

149 FERC ¶ 61, 258
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, Tony Clark,
and Norman C. Bay.

Transcontinental Gas Pipe Line Company, LLC

Docket No. CP13-551-000

ORDER ISSUING CERTIFICATE AND APPROVING ABANDONMENT

(Issued December 18, 2014)

1. On September 28, 2013, Transcontinental Gas Pipe Line Company, LLC (Transco) filed an application pursuant to section 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations² for a certificate of public convenience and necessity to construct and operate its proposed Leidy Southeast Project (Leidy Project). Transco also requests authorization pursuant to section 7(b) of the NGA to abandon a compressor engine at its Compressor Station 517 in Columbia County, Pennsylvania.

2. As discussed in this order, the Commission grants the requested certificate and abandonment authorizations, subject to the conditions described herein.

I. Background and Proposal

3. Transco is a natural gas pipeline company engaged in the transportation of natural gas in interstate commerce, subject to the Commission's jurisdiction. Transco's natural gas transmission system extends from Texas, Louisiana and the offshore Gulf of Mexico area, through Mississippi, Alabama, Georgia, South Carolina, North Carolina, Virginia, Maryland, Pennsylvania and New Jersey, to its terminus in the New York City metropolitan area.

4. The Leidy Project will expand Transco's existing pipeline system capacity, enabling Transco to provide firm transportation service for an additional 525,000 dekatherms (Dth) per day from the existing Grugan Interconnect on Transco's Leidy Line in Clinton County, Pennsylvania, and the existing MARC I Interconnect in Lycoming

¹ 15 U.S.C. § 717f (b) and (c) (2012).

² 18 C.F.R. pt. 157 (2014).

County, Pennsylvania, to various delivery points on Transco's Mainline as far south as Transco's existing Station 85 Zone 4 and 4A Pooling Points in Choctaw County, Alabama. As part of the project Transco proposes to construct and operate a total of approximately 29.97 miles of new 42-inch-diameter pipeline loop.³

5. Specifically, Transco proposes to construct the following facilities:
- approximately 5.27 miles of pipeline loop between Leidy Line "D" Mile Post 17.70 and Mile Post 22.97 in Luzerne County, Pennsylvania (Dorrance Loop);
 - approximately 11.47 miles of pipeline loop between Leidy Line "D" Mile Post 57.51 in Monroe County and Mile Post 69.95 in Luzerne County, Pennsylvania (Franklin Loop);
 - approximately 6.92 miles of pipeline loop between Leidy Line "L" Mile Post 0.12 in Somerset County and Mile Post 6.91 in Hunterdon County, New Jersey (Pleasant Run Loop); and
 - approximately 6.31 miles of pipeline loop between Caldwell "D" Loop Pipeline Milepost 1776.79 in Mercer County and Mile Post 1783.00 in Somerset County, New Jersey (Skillman Loop).

In addition, the Leidy Project will add a total of 71,900 horsepower (hp) at four compressor stations with the following modifications:

- installation of a new 20,500 hp gas turbine compressor unit at Transco's existing Compressor Station 520 in Lycoming County, Pennsylvania;
- installation of a new 16,000 hp gas turbine compressor unit at Transco's Compressor Station 515 in Luzerne County, Pennsylvania;
- uprate of two existing 9,500 hp electric units to 10,500 hp each at Transco's existing Compressor Station 205 in Mercer County, New Jersey;
- installation of one new 30,000 hp gas turbine compressor unit at Transco's existing Compressor Station 517 in Columbia County, Pennsylvania;

³ The EA states the proposed project will total approximately 29.8 miles of pipeline loop. This change reflects route variations made during the environmental review process. See EA at 4.

- abandonment by removal of one existing 12,600 hp gas turbine compressor unit and replace it with a new 16,000 hp gas turbine compressor unit at Transco's existing Compressor Station 517 in Columbia County, Pennsylvania;
- installation of associated facilities, such as valves and valve operators, pig launchers and receivers to support the pipeline expansion; and
- modifications to various compressor stations, delivery and receipt meter stations and valve sites along its mainline for the handling of odorized gas.⁴

6. Transco held an open season for its Leidy Project from April 16, 2012, through July 13, 2012, offering up to 525,000 Dth per day of incremental year-round firm transportation service.⁵ Transco has executed binding precedent agreements for the full 525,000 Dth per day of year-round firm transportation service using the capacity to be created by the Leidy Project, with:

- Anadarko Energy Services Company for 50,000 Dth per day;
- Capitol Energy Ventures Corp. for 20,000 Dth per day;
- MMGS Inc. for 50,000 Dth per day;
- Piedmont Natural Gas Company for 100,000 Dth per day;

⁴ The installation of 69,900 hp of gas turbine compression at Compressor Stations 515, 517, and 520, will meet the threshold of total gas turbine station capacity of at least 15,000 hp at each of the affected stations, as discussed in the Interstate Natural Gas Association of America White Paper entitled "*Waste Energy Recovery Opportunities for Interstate Natural Gas Pipelines*" issued in February 2008 (INGAA White Paper). In its application, Transco states that, while the proposed turbine additions did meet the horsepower threshold specified by the INGAA study, it did not expect that the gas turbines would meet the second threshold of operating at more than 60% load factor, therefore the waste heat recovery would not be economical at these stations. We encourage Transco to continue to monitor the compressor stations, and should the stations meet the waste heat recovery parameters in the INGAA White Paper, Transco should post such information on its electronic bulletin board.

⁵ Transco also held a reverse open season for the Leidy Project from June 20, 2013 through July 5, 2013. No requests to participate in the reverse open season were received.

- Public Service Company of North Carolina, Inc. for 100,000 Dth per day;
- South Carolina Electric & Gas Company for 40,000 Dth per day; and
- Washington Gas Light Company for 165,000 Dth per day.

The precedent agreements require the shippers and Transco to execute long-term firm transportation service agreements within 30 days of Transco's acceptance of the authorizations granted herein.

7. Transco estimates the proposed project will cost approximately \$607 million and has developed a new incremental rate under its Rate Schedule FT for firm service using the capacity created by the project facilities. Transco proposes to charge expansion shippers its generally applicable system fuel retention and electric power rates under its Rate Schedule FT. The precedent agreements filed in Transco's application state that the initial shippers may choose either the incremental recourse rate or a negotiated rate when they execute actual service agreements. Transco states that the expansion shippers have elected to pay negotiated rates.

II. Notice and Interventions

8. Notice of Transco's application was published in the *Federal Register* on October 18, 2013 (78 Fed. Reg. 62343). Nearly 70 parties filed timely and untimely, unopposed motions to intervene.⁶ Timely, unopposed motions to intervene are automatically granted pursuant to Rule 214 of the Commission's Rules of Practice and Procedure.⁷ We find that the parties filing untimely motions have shown an interest in this proceeding, and further find that granting these motions at this stage of the proceeding will not cause undue delay, disruption, or prejudice. Thus, we will grant the late motions to intervene.⁸

III. Discussion

9. Since the subject facilities have been or will be used to transport natural gas in interstate commerce subject to the jurisdiction of the Commission, the proposed

⁶ All the parties are listed in Appendix A.

⁷ 18 C.F.R. § 385.214(c) (2014).

⁸ See 18 C.F.R. § 385.214(d) (2014).

abandonment, construction, and operation of the facilities are subject to the requirements of subsections (b), (c) and (e) of section 7 of the NGA.⁹

A. Certificate Policy Statement

10. The Certificate Policy Statement provides guidance as to how the Commission will evaluate proposals for new construction.¹⁰ The Certificate Policy Statement established criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explained that in deciding whether to authorize the construction of major new natural gas facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline construction.

11. Under this policy, the threshold requirement for existing pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the construction. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission proceed to complete the environmental analysis where other interests are considered.

12. As stated, the threshold requirement is that the applicant must be prepared to financially support the project without relying on subsidization from its existing customers. Transco proposes to establish incremental recourse reservation rates under its Rate Schedule FT for service using the expansion capacity created by the Leidy Project. As described in more detail below, the incremental recourse rate proposed by Transco has

⁹ 15 U.S.C. § 717f(b), (c), (e) (2012).

¹⁰ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

been properly designed to recover the full cost of the proposed project from shippers using the expansion capacity and is higher than the applicable existing system rate. Therefore, we find that Transco's existing customers will not subsidize the proposed project.

13. We also find that Transco's proposed Leidy Project will not cause a degradation of Transco's services to its existing customers. Rather, the project will allow Transco to provide additional transportation services, without adversely affecting its ability to continue meeting its existing firm obligations. Additionally, there will be no adverse impact on existing pipelines or their captive customers; the incremental capacity to be created on Transco's system will be used to meet new demand and the services using the expansion capacity will not replace existing services on other pipeline systems. Thus, we find the proposed project will not result in any adverse impact on Transco's existing customers or other pipelines or their captive customers.

14. Transco states that it designed its expansion project to minimize impacts on landowners and communities. Transco states that it will, to the extent practicable, construct all project facilities utilizing existing rights-of-way and areas adjacent to existing rights-of-way. Transco explains that all but 1.05 miles of the total 29.97 miles of the Leidy Project loops will be installed either entirely within or parallel to existing pipeline and utility rights-of-way. All compressor installation and modification activities will be performed entirely within existing compressor station facilities.

15. Accordingly, for purposes of our consideration under the Certificate Policy Statement, we find that Transco has taken steps to minimize any adverse economic impacts to landowners, surrounding communities, and the environment.

16. The Sierra Club asserts that the proliferation of pipelines in the region raises concerns about need and location of the Leidy Project. The Sierra Club argues that regional production will exceed demand in the New England and Mid-Atlantic markets, thereby rendering additional pipeline infrastructure unnecessary. The Sierra Club further complains that the EA does not provide data or analysis on the actual demand for the provided gas. The Princeton Ridge Coalition (PRC) questions the reliance on Transco's precedent agreements for the Leidy Project to show project need.¹¹ Although the Commission no longer requires that pipelines have contracts to support a proposed project, the Certificate Policy Statement recognizes that binding precedent agreements

¹¹ PRC states that "it is unclear whether the agreements . . . are available for review," PRC's September 11, 2014 Comments at 13-14, but does not allege that any party seeking to review the documents was denied such access.

constitute significant evidence of demand for a proposed project.¹² As discussed above, the Leidy Project is fully subscribed. In addition, Washington Gas Light Company, the largest subscriber to the Leidy Project, affirmed its need for the project to meet the growing requirements of over 1 million end-user customers.¹³ Accordingly, we find that Transco has provided adequate support of need for the Leidy Project.

17. Based on the benefits the project will provide and the minimal adverse effects the project will have on landowners and/or surrounding communities, we find on balance, consistent with the criteria discussed in the Certificate Policy Statement and subject to the environmental discussion below, that the public convenience and necessity requires approval of Transco's Leidy Project proposal, as conditioned in this order.

B. Abandonment

18. Transco requests authorization to abandon by removal from service a natural gas-fired compressor engine at Compressor Station 517 in Columbia County, Pennsylvania. The existing 12,600 hp gas turbine compressor unit will be replaced with a new 16,000 hp gas turbine compressor unit and related auxiliary installations. The Leidy Project requires, in addition to pipeline looping, additional compression at Compressor Station 517, as well as at Transco's three other compressor stations, to create the additional 525,000 Dth per day of fully subscribed capacity. Therefore, we find the proposed removal and abandonment of the existing 12,600 hp gas turbine compressor unit at Compressor Station 517 to be permitted by the public convenience or necessity, subject to compliance with the environmental conditions described below.

C. Rates

19. Transco's Leidy Project will make available an additional 525,000 Dth per day of firm transportation service on its system. Transco proposes to charge a newly developed incremental rate for the service, which will be provided under Rate Schedule FT for service on the expansion project. In addition, Transco proposes to assess the generally applicable system fuel retention and electric power rates under its existing Rate Schedule FT. The precedent agreements filed in Transco's application state that the initial shippers may choose either the incremental recourse rate or a negotiated rate when they execute actual service agreements. All expansion shippers have elected to pay negotiated rates. Transco states that it will file all negotiated rate agreements, or a tariff record describing

¹² Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,748.

¹³ Washington Gas Light Company's August 29, 2014 Comments.

the negotiated rate agreements associated with the Leidy Project, in accordance with the Commission's policies on negotiated rates¹⁴ and alternative rates.¹⁵

1. Initial Recourse Rates

20. Transco proposes an initial incremental daily firm recourse reservation rate of \$0.67393 per Dth. This reservation rate was calculated by dividing the annual incremental cost of service of \$129,140,906 by an annual transportation quantity of 191,625,000 Dth (525,000 Dth per day multiplied by 365 days). The annual cost of service was derived using a total estimated cost of facilities of \$607,343,517. Transco used a pre-tax return of 15.34 percent, underlying the design of its settlement rates in Docket No. RP01-245-000.¹⁶ Transco states that its projected operation and maintenance expenses are based on estimates for operation and maintenance expenses of similar facilities on its system. Transco states that it used the currently effective onshore depreciation rate (including negative salvage) included in the Stipulation and Agreement in Docket No. RP12-993-000 and approved by the Commission on December 6, 2013.¹⁷

21. The Commission has reviewed the proposed cost of service and the proposed incremental recourse rate for the Leidy Project and finds they are reasonable. The proposed incremental rate exceeds the applicable existing system rate of \$0.41155 per Dth, thus consistent with Commission policy, we find that the incremental rate for the project is appropriate.¹⁸ Additionally, the Commission directs Transco to charge its

¹⁴ See, e.g., *Texas Eastern Transmission, LP*, 133 FERC ¶ 61,220 (2010). *Natural Gas Pipeline Negotiated Rate Policies and Practices*, 104 FERC ¶ 61,134 (2003), order on reh'g, 114 FERC ¶ 61,042 (2006).

