



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Virginia Field Office
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August 14, 2014

Ms. Shannon Jones, Chief
Gas Branch 1
Division of Gas – Environment and Engineering
Federal Energy Regulatory Commission
888 first Street NE, Room 1A
Washington, D.C. 20426

Mr. William T. Walker
Chief, Regulatory Branch
Norfolk District, Corps of Engineers
803 Front Street
Norfolk, VA 23510-1096

Attn: Jeanne Richardson, Regulatory Branch

Re: OEP/DG2E/Gas Branch 3,
Transcontinental Gas Pipe Line
Company, Virginia Southside
Expansion Project, Docket No. CP13-
30-000

Dear Ms. Jones and Mr. Walker:

This document transmits the U.S. Fish and Wildlife Service's (Service) conference opinion based on our review of the referenced project and its effects on the federally proposed northern long-eared bat (*Myotis septentrionalis*; NLEB) in accordance with section 7 of the Endangered Species Act (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA). Your July 23, 2014 request for formal conference was received on July 23, 2014.

This conference opinion is based on information provided in the June 2014 Supplemental Biological Assessment for Transcontinental Gas Pipe Line Company, LLC (Transco) Virginia Southside Expansion Project (Project), the June 2013 Transco Project Environmental Assessment, telephone conversations, field investigations, and other sources of information. A complete administrative record of this conference is on file in this office.

CONFERENCE HISTORY

- 08-30-12 The Service received the notice of intent to prepare an environmental assessment from the Federal Energy Regulatory Commission (FERC).
- 11-09-12 Transco met with the Service to present an overview of the Project, discuss the environmental assessment FERC would prepare, and discuss endangered species issues. The Service received results of the small whorled pogonia (*Isotria medeoloides*) survey.
- 12-19-12 Transco sent a letter asking the Service for written concurrence on its analysis of impacts to endangered and threatened species.
- 01-31-13 The Service sent a letter to Transco verifying we had received Transco's request for written concurrence for the Project. The letter directed Transco to use the Virginia Field Office's online project review process.
- 06-14-13 FERC sent a letter asking for Service concurrence with its "not likely to adversely affect" determinations for the Roanoke logperch (*Percina rex*), smooth coneflower (*Echinacea laevigata*), harperella (*Ptilimnium nodosum*), and small whorled pogonia.
- 12-30-13 Transco requested concurrence on harperella and smooth coneflower survey results.
- 02-10-14 The Service responded to FERC's June 14, 2013 request for concurrence, concluded that the Project would have "no effect" on Roanoke logperch and was "not likely to adversely affect" smooth coneflower, harperella, and small whorled pogonia. In that letter, the Service indicated that the NLEB had been proposed for listing under the ESA and advised FERC of the options available for complying with requirements of the ESA.
- 02-24-14 The Service received a forest impact summary from Transco.
- 05-20-14 FERC, Transco, and the Service agreed to engage in formal conference on the NLEB using the "may affect and is likely to adversely affect" standard that Federal agencies and the Service employ during formal consultation (50 CFR 402.14).

CONFERENCE OPINION

DESCRIPTION OF PROPOSED ACTION

Transco is requesting authorization from FERC to construct, modify, operate, and maintain a new natural gas pipeline and associated facilities in Virginia, Maryland, Pennsylvania, North Carolina, and New Jersey. The U.S. Army Corps of Engineers is also providing authorization for this project. Transco's stated project purpose is to provide 270,000 dekatherms per day of natural gas to Virginia Power Services Energy Corp., Inc. and Piedmont Natural Gas Company, Inc.

The Project is an incremental expansion of Transco's existing pipeline system. The Project includes the following new facilities in Virginia:

- approximately 91 miles of new 24-inch-diameter pipeline facilities along its existing South Virginia Lateral "A" (SVL A) in Pittsylvania, Halifax, Charlotte, Mecklenburg and Brunswick Counties, VA (South Virginia Lateral "B" [SVL B]; see Figure 1);
- approximately 7 miles of new 24-inch-diameter greenfield pipeline from the end of the proposed SVL B extending northerly, to Virginia Electric and Power Company's proposed power station in Brunswick County, VA (the Brunswick Lateral);
- a new compressor station adjacent to Transco's existing Compressor Station 165 in Pittsylvania County, VA consisting of two 10,915 horsepower gas turbine-driven compressor units and a cross-connect with regulation between SVL A and SVL B (Compressor Station 166);
- a new delivery meter station and gas heaters at Virginia Power Services Energy Corp's proposed power station at the terminus of the Brunswick Lateral;
- a cross-connect with regulation between Transco's existing SVL A and the proposed SVL B in Brunswick County, VA; and
- various related appurtenant underground facilities and aboveground facilities, such as valves and valve operators, launchers, and receivers.

