Summary of DEIS (Draft Environmental Impact Statement) Prepared by LAP Members May 2016

Review of Executive Summary and Introduction

Marita Hines-Executive Summary and Introduction (ES1-ES15, 1.1-1.10)

Atlantic Sunrise Project
Docket CP15-138=000
Prefiling Docket PF14-8-000
EIS is requirement of National Environmental Policy Act of 1969

Timeline:

4/4/14	Prefiling Initiated
3/31/15	Application filed by Transco
7/18/14	FERC announced plans to issue EIS
8/4/14-8/7/14	Public Scoping Meetings held
10/22/15	FERC notified additional landowners of alternate routes that they had 30 days to comment
5/5/16	DEIS published
6/27/16	DEIS comment deadline
Feb 2017	Estimated start of construction
Feb or Mar 2018	Estimated in-service date

FERC is the agency that prepared the DEIS and US Army Corp of Engineers is reviewing.

Purpose and Need:

States the gas is going to "existing" markets described as shippers. There is nothing in the DEIS about the end users. Note: Shippers are just another transporter to the final destination. How are exports considered existing markets? Also the EIS states that it will not determine whether the need for the project exists because it will later be determined by the Commission. Note: Why isn't the actual need for the project addressed in the DEIS?

Purpose and Scope of DEIS:

- identify and assess the potential impacts on the natural and human environment
- describe and evaluate reasonable alternatives to avoid or lessen effects while still meeting objectives
  Note: how is this possible with so much information missing including alternative routes
- identify and recommend mitigation measures
- encourage and facilitate involvement of the public and agencies in review process
  Note: Without ALL of the information and final route, how can public provide feedback. The public comment meetings also do not allow for the public to get answers, only to vent.

Proposed action:

The Project includes about 197.7 miles of pipeline composed of the following facilities:

- 183.7 miles of new 30- and 42-inch-diameter greenfield**3** natural gas pipeline known as Central Penn Line (CPL) North and CPL South in Pennsylvania;

- 11.5 miles of new 36- and 42-inch-diameter pipeline looping**4** known as Chapman and Unity Loops in Pennsylvania;
- 2.5 miles of 30-inch-diameter replacements in Virginia; and
- associated equipment and facilities.

The Project's aboveground facilities include:

- two new compressor stations in Pennsylvania;
- additional compression and related modifications to three existing compressor stations in Pennsylvania and Maryland;

Public meetings scheduled below. Speaker sign-up at 6:30 p.m. and meeting will begin at 7:00 p.m. and end at 10:30 p.m. Note: May be a 3-minute time limit!

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

DEIS Deficiencies Required by end of comment period:

- Transco has to provide additional justification for additional temporary workspaces at several locations near wetlands.
- Incorporate four of the minor alternative routes into the proposed route and provide additional information on four route deviations currently under review prior to end of EIS comment period.

Other DEIS Deficiencies:

- Fall hibernacula survey results and avoidance/mitigation measures have not been provided for the Indiana and northern long -eared bats.
- Results of Transco's consultation with PA DEP and any updates to its Abandoned Mine Investigation and Mitigation Plan.

- For HDD Transco has to provide all outstanding geotechnical feasibility studies for the crossing locations and identify the mitigation measures to be implemented to minimize drilling risks. Also asking for site-specific contingency crossing plans for an open-cut crossing where HDD fails.
- Because the project will cross source water protection areas, Transco has to complete a plan for notification in consultation with surface water intake operaters.
- Transco provide documentation of its correspondence with the PA Game Commission and PA DCNR and avoidance/mitigation measures developed with these agencies regarding State Game Land and Sproul State Forest crossings regarding potential impacts on and restoration of wildlife habitat in affected areas.
- Provide any updated consultations with the FWS regarding migratory birds, and include any additional avoidance or mitigation measures developed in a revised Migratory Bird Plan, if applicable.
- Results of mussel surveys conducted within the Susquehanna River and any additional avoidance or mitigation measures in Transco's site specific HDD contingency crossing plans.
- For residences within 10 feet of construction work area, Transco should file revised site-specific residential plans.
- update on status of site-specific crossing plans for each of the recreation and special interest areas listed as being crossed or otherwise affected by the Project, including site-specific timing restrictions, proposed closure details and notifications, specific safety measures, and other mitigation to be implemented.
- Transco working with Natural Resources Conservation Service, Farm Service Agency and landowners to identify conservation easements and develop restoration measures to ensure enrolled properties remain eligible to participate in the programs. They will negotiate compensation of fees or penalties, taxes, if tract determined to be ineligible for a program. Note: What if they are not? What about the fact that this type of activity is prohibited?
- Recommending Transco file updated information regarding an identified landfill, including mitigation measures to avoid the site or in the event that contamination is encountered.
- Detailed description of the proposed communication towers associated with Compressor Station 605, the River Road Regulator Station and Compressor Station 610 along with mitigation measures to minimize portions visible by nearby residences, along with assessment of visual effects resulting from construction of the two new communication towers. Landowner comments regarding design and visual screening at Compressor Station 610.
- Consultation with ELRC Development to minimize impact and report to the secretary.
- Incorporate CPL South Alternative 10A into proposed route (Goodleigh Manor Subdivision)
- Complete appropriate surveys and/or consultation with PA Game Commission, PA Fish and Boat Commission, or VA Dept of Game and Inland Fisheries and file survey results and avoidance or mitigation measures for 5 state-listed animal species (Allegheny woodrat, eastern small-footed bat, brook floater, bald eagle, and timber rattlesnake) and 5 state-listed plant species (jeweled shooting-star, American holly, cranefly orchid, puttyroot, and stiff cowbane).

Transco has field surveyed about 83% of the proposed pipeline route. Surveys for those who have not been given permission will be done once eminent domain is permitted (issuance of certificate).

There are 90 private wells within 150 feet of construction area. Transco will self-report any complaints about water contamination and how they are resolved. Note: We see how well this works in the shalefields. Who will monitor this reporting? There doesn't seem to be a

requirement for pretesting of water which is one reason industry has been able to avoid taking responsibility for contaminations.

Pipeline will cross 331 waterbodies, 5 of them more than 100 feet wide. Will use trenchless crossing method (conventional bore or HDD for 8 of them) including Susquehanna and Conestoga. Dry crossing methods (dam and pump; flume) for 274 waterbodies, and a wet open-cut crossing method for 8.

In PA the Project would cross 171 waterbodies that contain sensitive fisheries and Transco will cross all but 4 of these using a dry crossing method.

Construction would affect 50.4 acres of wetlands, 44 acres for construction and would be temporary. Fifty-one of the wetlands are classified as exceptional value, with 15 containing a forest component.

Project would affect vegetation communities of special concern, including a Hemlock/Mixed Hardwood Palustrine Forest Community, the Safe Harbor East Woods - County Natural Heritage Inventory, and 45 interior forests. Transco states they minimize this effect on interior forests by routing close to existing rights of way - 45% for CPL North, 11% for CPL South and 100% Chapman Loop and Unity Loop.

There are 8 federally listed species and 5 state listed species in project area. The project is likely to adversely affect the northern long-eared bat and northeastern bulrush.

A number of other candidate, state-listed or special concern species were potentially present but not found during surveys. Note: were the surveys taken during the correct time of year? I recall comments to the contrary.