¹⁵ *Alternative to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines; Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076, reh'g and clarification denied, 75 FERC ¶ 61,024 (1996), reh'g denied, 75 FERC ¶ 61,066 (1996), petition for review denied sub nom. *Burlington Resources Oil & Gas Co. v. FERC*, 172 F.3d 918 (D.C. Cir. 1998) (Alternative Rate Policy Statement).

¹⁶ *Transcontinental Gas Pipe Line Corp.*, 100 FERC ¶ 61,085 (2002) (order approving partial stipulation and agreement issued on July 23, 2002).

¹⁷ *Transcontinental Gas Pipe Line Co., LLC*, 145 FERC ¶ 61,205 (2013).

¹⁸ Currently applicable Rate Schedule FT recourse rate for Zone 6-4 service. Section 1.1.1, FT - Non-Incremental Rates, 13.0.0; Transcontinental Gas Pipe Line Company, LLC, FERC NGA Gas Tariff, Fifth Revised Volume No. 1.

current system interruptible rate for any interruptible service rendered on additional capacity made available as a result of the Leidy Project.

22. Consistent with the Certificate Policy Statement, the Commission directs Transco to keep separate books and accounting of costs attributable to the Leidy Project. The books should be maintained with applicable cross-references, as required by section 154.309 of the Commission's regulations for every expansion for which incremental rates are charged. This information must be in sufficient detail so that the data can be identified in Statements G, I, and J in any future NGA section 4 or 5 rate case and the information must be provided consistent with Order No. 710.¹⁹ Such measures protect existing customers from cost overruns and from subsidization that might result from under-collection of the Leidy Project's incremental cost of service, as well as help the Commission and parties to the rate proceedings determine the costs of the project.

2. Fuel Retention and Electric Power Charges

23. Transco proposes to charge its generally applicable system fuel retention and electric power rates for transportation on the Leidy Project. Based on a study that was designed to determine the impact of fuel consumption (compressor fuel plus the fuel equivalent of electricity consumed), Transco determined that the Leidy Project would result in a 27.87 percent reduction in fuel use attributable to existing shippers.²⁰ Based on the benefit from the overall reduction in fuel, the Commission approves Transco's proposal to charge its generally applicable system fuel retention and electric power rates.

3. Negotiated Rate Agreements

24. The precedent agreements filed in Transco's application state that the initial shippers may choose either the incremental recourse rate or a negotiated rate when they execute actual service agreements. Transco states that it will file all negotiated rate agreements, or a tariff record describing the negotiated rate agreements associated with the Leidy Project, in accordance with the Commission's policies on negotiated rates²¹ and

¹⁹ *Revisions to Forms, Statements, and Reporting Requirements for Natural Gas Pipelines*, Order No. 710, FERC Stats. & Regs. ¶ 31,267, at P 23 (2008).

²⁰ The study was based on ten representative days from 2012. The portion of Transco's system studied includes the facilities between and including Compressor Station 85 to Compressor Station 520. See Exhibit Z-1.

²¹ See, e.g., *Texas Eastern Transmission, LP*, 133 FERC ¶ 61,220 (2010). *Natural Gas Pipeline Negotiated Rate Policies and Practices*, 104 FERC ¶ 61,134 (2003), *order on reh'g*, 114 FERC ¶ 61,042 (2006).

alternative rates.²² Such negotiated rate agreements or tariff records must be filed at least 30 days, but not more than 60 days, before the proposed effective date for such rates.

D. Engineering Analysis- Gas Flow Velocity

25. Delaware Riverkeeper Network (Delaware Riverkeeper) alleges that Transco's flow diagrams show the operation of the proposed Leidy Project will result in "unsafe gas velocities" at several locations along Transco's system and that these flow velocities will "pose direct threats to the safety of the system."²³ Delaware Riverkeeper further contends that as a result of these alleged unsafe gas velocities, Transco will need to add additional future looping in order to reduce those gas velocities to safe levels.²⁴

26. Currently, Transco's operational velocities along its 42-inch diameter pipeline loops range from 30 feet per sec (ft/sec) to 50 ft/sec; it seeks to limit flow velocity to 60 ft/sec.²⁵ Transco states that keeping gas flow velocities below 60 ft/sec avoids operational inefficiencies that can result from high gas velocities, such as increased ambient noise from above-ground piping, added vibration of mechanical equipment and increased fuel usages.²⁶ But Transco asserts that its pipeline facilities can be operated at gas velocities in excess of 60 ft/sec without causing a potential safety issue.²⁷

27. Delaware Riverkeeper presents an analysis by Mr. Kuprewicz that claims gas velocities in excess of 50 ft/sec will stress the pipeline and this stress "threatens the structural integrity of the system at those locations."²⁸ Mr. Kuprewicz does not reference

²² *Alternative to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines; Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076, *reh'g and clarification denied*, 75 FERC ¶ 61,024 (1996), *reh'g denied*, 75 FERC ¶ 61,066 (1996), *petition for review denied sub nom. Burlington Resources Oil & Gas Co. v. FERC*, 172 F.3d 918 (D.C. Cir. 1998) (Alternative Rate Policy Statement).

²³ Delaware Riverkeeper's March 24, 2014 Comments at 1.

²⁴ *Id.*

²⁵ Transco's December 23, 2013 Data Response at 157.

²⁶ *See* Transco's July 11, 2014 Data Response.

²⁷ *Id.*

²⁸ Delaware Riverkeeper's March 24, 2014 Comments at 2.

any industry studies or standards set by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) to support his assertions.²⁹ Mr. Kuprewicz requested additional information from Transco to verify his conclusions, and Transco provided Delaware Riverkeeper the opportunity to review the gas hydraulic flow models it used in designing the Leidy Project.

28. In responding to Delaware Riverkeeper's allegations on flow velocities, Transco cites a study, co-sponsored by the American Petroleum Institute and the Minerals Management Service,³⁰ which considered the effects of high gas velocities on metal loss resulting from liquid droplet erosion. According to the study, in order to cause wear in carbon steel by liquid droplet erosion, gas velocities would need to exceed 300 ft/sec.³¹ Thus, Transco asserts that a gas velocity around 60 ft/sec will not cause a potential safety issue. Transco states that it designs and operates its pipeline and appurtenant equipment at an optimal velocity that both minimizes ambient noise and meets customer demands.³² Transco also states that small droplets of fluid, either hydrocarbon condensate or water, are not typically present in mainline transmission systems such as its Leidy Project facilities.

29. The Commission has reviewed all the information provided by Transco on the Leidy Project's gas flow velocities and analyzed Transco's flow diagrams and transient hydraulic models, for both existing and proposed operating conditions of the Leidy Project. Based upon our review, we find that Transco has properly designed its pipeline system to accommodate the proposed new service while maintaining its existing service obligations.³³ We have confirmed that most of the gas velocities on the pipeline segments of Transco's proposed system, identified by Mr. Kuprewicz as areas of

²⁹ PHMSA is a U.S. Department of Transportation agency that develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6 million mile pipeline transportation system and the nearly 1 million daily shipments of hazardous materials by land, sea and air. (<http://www.phmsa.dot.gov/public>).

³⁰ Svedeman, S.J. and Arnold, K.E., *Criteria for Sizing Multiphase Flowlines for Erosive/Corrosive Service*, 74-80 (1994).

³¹ *Id.* at 75.

³² Transco's December 23, 2013 Data Response at 157.

³³ The hydraulic models were developed and analyzed using DVN GL's Synergi pipeline simulation software.

concern, are in fact below 60 ft/sec. Staff examined the pipeline facilities both upstream and downstream of each compressor station as well as river crossings and pipeline segments immediately downstream of the proposed pipeline loops on Transco's Leidy Line to monitor the gas velocities through those pipes and confirmed that the Leidy Line C has four pipeline segments that will have gas velocities in excess of 50 ft/sec, one of which will exceed 60 ft/sec.³⁴

30. Although the American Petroleum Institute/Minerals Management Service study does not provide specific guidelines, it does provide velocity limits based upon multiphase flow regimes in production pipelines in a clean service system.³⁵ The study also states that laboratory tests on erosion in noncorrosive two-phase flow showed no measurable wear for velocities up to 100 ft/sec. The study further confirms that flow velocities up to 100 ft/sec do not create erosive wear in clean service conditions. Transco will be transporting dry, single phase gas flow³⁶ through its pipeline. The gas transported by Transco does not have free flowing liquids, droplets of which at high velocities could contribute to or cause pipeline erosion. Nor does the gas stream contain solid particles. As a result, we can conclude, as Transco did, that the 60 ft/sec gas velocities to be experienced on portions of this project will not represent an erosional risk given that Transco will be transporting a dry, single phase flow through its pipeline.³⁷

31. Delaware Riverkeeper also argues that because some of the pipeline segments will operate above 60ft/sec, future looping will be necessary on other portions of Transco's

³⁴ The pipeline segments on Line C are between Station 520 to Station 517 (45-54 ft/sec), between Compressor Station 517 to Compressor Station 515 (52-61 ft/sec), inlet of Compressor Station 205 (52 ft/sec) and the Delaware River Crossing (39-55 ft/sec).

³⁵ The term "clean service" is described as a pipeline transporting non-corrosive gas/liquid flow that is free of solids.

³⁶ "Single phase flow" refers to a single gas phase or liquid phase flowing in a pipeline system. A "multiphase flow" refers to a situation where both gas and liquids are flowing simultaneously in a pipeline.

³⁷ The fact that the American Petroleum Institute/Minerals Management Service study looked at production pipelines instead of transmission lines is not germane to our conclusion. What is relevant is the fact that the study found no adverse impacts resulting from two-phase flow velocities of up to 100 ft/sec. Indeed, as noted, the study found gas velocities would need to exceed 300 ft/sec in order to cause wear by liquid drop erosion in carbon steel.

system in order to reduce the gas velocities safe levels of operation. Delaware Riverkeeper asserts that Transco's Leidy Project therefore represents improper segmenting for environmental review purposes. Mr. Kuprewicz similarly argues that high velocities are indicative of parts of the pipeline system that will require expansion in the future. However, Mr. Kuprewicz does not specify which pipeline segments are at issue, nor does he reference any industry studies or PHMSA regulations to support his assertion.

32. As noted above, velocities on only three segments of Transco's pipeline system are anticipated to exceed 50 ft/sec, with velocities on only one of the segments exceeding 60 ft/sec. As also discussed above, we find that these anticipated gas flow velocities will not result in unsafe operating conditions on the Transco system. The hydraulic studies show that the proposed pipeline looping in the Leidy Project is required to increase the capacity of the Leidy Line in order to accommodate the proposed new services for Transco's customers. The location of any future expansion facilities is entirely speculative and would be based upon the specific requirements of any future project shipper.³⁸ Therefore, the Commission rejects Delaware Riverkeeper's allegation that Transco has improperly designed the pipeline loops and finds there is no evidence that the current project, as proposed, requires future looping in order to reduce gas velocities.

E. Environmental Review

33. On January 29, 2013, the Commission staff began the environmental review of the project after granting Transco's request to use the pre-filing process and assigned Docket No. PF13-5-000. On May 24, 2013, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Planned Leidy Southeast Expansion Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings* (NOI). The NOI was mailed to interested parties on the Commission staff's environmental mailing list including federal, state, and local officials; agency representatives; environmental and public interest groups; Native American tribes; local libraries and newspapers; and affected property owners.

34. On April 10, 11, 16 and 17, 2013, staff participated in open houses sponsored by Transco in Branchburg and Skillman, New Jersey and Pocono Manor and Wilkes-Barre, Pennsylvania, respectively, to explain our environmental review process to interested stakeholders. On June 12 and 13, 2013, staff conducted public scoping meetings in Wilkes-Barre, Pennsylvania, and Hillsborough Township, New Jersey to provide an

³⁸ These requirements include but are not limited to such variables as locations of receipt and delivery points, required delivery pressures, accommodation of variable hourly receipt and delivery flows, and seasonal variations in flow.

opportunity for agencies and the general public to learn more about the environmental review process and provide comments on the project, and to identify issues to be addressed in the environmental assessment (EA). The scoping meetings were attended by approximately 95 individuals, 34 of whom provided verbal comments on the project. During the review process, staff also participated in meetings with representatives of the New Jersey Department of Environmental Protection (New Jersey DEP); the Municipality of Princeton, New Jersey; Readington Township, New Jersey; Branchburg Township, New Jersey; Montgomery Township, New Jersey; Delaware Riverkeeper Network (Delaware Riverkeeper); and the Princeton Ridge Coalition (PRC).