Outside of Virginia, no new construction is proposed. Transco proposes modifications to existing facilities to allow bi-directional flow on Transco's mainline:

- modifications for increased delivery at the existing Pleasant Hill meter station in Northampton County, NC;
- modifications to piping and valving at the existing Compressor Station 205 in Mercer County, NJ ; and
- modifications to valve settings and meter station locations between existing Compressor Station 190 and Compressor Station 195 in Pennsylvania and Maryland.

Transco anticipates starting construction on or about September 1, 2014; with service beginning on or about September 1, 2015.

Below is a synopsis of the Project facilities. Greater detail on each Project component is provided in the June 2013 Environmental Assessment (FERC 2013a) and Transco's public submittals to FERC.

Overview

South Virginia Lateral A Pipeline

The existing SVL A, constructed in 1968, is within a 50-foot permanent right-of-way (ROW) consisting primarily of periodically mowed grasses (mowed about one to three times per year). Trees overhanging the edge of the ROW are periodically trimmed to maintain the 50-foot ROW for aerial inspection.

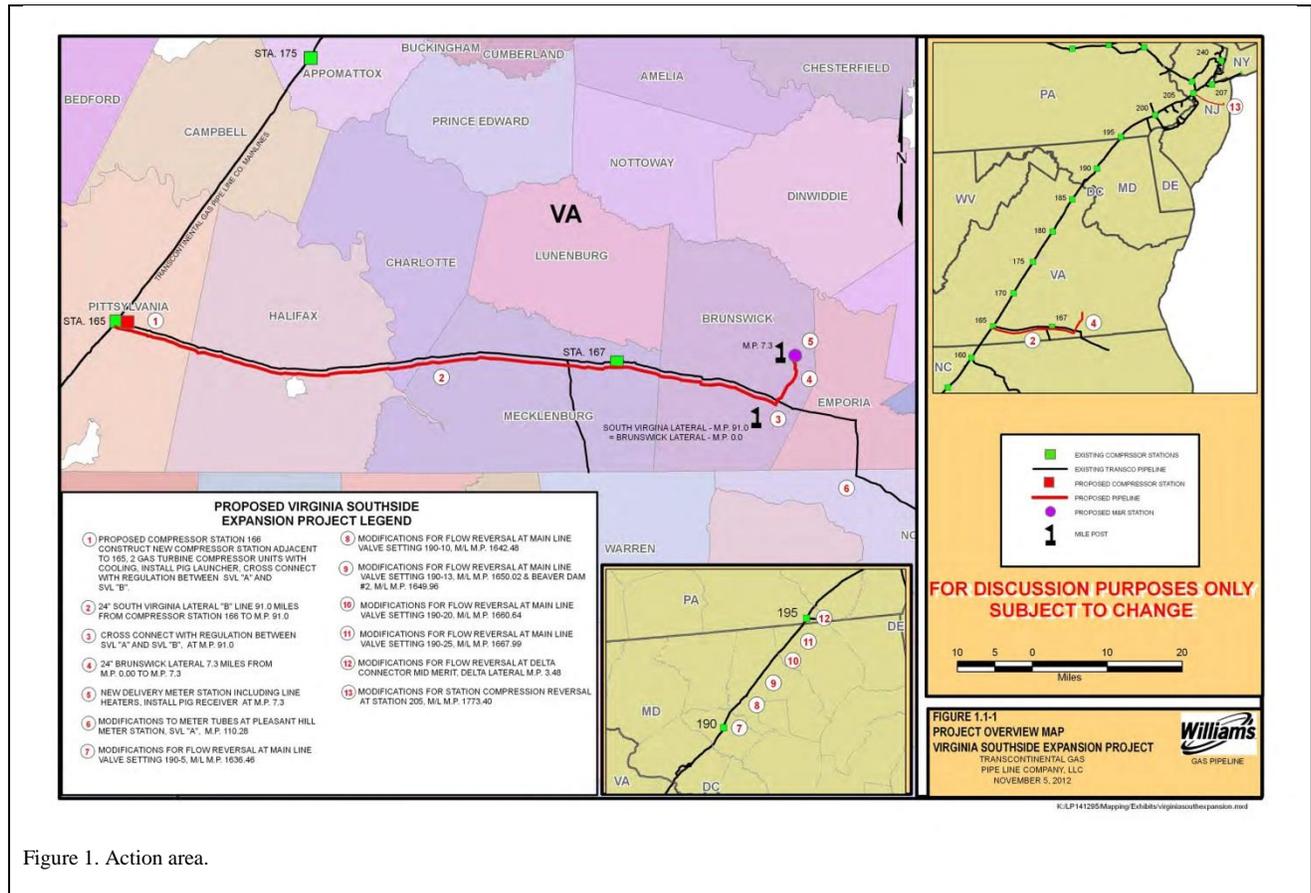


Figure 1. Action area.

Transco will construct the pipelines using an 85-foot-wide construction ROW (with the exception of some wetland crossings). In areas of collocation, the 85-foot wide construction ROW will typically consist of the use of 45 feet of the 50-foot existing permanent ROW and an additional 40-foot of temporary construction ROW. Transco will require additional temporary workspaces (ATWS) outside of the construction ROW for certain waterbody and wetland crossings, road and railroad crossings, storage of stripped topsoil, hydrostatic test water withdrawal pump locations, pipeline crossover areas, pipeline tie-in areas, and equipment turnaround areas. The temporary construction ROW and ATWS during construction will be restored to pre-construction conditions and revert to previous uses following construction.

Transco will also construct a new compressor station (CS 166) affecting about 32.6 acres. Of this, about 29.3 acres will be fenced and maintained for operation of the compressor station. The remaining 3.3 acres will be restored and revert to pre-construction conditions.

South Virginia Lateral B Pipeline