Transco identified 410 architectural resources and 31 archaeological sites (including 6 prehistoric and 12 multicomponent) within area of direct impact. PA State Historic Preservation Office recommended 41 resources for further investigation in order to determine their potential National Register of Historic Places eligibility, 3 additional resources are reported as potential historic agricultural districts that would require review as part of Phase II investigations. Of the 31 archaeological sites, the PSHPO stated 2 sites are potentially eligible for the NRHP and should be avoided or Phase II site evaluation would be necessary.

Several tribes and organizations requested additional consultation or information and Delaware Nation requested mitigation of sites that cannot be avoided in Lancaster County.

Proposed construction zone is within 50 feet of 90 residential structures. Some are within 10 feet.

Construction of the Project would affect about 3,905.8 acres of land. Permanent operations would require about 1,208.3 acres of land.

Transco is proposing to hire an agricultural inspector to ensure land is restored to original use and crop yields. Note: Who is this expert? We have at least one landowner who says it is never fully restored.

Prior to construction, Aids to navigation plans have to be submitted to PA Fish and Boat Commission as part of state permitting process for 23 waterbody crossings in PA.

Emissions associated with the Project would contribute to cumulative air quality impacts. Also states that there is a potential cumulative improvement regionally when natural gas displaces more polluting fossil fuels. (No mention of Methane)

The "No Action" alternative is not being selected because the stated objectives of Transco's proposal would not be met.

Tom Torres -Proposed Action (2.1-2.18)

Bob Lowing-Alternatives (3.1-3.51)

To: Office of Energy Projects
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC. 20426
From: Robert Lowing
Lancaster, PA
Re: Draft Environmental Impact Statement
Atlantic Sunrise Project.
Docket No. CP15-138-000
Date: 14 May 2016

An Analysis of Volume 1, Alternatives. pages 3.0 – 3.5
3.0 ALTERNATIVES (pages 3-1 to 3-2)

This section of the OEP analysis evaluates alternatives to the ASP to determine…"whether an alternative would be environmentally preferable and/or technically and economically feasible to the proposed actions while still meeting the project objectives." From the outset, the OEP states that the analysis should meet the project objectives of TRANSCO:

1. "Does the alternative have the ability to meet the objectives of the proposed action?

2. "Is the alternative technically and economically feasible and practical?

3. "Does the alternative offer a significant environmental advantage over the Project?"

Transco's stated objectives are to "provide an incremental 1.7 MMDth/d of year-round firm transportation capacity from the Marcellus Shale production area in northern Pennsylvania to its existing market areas, extending as far south as its Station 85 Pooling Point in Choctaw County, Alabama; and" to "provide its customers and the markets that they serve with greatly enhanced access to Marcellus Shale supplies, including new north-to-south delivery capability."

Introduction

I ask that FERC require the applicant to restudy the system alternative pipeline routes and the major route alternatives, specifically the Western CPL South Alternative

routes 2 and 3 because of their co-location to existing natural gas pipeline infrastructure already in place in York County.

Issues relating to geology; soils; water; wetlands; vegetation; wildlife and aquatic resources; Land use recreation, and visual resources; Socioeconomics; cultural resources; air quality and noise; reliability and safety, and cumulative impacts are found in Section 4.0.

The DEIS concludes that the generation of electricity from renewable energy sources or increased energy efficiency and conservation are not transportation alternatives, and they will not be evaluated further in this study.

LIMITATIONS OF THE FERC ANALYSIS
The methodology employed in the DEIS analysis is based on information provided by TRANSCO and reviewed by the FERC staff. The document states that :

"Unless otherwise noted, we used the same desktop sources of information to standardize comparisons between the Project and each alternative."

I would comment that there are no impartial references cited in Volume 2, Appendix Q, page 447.

THE DEIS NEEDS ADDITIONAL SUPORTING INFORMATION
FERC places an emphasis on constructing pipeline routes aligned with and/or co-located with existing right of ways. I would encourage FERC to the study published by the US Department of Energy,
The DOE study: " Key Finding 1:
" Diverse sources of natural gas supply and demand will reduce the need for additional interstate natural gas pipeline infrastructure." "Natural Gas Infrastructure Implications of Increased Demand from the Electric Power Sector, " February 2015. (Page v)3.2 System Alternatives:

In this section, the proposing of System Alternatives (p. 98) "would utilize existing, modified, or other proposed natural gas systems to meet the objectives of the Project." The purpose of this approach is "to determine whether the environmental impacts…could be avoided or reduced by using another pipeline system, while still meeting the objectives of the proposed action." (p. 98)

The DEIS goes on, “A viable system alternative to the Project would have to provide the pipeline capacity necessary to transport an additional 1.7 MMDth/d of natural gas at the contracted volumes from the production areas of northern Pennsylvania to the delivery points required by the precedent agreements signed by the Project Shippers. A viable system alternative would need to provide these services within a timeframe reasonably similar to the Project.” Ibid.

The DOE study supports this analysis by the DEIS, by stating

“Key Finding 2: “Higher utilization of existing interstate natural gas pipeline infrastructure will reduce the need for new pipelines” (DOE page vi).

The DEIS methodology is in agreement with the DOE recommendation to utilize existing natural gas infrastructure.

Thus, FERC accepts the option of modifying Transco’s proposal, but FERC is still constrained by assuring Transco that the proposal will be approved.

However, this does not guarantee that either FERC or TRANSCO are seeking to reduce the need for new pipelines such as the Atlantic Sunrise Project.

3.2.1 Status of Existing Systems.

The DEIS identifies four existing interstate pipeline systems “ in the vicinity of the Project.” Among them, the Texas Eastern Transmission system, which is discussed later in this study with regards to co-location of existing right of ways west of the Susquehanna River. (Page 99)**3.2.2 Proposed Systems**

Comment: The DEI analysis mentions the PennEast Project Proposal but it does not mention Transco’s own Leidy Southeast Project.

“PennEast Project.

Penneast held an Open Season for its project from August 11 to 29, 2014, and has executed long-term, binding precedent agreements with 12 shippers for about 90 percent of the firm transportation capacity (i.e. 990,00 Dth/day)

“The PennEast Project would not have the capacity to transport the volume of natural gas required by Transco’s shippers.

“This would require constructing at least 80 miles of additional pipeline, which would result in much greater environmental impact than the Project.

“The DEIS concludes that the PennEast Project would not be preferable or provide an environmental advantage over the Project.” (DEIS 99)

The Leidy Southeast Project. (Transco)

The Leidy Southeast provides additional capacity to take Marcellus natural gas to Transco's mainline, that extends from Texas to New York. From there, the natural gas serves the Mid Atlantic market areas as well as the Gulf Coast. **Draft%20EIS/References/Major%20alternatives/New%20pipeline%20projects%20increase%20Northeast%20natural%20gas%20takeaway%20capacity%20-%20Today%20in%20Energy%20-%20U.S.%20Ener.webarchive**

The Leidy Southeast Expansion Project will increase the Transco pipeline's capacity by 525,000 dekatherms of natural gas per day (enough natural gas to serve about 2 million homes). The project will involve the construction of approximately 30 miles of additional pipe segments, called loops, in Pennsylvania and New Jersey, in addition to modifying some existing pipeline facilities. **https://leidysoutheast.wordpress.com/**

Comment: Thus, the DEIS should include the Leidy Southeast Project (TRANSCO) in this section to fully reveal the future capacity of this alternative.