35. We also received comments in response to the NOI from the U.S. Fish and Wildlife Service (FWS), U.S. Army Corps of Engineers (Corps), New Jersey DEP, New Jersey Historic Preservation Office, New Jersey State Agriculture Development Committee, Delaware River Basin Commission, Virginia Department of Environmental Quality (Virginia DEQ), Pennsylvania Historical and Museum Commission, Montgomery Township, Municipality of Princeton, Sourland Planning Council, Princeton Shade Tree Commission, PRC, Stuart County Day School of the Sacred Heart, New Jersey Sierra Club (Sierra Club), Delaware Riverkeeper, The Stony Brook-Millstone Watershed Association, Montgomery Friends of Open Space, Friends of Princeton Open Space, numerous affected landowners, and other concerned individuals. The primary issues raised during the public scoping process concerned safety, construction methods, impacts on geology and soils, wildlife, wetlands and waterbodies, vegetation, cultural resources, socioeconomics, cumulative impacts, and alternatives.

36. To satisfy the requirements of the National Environmental Policy Act (NEPA), our staff prepared an EA for Transco's proposal. The EA was prepared with the cooperation of the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Corps. The analysis in the EA addresses geology, soils, water resources, wetlands, vegetation, fisheries, wildlife, threatened and endangered species, land use, recreation, visual resources, cultural resources, air quality, noise, safety, socioeconomics, cumulative impacts, and alternatives. All substantive comments received in response to the NOI and throughout the scoping period were addressed in the EA.

37. The EA was issued for a 30-day comment period and placed into the public record on August 11, 2014, and mailed to the entire environmental mailing list for the project. The Commission received comments on the EA from Representative Rush Holt, Senator Corey Booker, Senator Robert Menendez, Stockbridge-Munsee Tribal Historic Preservation Office, U.S. Environmental Protection Agency (EPA), New Jersey DEP, Virginia DEQ, Virginia Department of Conservation and Recreation (Virginia DCR), New Jersey Agriculture Development Committee, Montgomery Township, Transco, Sierra Club, Delaware Riverkeeper, Allegheny Defense Project (Allegheny), Clean Air Council, Sourland Conservancy, PRC, Stony Brook-Millstone Watershed Association,

Stuart County Day School of the Sacred Heart, Washington Gas Light, Anadarko Energy Services Company, WGL Midstream, Inc., South Carolina Electric and Gas Co., Public Service Co. of North Carolina, Inc., Robin and Michael Kaplan, and Leah Neufeld. Substantive comments that require clarification to issues addressed in the EA are discussed in this order. These issues include the following topics: requests for an extension of the comment period and other procedural concerns; the purpose and need for the project; preparation of an Environmental Impact Statement (EIS) rather than an EA; cumulative impacts; segmentation; water resources; wetlands; vegetation and habitat; threatened and endangered species; the Princeton Ridge; socioeconomics; geology and soils; land use; cultural resources; air quality; climate change; vibration; safety; and alternatives.

1. Procedural and Process Concerns

38. The Delaware Riverkeeper states that Commission staff should have formally invited the Delaware River Basin Commission to cooperate during Commission staff's environmental review of the Leidy Project. We clarify here that the Delaware River Basin Commission's cooperation was indeed requested. On May 24, 2013, we issued an NOI for the project, which requested "agencies with jurisdiction by law and/or special expertise with respect to the environmental issues of this project to formally cooperate with us in the preparation of the EA." Commission staff further contacted the Delaware River Basin Commission directly. The Delaware River Basis Commission did not wish to formally cooperate, but it did participate in interagency conference calls during the pre-filing process and provided comments on the project, all of which is documented in the public record.

39. The PRC requests an extension of the EA comment period on the basis that members of the community would not have enough time to properly review and vet the analyses in the EA as they would be traveling during Labor Day weekend or otherwise out of town. The PRC further argues that the EA is voluminous and requires additional time to comment. The Commission staff issued and mailed a *Notice of Schedule for Environmental Review of the Leidy Southeast Expansion Project* on June 12, 2014, informing the public of the EA issuance date. Because PRC and other stakeholders were adequately informed, we decline to extend the comment period. In any event, the PRC submitted its comments prior to the September 10, 2014 deadline, rendering the request moot.

40. The Delaware Riverkeeper asserts that the Commission's third party environmental inspector program is improper because it is company sponsored and results in a conflict of interest with regard to enforcing conditions in a Commission Certificate. We disagree. Commission staff vets all third party contractors for organizational conflicts of interest, and third party inspectors work solely under the direction of Commission staff. The third party inspector program supplements the staff's compliance efforts and presence in the field; however, the inspection program on every

project is managed directly by the Commission staff. Further, we clarify here that no third party environmental inspector program is proposed for the Leidy Project. Commission staff and its contractors will conduct regular inspection of the Leidy Project to ensure compliance with the Commission's environmental conditions during construction and restoration.

41. Delaware Riverkeeper further complains that an environmental inspector has never cited a violation of a Certificate term or condition that has resulted in an administrative penalty or fine being issued to the project applicant. We understand Delaware Riverkeeper's concern, however civil penalties are but one of the tools the Commission may use to achieve compliance with Commission orders. The Commission routinely utilizes other tools to achieve compliance with environmental requirements, such as requiring corrective actions (including the stoppage of work where warranted (see Environmental Condition No. 2 of this order), and withholding authorization to place facilities into service (see Environmental Condition No. 10) until all pre-conditions have been satisfied and rehabilitation and restoration is proceeding satisfactorily. Commission staff monitors a company's efforts with a focus on achieving compliance and remedying problems. If the nature and seriousness of any failure to comply warrants it, a matter may be referred to our Office of Enforcement. However, the Commission's past or potential future enforcement actions have no bearing on our ability to appropriately monitor environmental compliance.

2. Calls for an EIS

42. The Delaware Riverkeeper, Sierra Club, and PRC call for the preparation of an EIS for the project. The Sierra Club, Delaware Riverkeeper, and others argue that an EIS is required based on allegations that FERC improperly segmented its NEPA review and gave inadequate consideration to the cumulative impacts of natural gas extraction and shale drilling. PRC also asserts that an EIS is warranted due to the unique characteristics of the Princeton Ridge and the potentially irreversible impacts of the Leidy Project on the environment in the area.

43. The EA provided a comprehensive review of Transco's project and concludes that, if constructed according to the recommendations in the EA and consistent with Transco's construction and restoration plans, there would be no significant environmental impact.³⁹ Additionally, the project incorporates specific measures within the Princeton Ridge area,

³⁹ Pursuant to 18 C.F.R. § 306(b) "If the Commission believes the proposed action... may not be a major federal action significantly affecting the quality of the human environment, an EA, rather than an EIS, will be prepared first. Depending on the outcome of the EA, an EIS may or may not be prepared."

such as working within the existing right-of-way in some areas, using horizontal directional drill (HDD) methodology to reduce impacts on water resources, and shutting off gas service in a portion of the existing pipeline during construction to ensure safe installation of the proposed project facilities.

44. The EA finds that based on Commission staff's analysis, and considering that the Leidy Project involves pipeline looping and modifications to existing facilities, the impacts associated with the Leidy Project would be sufficiently mitigated to support a finding of no significant impact and, thus, an EA (as opposed to an EIS) is warranted.⁴⁰

45. PRC also states that the EA erroneously concludes that the project would not have a significant impact because it relies on requirements in federal permits that Transco has not obtained. Environmental Condition No. 9 requires that, prior to construction, Transco must file documentation that it has received all required federal authorizations. Therefore, the project cannot go forward until Transco has demonstrated compliance with all applicable federal laws and has obtained the necessary permits.

3. Cumulative Impacts

46. Allegheny alleges that the EA fails to adequately consider cumulative effects of the Leidy Project. Allegheny argues that the Commission does not have a consistent framework for analyzing cumulative impacts, pointing out that while the Leidy Project's EA considered projects within 50 miles of the Leidy Project's facilities for cumulative impact purposes, the draft EIS for the Constitution Pipeline Project only considers projects within 10 miles of the project area.⁴¹ Allegheny then asserts that the Commission should expand the cumulative impacts analysis area for the Leidy Project to at least 100 miles, due to the number of natural gas infrastructure projects occurring in various shale formations.

47. We disagree. Cumulative impacts are defined by the Council on Environmental Quality (CEQ) as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."⁴² A cumulative impacts analysis may require an analysis of actions unrelated to

⁴⁰ EA at 13.

⁴¹ The final EIS for the Constitution Pipeline and Wright Interconnect Projects, CP13-499, proposed by Constitution Pipeline Company, LLC, was issued on October 24, 2014.

⁴² 40 C.F.R. § 1508.7 (2014).

the proposed project if they occur *in the project area or region of influence of the project being analyzed*.⁴³ But, as CEQ states, “it is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.”⁴⁴ An agency is only required to include “such information as appears to be reasonably necessary under the circumstances for evaluation of the project rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible.”⁴⁵

48. The extent of the region of influence is project specific, varying as a consequence of differences in proposed facilities, location of the facilities, and resources potentially to be affected. While the presentation may differ slightly, both the Leidy Project EA and the Constitution Pipeline Project EIS use the same criteria for analyzing cumulative impacts, consistent with the CEQ Guidance. The inclusion of other actions and projects within the project area to be considered in the cumulative impacts analysis is based on commonalities of impacts from other actions to potential impacts that would result from the project.⁴⁶ The scope of each cumulative analysis is based on the specific project scope and impacts on environmental resources.⁴⁷

49. Allegheny also alleges that the EA incorrectly dismisses several projects that are within 50 miles of the Leidy Project from the cumulative impacts analysis because these projects would be constructed and maintained in accordance with federal, state, and local regulations. However, as stated in the EA, some projects were not further analyzed because, based on the scope, schedule, status, and distance from the proposed Leidy Project, those projects were not expected to contribute significantly to cumulative impacts in the project area.

50. The Sierra Club, Allegheny, Delaware Riverkeeper, and PRC assert that the EA does not address the cumulative impact of the Leidy Project and other projects that

⁴³ CEQ Guidance, *Considering Cumulative Effects Under the National Environmental Policy Act* (January 1997).

⁴⁴ *Id.* at 8.

⁴⁵ *New York Natural Res. Def. Council, Inc. v. Kleppe*, 429 U.S. 1307, 1311 (1976) (citing *Natural Res. Def. Council v. Calloway*, 524 F.2d 79, 88 (2d. Cir. 1975)).

⁴⁶ EA at 179.

⁴⁷ In *Kleppe v. Sierra Club*, the Court emphasized that agencies may properly limit the scope of their cumulative impacts analysis based on practical considerations. 427 U.S. 390, 413-414 (1976).

Transco and other companies have recently completed or proposes in the project area. Table 2.10-1 in the EA identifies recently completed or proposed Commission-jurisdictional projects and evaluates these projects for potential cumulative impacts with the Leidy Project. These projects are in the region of influence of the Leidy Project, potentially affecting the same resources in the same approximate time frame. The EA evaluates the potential cumulative impacts of those projects on geology and soils; waterbodies and wetlands; vegetation and wildlife; land use, recreation, and visual resources; air quality and noise; and climate changes. The EA concludes that the adverse impacts that could occur in conjunction with the Leidy Project would be temporary and minor, and that, overall, the project would not result in significant cumulative impacts.

51. The Sierra Club claims that the EA specifically excludes data pertaining to the Northeast Supply Project completed by Transco (Docket No. CP12-30-000). We disagree. The EA addresses Transco's Northeast Supply Link Project, and because it has already been constructed, it is considered part of the environmental baseline for the Leidy Project.⁴⁸ The EA describes the facilities associated with the Northeast Supply Link Project, discusses the impacts of the Northeast Supply Link Project, and assesses the cumulative impact of the Leidy Project and the Northeast Supply Link Project, among others, by resource.

52. The Delaware Riverkeeper states that the EA mischaracterizes the Northeast Supply Link Project by stating in table 2.4.4-1 that the project is under construction when, in fact, the Northeast Supply Link Project had been completed at that time. We agree that the project status was mislabeled in table 2.4.4-1; however, we find that this mislabeling does not affect the analysis provided in the EA. Table 2.10-1 in the EA correctly shows that the Northeast Supply Link Project is in service and the project is analyzed as such.

53. The Sierra Club and Delaware Riverkeeper assert that the EA did not adequately analyze the planned Atlantic Sunrise Project. We disagree. At the time the EA was issued, an application for the Atlantic Sunrise Project had not been filed with the Commission. Rather, the project was, as it still is, in pre-filing, with only draft resource reports 1 (project description) and 10 (alternatives) available for review. Commission staff analyzed the potential cumulative environmental impacts associated with the Atlantic Sunrise Project to the extent it could, given the information available at the time the EA was issued. Further, the EA is not meant to fully analyze all impacts associated with the planned Atlantic Sunrise Project; rather, here we are only looking at the impacts of the Atlantic Sunrise Project that would be cumulative of those of the Leidy Project.

⁴⁸ EA at 180.

54. The Sierra Club states that an EIS and assessment of “secondary” and cumulative impacts is required for the Leidy Project in light of Transco’s announcement of an open season for its Diamond East Project in New Jersey and Pennsylvania. The PRC echoes that an EIS is warranted due to the announcement of the contemplated Diamond East Project. Commenters also state that the EA should have included a cumulative analysis of the planned Penn East Project. We disagree.

