	flowers July - August	open woods, thickets, dry sandy soil, and serpentine barrens
<i>Ilex opaca</i>	American Holly	PT	PT	FACU	flowers May - early June, fruits October - winter	moist alluvial woods and wooded slopes
<i>Ludwigia decurrens</i>	Upright Primrose-willow	PE	PE	OBL	flowers July - September	sandy shores
<i>Lycopodiella appressa</i>	Southern Bog Clubmoss	PT	PT	FACW+	deciduous; sporulates June - October	moist, sandy-peaty openings
<i>Magnolia tripetala</i>	Umbrella Magnolia	PT	PR	FACU	flowers in May with the leaves	rich wooded slopes and floodplains
<i>Matelea obliqua</i>	Oblique Milkvine	PE	PE	n/a	flowers late April - October	mesic woods, wooded edges and thickets
<i>Rosa virginiana</i>	Virginia Rose	TU	TU	FAC	flowers May- early July	pastures, fields, open woods, thickets and roadsides, usually in moist soil
<i>Rotala ramosior</i>	Tooth-cup	PR	PR	OBL	flowers July - September	wet sandy shores and other swampy open grounds
<i>Schoenoplectus fluviatilis</i>	River Bulrush	PR	PR	OBL	fruits June - August	moist sandy shores and marshes, tidal and non-tidal
<i>Sida hermaphrodita</i>	Sida	PE	PE	FAC	flowers July - October	stream banks
<i>Smallanthus uvedalius</i>	Leaf-cup	N	PR	n/a	flowers July - September	ravines, thickets and river or stream banks
<i>Spiranthes lucida</i>	Shining Ladies'-tresses	N	PT	FACW	flower May-July	moist banks, lake shores and wet meadows, usually on calcareous soils
<i>Tipularia discolor</i>	Cranefly Orchid	PR	PR	FACU	flowers July - August; leaf visible in winter and fall only, which is the optimal survey period	deciduous forests and stream banks

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Target Species for Lancaster County Continued						PNDI # 22297
<i>Trillium flexipes</i>	Declined Trillium	TU	PT	FAC	flowers late April - early May	moist woods
<i>Vittaria appalachiana</i>	Appalachian Gametophyte Fern	PT	PT	n/a	year-round (evergreen)	heavily shaded, moist crevices and overhangs in noncalcareous rock. Occurs in PA as gametophytes only

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Target Species for Lebanon County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Aplectrum hyemale</i>	Puttyroot	PR	PR	FAC	flowers May - August; leaf visible in winter and fall only	moist, rich wooded slopes and bottomlands
<i>Bartonia paniculata</i>	Screw-stem	N	PR	OBL	flowers August - October	bogs and peaty lake margins
<i>Carex typhina</i>	Cattail Sedge	PE	PT	FACW+	fruits mid-June - September	calcareous bottomlands, swamps, and wet woods
<i>Juniperus communis var. depressa</i>	Dwarf Juniper	N	PE	n/a		dry, open woods, slopes, or pastures, mostly SE
<i>Lycopodiella appressa</i>	Southern Bog Clubmoss	PT	PT	FACW+	deciduous; sporulates June - October	moist, sandy-peaty openings
<i>Menziesia pilosa</i>	Minniebush	PR	PR	FAC-	flowers late may	dry to wet woods and stream banks
<i>Penstemon canescens</i>	Beard-tongue	N	TU	n/a	flowers May - July; fruits July - August	dry, rocky, wooded slopes
<i>Piptochaetium avenaceum</i>	Blackseed Needlegrass	N	PE	UPL	May - early June	thin, rocky woods and sandy open ground
<i>Pycnanthemum verticillatum var. pilosum</i>	Hairy Mountain-mint	TU	PX	FAC	flowers July - September	rocky meadows
<i>Tipularia discolor</i>	Cranefly Orchid	PR	PR	FACU	flowers July - August; leaf visible in winter and fall only, which is the optimal survey window	deciduous forests and stream banks
<i>Triosteum angustifolium</i>	Horse-gentian	TU	PE	n/a	flowers may - early June; fruits July - August	woods and thickets
<i>Woodwardia areolata</i>	Netted Chainfern	N	PT	FACW+	deciduous; sporulates July - September	moist or wet woods and acidic bogs

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Target Species for Luzerne County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Carex disperma</i>	Soft-leaved Sedge	PR	PR	FACW+	fruits May - August	bogs and wet acidic woods
<i>Megalodonta beckii</i>	Beck's Water-marigold	PE	PE	OBL	flowers July - October	Lakes and swamps, usually in calcareous water
<i>Myriophyllum heterophyllum</i>	Broad-leaved Water-milfoil	PE	SP	OBL	flowers and fruits June - September	still waters of lakes and ponds
<i>Polystichum braunii</i>	Braun's Holly Fern	PE	PE	n/a	year-round (semi-evergreen)	cool, rocky, shaded ravines
<i>Ribes lacustre</i>	Swamp Currant	TU	PE	FACW	flowers May-June	swamps and cool wet woods
<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	PE	PT	OBL	fruits in July	intermittently wet or inundated depressions
<i>Streptopus amplexifolius</i>	White Twisted-stalk	PT	PE	FAC+	flowers June-July	seepy outcrops (often near waterfalls) and cool slopes
<i>Viola selkirkii</i>	Great-spurred Violet	N	PR	n/a	flowers May - July	dry, cool woods and rock crevices, especially on limestone soils
Red spruce - mixed hardwood palustrine forest community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16031">http://www.naturalheritage.state.pa.us/Community.aspx?=16031</a> .						
Herbaceous vernal pond community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=30027">http://www.naturalheritage.state.pa.us/Community.aspx?=30027</a> .						

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Target Species for Lycoming County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Juniperus communis var. depressa</i>	Dwarf Juniper	N	PE	n/a		dry, open woods, slopes, or pastures, mostly SE
<i>Potamogeton vaseyi</i>	Vasey's Pondweed	PE	PE	OBL	flowers early June - July; fruits August - early September	ponds, lagoons and other slow-moving water

Target Species for Schuylkill County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Bartonia paniculata</i>	Screw-stem	N	PR	OBL	flowers August - October	bogs and peaty lake margins
<i>Carex typhina</i>	Cattail Sedge	PE	PT	FACW+	fruits mid June - September	calcareous bottomlands, swamps, and wet woods
<i>Menziesia pilosa</i>	Minniebush	PR	PR	FAC-	flowers late may	dry to wet woods and stream banks
<i>Woodwardia areolata</i>	Netted Chainfern	N	PT	FACW+	deciduous; sporulates July - September	moist or wet woods and acidic bogs
Herbaceous vernal pond community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=30027">http://www.naturalheritage.state.pa.us/Community.aspx?=30027</a> .						

**There are no target species for Northumberland County**

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Target Species for Susquehanna County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Andromeda polifolia</i>	Bog-rosemary	PR	PR	OBL	flowers in May	bogs and peaty wetlands
<i>Carex disperma</i>	Soft-leaved Sedge	PR	PR	FACW+	fruits May - August	bogs and wet acidic woods
<i>Carex lasiocarpa</i>	Slender Sedge	PR	PR	OBL	fruits June - August	sphagnum bogs
<i>Carex limosa</i>	Mud Sedge	TU	PT	OBL	flowers and fruits June - August	sphagnum bogs mats and hummocks
<i>Platanthera blephariglottis</i>	White Fringed-orchid	N	PE	OBL	flowers June-Aug	sphagnum bogs and swamps
Black spruce - tamarack palustrine woodland community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16027">http://www.naturalheritage.state.pa.us/Community.aspx?=16027</a> .						
Hemlock - mixed hardwood palustrine forest community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16029">http://www.naturalheritage.state.pa.us/Community.aspx?=16029</a> .						

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Target Species for Susquehanna County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Andromeda polifolia</i>	Bog-rosemary	PR	PR	OBL	flowers in May	bogs and peaty wetlands
<i>Carex disperma</i>	Soft-leaved Sedge	PR	PR	FACW+	fruits May - August	bogs and wet acidic woods
<i>Carex lasiocarpa</i>	Slender Sedge	PR	PR	OBL	fruits June - August	sphagnum bogs
<i>Megalodonta beckii</i>	Beck's Water-marigold	PE	PE	OBL	flowers July-Oct	lakes and swamps, usually in calcareous water
<i>Prunus pumila var. depressa</i>	Sand Cherry		PE	n/a	flowers April - May, fruits in August	alluvial islands and sandy or gravelly shores
Big bluestem - Indian grass river grassland community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=15999">http://www.naturalheritage.state.pa.us/Community.aspx?=15999</a> .						
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Riverside ice scour community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16011">http://www.naturalheritage.state.pa.us/Community.aspx?=16011</a> .						