3.2.3 Transco System Alternative.

FERC explains that they have received many comments about finding an alternative route that would avoid a greenfield pipeline construction project. (page 101)

The existing Transco System pipeline system, in addition to the proposed Leidy Pipeline System and the Penn East System to transport natural gas may be considered as an Alternative, because it meets the objectives of the Proposed Project listed below.

The objectives of the Atlantic Sunrise Project are stated above:

A *comparison of the Proposed Project to the Transco System alternative.*

1. Similar to the Project, the Transco System Alternative would require the construction of the Chapman Loop, Unity Loop, CPL North pipeline between the Zick Meter Station and the North Diamond Regulator Station, installation of additional compression at Compressor Stations 520 and 517, and replacement of 2.5 miles of pipeline in Virginia.

2. The TRANSCO System Alternative is about 50 miles longer that the Proposed Project.

3. The TRANSCO System Alternative is 91% co-located with existing ROW. The Proposed Project is 28% or 54.6 miles co-located as of 5/16 ?

4. Compressor stations

5. The TRANSCO System Alternative crosses 89.9 mi. of Forestland; the Proposed project crosses 80.8 miles.

6. The TRANSCO System Alternative crosses 75.5 miles of agricultural land; the Proposed Project crosses 95 miles of Ag.

7. The have 768 in the Alternative route within 100' of the pipeline while the Project has 55 residences within 100' of the pipeline;.

8. The same number of waterbodies are crossed.

9. The TRANSCO System Alternative crosses 5 waterbodies > 100feet: The Proposed Project crosses 5.

10. The TRANSCO System Alternative crosses 143 miles of Wetlands; The Proposed Project crosses 23 miles of wetland.

Comments:
The criteria of the EIS and the DOE findings encourage the utilization of existing and modified infrastructure, supporting the implementation of the Transco System Alternative.
The comparative analysis is PARTLY INVALID. The Proposed Project would add to the amount of forestland crossings, agricultural land crossings, because these are features that already exist in the current Transco System of transport.
The EIS states that the construction of Loops, compressor stations, and some additional pipeline are similar to both the Transco System Alternative and the Proposed Project, therefore these new construction features are required in each,
Figure 3.2.3-1: The ASP Project Map showing the Transco System Alternative is not helpful. The Transco System Alternative route is illegible without special magnification. It does not clearly display what lines are existing and what needs to be built. The status of the Leidy Southeast Expansion and its location is not clear. (See page 100)
Conclusion: The Transco System Alternative has several advantages that support the objectives of the Project status quo, amplified by the benefits of the general practice of co-location and that the Proposed Project only adds to harmful environmental effects of the current situation.

3.3 ALTERNATIVE PIPELINE ROUTES

The EIS distinguishes between major and minor route alternatives. Minor route deviations generally stay within the same general area as the proposed route.

3.3.1 Major Route Alternatives

This report limits itself to the CPL South Alternatives 2 and 3.
Western CPL South Alternatives 1, 2, and 3

These three are major route Alternatives to the Atlantic Sunrise Project that we would ask FERC to encourage TRANSCO to re-evaluate by the end of the comment period, June 27.

The EIS cites the difficulty of crossing the Susquehanna River twice, once in

Columbia County and again in Lancaster County. The DEIS states that "Assuming the second crossing of the Susquehanna River is installed using the HDD technique, there would be challenges associated with these crossings due to limited workspace or differences in elevation." (page 110)

However, there are already five pipelines crossing the Susquehanna River in that vicinity which suggests, pragmatically, that other river crossing methods should be proposed by the end of the comment period.

The Draft EIS describes the route as follows: "The Western CPL South Alternative (Alternative 1) is an alternative to the proposed CPL South alignment. Alternative1 begins in Lycoming County, Pennsylvania and proceeds south across Lycoming, Columbia, Montour, Northumberland, Schuylkill, Dauphin, Lancaster, and York Counties. The Alternative 1 alignment is about 6 to 12 miles west of the proposed route and terminates at Transco's existing Compressor Station 195 in York County, Pennsylvania.

"During the pre-filing period, we received comments from Patrick Kelsey (see requesting that we evaluate alternative alignments that incorporate segments of the proposed route and Alternative 1, which we have identified as the Western CPL South Alternative 2 (Alternative 2) and the Western CPL South Alternative 3 (Alternative 3). **(**Page 107)

Comment: The decision not to take action on the three Alternative Routes that terminated at the Compressor station in York County and to terminate the chosen proposed route at a regulator connection in Drumore Township was controversial. To many, it seemed impractical to overlook the advantage of terminating the route in an established compressor station in York County.

TABLE 3.3.1-3

A Comparison of the Western CPL South Alternative 3 to the Proposed Route.

Comment: The discussion about the technical challenges involved in crossing the Susquehanna River northwest of Marietta, PA <u>assumes</u> the second crossing at Marietta would be made using the HDD technique. Require TRANSCO to address that assumption, whether it is false or implicit, particularly because several other Pipeline Companies have successfully crossed the river using the trench method.

Comparison of the Western CPL South Alternatives 1, 2, and 3 to the Proposed Route for the Atlantic Sunrise Project

Comment: The EIS uses total mileage figures to compare the entire length of the Alternative to the Proposed Route in the Draft EIS Table 3.3.1-3, (page 107) making an exact comparison of the length of the two segments extremely difficult. Therefore, we will use information gathered from

Patrick Kelsey's filing on page 5. (20141009)

The CPL South Marietta Extension Alternative is 4.8 miles longer in corresponding length to the CPL South Primary Route to the Transco main line.

The CPL South Marietta Extension Alternative is adjacent to an Interstate Pipeline ROW for 22.1 miles longer that the CPL South Primary Route.

Returning to the Draft EIS analysis that compares the environmental factors of Western CPL South Alternative 3 to the Proposed Route, Table 3.3.1-3 reveals the following:

Altrnative 3 is 8% more adjacent to existing rights-of-way.

Alternative 3 crosses 2.5 more miles of forestland.

Alternative 3 crosses 1.8 miles less of agricultural land.

Alternative 3 is 3 miles longer that the Proposed Route.

The Proposed Project crosses 13 fewer water bodies.

The Proposed Project crosses 0.01 mile less developed land.

Both alternatives cross three waterbodies greater than 100 feet wide.

Comment: The Draft EiS alludes to "Alternative 3 would similar routing issues near Yorkana" (York County). TRANSCO should provide a map addressing those issues and possible mitigation of those issues..

Comment: The draft EIS of Alternative 3 does not Include the important environmental factor of residences within 50 feet of the pipeline center point.

Comment: Evidently FERC has made some sincere efforts to incorporate Patrick Kelsey's CPL South Marietta Extension Alternative into the Western CPL South Alternatives 2 and 3. We would ask that this entire section of the Draft EiS report be revised to emphasize the advantages of co-location of pipe line right of ways.

Comment: The EIS report does not explain why it is not better to terminate the CPL South pipeline at the York County Compressor Station.