Transco will collocate the SVL B pipeline within a portion of the active SVL A permanent ROW for about 84 miles (92 percent of the pipeline). In areas of collocation, a 20-foot offset is required between the pipelines to provide a safe distance between the two pipelines during construction and future maintenance activities, should it be required. Most of the collocated

portions of the SVL B pipeline would not require additional permanent ROW during operation, as the SVL A permanent ROW is of sufficient width for both pipelines (Figure 2). However, in specific areas of collocation the permanent ROW is not sufficient due to construction or topographical constraints. Transco will acquire 15 feet of permanent ROW at 12 locations, 20 feet at 7 locations, and 25 feet at 1 location along the SVL B route.

The remaining about 7.0 miles (8 percent) of the SVL B pipeline will not be collocated with the existing SVL A pipeline ROW. In total, the SVL B pipeline construction ROW will affect about 933.0 acres. An additional 201.0 acres will be temporarily affected by ATWS. Following construction, Transco will maintain a new permanent 50-foot wide easement along the non-collocated portions of the SVL B ROW (about 44 acres)¹. The remainder of the construction ROW and the ATWS will be restored to pre-existing conditions and allowed to revert to previous land uses.

Brunswick Lateral Pipeline

The construction ROW for the Brunswick Lateral will be 85 feet wide. In total, the Brunswick Lateral pipeline construction ROW will affect about 75 acres, of which about 43 acres would be retained as a new permanent 50-foot wide permanent easement. Transco will affect an additional about 22 acres temporarily by ATWS. All areas outside of the permanent ROW will revert to previous land uses.

Pipe Storage and Contractor Yards

Transco will use 2 pipe storage and contractor yards totaling 42 acres near the proposed SVL B pipeline route in areas consisting of agricultural, open, and currently or previously used commercial or industrial areas. These yards would be bases for operation during construction for equipment and material storage, fueling stations, and pre-assembly of piping and aboveground facility components. None of these pipe storage and contractor facilities would require the removal of any forested areas.

Access Roads

Transco will use existing private roads to provide temporary access during construction. Transco will negotiate with landowners for the use of these roads.