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## Telephone Call Summary Sheet

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<b>By:</b>	<b>Mal Gilbert (WHM Botanist)</b>	<b>Date:</b>	6/30/14 and 7/1/14
<b>Talked With:</b>	Chris Firestone (6/30/14) Emilee Boyer (7/01/14)	<b>Project Number:</b>	EEI-009-CPL (N&S)
<b>Of:</b>	PaDCNR, Bureau of Forestry (Natural Heritage/PNDI)	<b>Project Name:</b>	Atlantic Sunrise
<b>Telephone Number:</b>	570.724.8149 Firestone) 717.787.7067 (Boyer)	<b>Subject:</b>	Discussion of Protocol for surveys for PNDI listed plant species for the subject project.

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30 June : Spoke with Chris Firestone about the project magnitude and a “reasonable” approach to the field surveys for the listed plant species. Chris emphasized that the current timetable would likely miss the flowering/fruitlet windows of many of the target species, but habitat assessment might allow many to be dismissed due to absence of appropriate habitat. HOWEVER, some areas and/or plant “candidates” lacking definitive diagnostic features for positive identification...may require brief follow-up survey during appropriate flowering/fruitlet times (likely earlier in the 2015 growing season). I also confirmed that we would be concentrating on targeted surveys for the “hits” identified in the PaDCNR letter...but we would of course ... also be tuned in to other potential Element Occurrences as we do our general species listings (while walking to/from and while in the candidate sites). Chris suggested that I confirm this approach (which essentially mirrors the approach outlined by PaDCNR in their “Conducting Botanical Surveys” guidance) directly with Emilee Boyer.....which I did in a telephone conversation on 01 July 2014.

Emilee essentially reiterated what Chris had suggested emphasizing a protocol that focuses 1) on the PNDI hits listed in the PaDCNR response letter (plants known to be near or within the proposed alignment corridors) 2) that we remain aware of ALL OF THE OTHER PNDI listed plants recorded in the county being surveyed as we conduct our surveys...and 3) We also remain vigilant for the occurrence of any and all OTHER PNDI listed plants that are not currently known to occur in the survey county.

Emilee also noted that the flowering/fruitlet window for some of the plants could require follow-up.



## Telephone Call Summary Sheet

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<b>By:</b>	<b>Mal Gilbert (WHM Botanist)</b>	<b>Date:</b>	7/3/14
<b>Talked With:</b>	Emilee Boyer	<b>Project Number:</b>	EEI-009-CPL (N&S)
<b>Of:</b>	PaDCNR, Bureau of Forestry (Natural Heritage/PNDI)	<b>Project Name:</b>	Atlantic Sunrise
<b>Telephone Number:</b>	717.787.7067 (Boyer)	<b>Subject:</b>	Requested Locations of Element Occurrence for Target Plant in Columbia County

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Spoke with Emilee and requested locations for "Jeweled shooting-star" in vicinity of survey areas.....  
Told Emilee where I thought they might be....She noted that I was close....and subsequently did send me the known locations near the project.....

Despite knowing the plants are very likely no longer "confirmable" as the actual species of special concern at this time of year, having a good survey "signature" for conducting the "habitat" assessment would be helpful for ruling out candidate sites..... Emilee apparently agreed.

July 14, 2014

PNDI Number: 22297

**Casey Talento**  
**Ecology and Environment**  
Email: ctalento@ene.com

**Re: Atlantic Sunrise Expansion Project**  
**Transcontinental Gas Pipe Line Company, LLC.**

Dear Ms. Talento,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number **22297** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only. The proposed project will affect State Forest Lands within the Sproul State Forest District. **Further coordination with the Bureau of Forestry is required. Additional information regarding this coordination is provided under the heading "Projects on State Forest Lands."**

### **Potential Impact Anticipated**

PNDI records indicate species or resources under DCNR's jurisdiction are located in the project vicinity. Based on a detailed PNDI review, DCNR determined potential impacts to the threatened or endangered species or species of special concern listed in the attached charts.

### **Survey Request**

There are species known nearby that use habitat types that may be present within the project footprint; therefore, we are requesting a qualified botanist conduct a survey for the species listed in the attached charts (habitat and flowering time information from *The Plants of Pennsylvania, 2<sup>nd</sup> Edition*, by Rhoads and Block) at *the appropriate time of year and then submitted to our office for review.*

Your botanist should carefully review the new DCNR Botanical Survey Protocols available at <http://www.gis.dcnr.state.pa.us/hgis-er/Login.aspx>. These protocols are recommended to ensure that the all necessary information is collected and that survey reports are prepared properly. It is the expectation of DCNR that these protocols will be followed when conducting surveys for species under our jurisdiction. Contact our office prior to the survey for detailed information about the species, or for a list of qualified surveyors.

**Any target and non-target state-listed species found during the site visit should be reported to our office.** Mitigation measures and monitoring may be requested if species or communities of special concern are found on or adjacent to site. If the land type(s) does not exist onsite a survey may not be necessary; please submit a habitat assessment report describing current land cover, habitat types and species found onsite.

### Projects on State Forest Lands

This project takes place on the Sproul State Forest District. The DCNR Bureau of Forestry's *State Forest Resource Management Plan* sets forth guidelines for ecologically-sound management of State Forest Lands and resources including protection of wetlands, wildlife, native wild plants and invasive species management. As such, the DCNR Bureau of Forestry may request additional surveys in association with this project. **This letter applies to PNDI impacts only and does not authorize the initiation of any work on State Forest lands. Further coordination with the Bureau of Forestry is required.** If you have not already done so, please contact Douglas D'Amore, District Forester for Sproul State Forest, at 570.923.6011 for additional information.

This project also directly impacts two rare plant communities: County Natural Heritage Inventory (CNHI) area Safe Harbor East Woods and Shenk's Ferry Wildflower Preserve. Pennsylvania Power and Electric Corporation owned Shenk's Ferry Wildflower preserve is touted to be one of the most impressive wildflower viewing areas in the eastern United States and is a popular spring ephemeral viewing area for many wildflower enthusiasts and botanists in Pennsylvania. DCNR recommends avoiding these areas that harbor many rare and threatened plants. If avoidance is not possible diligent botanical surveying is necessary, as well as mitigation and monitoring for any rare and threatened plants that will be directly impacted.

This response represents the most up-to-date review of the PNDI data files and is valid for two years. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. For PNDI project updates, please see the PNHP website at [www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us) for guidance. As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

**Should you have any questions or concerns, please contact Emilee Boyer Euker, Ecological Information Specialist at 717.787.7067 or [c-eboyer@pa.gov](mailto:c-eboyer@pa.gov).**

Sincerely,



Rebecca H. Bowen, Section Chief  
Bureau of Forestry, Ecological Services Section  
Pennsylvania Natural Heritage Program

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Target Species for Clinton County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Bartonia paniculata</i>	Screw-stem	N	PR	OBL	flowers August - October	bogs and peaty lake margins
<i>Lupinus perennis</i>	Lupine	PR	PR	n/a	flowers April - July	stream banks, open fields, woods edges, and roadsides in acidic sandy soils
<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	PE	PT	OBL	fruits in July	intermittently wet or inundated depressions

Target Species for Columbia County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Dodecatheon radicum</i>	Jeweled Shooting-star	PT	PT	FACU	late April - May	open wooded slopes, bluffs and meadows on limestone
<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	PE	PT	OBL	fruits in July	intermittently wet or inundated depressions
<p>Calcareous opening/cliff community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/factsheets/16076.pdf">http://www.naturalheritage.state.pa.us/factsheets/16076.pdf</a>.</p>						
<p>Herbaceous vernal pond community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=30027">http://www.naturalheritage.state.pa.us/Community.aspx?=30027</a>.</p>						