3.3.2 MINOR ROUTES ALTERNATIVES (PAGE 111)

"During the initial route identification process, Transco attempted to collocate with existing rights- of-way where practicable and feasible. Transco's initially planned pipeline route crossed the well head protection area of public water supply wells owned and operated by the Elizabethtown Area Water Authority (EAWA), Shenk's Ferry

Wildflower Preserve, and Tucquan Glen Nature Preserve in Lancaster County, Pennsylvania." (DEIS Page 111)

Shenk's Ferry et.al. are primarily part of a system of glens along the Susquehanna River that cannot be easily developed and so they have been largely left alone for recreation. Although, the glens are cut through with many power lines, opening up right-of ways through the woodland and steep slopes, which, according to desktop analysis, promised to offer ready-made alternatives for co-locating pipelines and electric transmission lines.

Transco's attempt to co-locate the Proposed Project (CPL South) along the existing rights-of-way through Tucquan Glen Nature Preserve, Shenk's Ferry Wildflower Preserve, and the Conestoga River Park mobilized resistance from Farm Preservationists, The Lancaster Conservation Conservancy, and the independently minded people who lived in Conestoga and Martic Townships.

The DEIS document opens this section on Minor Route Alternatives expressing their sympathy for the wildflowers and the hiking trails. On the ground, however, in this document, Williams has moved the Proposed Route out of the pristine glens, creating a newly contested space owned by small landowners who lived on small farms, villages, and housing developments in the woods.

Conestoga Route Alternative

"We recently received comments from 89 Conestoga Township residents suggesting that the initially planned pipeline route across Shenk's Ferry Wildflower Preserve and Tucquan Glen Nature Preserve would be preferable to the proposed route." (DEIS document, Page 112)

In late December, 2015, eighty-nine residents of Conestoga Township made an amazing proposal to move the current pipeline route back, away from their houses, to approximately the same alignment originally proposed by TRANSCO in the spring of 2014. Presumably they were appealing to the general practice of locating new pipelines on the existing power line rights of way. By submitting this proposal, a significant number of County residents firmly proclaimed that their homes were more important than Tucquan Glen Nature Preserve, Pequea Creek Campground, Shenk's Ferry Wildflower Preserve, and the Conestoga River Park. (see 3.3.2 Minor Route Alternatives Page 112).

Comment: This action by Conestoga residents means that when pushed to the limits of unreasonableness, these landowners value their personal property over the very environment that gives rural living its value. Surely, it is an act of desperation. On the positive side, it clearly states that there is no more room for industrial development. When you have to choose between your home and the environment that gives your life meaning, the game is over. There can be no shared or common space.

The DEIS evaluation rejected the proposal. The writer notes that the proposal did indeed follow the alignment similar to the initially planned CPL South pipeline route by TRANSCO in Conestoga Township. The writer applies their

comparative metrics: "it is of similar length to the proposed route," but, the writer objects, "it would cross the Tucquan Glen Nature Preserve, Pequea Creek Campground, Shenk's Ferry Wildflower Preserve, and the Conestoga River Park. In addition, the Conestoga Alternative Route would cross two Pennsylvania scenic rivers (Tucquan Creek and Clark Run)." (Page 111).

Comment: FERC needs to acknowledge that this is a true impasse. There is no more space for a pipeline in Conestoga Township. To proceed will cause real harm to the residents of Conestoga Township or alternatively the few remaining conservation areas. The fact that the DEIS refuses to enter the rights of way is a sign that alternative route requires study.

Comment: FERC should require Transco should ask for a full explanation why a HDD crossing of the Conestoga River at Conestoga Park due to elevation changes is reason to deny the Conestoga Alternative Route when a HDD Crossing of the Conestoga Creek is planned upstream for the Proposed Route at Mile Post 12.1 has similar elevation changes. (ascension number 20150721-5055(30732513)

CONCLUSION:

The Commission honors the principle that impacts, large and small, should be minimized. Given the two studies shown here, the DOE Study that calls for a limited need for additional pipeline infrastructure and the Patrick Kelsey proposal for the CPL South Marietta Extension Alternative, the need to reevaluate the Proposed Project reflecting greater emphasis on co-locating pipelines with existing rights-of-way.

I ask that FERC instruct TRANSCO produce a study using the CPL Western Pipeline Alternatives 2 and 3, showing an environmentally safe right of way in Yorkana Borough in York County before June 27, 2016.

I ask that FERC provide information on the advantages and disadvantages for terminating the ASP pipeline at the Compressor Station 195 located in York County before June 27, 2016.

I ask that FERC encourage TRANSCO to supply a technically feasible way to cross the Susquehanna River near Marietta, PA before June 27, 2016.

Therefore, the Western CPL South Alternative should meet the project alternatives of TRANSCO

-Eva Telesco-Environmental Analysis- Geology and Soils (4.1-4.34)

Atlantic Sunrise DEIS: Summary of Sections 4-1 and 4-2

4.1 Geology

As suggested by the title, this section of the DEIS addresses the geology of the proposed pipeline route. Several seemingly significant issues are raised, including:

- Shallow bedrock, which will likely require blasting, along 120 miles of the route
- 65 abandoned mines within .25 miles of the workspace present risks of mine fires, open shafts
- Seismic activity, although low compared to the west coast, is high in Martic Township
- Karst terrain along 27.8 miles of the CPL South, with 4.3 miles designated "high risk"

However, the language in the DEIS dismisses these concerns, siting Transco's plans for monitoring and mitigation as reason to not be alarmed. More detailed notes follow. My thoughts in RED.

Pages 4-2 to 4-8 provide technical information on the rock types along each section of the proposed route. Of note: "Along much of the CPL South route through southern Lebanon County . . . due to significant karst topography and a relatively flat ground surface, streams are not typically well developed into defined channels and valleys. Open and filled sinkholes, underground caves, and areas of subsidence are common in this area . . ." (Sevon, 1989, 1996, 2000). p. 4-4

Blasting: Shallow Bedrock Crossing (p. 4-9)

- Lancaster County: 36.8 miles of shallow bedrock, including
  - 18.6 miles lithic (blasting required) and 17.4 miles paralithic (blasting NOT required)
- 120 miles of PA line will likely require blasting
- "blasting could impact wells, springs, etc."
- Blasting Plan (attachment 10 of Transco ECP . . . Not sure if this is in the DEIS attachments. I have not read it yet.)
  - 72 hrs notice required to all residents
  - Pre/post blasting inspections required for all buildings within 150 ft. of blast
  - Must comply with all federal, state and **local regulations**. This might be where some aggressive township ordinances could be a deterrent for Williams/Transco.

Mineral Resources: Mines & Quarries (p. 4-10)

- 65 abandoned mine lands (AMLs) within .25 miles of CPL South workspace; 3.9 miles.
- "AMLs present issues such as mine fires, mine subsidence, dangerous highwalls, open shafts and portals, mining-impacted water supplies, and other hazards (PADEP, 201a)."
- Subsidence = the gradual caving in or sinking of an area of land.
  - .6 miles = high risk for subsidence
  - 1.2 miles = moderate risk
  - 2.1 miles = low risk
  - Not at all clear in the DEIS how the level of risk was determined or what the measures actually mean. It would seem that an area of "high risk" should be avoided all together.