55. An impact is “reasonably foreseeable” if it is “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.”⁴⁹ Courts have noted the starting point of any NEPA analysis is a “rule of reason,” under which NEPA documents “need not address remote and highly speculative consequences.”⁵⁰ Courts have held that, while NEPA requires “reasonable forecasting,” an agency is not required “to engage in speculative analysis” or “to do the impractical, if not enough information is available to permit meaningful consideration.”⁵¹

56. According to the Williams Partners L.P. project website,⁵² the Diamond East Project only recently held an open season to gauge potential interest in the project from August 26 to September 23, 2014, after the Leidy Project EA was issued. Commission staff was not aware of, nor did it have reason to know of, either of these planned projects when preparing the EA for the Leidy Project. Further, at this time, there are no meaningful project details available for either the Diamond East or Penn East projects that could be used in a cumulative impacts analysis. An environmental impact would be considered too speculative for inclusion in the NEPA document if at the time that the document is drafted the impact cannot be described with sufficient specificity to make its consideration useful to a reasoned decisionmaker.⁵³ According to the Williams Partners, L.P. website, “[a]lthough the final capacity, scope and cost of the project will be determined by the results of the open season, it is anticipated that the project will include approximately 50 miles of pipeline looping and horsepower additions at existing Transco

⁴⁹ *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992).

⁵⁰ *Hammond v. Norton*, 370 F.Supp.2d 226, 245-46 (D.D.C. 2005).

⁵¹ *N. Plains Res. Council v. Surface Transp. Board.*, 668 F.3d 1067, 1078 (9th Cir. 2011).

⁵² Williams Partners, L.P. website at <http://www.williamspl.com/profiles/investor/ResLibraryView.asp?BzID=1296&ResLibraryID=72111&Category=1800>.

⁵³ *Habitat Education Center v. U.S. Forest Service*, 609 F.3d 897 (7th Cir. 2010).

compressor facilities.” The Diamond East Project is not currently before the Commission and there are no publicly available, quantifiable details about the project (e.g., exact location or pipeline routes, environmental resources affected, land requirements, etc.). As for the Penn East Project, it was only recently approved for participation in the Commission’s pre-filing review process, and a project application is not anticipated until July 2015. Therefore, any assessment of potential cumulative impacts would be highly speculative and would not allow for meaningful analysis.

57. The Sierra Club, Allegheny, and Delaware Riverkeeper also allege that the EA does not adequately consider the cumulative impacts of natural gas extraction. The commenters argue that the Commission should present state-wide Marcellus well drilling data, forecast future development and impacts of shale drilling, and consider and disclose combined impacts on a regional scale. The Sierra Club also argues that environmental impacts associated with continued development of the Marcellus shale are a reasonably foreseeable consequence of the Leidy Project because it asserts shale is the reason the project is being proposed and, therefore, should be quantified to the same extent as the impacts of the proposed project.

58. State-wide or regional development of the Marcellus shale resources will occur well beyond the region of influence considered for inclusion in the cumulative impact analysis for the Leidy Project. Moreover, any impacts from potential upstream production activities are not reasonably foreseeable as contemplated by CEQ’s regulations. The EA explains that we can only speculate regarding the exact location, scale, scope and timing of future production-related facilities.⁵⁴ We concur with the EA’s conclusions.

59. The EA does provide available well drilling data to the extent it is relevant to the Leidy Project facilities. Specifically, the EA identifies the number of wells drilled in Lycoming County, Pennsylvania, the only county in which project facilities are located where production activities have occurred, in the last three years. The EA explains that because proposed project activities in that area will occur in or be adjacent to the developed area of the existing Compressor Station 520, they will not involve significant impacts on water resources, vegetation, or wildlife. However, having identified that the project may result in impacts to air quality which might be cumulative to those resulting from natural gas production in the area, the EA analyzes those potential impacts and finds

⁵⁴ EA at 186.

that there would not be a significant cumulative impact. We believe that this level of analysis is consistent with NEPA and CEQ guidance.⁵⁵

60. It appears to us that commenters seek a programmatic NEPA review for a program that is not before the Commission. The CEQ regulations state that major federal actions for which an environmental impact statement may be required include "...programs, such as a group of concerted actions to implement a specific policy or plan; and systematic and connected agency decisions allocating agency resources to implement a specific statutory program..."⁵⁶ The Leidy Project does not meet this definition for broad proposals. It is a discrete project with minimal environmental impacts. Further, the Commission considers proposed projects on their own merits, based on the facts and circumstances specific to each proposal.

4. Segmentation

61. Commenters express concern that Transco may be improperly segmenting expansion of its system into smaller components to avoid its responsibility to perform more rigorous environmental review under NEPA. The comments specifically mention Transco's Northeast Supply Link Project, the Diamond East Project, and the Atlantic Sunrise Project.

62. Improper segmentation of a project occurs when interrelated projects are artificially divided into smaller, less significant components in order to avoid comprehensive environmental review. NEPA and its implementing regulations direct federal agencies to consider whether proposed actions are "[c]onnected actions, which means that they are closely related and therefore should be discussed in the same impact statement."⁵⁷ The regulations provide that actions are "connected" if they:

Automatically trigger other actions which may require environmental impact statements.

⁵⁵ Allegheny also contends there are other impacts from shale development and argues the EA should address these impacts. For example, it argues that the rapid increase in shale gas drilling in areas of Pennsylvania outside the immediate area of the project may be causing an emigration of bobcats from Pennsylvania into southern New York. However, for the reasons discussed above, the impacts from production outside the project area are outside the scope of the EA.

⁵⁶ 40 C.F.R. § 1508.18(b)(3) (2014).

⁵⁷ 40 C.F.R. § 1508.25(a)(1) (2014).

Cannot or will not proceed unless other actions are taken previously or simultaneously.

Are interdependent parts of a larger action and depend on the larger action for their justification.⁵⁸

63. The purpose of the connected action requirement is “to prevent agencies from engaging in segmentation . . . by breaking up one project into smaller projects and not studying the overall impacts of the single overall project.”⁵⁹ Courts typically employ an “independent utility” test when determining whether actions are “connected.” This test “asks whether each project would have taken place in the other’s absence. If so, they have independent utility and are not considered connected actions.”⁶⁰

64. The Atlantic Sunrise Project is not a “connected action” here within the meaning of NEPA and the CEQ regulations. The Leidy Project is in no way connected with, or dependent upon, the Atlantic Sunrise Project. The Leidy Project can go forward regardless of whether the Atlantic Sunrise Project is authorized by the Commission. The Leidy Project has been proposed to meet a distinctly-identified market demand for additional transportation service. As discussed above, Transco has not yet filed an application for the Atlantic Sunrise Project with the Commission; it remains in pre-filing. Thus, beyond the inequity associated with requiring the customers that have fully subscribed the proposed capacity of Leidy Project to wait until Transco is prepared to proceed with the unrelated Atlantic Sunrise Project, the Commission at this time, does not have a final proposed route in front of it which could be examined for environmental purposes. Once an application for that project is filed for Commission approval under section 7, the Commission will examine any cumulative impact that project may have with the Leidy Project in the NEPA review process for Atlantic Sunrise.

65. Delaware Riverkeeper asserts the Northeast Supply Link, Diamond East, and Leidy Projects constitute an overall expansion of Transco’s Leidy Line, as opposed to distinct projects.⁶¹ The EA analyzed the Northeast Supply Link Project, as a recently completed project in the Leidy Project area, and found no significant cumulative impacts

⁵⁸ *Id.*

⁵⁹ *Webster v. U.S. Dep’t of Agric.*, 685 F.3d 411, 426 (4th Cir. 2012).

⁶⁰ *See, e.g., id.; Wilderness Workshop*, 531 F.3d 1220, 229 (10th Cir. 2008); *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 969 (9th Cir. 2006).

⁶¹ Delaware Riverkeeper’s September 10, 2014, Comments at 13 and 14.

associated with the two projects. However, the fact that the projects are proposed by the same pipeline company in the same general geographic region is not sufficient to make them “connected” actions for segmentation purposes. As is the case with the Atlantic Sunrise Project, the evidence shows that each project serves a significant purpose separate and apart from the other projects.

66. As noted above, at this point the Diamond East Project is merely a contemplated project and we decline to speculate on its future. There is nothing related to it currently before the Commission and there are no publicly available, quantifiable details about the project (e.g. exact location or pipeline routes, environmental resources affected, land requirements, etc.).

67. The Sierra Club alleges that the EA only addresses the localized impact of each loop, and not their combined impact, to avoid a more comprehensive environmental review. The Sierra Club is incorrect. The EA specifically discloses the land requirements and construction and operational impacts on various environmental resources on a project-wide basis. In fact, each resource section (such as wetlands, waterbodies, etc.) includes a table that presents the total impacts of the project and further breaks down the impacts on a facility or state-wide basis, where appropriate. For example, table 2.2.4-1 of the EA provides that construction of the entire project will impact 15.1 acres of emergent wetlands, 2.9 acres of scrub-shrub wetlands, and 8.5 acres of forested wetlands, with the impact on each individual wetland affected by the project detailed in Appendix I of the EA. In addition to the project-wide impact summary tables, impacts and recommended mitigation measures are discussed throughout the EA on a project-wide basis, with more localized discussion included where appropriate.

68. The Leidy Project situation is factually and legally distinct from the *Del. Riverkeeper Network v. FERC*⁶² case cited by commenters in support of their segmentation arguments. That case considered four pipeline upgrades on a single mainline, all of which were either proposed and before the Commission or under construction at the same time. There the court found that, combined, the four projects constituted “a complete overhaul and upgrade that was physically, functionally, and financially connected and interdependent.”⁶³ The court found “a clear physical, functional, and temporal nexus between the projects,” where “[t]he end result is a new pipeline that functions as a unified whole thanks to the four interdependent upgrades.”⁶⁴

⁶² *Del. Riverkeeper Network*, 753 F.3d 1304 (2014).

⁶³ *Id.*, slip op. at 5.

⁶⁴ *Id.* at 6.

That is not the case here. The Leidy Project is not dependent upon, or physically, functionally, or financially connected with these other proposed projects discussed above.

5. Water Resources

69. The EPA comments that the loss of vegetative cover and slow revegetation along sensitive streams would negatively impact watersheds. The Sierra Club comments that the loss of contiguous forest in the Sourland Mountains and the disruption of natural vegetation and soil would impact headwaters of important watersheds. The PRC and the Stony Brook-Millstone Watershed Association comment that erosion and sedimentation would lead to deterioration of waterbodies of exceptional water quality, especially Cherry Run, and lead to the long-term loss of habitat for aquatic organisms and protected species. The New Jersey DEP recommends crossing Back Brook using the HDD method to reduce impacts on the Bridled shiner, a state candidate species. The PRC requests annual water quality monitoring for turbidity. The Virginia DEQ requests the avoidance of surface water impacts.

70. Sections 2.2.1 and 2.2.2 of the EA address impacts on surface water and groundwater, including measures to minimize or avoid impacts to these resources. As described in the EA, riparian cover on affected stream banks is expected to recover over several months to several years and adherence to Transco's Erosion and Sedimentation Control Plan will maximize the potential for regrowth of riparian vegetation and minimize the potential for long-term impacts associated with lack of shade or cover.⁶⁵ The EA also explains how Transco will restore and properly armor the stream banks to prevent erosion and washouts.⁶⁶ As such, turbidity is not expected to extend beyond the immediate construction and restoration period and we conclude that additional water quality monitoring beyond this timeframe is not warranted. In addition, a strip of riparian vegetation at least 25 feet wide adjacent to waterbodies will be allowed to revegetate to pre-construction condition over the entire width of the right-of-way, in accordance with Transco's *Wetland and Waterbody Construction and Mitigation Procedures*, except for a 10-foot-wide strip centered over the pipeline that may be maintained in an herbaceous state. Therefore, the EA properly concludes that the impacts on waterbodies from the loss of vegetative cover and turbidity will be minor and temporary. Regarding concerns for the Sourland Mountains and Cherry Run, the project avoids the Sourland

⁶⁵ EA at 56.

⁶⁶ *Id.* at 55.

Mountains,⁶⁷ and Cherry Run will be avoided by use of the HDD method,⁶⁸ with which the New Jersey DEP concurs. Concerning the recommended HDD crossing of Back Brook, Appendix G of the EA indicates that Back Brook is approximately 20 feet wide and will be crossed within a 48 hour period using a dry crossing method, which will maintain water flow during construction and avoid in-stream construction impacts. Transco further clarifies in its October 8, 2014 supplemental filing (pursuant to comments received on the EA) that the crossing of Back Brook will not occur between May 1 and June 30 to avoid impacts on warm water fishery species such as the Bridled shiner. Therefore, we agree with the EA's conclusion that the dry crossing of Back Brook as proposed by Transco will not significantly impact the Bridled shiner.