Target Species for Lancaster County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Ammannia coccinea</i>	Scarlet Ammannia	PE	PT	OBL	flowers July -August	wet, sandy or silty shores
<i>Aplectrum hyemale</i>	Puttyroot	PR	PR	FAC	flowers May - August; leaf visible in winter and fall only	moist, rich wooded slopes and bottomlands
<i>Asplenium bradleyi</i>	Bradley's Spleenwort	PT	PE	n/a	Year-round (evergreen)	crevices of dry, shaded , acid rock outcrops
<i>Asplenium pinnatifidum</i>	Lobed Spleenwort	N	PR	n/a	Year-round (evergreen)	crevices of dry, lightly shaded cliffs of non-calcareous rocks
<i>Chasmanthium latifolium</i>	Wild Oat	TU	PE	FACU	July - September	river and stream banks and alluvial woods
<i>Chionanthus virginicus</i>	Fringe-tree	N	PT	FAC+	flowers in May	moist woods
<i>Cyperus lancastriensis</i>	Many-flowered Umbrella Sedge	N	PT	FACU	fruits July - September	dry slopes, open woods and fields
<i>Dodecatheon radicum</i>	Jeweled Shooting-star	PT	PT	FACU	late April - May	open wooded slopes, bluffs and meadows on limestone
<i>Dryopteris clintoniana</i>	Clinton's Wood Fern	N	PT	FACW+	deciduous; survey summer - fall	swampy woods, especially red maple swamps
<i>Ellisia nyctelea</i>	Ellisia	PT	PT	FACU	flowers in May	damp, shady banks and rich alluvial woods
<i>Eriogenia bulbosa</i>	Harbinger-of-spring	PT	PR	n/a	flowers March - April	seeps and spring heads on wooded slopes, only a concern in the East
<i>Erythronium albidum</i>	White Trout-lily	N	TU	FACU	flowers April - May	moist woods and rich slopes, especially on limestone
<i>Eupatorium godfreyanum</i>	Godfrey's Thoroughwort	N	PT	n/a	flowers August - October	stream banks, wooded roadsides and shaley slopes along the lower Susquehanna River

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Target Species for Lancaster County Continued						PNDI # 22297
<i>Euphorbia purpurea</i>	Glade Spurge	PE	PE	FAC	flowers May - July	swamps or moist thickets on rich soil
<i>Gentiana villosa</i>	Striped Gentian	TU	PE	n/a	flowers September - October	dry open woods and serpentine barrens
<i>Hypericum stragulum</i>	St Andrew's-cross	N	PT	FACU	flowers July - August	open woods, thickets, dry sandy soil, and serpentine barrens
<i>Ilex opaca</i>	American Holly	PT	PT	FACU	flowers May - early June, fruits October - winter	moist alluvial woods and wooded slopes
<i>Ludwigia decurrens</i>	Upright Primrose-willow	PE	PE	OBL	flowers July - September	sandy shores
<i>Lycopodiella appressa</i>	Southern Bog Clubmoss	PT	PT	FACW+	deciduous; sporulates June - October	moist, sandy-peaty openings
<i>Magnolia tripetala</i>	Umbrella Magnolia	PT	PR	FACU	flowers in May with the leaves	rich wooded slopes and floodplains
<i>Matelea obliqua</i>	Oblique Milkvine	PE	PE	n/a	flowers late April - October	mesic woods, wooded edges and thickets
<i>Rosa virginiana</i>	Virginia Rose	TU	TU	FAC	flowers May- early July	pastures, fields, open woods, thickets and roadsides, usually in moist soil
<i>Rotala ramosior</i>	Tooth-cup	PR	PR	OBL	flowers July - September	wet sandy shores and other swampy open grounds
<i>Schoenoplectus fluviatilis</i>	River Bulrush	PR	PR	OBL	fruits June - August	moist sandy shores and marshes, tidal and non-tidal
<i>Sida hermaphrodita</i>	Sida	PE	PE	FAC	flowers July - October	stream banks
<i>Smallanthus uvedalius</i>	Leaf-cup	N	PR	n/a	flowers July - September	ravines, thickets and river or stream banks
<i>Spiranthes lucida</i>	Shining Ladies'-tresses	N	PT	FACW	flower May-July	moist banks, lake shores and wet meadows, usually on calcareous soils
<i>Tipularia discolor</i>	Cranefly Orchid	PR	PR	FACU	flowers July - August; leaf visible in winter and fall only, which is the optimal survey period	deciduous forests and stream banks

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Target Species for Lancaster County Continued						PNDI # 22297
<i>Trillium flexipes</i>	Declined Trillium	TU	PT	FAC	flowers late April - early May	moist woods
<i>Vittaria appalachiana</i>	Appalachian Gametophyte Fern	PT	PT	n/a	year-round (evergreen)	heavily shaded, moist crevices and overhangs in noncalcareous rock. Occurs in PA as gametophytes only

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Target Species for Lebanon County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Aplectrum hyemale</i>	Puttyroot	PR	PR	FAC	flowers May - August; leaf visible in winter and fall only	moist, rich wooded slopes and bottomlands
<i>Bartonia paniculata</i>	Screw-stem	N	PR	OBL	flowers August - October	bogs and peaty lake margins
<i>Carex typhina</i>	Cattail Sedge	PE	PT	FACW+	fruits mid-June - September	calcareous bottomlands, swamps, and wet woods
<i>Juniperus communis var. depressa</i>	Dwarf Juniper	N	PE	n/a		dry, open woods, slopes, or pastures, mostly SE
<i>Lycopodiella appressa</i>	Southern Bog Clubmoss	PT	PT	FACW+	deciduous; sporulates June - October	moist, sandy-peaty openings
<i>Menziesia pilosa</i>	Minniebush	PR	PR	FAC-	flowers late may	dry to wet woods and stream banks
<i>Penstemon canescens</i>	Beard-tongue	N	TU	n/a	flowers May - July; fruits July - August	dry, rocky, wooded slopes
<i>Piptochaetium avenaceum</i>	Blackseed Needlegrass	N	PE	UPL	May - early June	thin, rocky woods and sandy open ground
<i>Pycnanthemum verticillatum var. pilosum</i>	Hairy Mountain-mint	TU	PX	FAC	flowers July - September	rocky meadows
<i>Tipularia discolor</i>	Cranefly Orchid	PR	PR	FACU	flowers July - August; leaf visible in winter and fall only, which is the optimal survey window	deciduous forests and stream banks
<i>Triosteum angustifolium</i>	Horse-gentian	TU	PE	n/a	flowers may - early June; fruits July - August	woods and thickets
<i>Woodwardia areolata</i>	Netted Chainfern	N	PT	FACW+	deciduous; sporulates July - September	moist or wet woods and acidic bogs

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Target Species for Luzerne County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Carex disperma</i>	Soft-leaved Sedge	PR	PR	FACW+	fruits May - August	bogs and wet acidic woods
<i>Megalodonta beckii</i>	Beck's Water-marigold	PE	PE	OBL	flowers July - October	Lakes and swamps, usually in calcareous water
<i>Myriophyllum heterophyllum</i>	Broad-leaved Water-milfoil	PE	SP	OBL	flowers and fruits June - September	still waters of lakes and ponds
<i>Polystichum braunii</i>	Braun's Holly Fern	PE	PE	n/a	year-round (semi-evergreen)	cool, rocky, shaded ravines
<i>Ribes lacustre</i>	Swamp Currant	TU	PE	FACW	flowers May-June	swamps and cool wet woods
<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	PE	PT	OBL	fruits in July	intermittently wet or inundated depressions
<i>Streptopus amplexifolius</i>	White Twisted-stalk	PT	PE	FAC+	flowers June-July	seepy outcrops (often near waterfalls) and cool slopes
<i>Viola selkirkii</i>	Great-spurred Violet	N	PR	n/a	flowers May - July	dry, cool woods and rock crevices, especially on limestone soils
Red spruce - mixed hardwood palustrine forest community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16031">http://www.naturalheritage.state.pa.us/Community.aspx?=16031</a> .						
Herbaceous vernal pond community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=30027">http://www.naturalheritage.state.pa.us/Community.aspx?=30027</a> .						

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Target Species for Lycoming County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Juniperus communis var. depressa</i>	Dwarf Juniper	N	PE	n/a		dry, open woods, slopes, or pastures, mostly SE
<i>Potamogeton vaseyi</i>	Vasey's Pondweed	PE	PE	OBL	flowers early June - July; fruits August - early September	ponds, lagoons and other slow-moving water

Target Species for Schuylkill County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Bartonia paniculata</i>	Screw-stem	N	PR	OBL	flowers August - October	bogs and peaty lake margins
<i>Carex typhina</i>	Cattail Sedge	PE	PT	FACW+	fruits mid June - September	calcareous bottomlands, swamps, and wet woods
<i>Menziesia pilosa</i>	Minniebush	PR	PR	FAC-	flowers late may	dry to wet woods and stream banks
<i>Woodwardia areolata</i>	Netted Chainfern	N	PT	FACW+	deciduous; sporulates July - September	moist or wet woods and acidic bogs
Herbaceous vernal pond community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=30027">http://www.naturalheritage.state.pa.us/Community.aspx?=30027</a> .						