Modifications and improvements will include grading, placement of gravel for stability, replacing or installing culverts, minor widening, and clearing of overhead vegetation to safely accommodate Project equipment and vehicles. Use of the temporary access roads will affect about 87 acres. If any of the temporary access roads are damaged by the Project, Transco will restore the roads to pre-existing condition or better unless agreement has been made with the landowner to leave the improvements in place. Transco will construct four new permanent roads to provide access to the proposed compressor station (two roads), interconnection and pressure

¹ Based on prior experience with projects of similar nature, these acreage estimates may increase once construction begins based on site conditions encountered during construction. A conservative estimate for this Project is that these changes might increase the acreage affected by a total of 81 acres. About 50 acres would be associated with the pipeline ROW; about 23 acres would be associated with ATWS; and about 9 acres would be associated with temporary access roads.

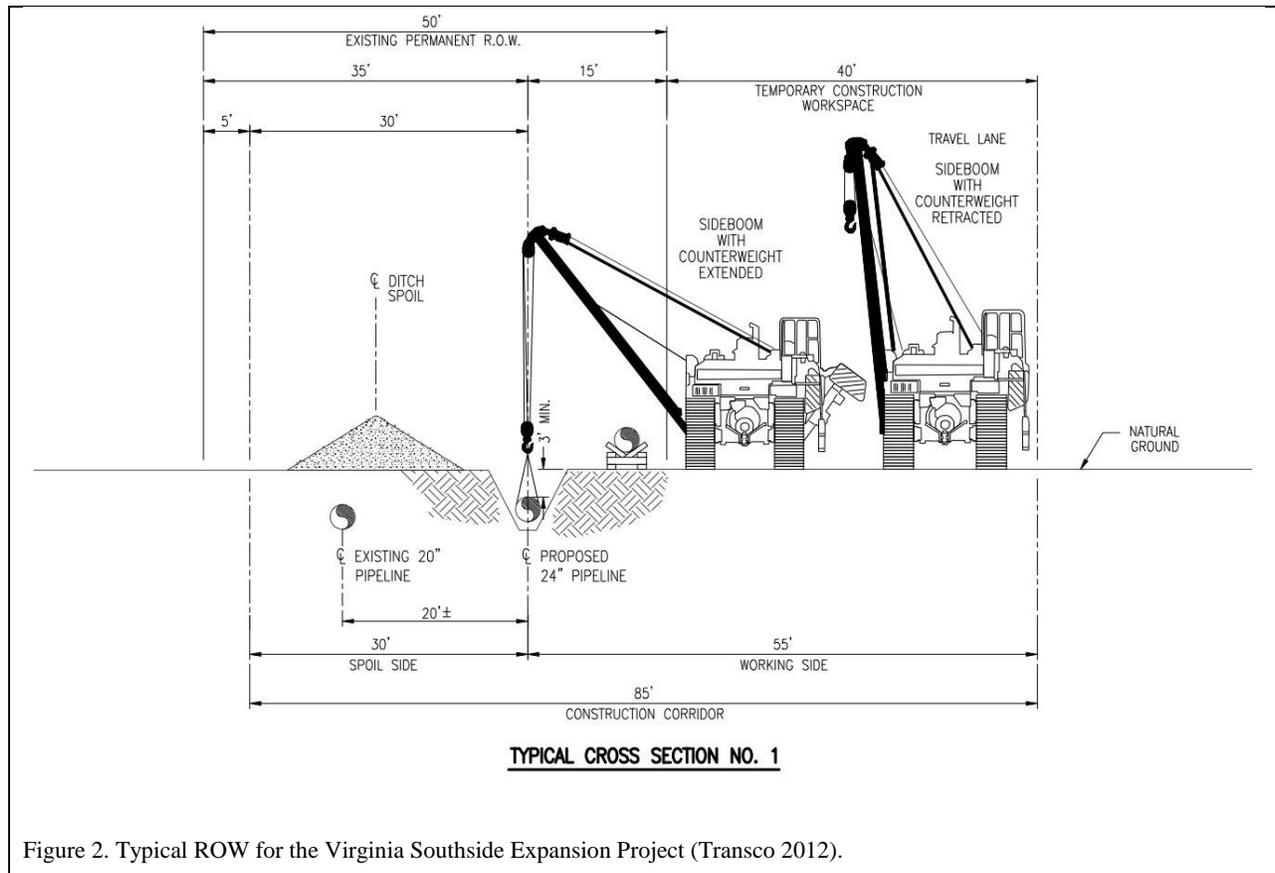


Figure 2. Typical ROW for the Virginia Southside Expansion Project (Transco 2012).

regulating station at the joining of the SVL B and Brunswick Lateral pipelines (one road), and the meter station during operation of the Project (one road). Construction and use of the 4 permanent access roads to the facilities will permanently impact about 2.5 acres.