- "Different methodologies have been applied by the mining industry and federal and state agencies to assess the relative risk of mine-related ground subsidence; however, no rigid guidelines have been established. Evaluation of relative risk is therefore made using professional judgment . . . geologic formation or conditions are not considered to be a primary factor influencing relative risk and have therefore not been used in the relative risk evaluation for this project." (p. 4-11)
- Additional info included in Transco's *Abandoned Mine Investigation and Mitigation Plan.* (I have not read this; I will try to get to it . . . 400+ pages of the DEIS were not enough!)

Seismicity (p. 4-12)

- For the CPL South, the "PGA with 2% probability of exceedance in 50 years" is 6 to 10. I have no idea what that means, the DEIS does not explain it well, but maybe it will mean something to someone in the field. CPL South has the highest range of all sections of the ASP.
- Along the Martic Fault "brittle fractures are likely."
- Siting the Marticville Earthquake of 1984, Transco explained that the ROW .6 miles north of that epicenter, well out of the danger zone.
- According to O'Rourke & Palmer (1996) gas pipelines perform well in seismically active areas.
- In this section of the DEIS, the authors mention the west coast several times. Their argument is that the east coast is much less seismically active than CA, but they are building gas pipelines there, so we have nothing to worry about here in PA. Not a great argument, but that's it.

Landslide Risk (p. 4-16)

- High/moderate risk for Lebanon, Schuylkill, Northumberland and Columbia Counties.
- 190 sites selected for "reconnaissance;" of those, access was NOT grant for 34 properties. Of the 156 that were investigated:
  - 13 high risk
  - 77 moderate
  - 66 low risk
- Some of this land must be forested now, and trees will be removed for the ROW; not clear if the landslide risk is based on present state of land (with trees), or during/after construction.

Karst Terrain (p. 4-20)

- 16.3 miles of karst terrain in Lancaster County; 27.8 miles along the CPL South.
- "Karst topography forms from the dissolution of soluble rocks . . . resulting in a network of rubble, pinnacles, fissures and tubes . . ." (p. 4.20)
- Lebanon County Commissioners requested a detailed study of karst features on the route. Transco produced *Karst Investigation and Mitigation Plan (appendix J).* I have not read it yet.
- Plan identifies risk areas based on "the susceptibility of the geologic unit and proximity to existing karst features." Insufficient info on how risk was determined and what the levels mean.
  - 4.3 miles high risk . . . Risk of what is not clear. Subsidence? Explosion? Erosion?

- 7.8 moderate
- 15.7 low risk

Paleontological Resources (p. 4-22)

- If any fossils are found during construction, paleontologists and other experts will be called in.

Mitigation (p. 4-22)

- PA blasting regulations minimize adverse effects; ground movement limited to 15 ft from site of explosives.
- Vibrations from artillery training at Ft. Indiantown Gap will not affect pipeline.
- "We do not anticipate that the project would be adversely affected by seismic activity due to the low probability and low incidence/susceptibility of significant magnitude earthquakes"
- Subsidence could occur near AMLs. Transco mitigation plan: reduce run-on/run-off, eliminate geophysical features, and monitor.
- Landslides/flash floods: "Flash flood events in areas cleared of vegetation could cause sedimentation and erosion." Transco mitigation plan: daily inspection during construction, weekly inspection after construction, inspection within 24 hrs of any .5 inch rainfall.
- Karst Terrain: Transco mitigation plan (appendix J): limit run-on/run-off; monitor. Any increase in sedimentation and erosion (which construction will increase) creates a greater risk for sinkholes (especially in the karst terrain) which would thus increase the risk levels of the karst areas. How can they "mitigate" when the very actions they are taking are making the conditions worse for supporting a pipeline?

4.2 Soil

This section describes the soil types along the route based on these characteristics: highly erodible (by wind or water); prime farmland; hydric (poorly drained/wetlands); compaction prone (disrupted or compacted by heavy equipment during construction); shallow bedrock (requiring blasting); and revegetation concerns. (p. 4-26)

- ASP impacts 106 miles of prime farmland; CPL South = 77.3 miles of prime farmland
- Hydric soils (described in more detail in Section 4.4 of the DEIS) create a buoyancy hazard for the pipeline along 8.6 miles of the route. (p. 4-27)
- ASP route includes 103 miles of revegetation concern; CPL South = 62.5 miles; concern is mainly due to steep slopes and/or droughty soils. (p. 4-28) It seems that this is a significant concern for landslides/run-off, which then makes greater risk for sinkholes, esp. in karst terrain.
- Regarding the shallow bedrock which will require blasting (also addressed in Section 4.3) "the potential to introduce stone or rock into the surface soils could be significant." (p. 4-29)

Above Ground Facilities (p. 4-30)

- 294.7 acres will be disturbed during construction of aboveground facilities; 109 acres permanently converted to industrial use, **including 84.3 acres of prime farmland**.

- 22 temporary contractor yards and 53 temporary staging areas, totaling 589.9 acres; land will be "restored" after construction. "No significant impacts . . . are anticipated." (p. 4.30)

Access Roads (p. 4-31)

- 115 temporary access roads + 40 permanent access roads = 155 total roads used for project
- Of those 155, 25 will be newly constructed and 130 are existing roads:
  - 12 will require no modifications
  - 118 will require modifications or expansions
- All roadways will be "restored" after construction.

Mitigation for Prime Farmland (p. 4-32)

- Segregate topsoil; test and monitor; repair damaged drain tiles.
- FERC received several comments regarding the **thermal effects** of pipelines on soil moisture and agricultural productivity. Research is limited, but Dunn et al (2008) found that although the 36" pipeline in Alberta, Canada increased soil temperature, it did not affect water available for plants or overall crop yield. FERC admits that research is limited. Climate in Canada is very different from Lancaster, PA, which has some of the most fertile land in the country.

Revegetation (p. 4-33)

- Post-construction plan is to revegetate using a seed mix and then monitor the area. Based on my own experience, once an area has been cleared, especially a wooded area, it is very difficult to cultivate the desired plants without invasive species taking over.

-Ben Fitzkee-Environmental Analysis- Water Sources and Wetlands, Vegetation (4.35-4.85)

SUMMARY OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

The Atlantic Sunrise Pipeline which Transco intends to build would have significant negative impacts, both short and long term, on the many diverse ecosystems in its pathway. The proposed pipeline should also be viewed within the larger context of the natural gas market, and its impacts on the environment. This is not only the view of Lancaster Against Pipelines, it is also supported by the federal National Environmental Policy Act (NEPA). NEPA "is our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). NEPA calls for federal agencies to take environmental concerns into consideration during their decision making process "to the fullest extent possible." 42 U.S.C. § 4332. The law also guarantees public participation during the the decision making process, calling this public input "essential to implementing NEPA." 40 C.F.R. § 1500.1(b). According to federal law, the EIS is intended to study and make available to public scrutiny all of the potential environmental effects of the proposed project, including "ecological, aesthetic, historic, [and] cultural" impacts, "whether direct, indirect, or cumulative." 40 C.F.R. §§ 1502.16(a), (b); 1508.8.

In addition to studying the impacts of the proposed project, the EIS must evaluate “the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented.” 40 C.F.R. §§ 1502.16. The EIS must also “rigorously explore and objectively evaluate all reasonable alternatives”, even to the extent of including “alternatives not within the jurisdiction of the lead agency” and the “alternative of no action.”