71. We received comments that the EA fails to recognize that the Skillman Loop will cross tributaries to Stony Brook, a state-listed designated waterbody. However, the EA does, in fact, identify crossing of Stony Brook and tributaries included in Appendix G. The project crosses Stony Brook tributaries at least 0.5 mile above the confluence. As discussed in the EA, these tributaries will be crossed using wet construction methods which will maintain flow and reduce the length of time required to cross these waterbodies. General impacts and mitigation are discussed in sections 2.2.2 and 2.2.3 of the EA.

72. The Township of Montgomery states that Rock Brook is a trout-stocked stream, and New Jersey DEP comments that construction within non-trout streams will need to be restricted from April 1 to June 30, to protect warm/cool water fish reproduction. According to Transco's October 8, 2014 supplemental filing and consistent with our review, per New Jersey Administrative Code (N.J.A.C.) 7:9B, Rock Brook is classified as non-trout for its entire length. Further, per N.J.A.C. 7:13-10.5, non-trout waters have a construction restriction from May 1 through June 30. In its October 8, 2014 filing, Transco confirmed that it will adhere to the non-trout fishery timing restriction of May 1 through June 30 (unless a variance is submitted to and approved by New Jersey DEP) and will further restrict in-stream work from November 15 to March 15 in those waterbodies identified as suitable wood turtle habitat. Transco is also coordinating with New Jersey DEP to confirm that the non-trout crossing restriction is May 1 to June 30, not April 1 to June 30 as the New Jersey DEP comment indicates.

73. The Township of Montgomery and the Stony Brook-Millstone Watershed Association oppose the withdrawal of hydrostatic test water from Bedens Brook due to potential impacts on water quality and wood turtle habitat, and the Township of

⁶⁷ *Id.* at 137.

⁶⁸ *Id.* at Appendix G, p. G-1.

Montgomery requests details on the proposal to screen the hydrostatic water intake hoses. In its October 8, 2014 supplemental filing, Transco no longer proposes to withdraw water from Bedens Brook for hydrostatic testing and instead plans to utilize municipal water sources.

74. The PRC comments that the EA fails to properly identify stream designations and that waterbody construction impacts are contrary to New Jersey's antidegradation water quality standards and Flood Hazard Area Controls Act. The EA includes consideration of the water resource classifications for the potentially affected surface and groundwater resources identified during the application process. Verification of stream designations and state water quality standards will be completed by Transco through final consultation with the appropriate state regulatory agencies, prior to their issuance of state permits. It is at the discretion of these agencies to determine whether Transco's waterbody classifications and crossing techniques comply with each agency's permit application process, prior to issuing the appropriate water quality permit.

75. The New Jersey DEP questions the construction-related dewatering volumes, rates, and locations and how these discharges would be permitted. Table 1.10-1 of the EA identifies major environmental permits, approvals, and consultations and includes the New Jersey Pollutant Discharge Elimination System (New Jersey PDES) General Permit for dewatering. The New Jersey DEP notes that the New Jersey PDES permit process is public and requires the appropriate time to review. Environmental Condition No. 9 of this order requires Transco to receive all applicable authorizations under federal law prior to the Commission's authorization to construct. As such, we conclude that the appropriate dewatering permit requirements will be met prior to any project construction.

6. Wetlands

76. The PRC comments that the Commission should not make a decision on the project until the New Jersey DEP and Corps complete their wetland delineations and Clean Water Act Section 401 and 404 permit processes. The PRC states that the data evaluated in the EA was not verified by the New Jersey DEP and is subject to significant change in the project description and impacts. The PRC contends that the compensatory wetland mitigation sites proposed by Transco would not comply with New Jersey's Freshwater Wetlands Protection Act and that the timing of Transco's wetland surveys failed to identify all vernal pools. The Delaware Riverkeeper comments that the EA fails to adequately assess the criteria for wetlands under the State Wetland Classification in Pennsylvania and misidentified and undercounted several wetlands that would meet state requirements as Exceptional Value. The Delaware Riverkeeper also states that the Commission fails to perform a site specific review of the wetlands in the project area.

77. As indicated in the EA, Transco's wetland delineations were conducted using the Corps' Wetlands Delineation Manual.⁶⁹ This methodology is sufficient for the Commission to disclose and evaluate potential impacts on wetlands and to serve as a starting point for the development of protective mitigation. It is at the discretion of the Corps, the Pennsylvania Department of Environmental Protection (Pennsylvania DEP), and the New Jersey DEP to determine whether Transco's wetland delineations comply with each agency's permit application process, prior to issuing the appropriate water quality permit. The Commission does not interfere with another agency's oversight of its own regulations. If additional measures are required to meet any permit requirements, Transco would carry the burden of meeting those additional measures in order to receive the permit. As required by Environmental Condition No. 9, Transco will not be authorized to construct the project without documentation of all applicable authorizations under federal law. Therefore, the EA properly concludes that wetland impacts will be minimized and compensated for by implementing the construction, restoration, and mitigation measures proposed by Transco and as may be required by the applicable agencies.

78. Transco provided updates on agency consultations on July 15, 2014, indicating that it received the New Jersey DEP Letter of Interpretation for the Pleasant Run Loop and impact calculations for wetlands have not changed. Transco also states that the New Jersey DEP requested reevaluation of four wetlands along the Skillman Loop and impact acreage calculations will be revised after further consultation with the New Jersey DEP.

79. The Delaware Riverkeeper alleges that the Commission's wetland mitigation measures are inadequate to meet NEPA's requirements and the efficacy of these measures has no evidentiary support. We disagree. The Commission's *Wetland and Waterbody Construction and Mitigation Procedures*, recently updated in 2013, are based on Commission staff's experience inspecting pipeline construction and include industry best management practices designed to minimize the extent and duration of disturbance on wetlands and waterbodies during the construction of Commission-jurisdictional natural gas projects. During the recent 2013 update, the *Wetland and Waterbody Construction and Mitigation Procedures* were revised with input from the natural gas industry; federal, state, and local agencies; environmental consultants; inspectors and construction contractors; and nongovernmental organizations and other interested parties with special expertise with respect to natural gas facility construction projects. The construction and mitigation measures in the *Wetland and Waterbody Construction and Mitigation Procedures* are proven to protect wetlands and waterbodies. As indicated by the Delaware Riverkeeper, a company may request modifications to the *Wetland and*

⁶⁹ *Id.* at 61.

Waterbody Construction and Mitigation Procedures. However, these modifications may only be granted if they provide equal or better environmental protection; are necessary because a portion of the *Wetland and Waterbody Construction and Mitigation Procedures* are infeasible or unworkable based on project-specific conditions; or are specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction. We reject the Delaware Riverkeeper's assertion that the Commission's *Wetland and Waterbody Construction and Mitigation Procedures* are inadequate and unproven.

7. Vegetation and Habitat

80. The Sierra Club states concern about the loss of contiguous forest in the Sourland Mountains, and the PRC expresses concern over forest fragmentation leading to habitat loss and invasive species establishment. The PRC also requests ecosystem and forest biodiversity monitoring for a minimum of 5 to 10 years after construction, including the monitoring and control of invasive species within the right-of-way and 50 yards beyond and replanting of trees at a 10 to 1 ratio.

81. The Sierra Club and Sourland Conservancy raise concern that the project will significantly impact environmental resources of the Sourland Mountains and other areas in Montgomery Township, New Jersey. As indicated in the EA, the project avoids the Sourland Mountains, thereby avoiding direct impacts on resources that may be present in that area.⁷⁰ As detailed throughout the EA, Transco consulted with Montgomery Township officials and adopted changes to minimize impacts in the Township, including implementation of a Township-recommended HDD to avoid impacts on Beden Brook, nearby residences, and other resources. We find these measures will reduce environmental impacts in Montgomery Township such that no significant impacts will occur.

82. Section 2.3.1 of the EA addresses comments regarding forest fragmentation and invasive species establishment, especially within the Princeton Ridge area.⁷¹ The EA states that forest clearing and fragmentation along the Princeton Ridge would be minimized through collocation with existing corridors for 96 percent of the entire project route and describes the erosion control measures proposed by Transco. Further, as a result of discussion with the PRC, Transco reduced its construction right-of-way along the Skillman Loop in the Princeton Ridge and committed largely to working within the

⁷⁰ *Id.* at 137.

⁷¹ *Id.* at 71-73.

existing right-of-way.⁷² This was, in part, to address the PRC's concern with reduction in canopy cover, forest fragmentation, and the impact that fragmentation would have on wildlife. The EA also summarizes Transco's Noxious and Invasive Weed Control Plan, developed in consultation with relevant agencies, which outlines methods to prevent, mitigate, and control the spread of noxious and invasive species and establishes a monitoring program. The EA indicates that Transco will monitor disturbed areas to determine post-construction revegetation success for a minimum of two growing seasons, or until revegetation is considered successful.⁷³ Therefore, the EA properly concludes that the measures proposed by Transco, including site-specific restoration measures and plantings for the Princeton Ridge area, will minimize environmental impacts on vegetation and provide for adequate restoration of the right-of-way through the Princeton Ridge area as well as the other project rights-of-way.

83. For project-related activities in Virginia, the Virginia DEQ recommends that the Virginia Department of Forestry's *Checklist for Forestland Protection and Characteristics Questionnaire* be completed and the results coordinated with the Virginia Department of Forestry. Section 2.3.1 of the EA states that the only vegetation cover type that would be affected by modifications to existing aboveground facilities in Virginia is open upland. In addition, Transco confirmed in its October 8, 2014 supplemental filing that the modifications to existing aboveground facilities in Virginia will not require tree clearing. Therefore, we conclude that additional consultation with the Virginia Department of Forestry regarding potential impacts on forest resources in Virginia is not warranted.

8. Threatened and Endangered Species

84. The PRC comments that the EA fails to include reported sightings of barred owl and red-shouldered hawks and comments that the project would have impacts on state-protected species and migratory birds from forest fragmentation, habitat loss, impacts on nesting birds, and impairment of ecosystem functions.⁷⁴ Robin and Michael Kaplan

⁷² These measures are outlined in *Transco's Construction and Restoration Plan Developed Specifically for New Jersey State Planning Areas: Environmentally Sensitive Area 5 and Fringe 3, Along the Skillman Loop* (Skillman Loop Construction and Restoration Plan).

⁷³ EA at 72.

⁷⁴ The red-shouldered hawk is listed as a state-endangered species in New Jersey. As indicated in Table 2.3.3-3 of the EA, the barred owl is listed as a state-threatened species in New Jersey.

indicate that state-protected bird species, including wood thrush, grasshopper sparrow and savannah sparrow occur near their home within the project area and are concerned that songbird surveys are not proposed.⁷⁵ Leah Neufeld comments that red-shouldered hawks are known to nest on her property along the Skillman Loop and recommends an alternative route to avoid impacts on the species. The Sierra Club comments that the mitigation measures would not protect state-listed species in the Princeton Ridge area. The Stony Brook-Millstone Watershed Association comments that the project would harm rare plant and animal species. The PRC indicates that the presence of potential habitat for the wood turtle would result in additional state regulatory requirements, including a 150-foot-wide buffer zone and additional mitigation measures.⁷⁶ The New Jersey DEP suggests additional measures to protect wildlife that may be present in the work zone; best management practice in New Jersey for areas valued for the wood turtle, including timing restrictions for in-stream and out-of-stream work; and concurs with the EA's recommended Environmental Condition No. 17, requiring additional consultations with the applicable state agencies regarding state-listed species.

85. For protected bird habitat, section 2.3.3 of the EA indicates that Transco has filed a draft Migratory Bird Habitat Restoration Plan that includes conservation measures to avoid and minimize impacts on migratory birds. Environmental Condition No. 14 of this order requires additional consultations with the FWS regarding the final Migratory Bird Habitat Restoration Plan prior to construction. Proposed mitigation measures identified in the EA include minimizing the amount of vegetation and tree clearing by overlapping existing easements and looping, minimizing fragmentation through the use of disturbed areas, conducting vegetation clearing during the FWS-recommended windows, and ensuring adequate restoration and revegetation.⁷⁷ Therefore, the EA properly concludes that impacts on migratory birds would be minimal and effects on their habitat would be minimized.

⁷⁵ Table 2.3.3-3 of the EA indicates that the wood thrush is a state special concern species and that the grasshopper sparrow and savannah sparrow are listed as state-threatened species. Table 2.3.3-1 also lists the wood thrush as a bird of conservation concern, protected under the Migratory Bird Treaty Act.

⁷⁶ As indicated in Table 2.3.3-3 of the EA the wood turtle is listed as a state-threatened species in New Jersey.

⁷⁷ EA at 82-83.

86. The measures discussed to protect migratory birds would also serve to protect other state-listed bird species. For state-listed species, including those identified by commenters, the EA indicates that Transco will continue to consult with state agencies to develop and implement appropriate avoidance and mitigation measures including timing restrictions, as necessary, to avoid adverse impacts on any rare plant and wildlife identified within the project area.⁷⁸ In its October 8, 2014 supplemental filing, Transco confirmed that it will add the New Jersey DEP recommended language regarding relocation of wildlife present in the work zone to nearby suitable habitat to its mitigation and implementation plans. Furthermore, Environmental Condition No. 17 requires additional consultations with the applicable state agencies regarding state-listed species and will allow for the development of adequate mitigation measures to protect the species from all aspects of project construction. The New Jersey DEP concurs with this environmental condition. Therefore, we are confident that adequate protective measures can be developed and implemented to protect state-listed species.