Vegetation Clearing

Transco will mechanically clear and remove all vegetation and tree stumps, as necessary, within upland construction ROW, ATWS areas, and aboveground facilities. Transco will hand-clear small-diameter vegetation in heavily vegetated areas for laying the telemetry cable where horizontal directional drilling (HDD) will be used. Cleared timber and vegetation will be chipped or shredded and either dispersed along the ROW or removed for offsite disposal, as approved by landowners and state and/or local agencies. Transco will stack timber along the ROW for landowner removal and use, upon landowner approval. Further, Transco will work with the individual landowner to determine appropriate off ROW timber storage locations to minimize impacts on vegetation.

To minimize the impacts of vegetation clearing on previously undisturbed vegetation, Transco will collocate 92 percent of the SVL B ROW with the existing SVL A ROW. The overlap of the proposed construction ROW with the existing ROW varies across the length of the pipeline from 0 to 50 feet. Collocation of SVL B with the existing SVL A ROW reduces construction impacts on previously undisturbed areas by about 50 percent and operational impacts by about 85 percent as compared to a new “greenfield” pipeline construction ROW.

Along the collocated portions of the SVL B pipeline, the permanent ROW will range from 0 to 25 feet, depending on the amount of ROW overlap. Along the non-collocated portions of the SVL B pipeline (about 8 miles) and along the entire 7-mile-long Brunswick Lateral pipeline, the permanent ROW will be 50 feet wide. However, for the Brunswick Lateral pipeline, Transco will maintain only a 10-foot wide corridor within the permanent ROW centered over the pipeline, and not more frequently than annually.

Additionally, Transco will selectively cut and remove trees within 15 feet of the pipeline within wetlands to ensure root systems do not interfere with pipeline integrity. No maintenance activities will occur between the HDD entry and exit locations. The U.S. Army Corps of Engineers indicated that its easement agreement with Transco will allow for only a 10-foot wide corridor for maintenance during operation of the Project; therefore permanent land impacts will be reduced.

Noise

The Biological Assessment (FERC 2014) indicates that nighttime construction noise will be limited since most construction occurs during the daylight hours between 7:00 am and 7:00 pm, Monday through Saturday. Worst case noise levels may result in sound levels exceeding 55 decibels (dBA); however noise would be intermittent and limited to short periods over 3 to 4 weeks at any one location. An exception to the typical daytime construction hours will be HDD, which would operate 24 hours per day, 7 days per week, for up to 8 weeks at each location. Transco proposes four crossings using HDD; two on the Banister River, one at Interstate 85, and one on the Staunton (Roanoke) River.

Blasting may also be used to construct the pipeline in areas where bedrock is encountered.

Operations and Maintenance

Transco will operate and maintain the new pipelines, aboveground facilities, and modified facilities in accordance with all applicable Federal and state requirements, including the minimum U.S. Department of Transportation's Federal safety standards identified in Transportation of Natural and Other Gas by Pipeline (49 FR 192).

Transco will periodically inspect the pipelines from the air and on foot as required by applicable regulatory requirements to identify potential concerns that may affect the safety and operation of the pipeline. Pipeline markers and signs will be inspected and maintained or replaced, as necessary, to ensure that pipeline locations are clearly identified. Field personnel will advise the appropriate operations personnel of new construction along or near the pipeline system. Transco will complete pipeline patrol of highway and railroad crossings as required by the U.S. Department of Transportation's. The pipeline's cathodic protection systems will be monitored and inspected periodically to ensure adequate corrosion protection.

If pipeline patrols or vegetation maintenance identify areas on the ROW where erosion is occurring, Transco will repair existing erosion control devices or install additional devices as necessary to stabilize the area and prevent future erosion, throughout the life of the Project. To maintain accessibility to the ROW and accommodate pipeline integrity surveys, vegetation along the pipeline ROW will be mechanically mowed or cut where necessary, and in accordance with the Upland Erosion Control, Revegetation, and Maintenance Plan (VSEP Plan) and Wetland and

Waterbody Construction and Mitigation Procedures (VSEP Procedures). These erosion control methods are based on FERC's 2013 Upland Erosion Control, Revegetation, and Maintenance and Wetland and Waterbody Construction and Mitigation Procedures (FERC Plan and Procedures; FERC 2013b, 2013c). Additionally, in accordance with the VSEP Plan, routine vegetation maintenance will not be conducted between April 15 and August 1 of any year. This restriction is designed to minimize potential impacts on migratory birds during operation of the pipeline facilities.