Upon reviewing the plans of Transco, and the DEIS released by FERC, we conclude that the direct, indirect and cumulative negative impacts on *our* water resources, wetlands, and vegetation is not justified for the purpose of increasing the natural gas transportation capacity of companies operating in the Marcellus Shale. We do not advocate for a route which destroys fewer trees, crosses fewer than 331 streams, impacts less public water sources, etc. We recommend that the commission deny Transco the permit entirely. This view is based upon the significant negative environmental impacts, both short and long term; both project specific and cumulative impacts.

Temporarily during the construction phase the project will affect 1,414 acres of agricultural land, 949 acres of upland forest, 275 acres of open lands, and 50 acres of wetlands. During the construction of the pipeline these areas will be destroyed or significantly damaged, and will therefore be prevented from performing the ecological functions which allow for a natural system to thrive. In the short term we expect there to be significant destruction of riparian zones during the 331 waterbody crossings. This will lead to downstream effects such as flooding, increased turbidity, and decreased habitat opportunities for aquatic species.

In the longer term the right of way will diminish the function of riparian zones leading to increased erosion, and a greater potential for bank failures. The felling of trees and tall shrubbery during construction, and height limit on vegetation within the permanent right of way during operation will also reduce shade along streams, increasing the thermal loading of the streams and decreasing habitat for coldwater aquatic species such as trout.

The proposed project will permanently alter 119 acres of interior forest habitat. This will fragment the forest ecosystem, compact the soils, and create conditions for a drier climate due to reduced canopy cover.

The aforementioned negative consequences have been local and project specific (construction and operation), but there are also cumulative, systemic and non-local effects to be considered. By approving this project which proposes to transport 17,000,000 therms of natural gas the commission is approving the release of 90,134 metric tons of co2 equivalent daily. In a year this pipeline, if filled to capacity, will lead to as much co2e release as 8.6 coal-fired power plants, or 76,509,093 barrels of oil in one year. This proposal to increase our co2 emissions comes at a time when virtually all

climate scientists worldwide are describing the urgent need to reduce our emissions. Last year the United States signed an agreement with 185 other countries to reduce our emissions by 26-28 percent below 2005 levels by 2025. This project will not aid in that effort.

For all of these reasons, we recommend that the commission deny Transco the authority to build the Atlantic Sunrise Pipeline. The proposed project does not serve the public good, nor should the company's desire to profit from the transport of Marcellus Shale gas trump our ecologically dependent right to life, liberty, and the pursuit of happiness.

The following are issues raised by the commission in the DEIS which must be resolved by Transco before proceeding with the project.

4.3 Water Resources

4.3.1.4 4 Water Supply Wells and Springs

Prior to construction, Transco should file with the Secretary, for review and written approval by the Director of OEP, a revised table 4.3.1-2 that includes an updated list of water wells and springs within 150 feet of construction workspaces based on completed surveys. This table should indicate any water wells and springs that are within areas of known karst. (p41)

4.3.1.7 Groundwater Impacts and Mitigation

Within 30 days of placing the project facilities in service, Transco should file with the Secretary a report describing any complaints it received regarding water well yield or quality, the results of any water quality or yield testing that was performed, and how each complaint was resolved. (p46)

Prior to the end of the draft EIS comment period, Transco should file with the Secretary the results of its consultation with the PADEP and include any updates to its Abandoned Mine Investigation and Mitigation Plan regarding proposed mitigation measures to manage and dispose of contaminated groundwater. (p47)

4.3.2.2 Source Water Protection Areas and/or Public Watersheds

Prior to the end of the draft EIS comment period, Transco should file with the Secretary proposed mitigation measures Transco would implement to protect all Zone A source water protection areas.

Zone A Source Water Protection Areas Crossed by the Atlantic Sunrise Project

Waterbody	Milepost	Surface Water Intake Operator
Swatara	**53.7**	**City of Lebanon Water Authority**
		Pennsylvania American Water Company
Susquehanna River	**99.0**	**Chester Water Authority**
		City of Lancaster Water Authority
		Columbia Water Authority
		Red Lion Borough Water Authority
		Safe Harbor Power Corporation
		Wrightsville Borough Municipal Authority

4.3.2.6 Surface Water Impacts and Mitigation

Prior to construction, Transco should file with the Secretary, for review and written approval by the Director of OEP, a notification plan developed in consultation with surface water intake operators. The notification plan should identify the specific points of contact and procedures that Transco would implement in the event of a spill within 3 miles upstream of a surface water intake or within Zone A source water protection areas. (p65)

Blasting

"If blasting in waterbodies is required, there is a potential for permanent alterations of stream channels. Transco proposes to develop site-specific blasting plans for each waterbody crossing where blasting is determined to be necessary. Transco would obtain blasting permits from appropriate agencies (see section 4.1.3 for additional information about blasting) and would conduct any required in-stream work during the appropriate timing window for warmwater and coldwater fisheries. To confirm compliance with fisheries timing windows, we recommend that:"

Prior to construction, Transco should file with the Secretary, and provide to other applicable agencies, a schedule identifying when trenching or blasting would occur within each waterbody greater than 10 feet wide, or within any coldwater fishery. Transco should revise the schedule as necessary to provide at least 14

days advance notice. Changes within this last 14-day period must provide for at least 48 hours advance notice. (p65)

Prior to beginning HDD construction, Transco should file with the Secretary, for review and written approval by the Director of OEP, all outstanding geotechnical feasibility studies for HDD crossing locations and identify the mitigation measures that Transco would implement to minimize drilling risks. (p65)

In the event that the HDD of the CPL North Susquehanna River, CPL South Susquehanna River, or Conestoga River fails, Transco should file with the Secretary, for review and written approval by the Director of OEP, final site-specific crossing plans concurrent with its application to the USACE for an alternative open-cut crossing. These plans should include scaled drawings identifying all areas that would be disturbed by construction and a description of the mitigation measures Transco would implement to minimize effects on water quality and recreational boating. In addition, a scour analysis should be conducted for these three crossings and filed concurrently with the site-specific crossing plans.

Hydrostatic Testing and Dust Control

Prior to construction, Transco should file with the Secretary the locations where it proposes to use biocides, the name of the specific biocide(s) to be used, material safety data sheets for each biocide, copies of relevant permits, and a description of the measures that would be taken to neutralize the effects of the biocides upon discharge of the test water. (p67)

Extra Workspace Within 50 Feet of Waterbodies

Prior to the end of the draft EIS comment period, Transco should file with the Secretary additional justification for the ATWS associated with the waterbodies identified in bold in table K-5 in appendix K of the draft EIS. (p68)

4.4 WETLANDS

4.4.5 Alternative Measures

Prior to the end of the draft EIS comment period, Transco should file with the Secretary additional justification for the ATWS associated with the wetlands identified in bold in table L-2 in appendix L of the draft EIS. (p75)