**There are no target species for Northumberland County**

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Target Species for Susquehanna County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Andromeda polifolia</i>	Bog-rosemary	PR	PR	OBL	flowers in May	bogs and peaty wetlands
<i>Carex disperma</i>	Soft-leaved Sedge	PR	PR	FACW+	fruits May - August	bogs and wet acidic woods
<i>Carex lasiocarpa</i>	Slender Sedge	PR	PR	OBL	fruits June - August	sphagnum bogs
<i>Carex limosa</i>	Mud Sedge	TU	PT	OBL	flowers and fruits June - August	sphagnum bogs mats and hummocks
<i>Platanthera blephariglottis</i>	White Fringed-orchid	N	PE	OBL	flowers June-Aug	sphagnum bogs and swamps
Black spruce - tamarack palustrine woodland community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16027">http://www.naturalheritage.state.pa.us/Community.aspx?=16027</a> .						
Hemlock - mixed hardwood palustrine forest community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16029">http://www.naturalheritage.state.pa.us/Community.aspx?=16029</a> .						

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Target Species for Wyoming County						PNDI # 22297
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Andromeda polifolia</i>	Bog-rosemary	PR	PR	OBL	flowers in May	bogs and peaty wetlands
<i>Carex disperma</i>	Soft-leaved Sedge	PR	PR	FACW+	fruits May - August	bogs and wet acidic woods
<i>Carex lasiocarpa</i>	Slender Sedge	PR	PR	OBL	fruits June - August	sphagnum bogs
<i>Megalodonta beckii</i>	Beck's Water-marigold	PE	PE	OBL	flowers July-Oct	lakes and swamps, usually in calcareous water
<i>Prunus pumila var. depressa</i>	Sand Cherry		PE	n/a	flowers April - May, fruits in August	alluvial islands and sandy or gravelly shores
Big bluestem - Indian grass river grassland community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=15999">http://www.naturalheritage.state.pa.us/Community.aspx?=15999</a> .						
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Leatherleaf - sedge wetland community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16043">http://www.naturalheritage.state.pa.us/Community.aspx?=16043</a> .						
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Riverside ice scour community is not a target for survey but does occur within the vicinity of the project. If this community is found onsite, DCNR recommends voluntary avoidance minimization of disturbance. For more information visit <a href="http://www.naturalheritage.state.pa.us/Community.aspx?=16011">http://www.naturalheritage.state.pa.us/Community.aspx?=16011</a> .						

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## Zoladz, Justin A.

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**From:** Zoladz, Justin A.  
**Sent:** Friday, August 22, 2014 5:20 PM  
**To:** c-eboyer@pa.gov  
**Cc:** Harford, Amanda; Netti, Gregory; Ryan Nelson  
**Subject:** Atlantic Sunrise Project Update  
**Attachments:** v15\_files\_2014\_08\_22.piz; Project\_Overview\_v15\_2014\_8\_22.pdf

Emilee,

Please find the attached updates to the Atlantic Sunrise Project layout. Attached you will find a the current layout of the centerline and additional aboveground facilities not in the original submittal as request on Tuesday the 19<sup>th</sup> during out meeting.

Additionally our GIS created a 1-mile buffer around the portions of the new centerline that are more than one mile from the old centerline to highlight the changes.

The summary below identifies the pipeline segments within Pennsylvania that deviate more than 300 feet from the edge of the 600-foot corridor described in the original consultation letter.

Mile markers for segments of the Central Penn Line (CPL) pipeline that deviate greater than 300 feet from the 600 foot corridor proposed on March 7, 2014.

Facility	Mile Marker
CLP North	22.5 - 24.0
	24.8 - 25.3
	35.6 - 37.0
	37.6 - 39.0
	41.9 - 42.7
	43.5 - 44.2
	51 - 52.1
	54.7 - 55.1
	55.6 - 56.6
CLP South	0 - 12
	15.4 - 16.5
	20.7 - 36
	36.7 - 38.5
	47.6 - 48
	55.6 - 56.7
	60.5 - 61.9
	65.8 - 66.8
90.3 - 90.9	

Chapman Loop: construction of approximately 3.0 miles of looping 36-inch diameter pipeline in Clinton County (Gallagher Township), PA. This facility was not included in the March 7, 2014 consultation letter.

Grugan Loop: removed from the proposed Project.

New Compressor Station 605: construction of a greenfield compressor station in Susquehanna County (Lenox Township), PA. This facility was included in the March 7, 2014 consultation letter, however now there are two possible locations for this station (Spadine Option or Zick Option, about 2.1 miles apart).

New Compressor Station 610: construction of a greenfield compressor station in Columbia County (Hemlock Township), PA. This facility was included in the March 7, 2014 consultation letter, however now there are two possible locations for this station (Irvin Martenas or Dieffenbacher, about 7.7 miles apart).

Hydrostatic testing: following pipeline construction, water would be drawn from natural sources at intervals along the completed pipeline to test the integrity of the system.

Please note that minor route changes not specified above have also occurred. However, these route deviations are not anticipated to occur outside of the previously reviewed corridor.

Please do not hesitate to contact me if there are any questions or you need any additional data.

Thank you,

Justin Zoladz, Biologist

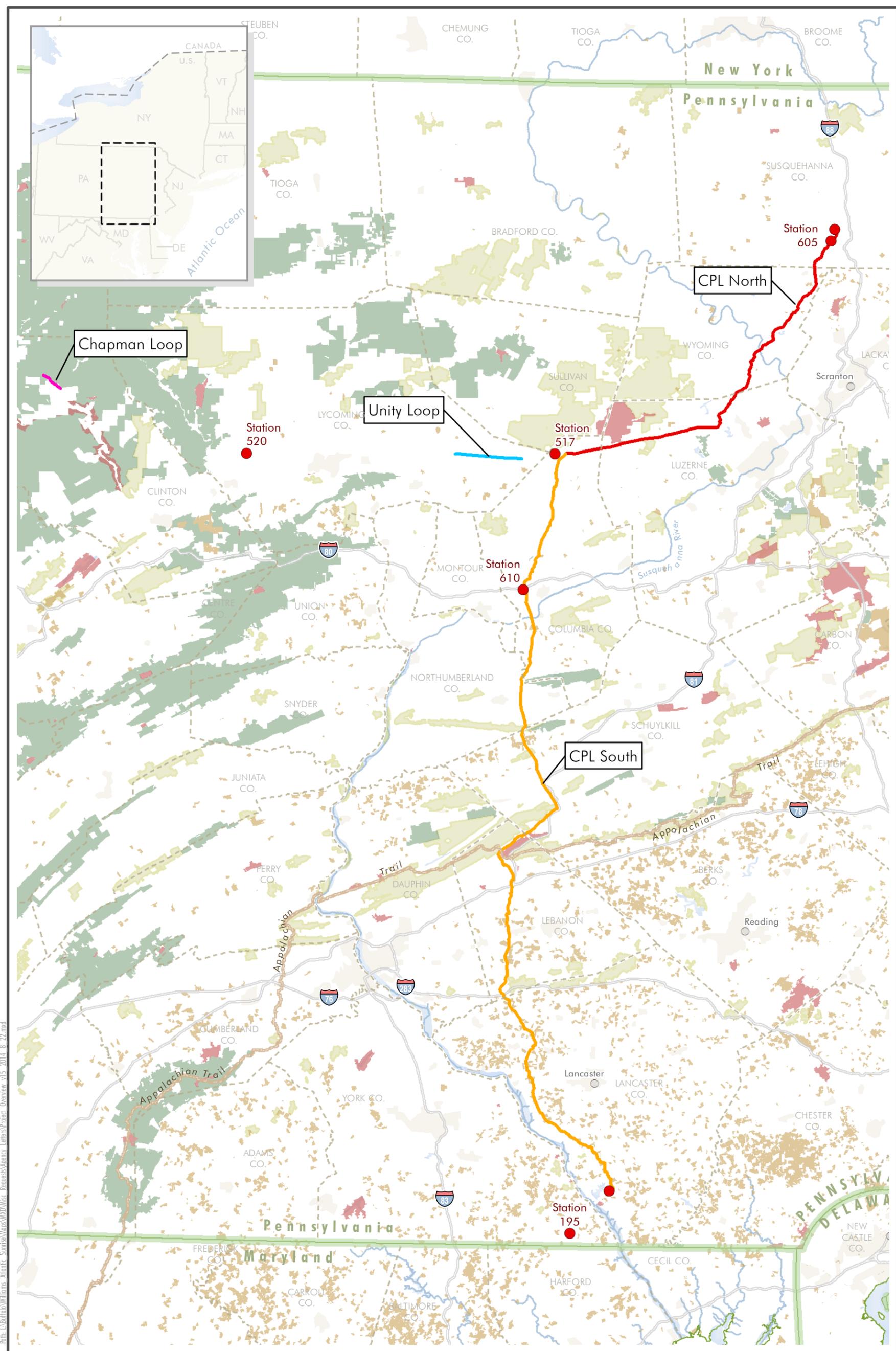
**Ecology and Environment, Inc.**

368 Pleasant View Drive, Lancaster, NY 14086

Phone: 716-684-8060 x2608 | Mobile: 716-560-4585

Fax: 716-684-0844

[jzoladz@ene.com](mailto:jzoladz@ene.com) | [www.ene.com](http://www.ene.com)