Active cropland will be allowed to revert to pre-construction use for the full width of the ROW. In non-cultivated uplands, routine vegetation maintenance clearing will be conducted not more than once every three years. To facilitate periodic corrosion/leak surveys, a corridor not exceeding 10 feet in width centered on the pipeline may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. Additionally, in wetlands, a 10-foot wide corridor centered over the pipeline will be maintained in an herbaceous state, and trees within 15 feet of the pipelines will be selectively cut and removed from the ROW.

Transco personnel will perform regular operation and maintenance activities on equipment at the proposed compressor station, meter station, pressure regulating stations, and mainline vales. These activities will include calibration, inspection, and scheduled routine maintenance. Operational testing will be performed on safety equipment to ensure proper functioning and problems will be corrected.

Conservation Measures

Conservation measures are actions a Federal agency includes as an integral part of its proposed action and that are intended to avoid and minimize effects of the action on the proposed species. These measures are synthesized from the Biological Assessments and discussions between the Service and Transco.

1. Transco proposes to begin tree clearing after September 15, 2014, which is after the NLEB summer maternity season, and complete all tree clearing prior to April 15, 2015, prior to initiation of the NLEB summer maternity season, if feasible. If not feasible, the appropriate surveys will be conducted to determine NLEB presence/probable absence in the area of the tree clearing following the Service's NLEB interim guidance (Service 2014).

Assuming that the NLEB is listed, Transco will follow the same survey protocol if any suitable NLEB roosting habitat clearing is required after April 15, 2015. Transco will either wait to conduct the clearing until after September 15 of that calendar year or conduct the appropriate NLEB surveys to determine presence/probable absence within suitable roosting habitat and coordinate with the Service on the results. However, to minimize schedule delays for additional required workspaces where minimal additional clearing is required during the summer months of 2015 and 2016 (April 15 through September 15), the following step-wise protocol to screen for suitable roosting habitat will be followed.

- A. A checklist will be developed in coordination with the Service based on the habitat descriptions provided in the Service's NLEB interim guidance (Service 2014) and available at:
<http://www.fws.gov/northeast/virginiafield/pdf/NLEBinterimGuidance6Jan2014.pdf>
- B. To minimize time required by the Service for review and clearance of small areas requiring minimal additional clearing (e.g., 1,250 square feet up to 10,000 square feet are typical additional workspace requests during construction), Transco proposes utilizing the 3rd Party FERC Inspector that will already be present on-site in a dual role representing the interests of the Service as well. The 3rd Party Inspector would be vetted with the Service so that the Service accepted the individual(s) as meeting the standards necessary to make judgment calls relative to acceptable habitat for NLEB for the Service at the project site.
- C. Small areas to be cleared that contain trees would be evaluated by the Transco Environmental Inspector (EI) relative to the habitat criteria checklist and classified into various levels. The proposed levels would be reviewed with the 3rd Party Inspector as noted below:

Category A (Small Trees Only) - If all trees are less than 3 inches in diameter, the Transco EI will photo-document the area, note the entry in his daily log, and include the checklist and a photographs in their daily report. The Transco EI will provide the documentation to the 3rd Party Inspector who will have the opportunity to review the area and the authority to approve the removal without further consultation with Service.

Category B (3-inch diameter at breast height/no suitable roost trees) – If the area contains some trees that are 3 inches in diameter or greater but no suitable roosts are present relative to the habitat criteria, the Transco EI would photo-document the area and the individual trees to be cleared. The 3rd Party Inspector would be called to the specific location to verify that area had been appropriately surveyed for suitable NLEB roosts and concur with the conclusion.

Category C (Potentially Suitable Habitat) - If suitable roosting habitat appears to be present, Transco will develop a survey study plan to determine presence/probable absence within suitable roosting habitat. The study plan will be provided to the Service for review along with any subsequent results.

Note: A description of all Category A and Category B areas approved by the 3rd Party Inspector will be provided to the Service's Virginia Field

Office according to the mechanism and reporting interval agreeable to the Service.