87. The Virginia DCR comments that modifications to existing aboveground facilities located in Virginia would not affect any documented state-listed plant and insect species. Virginia DCR identifies several other wetland and/or aquatic species (wood turtle, four mussel species) as well as one upland bird species (upland sandpiper) classified as threatened or endangered by the Virginia Department of Game and Inland Fisheries and recommends coordination with the Virginia Department of Game and Inland Fisheries for management and protection of these species. The EA explains that project activities in Virginia would be minor and would occur primarily within previously disturbed and maintained areas at existing facilities. In addition, Transco will implement construction and restoration measures to avoid or minimize soil erosion and waterbody sedimentation. Lastly, Transco affirms in its October 8, 2014 supplemental filing that it will coordinate with the Virginia Department of Game and Inland Fisheries for the management and protection of listed species in compliance with the Virginia Endangered Species Act. Therefore, we agree with the EA's conclusion that project modifications at existing facilities in Virginia would not significantly impact rare species or their habitat.

9. Princeton Ridge

88. The Sierra Club and PRC comment that the proposed Skillman Loop will result in significant harm to unique resources of the Princeton Ridge in Mercer County, New Jersey. To the contrary and as detailed throughout the EA, Transco worked closely with stakeholders in the Princeton Ridge area to develop a site-specific construction plan that will limit impacts almost entirely to Transco's existing pipeline right-of-way, and a

⁷⁸ *Id.* at 96.

site-specific restoration plan that will encourage the recovery of the workspace as soon as possible following construction. The PRC stated that these plans largely address their environmental concerns, although they have continued concern regarding safety.

89. The PRC believes that Commission should require Transco to provide an environmental insurance bond sufficient to cover impacted properties and voluntarily agree to participate in the Commission's Dispute Resolution Service at the request of landowners. As discussed in the EA, Transco is required to comply with, and has adopted, our *Upland Erosion Control, Revegetation, and Maintenance Plan* and *Wetland and Waterbody Construction and Mitigation Procedures*, which include measures to ensure the successful restoration and rehabilitation of affected lands, as well as post-construction monitoring and reporting that is submitted for staff review. The Commission staff will also conduct independent compliance inspections throughout construction and restoration until restoration is deemed successful. Transco has prepared a Landowner Complaint Resolution Procedure through which landowners may identify unresolved problems. Commission staff will also respond to landowner restoration inquiries throughout the life of the project. Finally, the Commission's Alternative Dispute Resolution service⁷⁹ is an available resource for landowners seeking mediation and facilitation to resolve disputes. We conclude these procedures are sufficient to address landowner concerns.

10. Socioeconomics

90. PRC asserts that the EA does not properly assess the economic cost of the project. PRC raises concerns regarding the potential for property devaluation resulting from the Leidy Project. Specifically, PRC asserts that landowners will have higher home owner insurance premiums and will have difficulty selling their property if banks become leery of giving mortgages to properties near a pipeline.⁸⁰ PRC asks the Commission to require Transco to fund a bond to pay for any increase in premiums suffered by a homeowner. PRC has not provided any first-hand accounts or documentation from insurance providers identifying the potential for the modification or cancelation of any policy based on the construction of a pipeline, notwithstanding the fact, as discussed in the EA, that the Leidy Project looping will be constructed in an existing right-of-way that contains as many as three other pipelines which have been in operation for up to approximately 60 years.⁸¹

⁷⁹ Landowners may contact the toll free Helpline and Landowners Complaints at 1-877-337-2237.

⁸⁰ Princeton Ridge's September 11, 2014 Comments at 17.

⁸¹ Section 1.2.1 in the EA.

Commission staff independently researched the potential for a pipeline easement to impact a landowner's individual homeowner insurance, and did not find conclusive evidence suggesting that a pipeline would result in the cancellation of policy or increase in premiums. Therefore, we find no basis for requiring Transco to supply the requested bond.

91. Section 2.5.4 of the EA discusses property values and references several studies on the topic. These studies found that there is no conclusive systematic link between property values and natural gas interstate pipelines. Further, the EA states that homes adjacent to the existing pipelines in the project area, which have been in operation for as much as 60 years, have been sold and any potential effect of the proposed loop segments on property sales and values would be incremental, given the existing pipelines already in the area. We agree with these conclusions.

11. Geology and Soils

92. The PRC asserts that Transco did not provide sufficient information regarding boulders and bedrock along the Skillman loop that could affect the integrity of the operating pipeline during construction of the adjacent loop. Transco provided in the Rock Handling Plan the results of its ground penetrating survey for as much of the existing pipeline route as possible. It did show the potential presence of boulders near the surface, but Transco is planning to complete the over-pipeline activities during a planned outage of service on the existing pipeline. We conclude this construction methodology, in addition to post-construction in-line inspection of the existing pipeline prior to placing it back into service, appropriately addresses the concerns about boulders near the existing pipeline and stresses that may be placed on the pipeline.

93. The PRC expresses concern with constructing over an operating pipeline in Princeton Ridge due to saturated soil conditions during the construction timeframe. In response to these concerns, in section 2.9.1 of the EA staff recommended that Transco provide a plan detailing how the proposed air gap bridge would be maintained over the existing pipeline in the event that highly saturated soils are encountered at the time of construction. In response, Transco has described its monitoring and maintenance process for ensuring the air-gap is maintained over the existing pipeline in its October 1, 2014 filing. We find Transco's proposed process acceptable. Therefore, recommended Environmental Condition No. 24 in the EA is not included as a condition to this order.

94. Robin and Michael Kaplan raise concerns that overly compacted soils will affect groundwater infiltration rates and cause flooding of basements or other structures. Transco confirmed that areas where construction matting will be used will be tested for compaction utilizing penetrometers. The Kaplans' further question whether disking would occur over the existing pipeline in the Princeton Ridge and how Transco would ensure that the existing pipeline is not damaged in the process. As discussed in the EA, Transco will test soil compaction and utilize mitigation measures such as using paraplow

or soil rippers to return soils to pre-construction densities.⁸² In addition, in an October 1, 2014 filing, Transco states that subsoil will be disked in areas where the topsoil has been segregated. Transco also indicates that a disk has a penetration of 10 to 12 inches and cannot reach the depth of the existing pipelines, which will be verified prior to disking operations. We conclude these procedures are appropriate to ensure the existing pipeline is not damaged during Transco's soil compaction remediation.

12. Land Use

95. The Virginia DEQ states that it has not received adequate information from Transco to make a federal consistency review under the Coastal Zone Management Act (CZMA). In its October 8, 2014 filing, Transco states that it has reinitiated consultation with the Virginia DEQ. On November 24, 2014, the Virginia DEQ issued its Federal Consistency Certification for the Leidy Project. Therefore, the portion of Environmental Condition No. 19 pertaining to CZMA certification from the Virginia DEQ has been met. We consider the matter resolved.

96. Montgomery Township and the State of New Jersey Agriculture Development Committee provide comments on the EA concerning impacts on agricultural lands and preservation easements. Montgomery Township identifies two farmland preservation easements that are not listed in the EA. These easements are subject to the jurisdiction of the State Agriculture Committee and Somerset County Agriculture Development Board and will only be affected by a temporary workspace and a temporary access road. As discussed in the EA, Transco has committed to implement its *Upland Erosion Control, Revegetation, and Maintenance Plan* to minimize impacts on agricultural lands which include measures such as topsoil segregation and decompaction of soils. The New Jersey Agriculture Development Committee identifies general concerns and recommendations that should be implemented to reduce impacts on agricultural lands. We reviewed these recommendations and found that they are consistent with the mitigation measures that Transco has proposed. Additionally, we conclude that because these easements would not be encumbered by any permanent aboveground facilities and agricultural practices would be able to resume post-construction, Transco's project will not conflict with the long-term status of these easements.

97. The New Jersey Agriculture Development Committee comments that the EA does not acknowledge that the pipeline could cause new impacts on agricultural operations with certain non-perennial crops, such as orchards or nurseries, and requests clarification of this in the EA. Here, we recognize that while a pipeline easement will not permit the growth of deep rooted vegetation such as fruit trees, Transco's route is located adjacent to

⁸² EA at 42.

its existing pipeline for the majority of its length. Therefore, fruit trees are already prohibited along the alignment. Consequently, the current project will not constitute a new substantial impact.

98. Robin and Michael Kaplan question how and when landowners would receive Transco's Landowner Complaint Resolution Procedures, as referenced in Section 1.6.2 of the EA. Section 2.4.4 of the EA describes the procedures in more detail and states that Transco will provide the complaint resolution letter to all affected landowners two to three weeks prior to the planned construction start date.⁸³ We concur with the finding in the EA that the Landowner Complaint Resolution Procedures are acceptable.

99. The Sierra Club states that the EA fails to address the impacts of the pipeline on nearby residences. We disagree. The EA assesses the construction and operational impacts of Transco's proposal, including the site-specific residential plans. Transco developed these plans with measures such as installing safety fences, restoring landscaping, and preserving mature or ornamental vegetation to reduce the project's long-term impacts.⁸⁴ The EA concludes, and we concur, that impacts on residents would be minimized to the greatest extent practicable and would not be significant.

100. Robin and Michael Kaplan comment that "flying debris" could damage or break windows of nearby homes. The commenters also express concern with construction equipment extending close to their home, which they estimate to be 13 feet from the edge of the construction workspace. Transco will be required to construct the pipeline entirely within the approved right-of-way and as prescribed in its site-specific residential construction plans. Furthermore, Transco has not proposed to conduct any blasting. Because the project would involve excavation of soils with earth moving equipment, we do not expect flying debris to be a concern. As noted above, Transco has prepared a Landowner Complaint Resolution Procedure through which landowners may identify unresolved problems, which among other things may include unanticipated damages on properties.

101. Robin and Michael Kaplan ask whether page C-3 in Appendix C of the EA (Residential Construction Plans) applies to each of the individual residential plans. To eliminate duplicative material, the notes page (page C-3) was only printed once in the EA; however, we clarify here that it does apply to each of the plans. Transco will individually contact landowners prior to construction to determine if they want to

⁸³ *Id.* at 111.

⁸⁴ *Id.* at 109-111.

participate in its Pre-and Post-Construction Monitoring Program which is also discussed in the EA.⁸⁵

102. The Sierra Club believes that construction of the Skillman Loop would result in visual and scenic impacts in the Princeton Ridge area. We disagree. Transco would construct the pipeline within its existing right-of-way easement, which is currently cleared as tree growth and structures are prohibited. The pipeline will be below grade and, as stated in the EA, the right-of-way would be restored and returned to its previous uses after construction is complete.

13. Cultural Resources

103. The Stockbridge-Munsee Tribal Historic Preservation Office indicates that their cultural resource concerns are satisfied and the consultation process is complete.

104. In its September 10, 2014 comments on the EA, the PRC indicates the EA is deficient because it “[R]elies on material related to cultural resources that were not disclosed to landowners and community residents, thereby raising serious due process concerns and depriving the public of meaningful participation.” The PRC also indicates it knows of four “significant cultural resources sites that will be adversely impacted by the Skillman Loop” (28-Me-304; Tulane site; Upton Sinclair site; and Pettit site). The EA thoroughly addresses the survey methods used and the results presented in the survey reports, providing ample information for the public to make informed comments. Therefore, we do not believe the PRC was hampered in its ability to comment on cultural resources because they did not receive the primary reports. That information was withheld in compliance with Section 304 of the National Historic Preservation Act (NHPA) and Commission regulations.

105. Regarding the four sites that PRC indicates will be adversely affected, we note that surveys completed to date have identified no archaeological sites within the survey corridor for the Skillman Loop. The PRC states site 28-Me-304 is located “about 2,000 feet from the location of the [right-of-way]” and that the “Tulane” site lies above this. Due to the distance from the right-of-way, construction will not impact these sites. Commission staff was shown the “Upton Sinclair site” (consisting of a “fireplace”) during a field inspection. It is situated well off the construction right-of-way within a wooded area, and not apparent from the right-of-way. Therefore, we conclude that no impacts will occur on this site.

⁸⁵ *Id.* at 48.

106. The PRC provides no information on the “Pettit” site’s proximity to the construction right-of-way. Without further information, it is not possible to assess the site’s significance or any potential project impacts. However, the PRC indicates that “buildings from the original site are now incorporated in a residence,” and we note that no residences would be directed affected by construction. Therefore, we conclude that impacts on this undisclosed site are unlikely to occur.

107. If, as a result of additional testing required by the New Jersey SHPO, significant resources are identified within the project construction area, avoidance or mitigation/treatment will be required. Environmental Condition No. 20 of this order ensures that any additional studies required by the SHPO, and all appropriate consultations, will be completed prior to construction. In addition, Transco will implement its Unanticipated Discovery Plan to address any historic properties or human remains encountered during construction that were not previously identified during required surveys and consultations.