Path: L:\Bulfinch\Williams Atlantic Sunrise\Maps\MXD\Misc Requests\Agency Letters\Project Overview v15\_2014\_8\_22.mxd

Project Features	Natural Resources	Administrative Boundaries/Transportation
<span style="color: red;">●</span> Compressor Station	Appalachian Trail	State Boundary
CPL North	State Park	County Boundary
CPL South	State Forest	Interstate
Chapman Loop	Gamelands	
Unity Loop		

**Project Overview Map**  
Atlantic Sunrise  
Pennsylvania

0 5 10 20 Kilometers  
0 5 10 20 Miles



## Telephone Call Summary Sheet

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<b>By:</b>	<b>Ryan Nelson</b>	<b>Date:</b>	9/23/14
<b>Talked With:</b>	Emilee Boyer	<b>Project Number:</b>	EEI-005-CPLS
<b>Of:</b>	PaDCNR, Bureau of Forestry (Natural Heritage/PNDI)	<b>Project Name:</b>	Atlantic Sunrise
<b>Telephone Number:</b>	717.787.7067 (Boyer)	<b>Subject:</b>	Clarification on Plant Communities and Chapman Loop

---

Spoke with Emilee to discuss plant communities that were requested to be noted for counties. She stated that these are not regulated areas and survey information to be provided is voluntary. However, findings of the communities should be noted during the surveys. If you come across a community that was not identified in the initial correspondence letter for said county, it should be noted. Focusing our efforts on the letter will be fine, as any communities that are not shown in the letter will be reported when completing our vegetation descriptions for the project area.

Chapman loop review is still ongoing.

---

BUREAU OF FORESTRY

April 2, 2015

**PNDI Large Project Number: 022297**

Greg Netti  
Ecology and Environment, Inc.  
368 Pleasant View Drive  
Lancaster, PA 14086  
Email: [gnetti@ene.com](mailto:gnetti@ene.com) (hard copy not to follow)

Re: Atlantic Sunrise Project  
Multiple Townships, Clinton, Columbia, Lancaster, Lebanon, Luzerne, Lycoming, Schuylkill, Susquehanna, and Wyoming Counties

Dear Mr. Netti,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Large Project Number **022297** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

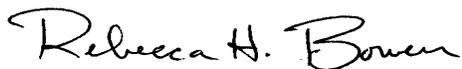
**No Impact Anticipated per botanical surveys of 2014 and per avoidance of habitats containing *Scirpus ancistrochaetus* (northeastern bulrush), *Oxypolis rigidior* (stiff cowbane), and *Tipularia discolor* (crane fly orchid)**

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. In May 2014, DCNR requested botanical surveys for PA T & E and plant species of concern by county. Botanists Eric Burkhart, Loree Speedy, and Mallory Gilbert conducted botanical surveys for target species of each county between June and December 2014. Botanists observed populations of *Scirpus ancistrochaetus* (northeastern bulrush), *Tipularia discolor* (crane fly orchid), and *Oxypolis rigidior* (stiff cowbane). The populations of these three plant species are located outside the limit of disturbance for the project and will not be impacted by this project. Therefore, based on botanical surveys for the areas that have been surveyed in 2014, and avoidance of the populations of *S. ancistrochaetus*, *T. discolor*, and *O. rigidior*, the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for these areas of the project that were surveyed in 2014. **As a reminder, this letter does not provide clearance for areas that were not surveyed in 2014, and DCNR will look forward to the 2015 botanical report for these areas.**

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

**Should you have any questions or concerns, please contact Frederick Sechler, Jr., Ecological Information Specialist, by phone (717-705-2819) or via email ([c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)).**

Sincerely,



Rebecca H. Bowen, Section Chief  
Pennsylvania Natural Heritage Program  
Bureau of Forestry, Ecological Services Section

BUREAU OF FORESTRY

May 28, 2015

**PNDI Large Project Number: 022446**

Justin A. Zoladz  
Ecology and Environment, Inc.  
368 Pleasant View Drive  
Lancaster, PA 14086  
Email: [jzoladz@ene.com](mailto:jzoladz@ene.com), CC: Ryan Nelson, [ryann@whmgroup.com](mailto:ryann@whmgroup.com) (hard copy not to follow)

Re: Atlantic Sunrise Expansion Project (reroute) and added Chapman Loop  
Multiple Townships, Clinton, Columbia, Lancaster, Lebanon, Luzerne, Lycoming, Schuylkill, Susquehanna, and Wyoming Counties

Dear Mr. Zoladz,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Large Project Number **022446** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**No Impact Anticipated for Chapman Loop**

PNDI records indicate species or resources under DCNR's jurisdiction located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this portion of the Atlantic Sunrise Expansion project.

**Survey request for rerouting of Atlantic Sunrise Expansion Project**

**Potential Impact Anticipated**

PNDI records indicate species or resources of concern are located in the project vicinity. Based on a detailed PNDI review, DCNR determined potential impacts to the following threatened or endangered species or species of special concern. Please note our new survey protocols are available at <http://www.gis.dcnr.state.pa.us/hgis-er/Login.aspx>.

Scientific Name	Common Name	PA Current Status	PA Proposed Status
<i>Rudbeckia fulgida</i>	Eastern coneflower	Not listed	Threatened

**Survey Request** (one PA plant species of concern to be added to the already list of plant species in Lebanon County for survey)

DCNR requests a **targeted survey** for the following species:

- *Rudbeckia fulgida* (eastern coneflower)–habitat is moist fields and meadows–locally documented in a maintained grass access road with shoulders on diabase rock at Dinosaur Rock Natural Area, SGL # 145, Lebanon County–this plant species was found on August 31, 2014–**NOTE: Please search only nearby potential suitable habitats in South Londonderry Township, Lebanon County-**
- A survey for the above species should be conducted by a qualified botanist *at the appropriate time of year and then submitted to our office for review*. **Your botanist should carefully review the new DCNR Botanical Survey Protocols available at <http://www.gis.dcnr.state.pa.us/hgis-er/Login.aspx>. These protocols are recommended to ensure that the all necessary information is collected and that survey reports are prepared properly. It is the expectation of DCNR that these protocols will be followed when conducting surveys for species under our jurisdiction.**

- Your botanist should *fill out the field survey form while performing their survey*: [http://www.gis.dcnr.state.pa.us/hgis-er/hgis/Internet%20Field%20Survey%20Form\\_2007.pdf](http://www.gis.dcnr.state.pa.us/hgis-er/hgis/Internet%20Field%20Survey%20Form_2007.pdf). Contact our office prior to the survey for detailed information about the species, or for a list of qualified surveyors.
- Any target and non-target state-listed species found during the site visit should be reported to our office. Mitigation measures and monitoring may be requested if species or communities of special concern are found on or adjacent to site.
- If more information becomes available and/or a habitat assessment is conducted, and potential suitable habitat for the above species is not present in the project site or will not be impacted, then contact me at [c-frsechle@pa.gov](mailto:c-frsechle@pa.gov) or 717-705-2819 and I can reissue a no impact letter.
- If the land type(s) does not exist onsite a survey may not be necessary; please submit a habitat assessment report which describes the current land cover, habitat types and species found onsite.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

***Please be advised that the following still applies to the Atlantic Sunrise Expansion Project:***

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. In May 2014, DCNR requested botanical surveys for PA T & E and plant species of concern by county. Botanists Eric Burkhart, Loree Speedy, and Mallory Gilbert conducted botanical surveys for target species of each county between June and December 2014. Botanists observed populations of *Scirpus ancistrochaetus* (northeastern bulrush), *Tipularia discolor* (crane fly orchid), and *Oxypolis rigidior* (stiff cowbane). The populations of these three plant species are located outside the limit of disturbance for the project and will not be impacted by this project. Therefore, based on botanical surveys for the areas that have been surveyed in 2014, and avoidance of the populations of *S. ancistrochaetus*, *T. discolor*, and *O. rigidior*, the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for these areas of the project that were surveyed in 2014. **As a reminder, this letter does not provide clearance for areas that were not surveyed in 2014, and DCNR will look forward to the 2015 botanical report for these areas.**

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**Should you have any questions or concerns, please contact Frederick Sechler, Jr., Ecological Information Specialist, by phone (717-705-2819) or via email ([c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)).**

Sincerely,



Greg Podnieszinski, Section Chief  
Natural Heritage Section  
DCNR Bureau of Forestry