4.4.6 Compensatory Mitigation

“Transco has submitted a Permittee-Responsible Mitigation (PRM) Plan as part of its application for a CWA Section 404 permit, CWA Section 401 Certification, and Pennsylvania (Chapter 105) Water Obstruction and Encroachment permit. Transco is proposing off-site mitigation for palustrine forested wetlands disturbed by construction and operation of the Project. No wetlands would be permanently lost as a result of construction; however, maintenance of the permanent right-of-way would convert forested vegetation within the maintained right-of-way to palustrine emergent and palustrine scrub-shrub vegetation types. Although Transco’s initial mitigation strategy was to purchase mitigation bank credits or participate in an in-lieu fee program, the USACE had indicated that these options are not available at this time. Transco’s PRM Plan would use a watershed approach to establish four separate mitigation sites in Lycoming, Bradford, Lancaster, and Columbia Counties. An impact ratio of 2:1 is proposed for palustrine forested conversions; however, exceptional value palustrine forested wetlands would be mitigated at a ratio of 2.5:1. Transco’s PRM Plan was submitted as part of the federal and state wetland applications to the USACE and PADEP and is currently under review by those agencies. Therefore, we recommend that:”

Prior to construction, Transco should file with the Secretary a final copy of the PRM Plan, including any comments and required approvals from the USACE and PADEP. (p75)

4.5 VEGETATION

4.5.4 Noxious Weeds and Invasive Plant Species

Prior to construction, Transco should file with the Secretary for review and written approval by the Director of OEP, complete results of noxious weed surveys and the final Management Plan. (p83)

-Bonnie Stoeckl-Environmental Analysis- Wildlife and Aquatic Res-Threatened Endangered and other Special Status Species (4.86-4.123)

Wildlife and Aquatic Resources
Proposed Atlantic Sunrise pipeline will effect 3,905.8 acres, 1,907 of which are designated agricultural, 1,001 of upland forest, 452 open,407 developed, 50 wetlands, and 9 acres of open water. Proposed route won’t cross any “wild” acres. The project may disturb some of Pa’s elk population, however the right of way, once revegetated, may provide grazing areas.
ASP will cross 45 State Game Lands and one State Forest in Pa. “temporarily” effecting 81 acres SGL. Temporary workspaces (staging areas) will be abandoned upon completion of line to allow forest to eventually restore itself.

At time of EIS, Transco has not decided what to do in areas where pipeline will pass near or under the Appalachian Trail. Further evaluation is needed.
Impacted will be 1 Important Mammal Area, effecting 219 acres in Schuylkill and Lebanon Counties, and 4 Important Bird Areas, effecting 92 acres.

FERC allowed Transco to act as it's "non-federal representative" for the purpose of complying with section 7(a)(2) of the ESA to engage in "informal consultation" with wildlife agencies in MD, NC, PA, SC, and VA. Does this represent a conflict of interest, as in allowing the fox to guard the henhouse?

Construction of Compressor Stations 605 & 610 and 5 new M&R stations will permanently develop 72.9 acres of agricultural land, 13.6 A of upland forest, 2A of open space. Effects on open space would apparently be negligible, as these 2 A are already industrialized.
Modifications of existing facilities will add negative impacts to 199.1 A of land, but Transco says that's ok because the wildlife in the area are already used to noise and light.

Access roads will impact 89A of upland forest in PA, 47A of open land, 43A of agricultural land, 71 additional acres of open land, and 120A of developed land. That's ok too, because Transco will stabilize and seed after raping the land.
Permanent access roads will impact 5.9A upland forest, 47A open land, 3A agricultural, 2.5A open land, 6.6A developed land.

4.6.2 Proposed p.l. route crosses 14 high or exceptional quality water bodies. PA Fish Commission says there will be no migratory or endangered fish species effected by p.l. 3 methods will be used to cross streams of special concern; dam and pump, flume and conventional bore, and h.d.d. (?) under "mostly" dry conditions, reducing turbidity (what about passing thunderstorms, with torrential rains?)
Tables 4.6 2-1 describe schedules. Transco admits to a "short term" bank disturbance increase in sedimentation and turbidity, reduction of shading and cover (raising temps.), and modification of flow, which they admit could damage fish's gills, smother eggs, reduce reproductive potential but said it would be temporary. A 10' wide strip of non-native plants would remain at each crossing at completion of project. Other than directly over p.l., native plants would be "allowed" to regenerate in the 25' right of way. No mention is made of Transco performing that regeneration.

4.7.3.4 The only "plants of concern" to be found along proposed route were American Holly, Jeweled Shooting Star, Cranefly Orchid, Puttyroot,and Stiff Cowbane.Transco claims to have had botanists/arborists examine the holly trees, which were determined to be "non-native, therefore of no concern"! Only 2 cranefly and one puttyroot occurances along entire route. Transco promises to transplant these individuals (uh huh).
Table 4.7 2-3 In PA, 1,063.8A of the endangered Long-Eared Bat's habitat will be impacted by the p.l. Transco plans to provide "compensatory mitigation" for the permanent removal of suitable habitat. They acknowledge loss of habitat will be

significant and will adversely effect bat populations. They haven't finalized mitigation plan upon submission of permit request to FERC.

4.91 Transco promises to conduct vegetation maintenance outside of bird's breeding seasons.

4.114 One Bald Eagle nest was found within ½ mi. buffer zone required for blasting with dynamite, but Transco doesn't anticipate needing to blast that section.
4-122(pg) Transco is undecided if they will conduct any surveys to determine if any endangered Brook Floater mussels will be impacted by p.l.

4.6.1.4 "Direct mortality" of some wildlife, especially burrowing animals, can be expected as a result of excavation, trenching, etc. No mention is made of increased mortality of tree dwelling species, just "displacement" until an area is restored in a way similar to other restored areas (meaning the hydro-application of non-native grasses). Transco expects the staging areas to "reforest" themselves in "several years to decades".
4.112 Although there are 18 suitable Bog Turtle habitats located in Lancaster/Lebanon Counties,only one area was populated, with 11 turtles having been found. Survey was incomplete at time of submission of EIS to FERC.

-Chad Gueli-Environmental Analysis- Land Use, Recreation, and Visual Resources-(4.124-4.180)

4.8 Land Use, Recreation, and Visual Resources

The construction of the pipeline will negatively affect scenic areas and parks. Houses within construction zones can be demolished at Trasnco's expense with compensation for owners. The pipeline will affect numerous areas designated for conservation. The construction would have negative affects on farmland. Following completion, the positive economic effects on the area will be negligible. During construction the positive economic effects won't be that great.