14. Air Quality

108. The Clean Air Council argues that the EA fails to adequately consider the environmental and health impacts of air pollution resulting from the project. We disagree. The Leidy Project must comply with the National Ambient Air Quality Standards (NAAQS). As stated in the EA, the primary NAAQS were established to protect human health, while the secondary standards protect the environment. The NAAQS serve two purposes, one of which is to “identify emissions control requirements the state will rely upon to attain and/or maintain the primary and secondary NAAQS.”⁸⁶ The project’s compliance with the NAAQS ensures protection of human health and the environment. Further, the EA presents project-related emissions and finds the project emission increases and net emission increases at Compressor Stations 515, 517, and 520 will not exceed applicable major modification thresholds and would not be subject to Prevention of Significant Deterioration permitting.⁸⁷

109. The Clean Air Council states that the EA does not address fugitive emissions in the form of methane leaks on a transmission system. In addition, commenters state that the EA does not adequately analyze direct, cumulative, and indirect impacts on climate change from greenhouse gas (GHG) emissions. The GHG emissions associated with the construction and operation of the project were identified and quantified in section 2.7.1 of

⁸⁶ <http://www.epa.gov/air/urbanair/sipstatus/overview.html>.

⁸⁷ EA at 147.

the EA.⁸⁸ There is no standard method for determining fugitive methane emissions for pipelines and the level of fugitive methane releases during the lifecycle of natural gas are highly debated. Therefore, it is difficult to accurately quantify fugitive emissions of methane. With respect to impacts related to climate change, the EA explains that there is no standard methodology to determine how a project's incremental contribution to GHG emissions would result in physical effects on the environment, either locally or globally. We concur with the EA's assessment.

110. The Clean Air Council states that the cumulative impacts on air quality were not adequately addressed. The Clean Air Council further states that the EA dismisses air quality impacts by indicating that each project considered in the analysis would be required to comply with federal state and local agency requirements. We disagree. As the EA explains in section 2.7.1, the EPA sets the NAAQS, which are implemented by the states via State Implementation Plans. While Commission-jurisdictional projects are in fact individually regulated, they must comply with federal regulations, as implemented through State Implementation Plans, which require companies to report operational emissions from applicable stationary sources. In addition, states maintain air quality monitors to determine compliance with the NAAQS throughout the state. Table 2.7.1-2 of the EA discloses existing ambient air quality concentrations in the project areas and table 2.7.1-3 provide the attainment status of each county in the project area. These concentrations are a cumulative representation as they include the ambient air environment. Further, the EA correctly discloses federal requirements, but this was in conjunction with, not in lieu of, an independent analysis. The Commission staff required Transco to perform additional air quality quantitative modeling using the EPA-approved AERMOD in screening mode. This modeling is beyond what is required by the state permitting process and provides a comprehensive and conservative analysis. The EA analyzed the results and found that the project would not result in a violation of the NAAQS. We agree.

111. Robin and Michael Kaplan request landowner access to Transco's Fugitive Dust Control Plan. This plan was filed with the Commission on December 23, 2013, under accession number 20131223-5104 and is part of the public record for the project.

15. Climate Change

112. The Clean Air Council states that the EA does not adequately analyze direct, cumulative, and indirect impacts on climate change from GHG emissions. The GHG emissions associated with the construction and operation of the project were identified

⁸⁸ *Id.* at 95-116.

and quantified in section 2.10.4 of the EA.⁸⁹ Further, the impacts potentially associated with global climate change which may be experienced in the general region of the project (i.e., the Northeast U.S.) were disclosed. However, the EA explains that there is no standard methodology to determine how a project's incremental contribution to GHG emissions would result in physical effects on the environment, either locally or globally. Further, the EA concludes that the GHG emissions from construction and operation of proposed action would contribute less than 0.1 percent of the New Jersey or Pennsylvania GHG emission inventories and would not represent a significant cumulative impact on air quality. We agree.

16. Vibration

113. Robin and Michael Kaplan express general concern regarding vibration and request that landowners have the opportunity to meet with a vibration specialist hired by Transco. In our staff's experience inspecting pipeline construction, vibration is not a common construction and operation concern. However, Transco has indicated that landowners can request a pre- and post- construction inspection of structures in proximity to the pipeline right-of-way. Further, landowners can utilize Transco's Landowner Complaint Resolution Process and/or the Commission's Alternative Dispute Resolution service to address any individual problems.

17. Safety

114. U.S. Congressman Holt and U.S. Senators Booker and Menendez request that senior staff from the Commission meet with the PRC, the Office of Pipeline and Hazardous Materials Safety Administration (PHSMA), and Transco to facilitate a mutual agreement regarding the safety concerns raised by PRC. As documented in the EA and throughout the public record, Transco modified its construction procedures to address the concerns of the PRC. In doing so, it adopted measures beyond standard industry practice and federal requirements, including agreeing to maintain the service outage on the existing pipeline throughout the duration of construction of the Skillman Loop in the Princeton Ridge. We believe that Transco has demonstrated a willingness to work with the PRC regarding safety and environmental concerns. Therefore, we find the safety concerns raised by the PRC are adequately addressed.

115. The Sierra Club asserts that the project poses a significant threat to public safety given its proximity to several homes. The PRC and Leah Neufeld request that we consider Transco's past safety violations in regard to safety of the Leidy Project. The PRC and Stuart County Day School of the Sacred Heart request additional expert review

⁸⁹ *Id.* at 193-195.

and analysis of Transco's construction and operation procedures with regard to public safety. We find no additional review or analysis is necessary. As detailed in the EA, Transco has designed and will construct, operate, monitor, and maintain the project in accordance with the federal pipeline safety regulations at Title 49 of the U.S. Code of Federal Regulations, Part 192 (49 CFR 192), which are protective of public safety. The Commission has a *Memorandum of Understanding on Natural Gas Transportation Facilities* with the U.S. Department of Transportation, which has exclusive authority to promulgate federal safety standards used in the transportation of natural gas. These regulations are implemented by PHMSA, which participated in preparation of the EA including the analysis of the project impacts on reliability and safety. Once a natural gas pipeline is constructed, PHMSA maintains oversight of safety during operations. The EA discloses the incidence rate and causes of pipeline accidents; however, the EA also places the occurrence of pipeline accidents in the context of the over 300,000 miles of natural gas transmission pipeline in the United States. The EA correctly concludes that pipelines are one of the safest means of transportation.

116. The PRC and Leah Neufeld allege that the EA is insufficient because it fails to address the risks associated with collocating natural gas pipelines. The PRC also questions the safety of collocating new pipelines with older pipelines. In order to reduce environmental impacts, the Commission's policy is to encourage collocation where possible, recognizing that each case may have unique circumstances. Pipeline looping involves working within previously disturbed areas, thereby reducing the footprint of impacts on environmental resources and minimizing impacts on new landowners. The benefits of collocation are described throughout the EA. Regarding the safety of pipeline collocation, the EA fully discloses the risk associated with natural gas infrastructure in section 2.9 of the EA. With regard to Transco's older existing pipelines, Transco is required to perform routine maintenance inspections of its pipelines under 49 C.F.R. Part 192. Should the results of these inspections warrant corrective action, Transco is required to alert PHMSA and correct the anomaly. In addition to required monitoring and inspections, Transco voluntarily used an inline inspection tool on April 14, 2014, to assess the existing pipeline and found that it was in compliance with PHMSA standards, and subsequently filed the report with PHMSA. We do not believe the existing pipeline poses an unusual safety threat to the public. Further, section 3 in the EA discusses alternative pipeline routes that did not involve collocation and concluded that those alternatives would not provide a significant environmental advantage over the proposed route. We agree.

117. The PRC claims that the EA did not consider the Accufacts filing. We disagree. The Accufacts report prepared by Mr. Kuprewicz reiterated concerns previously raised by the PRC, which were addressed throughout the EA. The EA describes Transco's

proposed voluntary measures within the Princeton Ridge, which far exceed standard industry practice, and concludes that they are acceptable.⁹⁰ We agree.

18. Alternatives

118. The Sierra Club believes that the EA's dismissal of the No Action Alternative is flawed because it presumes a need for the additional capacity of the project and concludes that similar new facilities, with similar environmental impacts as the Leidy Project, would be required to meet the project's capacity commitments. We disagree. As discussed previously in this order, the precedent agreements and fully subscribed capacity demonstrate a need for the Leidy Project and thus present an appropriate factor in the EA's analysis of the No Action Alternative.

119. The Sourland Conservancy indicates that it strongly opposes the PRC's alternative route variation, identified as Princeton Ridge Alternative 2 in the EA, and echoes concerns previously expressed by Montgomery Township with that route. These concerns included impacts on Green Acres properties, township-owned open spaces, wetlands and waterbodies, and new landowner impacts, among others.⁹¹ The EA analyzes the PRC's alternative route variation and does not recommend its inclusion in the proposed project design. We concur.

120. Leah Neufeld states that the Skillman community in Montgomery Township was not adequately studied. We disagree. The EA describes impacts in Montgomery Township throughout the EA and describes revised construction procedures that Transco adopted. In particular, section 1.6.2 of the EA addresses two horizontal directional drills (HDDs) developed in response to concerns from Montgomery Township officials.

121. PRC strongly prefers that a HDD be utilized to install the segment of the Skillman Loop within the Princeton Ridge, milepost 1776.8 - 1778.1, to avoid Transco's proposed overland construction through the area. PRC's preference for the HDD method is based primarily on the assertion that overland construction would result in significant environmental impacts and unacceptable safety risks related to potential damage to Transco's existing Caldwell B pipeline. As discussed in the EA, Transco engaged experts to determine the site specific geology and soil conditions of the Princeton Ridge through geotechnical borings, geophysical techniques, and laboratory analysis.⁹² In

⁹⁰ *Id.* at 22-24.

⁹¹ *Id.* at 203-205.

⁹² *Id.* at 38 and 43.

direct response to environmental concerns raised by PRC, Transco developed a detailed, site-specific construction plan (Rock Handling Plan) and a separate site specific restoration plan (Princeton Ridge Construction Restoration Plan) for installing the Skillman Loop by overland construction in the Princeton Ridge. The EA discloses that Transco engaged additional experts in developing the plans, including pipeline stress experts who modeled potential construction related stresses on the existing pipeline. The Rock Handling Plan and Princeton Ridge Construction Restoration Plan are summarized in the EA⁹³ and are available for review on our website. The primary elements of the Rock Handling Plan include limiting construction largely to the existing pipeline right-of-way and implementing other detailed measures to prevent damage and undue stress on the existing pipeline during construction. These measures include identifying the exact location of the existing pipeline; removing boulders from over the existing pipeline; maintaining an air gap bridge between the ground surface and construction equipment over the existing pipeline; performing integrity testing; and taking the existing line out of service during construction (as revised by Transco on October 1, 2014).

122. Commission staff was assisted by PHMSA in review of the safety aspects of Transco's plans, and the EA correctly concludes that implementation of the measures in the Rock Handling Plan, PRCRP, Transco's *Upland Erosion Control, Revegetation, and Maintenance Plan* and *Wetland and Waterbody Construction and Mitigation Procedures*, would minimize environmental impacts, protect public safety, and provide for restoration of the right-of-way through the Princeton Ridge. PRC agreed that Transco's plans to confine construction to the existing right-of-way would address most environmental concerns, and concluded that most environmental impacts on the Princeton Ridge will be minor, temporary, and appropriately mitigated.

123. Regarding PRC's request that a HDD be utilized to install the segment of the Skillman Loop within the Princeton Ridge, PRC asserts that an HDD should be feasible because it is substantially similar to the HDDs that will be installed by Transco in neighboring Montgomery Township. We disagree. Section 3.6 of the EA explains that, due to the unprecedented length of the Princeton Ridge HDD for 42-inch-diameter pipe (7,140 feet); hard rock drilling conditions; duration of the drill (240 days); and concerns with the ability to pull the pipeline segment through in a single pull, the risk of failure for the HDD would be unacceptably high. PRC itself notes that the bedrock in the Princeton Ridge is harder, which would result in a longer drill duration. Further, the longest of the two HDDs planned in Montgomery Township is approximately 3,300 feet, or less than one-half the length of the HDD recommended by PRC. The EA concludes that installation of the HDDs in Montgomery Township is reasonable, whereas the HDD

⁹³ *Id.* at 22-24.

suggested by PRC would very likely fail and should not be adopted. We agree with the EA's conclusions.

124. We received a comment from Jennifer Beardsley- Humphreys regarding project construction on her property. Ms. Beardsley-Humphreys prefers the pipeline to be constructed on the east side of Transco's existing right-of-way, away from her home. Ms. Beardsley-Humphreys states that Transco has not entered into good faith negotiations with her or made efforts to resolve her concerns regarding the Leidy Project. In the EA, Commission staff analyzed a route variation called the Franklin Loop Route Variation 2, which took into account Ms. Beardsley-Humphreys' concerns.⁹⁴ The route variation would result in transference of impacts to a new landowner, and result in two additional crossings of Transco's existing lines. The EA concludes that, on balance, constructing the Franklin Loop Route Variation 2 alternative would not result in a significant environmental advantage over the proposed route. We agree. We have encouraged Transco to continue to work with Ms. Beardsley-Humphreys to resolve any outstanding issues to the extent practicable. Further, Environmental Condition No. 24 in this order requires Transco to submit for approval a site-specific plan for construction on Ms. Beardsley-Humphreys' property prior to the Commission granting authorization to construct the project on her property.