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BUREAU OF FORESTRY

May 28, 2015

**PNDI Large Project Number: 022446**

Justin A. Zoladz  
Ecology and Environment, Inc.  
368 Pleasant View Drive  
Lancaster, PA 14086  
Email: [jzoldaz@ene.com](mailto:jzoldaz@ene.com), CC: Ryan Nelson, [ryann@whmgroup.com](mailto:ryann@whmgroup.com) (hard copy not to follow)

Re: Atlantic Sunrise Expansion Project (reroute) and added Chapman Loop  
Multiple Townships, Clinton, Columbia, Lancaster, Lebanon, Luzerne, Lycoming, Schuylkill, Susquehanna, and Wyoming Counties

Dear Mr. Zoladz,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Large Project Number **022446** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**No Impact Anticipated for Chapman Loop**

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Scientific Name	Common Name	PA Current Status	PA Proposed Status
<i>Rudbeckia fulgida</i>	Eastern coneflower	Not listed	Threatened

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DCNR requests a **targeted survey** for the following species:

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- Your botanist should *fill out the field survey form while performing their survey*: [http://www.gis.dcnr.state.pa.us/hgis-er/hgis/Internet%20Field%20Survey%20Form\\_2007.pdf](http://www.gis.dcnr.state.pa.us/hgis-er/hgis/Internet%20Field%20Survey%20Form_2007.pdf). Contact our office prior to the survey for detailed information about the species, or for a list of qualified surveyors.
- Any target and non-target state-listed species found during the site visit should be reported to our office. Mitigation measures and monitoring may be requested if species or communities of special concern are found on or adjacent to site.
- If more information becomes available and/or a habitat assessment is conducted, and potential suitable habitat for the above species is not present in the project site or will not be impacted, then contact me at [c-frsechle@pa.gov](mailto:c-frsechle@pa.gov) or 717-705-2819 and I can reissue a no impact letter.
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This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

**Should you have any questions or concerns, please contact Frederick Sechler, Jr., Ecological Information Specialist, by phone (717-705-2819) or via email ([c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)).**

Sincerely,



Greg Podnieszinski, Section Chief  
Natural Heritage Section  
DCNR Bureau of Forestry

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## MacLeod, Steven

---

**From:** Zoladz, Justin A.  
**Sent:** Wednesday, July 01, 2015 1:43 PM  
**To:** MacLeod, Steven  
**Subject:** FW: PNDI Large Project Number 022297  
**Attachments:** 022446  
\_Clinton\_Lebanon\_Lancaster\_Columbia\_etc\_survey\_plus\_NI\_Chapman\_Loop\_FCS\_letter.pdf

**Categories:** Agency Communication

**From:** Sechler, Frederick [<mailto:c-frsechle@pa.gov>]  
**Sent:** Thursday, May 28, 2015 1:28 PM  
**To:** Zoladz, Justin A.  
**Cc:** Ryan Nelson ([ryann@whmgroup.com](mailto:ryann@whmgroup.com))  
**Subject:** RE: PNDI Large Project Number 022297

Good afternoon Justin,

I apologize for the huge delay in responding back to you. Please find attached the PNDI no impact (partially) clearance letter for the Chapman Loop and rerouted Atlantic Sunrise Expansion Project. There were no PA T & E or plant species of concern within the environmental review area of the Chapman Loop in Clinton County.

However, after reviewing the reroutes in Lancaster through Susquehanna County, there appears to be one plant species that has been found relatively close to this proposed project in the past year. *Rudbeckia fulgida* (eastern coneflower), was found within SGL # 145 in South Londonderry Township in Lebanon County last year. Since there is potential habitat within the proposed project area, I have added a survey request for this species to be conducted only in South Londonderry Township. If this portion of the proposed project has already been surveyed in 2014, let me know, and I can take out the survey request for this species in this area. I could not discern whether this area was surveyed or not. No other new plant species could be found in any additional counties to be added to the already survey list that you have.

Thanks and please feel free to contact me with any questions or concerns.

Best,

Frederick

Frederick C. Sechler Jr| Ecological Information Specialist  
PA Department of Conservation & Natural Resources  
Bureau of Forestry | Natural Heritage Section  
400 Market Street | Harrisburg, PA 17105  
Phone: 717.705.2819 | Fax: 717.772.0271  
E-mail: [c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)

---

**From:** Zoladz, Justin A. [<mailto:JZoladz@ene.com>]  
**Sent:** Tuesday, May 12, 2015 11:02 AM  
**To:** Sechler, Frederick  
**Subject:** RE: PNDI Large Project Number 022297

Frederick,

I understand the delay in your response and no apology is necessary. Please find the attached zip file of the current project features which includes the centerline of the Chapman Loop in Clinton County. To allow it to pass the e-mail filter, I have renamed it to a “.piz” file extension. To unzip it, please copy it to your computer and change the field extension back to “.zip” and extract it as you normally would.

As I had previously mentioned, the Chapman Loop replacing the Grugan Loop was one of the significant changes since the Project initially filed the PNDI submittal. These files also contain the centerline for the rest of the Project, as well as . Since the PNDI submittal, there have been changes to other parts of the route greater than one mile, especially in Lebanon and Lancaster counties. Please also review that we are not missing any other species in those areas either.

Thank you,



Justin A. Zoladz, *Biologist*

368 Pleasant View Drive, Lancaster, NY 14086

Phone: 716-684-8060 • Cell: 716-560-4585

[jzoladz@ene.com](mailto:jzoladz@ene.com) • [www.ene.com](http://www.ene.com)

---

**From:** Sechler, Frederick [<mailto:c-frsechle@pa.gov>]

**Sent:** Tuesday, May 12, 2015 9:10 AM

**To:** Zoladz, Justin A.

**Subject:** RE: PNDI Large Project Number 022297

Hi Justin,

I very much apologize for the delay in response. We have had some staff changes and the recent listing of the NLEB has kept us busy within the past week.

I have searched for shapefiles for the Clinton County portion of the project (Grugan Leidy Loop), and I can't seem to find them. Could you possibly send the updated shapefiles for this portion of the project? Thanks so much. Emilee Boyer left in early January, and there is no evidence of her drawing in the portion of the Clinton County project.

Thanks and I apologize again for the delays.

Best,

Frederick

Frederick C. Sechler Jr| Ecological Information Specialist

PA Department of Conservation & Natural Resources

Bureau of Forestry | Natural Heritage Section

400 Market Street | Harrisburg, PA 17105

Phone: 717.705.2819 | Fax: 717.772.0271

E-mail: [c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)

---

**From:** Zoladz, Justin A. [<mailto:JZoladz@ene.com>]

**Sent:** Tuesday, May 05, 2015 5:18 PM

**To:** Sechler, Frederick

**Subject:** PNDI Large Project Number 022297

Dear Mr. Sechler,

I am writing to you about the Atlantic Sunrise Project (PNDI 022297). On April 2<sup>nd</sup>, we received a letter from your office that they had reviewed our 2014 SOSC survey report and determined no effect on the species found to date.

In that report, it was noted that we had not conducted surveys on the Clinton County portion of the Project because the Project component in that county had significantly moved since the initial PNDI submittal. It moved approximately 5 miles further west. After an August 19, 2014 meeting with Emilee Boyer, we submitted updated shapefiles of the Project area on August 22, 2014, as requested. It highlighted all changes greater than one mile since the original PNDI submittal. We have still not received a response from that submittal.

The initial PNDI response for the county when the Project component was 5 miles east came up with the following species:

Target Species for Clinton County			PNDI # 22297			
Species Name	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Optimal Survey Time	Potential Habitat
<i>Bartonia paniculata</i>	Screw-stem	N	PR	OBL	flowers August - October	bogs and peaty lake margins
<i>Lupinus perennis</i>	Lupine	PR	PR	n/a	flowers April - July	stream banks, open fields, woods edges, and roadsides in acidic sandy soils
<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	PE	PT	OBL	fruits in July	intermittently wet or inundated depressions

We would like to confirm if this is the same species list for the new location of the Project component in Clinton County. Our botanists are concerned that if DCNR was to add an additional species, we could miss a spring flowering window.

Please let me know at your earliest convenience if this is the same list or of additional species would be added or any of these would be rescinded. Also, if you need another copy of the route modifications since the original PNDI submittal, I would be happy to provide them.