- pipeline construction would affect a total of 3,905.8 acres of land (4.125)
    - 49% of which will be agricultural land (4.125)
- pipeline operation will require 1208.3 acres of land (4.125)
    - 50% of which will be agricultural land (4.125)
- would affect interstate, state, local highways, and other roads (4.127)
- would affect 73.7 acres of residential land (4.131)
    - some residential structures are within the proposed construction workspace (4.131)
    - ***if needed Transco can remove a landowner's house but is required to compensate landowner (4.131)***
        - given certain conditions
- Transco will try to minimize effects on residences (4.134)
- ATV's cannot be used on the right of way (4.135)

    - Transco will make an effort to discourage their usage (4.135)
- There are some planned residential and commercial development projects within .25mi of the pipeline (4.135)
    - Pipeline will cross 3 planned developments (4.137)
- Pipeline construction would have numerous negative effects on arability of farm land (4.138)
    - Transco intends to take certain precautions (4.138)
        - they have proposed to provide an on-site agriculture inspector within agricultural lands (4.138)
- "135.2 acres of organic farmland would be crossed" (4.139)
    - mistakes on the art of the pipeline company could result in revocation of organic certification from certain areas of the farm (4.139 & 4.140)
- coastal-zone use has been granted for the project through a non-reporting permit (4.142)
- construction would affect 15 parks and state game lands in PA (4.145 – 4.151)
    - could affect park for long time given the time it takes for an ecosystem to recover (4.145)
    - "the Project would not result in significant impacts on these areas" (4.145)
    - FERC wants more info from Transco on how they intend to protect these parks (4.152)
- The Project will cross:
    - 31 properties enrolled in either the Conservation Reserve Program or the Conservation Reserve Enhancement Program (table 4.8.6-2)
    - 443 tracts enrolled in the Clean and Green Program (4-155)
        - those currently receiving tax benefits are grandfathered in (4-155)
        - except in places where there are above ground facilities, where the land owner would be liable for roll-back taxes which Transco refuses to assist with (4-155)
    - 45 agricultural security areas (4-155)
    - Tucquan Creek, a Pennsylvania State Scenic Rivers, and must use the dam-and-pump crossing method (4-157)
    - aids to navigation have been requested by 23 Pennsylvania Recreationally Navigable Streams (4-157)
    - 3 BicyclePA Routes (4-158)
    - land used for sports by 17 D3 colleges (4-159)
    - there is an old-land fill adjacent to a right-of-way (4-159)
        - FERC has requested more info from Transco about handle issues that ma arise from this (4-159)
- Visual impact will be greatest in forested lands which compromise 30% of land crossed (4-160)
- No above ground facilities are within .25mi of any scenic areas (4-160)
    - Transco will make an effort to minimize visual impact of above ground facilities and communications towers (4-162)
- FERC wants a detailed description of proposed comm.s towers and assessment of visual effects (4-165)
- Most socioecon. effects will come from the influx of construction workers to the area (4-166)
    - Construction itself will have the most noticeable socio-economic effect (4-166)
- The addition of construction workforce to the area "would not be a significant change" socioeconomically (4-168)
- Operation will employ about 15 permanent full-time personnel (4-168)

- Transco will hire between 534 and 623 local Pennsylvanians for the job who have been previously employed on a similar project, and 1873 non-local construction workers (4-168)
- "no significant impacts on the local housing markets are expected" (4-169)
- increase in demand for public services is not expected to supersede current supply (4-170)
- construction won't have a major impact on traffic flow, but could result in short-term impacts (4-171 - 4-173)
- Transco will provide compensation for crop damages (4-173)
- Studies have shown pipelines negatively affect property values and sales (4-173 – 4-174)
- Total construction payroll is $501.6 mill. (table 4.9.7-1)
- Total cost of materials purchased locally is $210.4 mill. (table 4.9.7-1)

-Mark Clatterbuck- Environmental Analysis-Cultural Resources-Air Quality and Noise(4.181-4.229)

4.10 Cultural Resources

Summary observation of this LAP reviewer: It is deeply disturbing that FERC openly admits to relying so heavily on Transco to help them (FERC) fulfill their obligation to "take into account the effects of its undertakings" on historically and culturally significant sites. In what sense is Transco, the very company seeking to inflict potential harms on historical sites for its own financial profit, an objective agent to interact with SHPOs (State Historic Preservation Offices) in this way?

• Transco, on behalf of FERC, consulted with SHPOs in PA, VA, MD, NC, and SC. In PA, the SHPO (according to Transco) repeatedly "concurred" with Transco's proposed field survey methodologies and various survey reports.

• On June 2, 2015, Transco submitted a "revised plan for unanticipated discoveries during construction" to each of these states. ***To date, however, Transco has yet to file with FERC any of the state's responses to their revised plan.***

• In April 2012, Maryland and North Carolina each "entered into a categorical exemption agreement with Transco." No such agreement is mentioned for PA or SC. *Question: On what basis did these SHPOs determine this project to warrant such an exemption? Was there any review mechanism in place to challenge the eligibility of this project for such status?*

• Transco is still "developing a plan" for crossing the Appalachian National Scenic Trail (4-183).

• Transco "continues to consult with the U.S. National Guard" for a route that avoids "known sensitive resources" across Fort Indiantown Gap National Guard Training Center.

• To date, Transco has *not* filed a response from the Maryland Commission on Indian Affairs regarding this project.

• In its outreach to Native American parties, FERC contacted twenty "federally recognized tribes."

• Transco contacted 20 federally recognized Indian tribes they determined "may have in interest" in the cultural and historical impact of this project. According to the DEIS, mention is made only of those tribes: [1] seeking to be listed as "consulting parties" (which all 20 of them are, according to FERC); and, [2] seeking to be notified in the event of "unanticipated discoveries."

***NOTE**: The DEIS misleadingly states that the Delaware Nation simply "requested mitigation of sites that cannot be avoided" by the project in Lancaster County. The Delaware Nation's letter to Transco (dated 12 March 2015) was a "notice of concern" by the Tribe seeking, first and foremost, a "re-route or avoidance" around the "large number of archaeological sites in and around Lancaster, PA." Their appeal for mitigation was only if "a re-route or avoidance cannot be met."*

• The DEIS acknowledges sixteen (16) "archaeological sites" located in Lancaster within the APE (includes right-of-way and construction zone). Of these, only "one multi-component site (36LA1541) is recommended eligible by the PA SHPO; one other (36LA1540) has yet to be evaluated for eligibility. The DEIS claims that both sites "would be avoided" by the Conestoga River HDD. (The other 14 sites, according to FERC, are not eligible for listing on the National Register of Historic Places.)

***NOTE**: Have the tribes themselves been consulted as to whether drilling under these two irreplaceable, recognized sites of cultural, historical, and religious significance is an acceptable mitigation strategy?*

***NOTE**: Among the "other stakeholders" consulted for this project, including "state-recognized tribes," there appear to be some glaring omissions. Three notable omissions of Native American parties consulted include: the Nanticoke Lenni-Lenape Tribe (who has extensive historical ties to eastern PA); Circle Legacy of Lancaster; and, the American Indian Movement (AIM) of Lancaster.*

• In PA, Transco's archaeological field surveys identified 31 archaeological sites within the APE: 6 prehistoric sites, 12 historic sites, and 13 multi-component sites. PA SHPO has declared sites 36LA1541 and 36LE0536 as "potentially eligible for NRHP and should be avoided or Phase II site evaluation would be necessary" (4-187)

• 410 "architectural resources" in PA were documented within the project construction zone (APE). Six were previously determined to be NRHP eligible; the PA SHPO has recommended that 41 more of these sites deserve consideration for

NRHP eligibility. See Table 4.10.2-1 (Archaeological Sites) and Table 4.10.2-2 (Architectural Resources).

• "Compliance with section 106 of the NHPA has **not** been completed for the Project. Cultural resources surveys of portions of the project and consultation with the Pennsylvania SHPO and other parties has **not** been completed. Additionally, two archaeological sites in Pennsylvania **require avoidance or additional testing** to determine eligibility for listing on the NRHP, and the Pennsylvania SHPO has **not provided comments** on the NRHP eligibility of three archaeological sites." (4-191, emphasis added by reviewer)