125. Ms. Beardsley-Humphreys states that the EA mischaracterized the planned PPL Northeast/Pocono Reliability Project because Pennsylvania Power and Light has since relocated its planned power line about one mile from Transco's existing right-of-way. While this reduces the overall cumulative impact of the Leidy Project, it does not change the EA's conclusion.

19. Environmental Conclusions

126. Based on our consideration of the record, we agree with the conclusions presented in the EA and find that if constructed and operated in accordance with Transco's application, as supplemented, and the conditions imposed herein, approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

127. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or

⁹⁴ EA page 209.

local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.⁹⁵

F. Conclusion

128. At a hearing held on December 18, 2014, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application(s), as supplemented, and exhibits thereto, submitted in support of the authorizations sought herein, and upon consideration of the record,

The Commission orders:

(A) A certificate of public convenience and necessity is issued to Transco authorizing the construction of the Leidy Project as described in this order and more fully in the application.

(B) The certificate issued in Ordering Paragraph (A) is conditioned on:

- (1) Transco's completing authorized construction of the proposed facilities and making them available for service within two years of the date of this order pursuant to section 157.20(b) of the Commission's regulations;
- (2) Transco's compliance with all applicable Commission regulations, including paragraph (a), (c), (e) and (f) of section 157.20 of the Commission's regulations; and
- (3) Transco's compliance with the environmental conditions listed in the appendix to this order.

(C) Permission and approval is granted to abandon facilities, as more fully described in the application and in the body of this order.

(D) Transco shall notify the Commission within 10 days of the abandonment of the facilities described above.

⁹⁵See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Commission*, 894 F.2d 571 (2d Cir. 1990); and *Iroquois Gas Transmission System, L.P., et al.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

(E) Transco's incremental firm recourse rate for transportation on the Leidy Project is accepted.

(F) Transco shall keep separate books and accounting of costs attributable to the proposed incremental services, as more fully described above.

(G) Transco shall file actual tariff records with the incremental rate no earlier than 60 days and no later than 30 days, prior to the date the Leidy Project facilities go into service.

(H) Transco shall file not less than 30 days, or more than 60 days, before the in-service date of the proposed facilities, all negotiated rate agreements or a tariff record describing the negotiated rate agreements associated with this project.

(I) Transco shall notify the Commission's environmental staff by telephone, e-mail, and/or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Transco. Transco shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

Timely Intervenors

Agharkar, Shreeram N.
Aghevli, Karleen
Altmann, Jeanne
Anadarko Energy Services Company
Atmos Energy Marketing, LLC
Barr, Christopher and Patricia Shanley
Beardsley-Humphreys, Jennifer M.
Beatty, Richard W.
Blumenthal, Barbara
Cabot Oil & Gas Corporation
Calpine Energy Services, LP
Cherry, Kathleen P
Chevron Natural Gas
Chow, Paula K.
Consolidated Edison Company of New York and Philadelphia Gas Works (jointly)
Delaware Riverkeeper Network
Duke Energy Carolinas, LLC, Duke Energy Florida, Inc., and Duke Energy
Progress, Inc. (jointly)
Exelon Corporation
ExxonMobil Gas & Power Marketing Company
Florida Power & Light Company
Fridman, Symon and Helen
Goldfarb, Sidney J.
Goldston, Robert J.
Grossman, Gene and Jean B.
Hoppenot, Anne and Herve´
Josephson, Paul
Joshi, Rakesh
Law, Jr., Stuart A., and Karen S.
Madden, Jeanne-Anne
Municipal Gas Authority of Georgia and Transco Municipal Group (jointly)
Municipality of Princeton
National Fuel Gas Distribution Corporation
National Grid Gas Delivery Companies
Neufeld, Leah
New Jersey Department of Environmental Protection
New Jersey Natural Gas Company
NJR Energy Services Company

Noble Energy Inc.
North Carolina Utilities Commission
Pang, Myungyun
Peifer, Cynthia H.
Piedmont Natural Gas Company, Inc.
Pollard, Carol S.
Preston, Marvin IV and Candace L.
Princeton Ridge Coalition
Public Service Company of North Carolina and South Carolina Electric & Gas Company (jointly)
Sierra Club, New Jersey Chapter, Environment New Jersey, and Food & Water Watch (jointly)
Shapiro, Paul and Helene
Shell Offshore, Inc.
Sourland Conservancy
Stonybrook-Millstone Watershed Association
Southern Company Services, Inc.
Township of Montgomery
Township of Readington
UGI Distribution Companies
Vilko, Naomi
Waldorf School of Princeton
Washington Gas Light Company
Winant, John and Kathy
Yuan, Kaixu
Zhang, Tianyi

Untimely Intervenors

Allegheny Defense Project
Clean Air Council
East Tennessee Natural Gas, LLC
Firmenich, Johan
Kaplan, Robin and Michael
Mizels, Sharon
Phinney, Robert A. and Caroline

Appendix B

Environmental Conditions

As recommended in the environmental assessment (EA), this authorization includes the following conditions:

1. Transcontinental Gas Pipe Line Company, LLC (Transco) shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the Order. Transco must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification.**
2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the Leidy Southeast Project (Project). This authority shall allow:
 - a. the modification of conditions of the Order; and
 - b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from Project construction and operation.
3. **Prior to any construction**, Transco shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, Environmental Inspectors (EIs), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EA, as supplemented by filed alignment sheets and drawings. **As soon as they are available, and before the start of construction**, Transco shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

Transco's exercise of eminent domain authority granted under Natural Gas Act (NGA) Section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. Transco's right of eminent domain granted under NGA Section 7(h) does not authorize it to increase the size of its natural gas facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. Transco shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area**.

This requirement does not apply to extra workspace allowed by Transco's *Upland Erosion Control, Revegetation, and Maintenance Plan* and/or minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;
- c. recommendations by state regulatory authorities; and

- d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of the acceptance of the authorization and before construction begins**, Transco shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. Transco must file revisions to the plan as schedules change. The plan shall identify:
- a. how Transco will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
 - b. how Transco will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
 - c. the number of EIs assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
 - e. the location and dates of the environmental compliance training and instructions Transco will give to all personnel involved with construction and restoration (initial and refresher training as the Project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
 - f. the company personnel (if known) and specific portion of Transco's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Transco will follow if noncompliance occurs; and
 - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the environmental compliance training of onsite personnel;
 - iii. the start of construction; and

- iv. the start and completion of restoration.
7. Transco shall employ at least one EI per construction spread. The EIs shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
 - d. a full-time position, separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
8. Beginning with the filing of its Implementation Plan, Transco shall file updated status reports with the Secretary on a **biweekly** basis until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. an update on Transco's efforts to obtain the necessary federal authorizations;
 - b. the construction status of the Project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally-sensitive areas;
 - c. a listing of all problems encountered and each instance of noncompliance observed by the EIs during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;
 - e. the effectiveness of all corrective actions implemented;

- f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
 - g. copies of any correspondence received by Transco from other federal, state, or local permitting agencies concerning instances of noncompliance, and Transco's response.
9. **Prior to receiving written authorization from the Director of OEP to commence construction of any project facilities**, Transco shall file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
10. Transco must receive written authorization from the Director of OEP **before placing the Project facilities into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the Project are proceeding satisfactorily.
11. **Within 30 days of placing the authorized facilities in service**, Transco shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the conditions in the Order Transco has complied with or will comply with. This statement shall also identify any areas affected by the Project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
12. **Prior to construction**, Transco shall revise its procedures consistent with the FERC staff's *Wetland and Waterbody Construction and Mitigation Procedures* at section V.B.4.a.
13. **Prior to construction**, Transco shall file with the Secretary, for review and written approval by the Director of OEP, a complete list of areas by milepost where Transco would place spoil within 10 feet from the edge of a waterbody and site-specific justification for each location.
14. Transco shall not begin construction of the Project **until**:
 - a. Transco files the final Migratory Bird Habitat Restoration Plan with the New Jersey and Pennsylvania Field Offices of the U.S. Fish and Wildlife Service (FWS) and the Secretary; and

- b. Transco files with the Secretary all FWS comments on the final Migratory Bird Habitat Restoration Plan.
15. Transco shall not begin construction of the Project **until**:
- a. Transco files:
 - i. the results of the Phase II and Phase III bog turtle survey with the Pennsylvania Field Office of the FWS and the Secretary; and
 - ii. the final Indiana Bat Conservation Plan with the New Jersey and Pennsylvania Field Offices of the FWS and the Secretary;
 - b. the FERC staff completes any necessary Section 7 Endangered Species Act (ESA) consultation with the FWS for the bog turtle and Indiana bat;
 - c. the FERC staff completes any necessary Section 7 ESA conference with the FWS regarding the northern long-eared bat and any subsequent consultation, if necessary; and
 - d. Transco receives written notification from the Director of OEP that construction and/or use of mitigation (including implementation of conservation measures) may begin.
16. Transco shall not begin offsite mitigation activities in New Jersey or Pennsylvania **until**:
- a. Transco files the results of the Phase II bog turtle survey at the proposed wetland mitigation site in Lehigh County with the Pennsylvania Field Office of the FWS and the Secretary;
 - b. Transco reviews any proposed wetland mitigation sites in New Jersey for federally listed threatened and endangered species and, if necessary, conducts surveys for identified species in accordance with FWS requirements, and files the results of these reviews and surveys with the New Jersey Field Office of the FWS and the Secretary; and
 - c. the FERC staff completes any necessary Section 7 ESA consultation with the FWS.
17. **Prior to construction**, Transco shall file with the Secretary any outstanding survey results for state-listed species and identify any additional mitigation measures developed in consultation with the applicable state agencies.

18. **Prior to construction of the Skillman and Pleasant Run Loops**, Transco shall file with the Secretary an updated status of its consultation with the New Jersey Department of Environmental Protection (New Jersey DEP) to construct and operate its pipeline and associated facilities within Green Acres Program properties. Transco shall include copies of all correspondence, including any additional requirements imposed by the New Jersey DEP.
19. **Prior to construction**, Transco shall file with the Secretary a copy of the determination of consistency with the Coastal Zone Management Program of the Chesapeake Bay and Coastal Programs of the Maryland Department of Natural Resources.
20. Transco shall not begin construction of facilities and/or use of staging, storage, or temporary work areas and new or to-be-improved access roads **until**:
 - a. Transco files with the Secretary:
 - i. Phase I cultural resources survey and architectural inventory reports for any previously unreported areas, including any wetland mitigation parcels, and the appropriate State Historic Preservation Office's (SHPO) comments on the reports;
 - ii. the Revised Phase I report for New Jersey, and the SHPO's comments on the report;
 - iii. the Virginia SHPO's comments on facility modifications that were excluded from cultural resources surveys;
 - b. the Advisory Council on Historic Preservation is afforded an opportunity to comment if historic properties would be adversely affected; and
 - c. the FERC staff reviews and the Director of OEP approves the cultural resources reports, and notifies Transco in writing that construction may proceed.

All material filed with the Commission containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: **“CONTAINS PRIVILEGED INFORMATION--DO NOT RELEASE.”**

21. Transco shall file **in the construction status reports** the following information for each horizontal directional drill entry and exit site:
 - a. noise measurements from the nearest noise-sensitive area (NSA), obtained at the start of drilling operations;

- b. noise mitigation that Transco implemented at the start of drilling operations; and
 - c. any additional mitigation measures that Transco will implement if the initial noise measurements exceeded a day-night level (L_{dn}) of 55 decibels on the A-weighted scale (dBA) at the nearest NSA and/or increased noise is 10 decibels over ambient conditions.
22. Transco shall file a noise survey with the Secretary **no later than 60 days** after placing the modified equipment at Compressor Stations 205 and 517 into service. If full load condition noise surveys are not possible, Transco shall provide interim surveys at the maximum possible horsepower load and provide the full load survey **within 6 months**. If the noise attributable to the operation of all of the equipment at Compressor Stations 205 and 517 under interim or full horsepower load exceeds an L_{dn} of 55 dBA at the nearest NSA, Transco shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Transco shall confirm compliance with the above requirement by filing a second noise survey for each station with the Secretary **no later than 60 days** after it installs the additional noise controls.
23. Transco shall make all reasonable efforts to ensure its predicted noise levels from Compressor Stations 515 and 520 are not exceeded at nearby NSAs and file noise surveys showing this with the Secretary **no later than 60 days** after placing Compressor Stations 515 and 520 into service. If a full load condition noise survey is not possible, Transco shall provide interim surveys at the maximum possible horsepower load and provide the full load surveys **within 6 months**. If the noise attributable to the operation of all of the equipment at Compressor Stations 515 and 520 under interim or full horsepower load conditions exceeds the existing noise levels at any nearby NSAs, Transco shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Transco shall confirm compliance with the above requirement by filing a second noise survey for each station with the Secretary **no later than 60 days** after it installs the additional noise controls.
24. **Prior to construction**, Transco shall file a finalized site-specific construction/crossing plan for the Beardsley-Humphreys property with the Secretary for review and written approval by the Director of OEP.