Thank you,

Justin Zoladz, Biologist  
**Ecology and Environment, Inc.**  
 368 Pleasant View Drive, Lancaster, NY 14086  
 Phone: 716-684-8060 x2608 | Mobile: 716-560-4585  
 Fax: 716-684-0844  
[jzoladz@ene.com](mailto:jzoladz@ene.com) | [www.ene.com](http://www.ene.com)

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Message scanned by the Symantec Email Security service. If you suspect that this email is actually spam, please send it as an ATTACHMENT to [spamsample@messagelabs.com](mailto:spamsample@messagelabs.com)



## ecology and environment, inc.

International Specialists in the Environment

BUFFALO CORPORATE CENTER  
368 Pleasant View Drive  
Lancaster, New York 14086  
Tel: (716) 684-8060, Fax: (716) 684-0844

July 29, 2015

Pennsylvania Department of Conservation and Natural Resources  
Bureau of Forestry, Ecological Services Section  
Attn: Rebecca H. Bowen, Section Chief  
P.O. Box 8552  
Harrisburg, PA 17015-8552

Re: Transcontinental Gas Pipe Line Company, LLC. – Atlantic Sunrise Expansion Project  
PNDI Number: 22297  
2015 Interim Botanical Survey Report

Dear Ms. Bowen:

Ecology and Environment, Inc. (E&E), on behalf of Transcontinental Gas Pipe Line Company, LLC (Transco), contracted WHM Consulting, Inc. (WHM) to conduct a botanical survey and habitat assessment for threatened and endangered species, and species of special concern for the above-referenced Project. Enclosed are three (3) copies and one (1) CD of the *Botanical Survey and Habitat Assessment for Threatened, Endangered and Plant Species of Concern - 2015 Interim Report* for your review. The enclosed report provides the interim survey results and proposed mitigation strategies for the occurrences of state-listed plant species found from January 1, 2015 through June 15, 2015.

This report serves as an addendum to the *2014 Survey Results of the Botanical Survey and Habitat Assessment for Threatened, Endangered and Plant Species of Concern – 2014 Survey Report*, dated March 2015. These survey results, as well as any recommendations or comments from the Pennsylvania Department of Conservation and Natural Resources (PA DCNR) regarding the mitigation strategy proposed below, will be incorporated into the 2015 Survey Report scheduled to be completed during the first quarter of the 2016 calendar year.

Please do not hesitate to contact me at (716) 684-8060, or [gnetti@ene.com](mailto:gnetti@ene.com), if you have any questions regarding this submittal. We look forward to continuing consultation with the PA DCNR on all state-listed botanical species associated with Transco's Atlantic Sunrise Project.

Sincerely,  
**ECOLOGY & ENVIRONMENT, INC.**

Greg Netti  
Project Manager

Ms. Rebecca H. Bowen  
July 29, 2015

Enclosures: Interim Botanical Survey Report – July 2015 (3 hardcopies and 1 CD)

CC: Joe Dean, Transco  
Steven MacLeod, E & E  
Ryan Nelson, WHM



## LETTER OF TRANSMITTAL

**Attention:** Frederick Sechler, Jr.  
**Company:** PA Department of Conservation & Natural Resources  
 Bureau of Forestry – Natural Heritage Section

**Address:** 400 Market Street  
**City:** Harrisburg, PA 17105  
**From:** Steven MacLeod  
**Date:** 4 August 2015

**Please be advised  
we are sending the  
following:**

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Draft Text | <input checked="" type="checkbox"/> Enclosed | <input type="checkbox"/> Under separate cover via |
| <input type="checkbox"/> Final Text            | <input type="checkbox"/> Figures/Tables      |   |
| <input type="checkbox"/> Confidential Text     | <input type="checkbox"/> Photographs         |   |
|  | <input type="checkbox"/> Drawings            |   |

Number of copies	Description
1	CD of July 2015 Draft Biological Assessment for the Atlantic Sunrise Project

**These items are being transmitted:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> As requested         | <input type="checkbox"/> To resubmit for approval                |
| <input type="checkbox"/> Approved with corrections noted | <input type="checkbox"/> Returned with corrections               |
| <input type="checkbox"/> To submit for distribution      | <input checked="" type="checkbox"/> For your review and comments |

**Comments:**

Courtesy copy for your consideration, particularly with respect to northeastern bulrush.

**From:** "Sechler, Frederick" <[c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)>

**Date:** August 6, 2015 at 8:45:12 AM EDT

**To:** "'[gnetti@ene.com](mailto:gnetti@ene.com)'" <[gnetti@ene.com](mailto:gnetti@ene.com)>

**Subject:** PNDI Large Project 022446: Atlantic Sunrise Expansion Project 2015 Interim Botanical Survey Report

Greg,

Please find attached the PNDI no impact per mitigation/monitoring clearance letter for the portions of the Atlantic Sunrise project that had botanical inventories conducted between January – June 15, 2015. I wasn't sure if ENE, Inc. needed a clearance letter for the areas that had botanical surveys so far in 2015, but I thought it would be a good idea break up the project to avoid one long, convoluted letter at the end.

Given the fact that both *Aplectrum hyemale* and *Tipularia discolor* have been discussed at the rare plant forum as possibilities for delisting, I believe that only one year of post-monitoring of the relocated individuals of these species is necessary. The one time monitoring effort will give DCNR valuable data in survivorship of trans-located individuals of particular species of orchids.

Thanks and feel free to contact me with any questions or concerns.

Best,

Frederick

Frederick C. Sechler Jr| Ecological Information Specialist  
PA Department of Conservation & Natural Resources  
Bureau of Forestry | Natural Heritage Section  
400 Market Street | Harrisburg, PA 17105  
Phone: 717.705.2819 | Fax: 717.772.0271  
E-mail: [c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)

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BUREAU OF FORESTRY

August 5, 2015

**PNDI Large Project Number: 022446**

Greg Netti  
Ecology & Environment, Inc.  
368 Pleasant View Drive  
Lancaster, NY 14086  
Email: [gnetti@ene.com](mailto:gnetti@ene.com) (hard copy not to follow)

Re: Atlantic Sunrise Expansion Project (Botanical interim report January – June 15 2015)  
Multiple Townships, Multiple Counties

Dear Mr. Netti,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Large Project Number **022446** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**No Impact Anticipated per mitigation/monitoring**

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. Botanists Mallory Gilbert, Eric Burkhart, and Loree Speedy conducted botanical surveys between **January and June 15, 2015** within the proposed pipeline project area. Populations of both *Tipularia discolor* (crane fly orchid) and *Aplectrum hyemale* (puttyroot) were found within and outside the limit of disturbance of the project area. The populations found within the limit of disturbance will be impacted, and the potentially impacted individuals of *T. discolor* and *A. hyemale* will be relocated to areas of suitable habitat with already established populations of these species. A one-time monitoring effort is strongly recommended for the transplanted *T. discolor* and *A. hyemale* individuals to determine the survivorship of these plants. This relocation project will also give DCNR valuable data on transplanted individuals of these species, which is needed for future projects.

In addition, a large population of *Dodecatheon radicans* (jeweled shooting-star) was found outside the limits of disturbance of this project, and there will be no impacts to this population. Also, an additional separate occurrence of *T. discolor* was found outside the limit of disturbance of the project, and no impacts will occur to this population. Finally, a population of *Ilex opaca* (American holly) was found within the project area, but it was determined that this population was not of native origin. Therefore, based on the information you submitted concerning the nature of the project, your agreement to relocate and monitor *T. discolor* and *A. hyemale* individuals to suitable habitat outside the limit of disturbance with an already established *T. discolor/A. hyemale* population, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely per mitigation/monitoring.

**Please note that this PNDI no impact clearance letter is only valid for the areas of the Atlantic Sunrise Expansion Project where botanical surveys were conducted from January through June 15, 2015. Another PNDI determination letter will follow after the botanical report is submitted for botanical inventories remaining to be conducted for 2015.**

DCNR recommends the following steps to help prevent the spread of invasive plant species and to encourage the use of native plants:

- If possible, please clean all construction equipment and vehicles thoroughly (especially the undercarriage and wheels) before they are brought on site, this will remove invasive plant seeds from the equipment and undercarriages of the vehicles that may have been picked up at other sites.
- Avoid using seed mixes that include invasive plant species if the project requires re-vegetating the area. Please also attempt to use weed-free straw or hay mixes when possible. A complete list of all Pennsylvania invasive plant species can be found here: <http://www.dcnr.state.pa.us/forestry/wildplant/invasivelist.aspx>.
- The area of disturbance should be minimized to the fullest extent that would allow for the access road construction project; this will help to lessen the area of indirect disturbance to nearby woodlands.

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This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

**Should you have any questions or concerns, please contact Frederick Sechler, Jr., Ecological Information Specialist, by phone (717-705-2819) or via email ([c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)).**

Sincerely,



Greg Podnieszinski, Section Chief  
Natural Heritage Section, DCNR Bureau of Forestry

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BUREAU OF FORESTRY

February 23, 2016

**PNDI Large Project Number: 022446**

**Greg Netti**  
**Ecology and Environment, Inc.**  
368 Pleasant View Drive  
Lancaster, PA 14086  
Email: [gnetti@ene.com](mailto:gnetti@ene.com) (hard copy not to follow)

Re: Atlantic Sunrise Project (Botanical surveys June 2015 – January 2016)  
Multiple Townships, Clinton, Columbia, Lancaster, Lebanon, Luzerne, Lycoming, Schuylkill, Susquehanna, and Wyoming Counties

Dear Mr. Netti,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Environmental Review Large Project Number **022446** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**No Impact Anticipated per avoidance and mitigation**

PNDI records indicate species or resources under DCNR's jurisdiction located in the vicinity of the project. WHM Consulting, Inc. conducted botanical surveys between June 16, 2015 and January 18, 2016, within the proposed project area. Populations of *Scirpus ancistrochaetus* (northeastern bulrush), *Tipularia discolor* (crane-fly orchid), and *Aplectrum hyemale* (puttyroot) were found within the project study area. The populations of *S. ancistrochaetus* and *T. discolor* will be avoided impacts. However, the population of *A. hyemale* was found within the limit of disturbance, but will be trans-located on-site outside of the limit of disturbance prior to construction (possibly spring of 2016). A one-year monitoring effort will be conducted to determine the survivorship of the trans-located *A. hyemale* plants. Therefore, based the information you submitted concerning the nature of the project, your agreement to avoid impacts to the populations of *S. ancistrochaetus* and *T. discolor*, and mitigate by trans-locating the population of *A. hyemale* and conducting a one-year monitoring effort, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. Please consult USFWS for further coordination on obtaining clearance with regards to the *S. ancistrochaetus* population.

DCNR recommends the following steps to help prevent the spread of invasive plant species and to encourage the use of native plants:

- Avoid using seed mixes that include invasive plant species if the project requires re-vegetating the area. Please also attempt to use weed-free straw or hay mixes when possible. A complete list of all Pennsylvania invasive plant species can be found here: <http://www.dcnr.state.pa.us/forestry/wildplant/invasivelist.aspx>.
- The area of disturbance should be minimized to the fullest extent that would allow for this bridge replacement project; this will help to lessen the area of indirect disturbance to adjacent natural habitat.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

**Should you have any questions or concerns, please contact Frederick Sechler, Jr., Ecological Information Specialist, by phone (717-705-2819) or via email ([c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)).**

Sincerely,

A handwritten signature in black ink that reads "Greg Podnieszinski". The signature is written in a cursive style and is centered within a light gray rectangular box.

Greg Podnieszinski, Section Chief  
Natural Heritage Section, DCNR Bureau of Forestry

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BUREAU OF FORESTRY

August 31, 2016

**PNDI Number: PNDI-608628**

**Justin A. Zoladz**  
**Ecology and Environment, Inc.**  
368 Pleasant View Drive  
Lancaster, PA 14086  
Email: [jzoladz@ene.com](mailto:jzoladz@ene.com), CC: Greg Netti, [gnetti@ene.com](mailto:gnetti@ene.com) (hard copy not to follow)

Re: **Atlantic Sunrise Project (Update–August 31, 2016)**  
Multiple Townships, Lebanon and Lancaster Counties

Dear Mr. Netti,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Number **PNDI-608628** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**\*No Impact Anticipated for CPL South Alternative 22 and 24D routes**

**\*\*No Impact Anticipated per botanical survey/habitat assessment and mitigation plan for areas not surveyed (details below) (UPDATE)**

\* PNDI records do not indicate species or resources under DCNR's jurisdiction located in the vicinity of the project. Therefore, based on the information you submitted concerning the nature of the project, immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for CPL South Alternative 22 and 24D routes.

\*\*PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. As ongoing botanical surveys continue for the Atlantic Sunrise project, Eric Burkhart of WHM, Inc. conducted a botanical survey for *Ilex opaca* (American holly), and a habitat survey for *Gentiana villosa* (striped gentian) within the Lancaster 2 survey area in Lancaster County. A population of *I. opaca* was found, but the population is a naturalized population, and therefore, no conservation recommendations are needed. No suitable habitat was found for *G. villosa* within the proposed project area. Botanical surveys for *Tipularia discolor* (crane fly orchid) will occur in late fall when the plant species is most identifiable. In addition, two additional parcels, Lancaster Survey Area 4, and Lebanon Survey Area 1, have not been given permission for access. Transco is continuing to pursue access for the parcels in Lancaster Survey Area 4 and Lebanon Survey Area 1. However, access may not be granted until after FERC issues a Certificate for the Project. In this event, Transco has developed a mitigation plan as outlined in the May 24, 2016 DCNR letter to ensure that potential impacts to state-listed plant species are addressed.

In summary, Transco will continue to follow the approved mitigation plans, transplanting the *T. discolor* (crane fly orchid) and *Aplectrum hyemale* (puttyroot) at multiple locations, and also completing pre-construction surveys as identified in the May 24, 2016 from DCNR.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Frederick Sechler, Jr., Ecological Information Specialist, by phone (717-705-2819) or via email ([c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)).

Sincerely,

A handwritten signature in black ink that reads "Greg Podnieszinski". The signature is written in a cursive style and is centered within a light gray rectangular box.

Greg Podnieszinski, Section Chief  
Natural Heritage Section, DCNR Bureau of Forestry

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BUREAU OF FORESTRY

May 24, 2016

PNDI Large Project Number: 022297

**Greg Netti**  
**Ecology and Environment, Inc.**  
368 Pleasant View Drive  
Lancaster, PA 14086  
Email: [gnetti@ene.com](mailto:gnetti@ene.com) (hard copy not to follow)

Re: **Atlantic Sunrise Project (Update—May 24, 2016)**  
Multiple Townships, Lebanon and Lancaster Counties

Dear Mr. Netti,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Large Project Number **022297** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources of concern under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

**No Impact Anticipated per botanical survey/habitat assessment and mitigation plan for areas not surveyed (details below)**

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. As ongoing botanical surveys continue for the Atlantic Sunrise project, Eric Burkhart of WHM, Inc. conducted a botanical survey for *Ilex opaca* (American holly), and a habitat survey for *Gentiana villosa* (striped gentian) within the Lancaster 2 survey area in Lancaster County. A population of *I. opaca* was found, but the population is a naturalized population, and therefore, no conservation recommendations are needed. No suitable habitat was found for *G. villosa* within the proposed project area. Botanical surveys for *Tipularia discolor* (crane fly orchid) will occur in late fall when the plant species is most identifiable. In addition, two additional parcels, Lancaster Survey Area 4, and Lebanon Survey Area 1, have not been given permission for access. Transco is continuing to pursue access for the parcels in Lancaster Survey Area 4 and Lebanon Survey Area 1. However, access may not be granted until after FERC issues a Certificate for the Project. In this event, Transco has developed the following mitigation plan to ensure that potential impacts to state-listed plant species are addressed. The mitigation plan considers the following two possible scenarios related to survey access and timing:

**1. Transco is granted access in time to complete surveys during the appropriate survey window and prior to the scheduled start of construction:**

- a. If the species is not found within the LOD, survey findings will be reported to DCNR and construction will proceed immediately;
- b. If the species is identified within the LOD, Transco will transplant individuals to areas with suitable habitat adjacent to the LOD prior to construction.

**2. Transco is not granted access in time to complete surveys during the appropriate survey window prior to the scheduled start of construction. In this case, Transco will conduct a habitat assessment.**

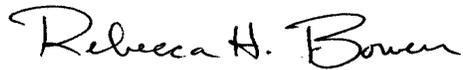
- a. If suitable habitat is not present within the LOD, survey findings will be reported to DCNR and construction will proceed immediately;
- b. If suitable habitat is present within the LOD, Transco will assume presence, purchase plants or seeds, and plant the species in suitable habitat adjacent to the LOD during post-construction.

Therefore, based on botanical surveys and habitat assessment for the areas that have been conducted in May 2016, the botanical survey to be conducted in Fall of 2016 for *T. discolor*, and the mitigation plan for the parcels not yet surveyed and given permission to access (as explained above), the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for these areas of the project that have been surveyed in 2016, and for the mitigation described in the plan above. However, if botanical surveys are able to be conducted via granted access, DCNR requests a botanical report for these areas.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

**Should you have any questions or concerns, please contact Frederick Sechler, Jr., Ecological Information Specialist, by phone (717-705-2819) or via email ([c-frsechle@pa.gov](mailto:c-frsechle@pa.gov)).**

Sincerely,



Rebecca H. Bowen, Section Chief  
Pennsylvania Natural Heritage Program  
Bureau of Forestry, Ecological Services Section