2. Transco will implement Soil Erosion and Sediment Control Plans (SESC Plans) which are state regulated permits, its VSEP Plan and Procedures, and associated plans to minimize erosion and prevent degradation of stormwater runoff from construction areas. The SESC Plans, which address soil erosion regulations specific to each state, have been developed for Virginia, New Jersey, and Maryland. Transco will implement additional construction, restoration, and mitigation plans prepared for the Project. These plans include the following: Spill Plan; HDD Contingency Plan; HDD Construction Plans, Unanticipated Discovery of Contamination Plan; Unanticipated Discovery Plan (Historic Properties, Human Remains, or Paleontological Resources), Residential Construction Plans, Blasting Plan, and Winter Construction Plan. These plans are discussed in greater detail in FERC's June 2013 Environmental Assessment (FERC 2013a) and Transco's public submittals to FERC.
3. Transco will follow FERC's recommended re-vegetation procedures. Seed mixes and application rates will follow Virginia Department of Conservation and Recreation guidance using seasonally appropriate seed mixes for the Virginia Piedmont region to provide quick cover and permanent stabilization. Transco will restore wetland areas and stream banks to pre-construction conditions following pipeline installation and backfill. These areas will be allowed to naturally revert to their pre-construction condition and vegetative community, except within 15 feet of the pipeline where periodic mowing and selective tree removal may be required during operation.
4. To minimize direct and indirect impacts on vegetative communities along the pipeline routes and associated aboveground facilities, Transco will follow the requirements of its VSEP Plan, VSEP Procedures, and additional proposed mitigation measures, which includes:
 - minimization of vegetative clearing through collocation with an existing ROW;
 - minimization of impacts on vegetation, including riparian vegetation and wetlands, through implementation of HDDs;
 - installation of temporary erosion control measures, such as slope breakers, sediment barriers, and mulch;
 - installation of permanent erosion control devices, such as trench breakers, slope breakers, and seeding; and
 - annual monitoring and reporting to the FERC to document the status of revegetation until restoration is successful.
5. During construction, Transco will implement mitigation measures to prevent the spread of noxious weeds, including cleaning and removing noxious plant parts and seeds from construction and restoration equipment prior to delivery to any Project areas. During construction, Transco will minimize soil disturbance to the extent practicable and use certified weed-free mulch/straw, gravel, and import soil per its VSEP Procedures. Additionally, Transco will follow the management guidelines and recommendations

established in the Virginia Department of Conservation and Recreation publication *Managing Invasive Alien Plants in Natural Areas, Parks, and Small Woodlands* (Heffernan 1998). Transco will follow the restoration requirements in its VSEP Plan and Procedures for upland and wetland areas to establish native cover. Transco will provide training to appropriate personnel regarding identification of purple loosestrife (*Lythrum salicaria*) and European wand loosestrife (*Lythrum virgatum*) (known noxious weeds to occur in the project area) and will notify Virginia Department of Conservation and Recreation if confirmed stands of either of these species are identified along the construction corridor. Revegetation will be considered successful when native vegetation cover and diversity within the temporary ROW are similar to adjacent, undisturbed lands.

6. Transco proposes to minimize impacts on wetlands by implementing the measures identified in its VSEP Procedures, which include the following:
 - limit the operation of construction equipment within wetlands to equipment essential for clearing, excavation, pipe installation, backfilling, and restoration; minimize the length of time that topsoil is segregated and the trench is open install trench breakers at the boundaries of wetlands to prevent draining of a wetland and maintain original wetland hydrology;
 - prohibit storage of hazardous materials, chemicals, fuels, and lubricating oils within a wetland or within 100 feet of a wetland boundary; and
 - return wetlands to pre-existing contours.
7. To reduce noise levels associated with HDD activities, Transco will implement the following measures at the Banister River Crossing 1 and Interstate 85: use of barrier and/or acoustically-lined tents around HDD entry sites, hydraulic power units, pumps, jacket-water coolers, mud mixing/cleaning system; use of engine exhaust silencers; and use of “low-noise” generator with the mud mixing/cleaning system.
8. All blasting will be conducted during daylight hours and Transco will develop site-specific plans that will implement mitigation measures to reduce noise and vibration impacts at each site.
9. Routine vegetation maintenance clearing will not be conducted more frequently than every 3 years and will not occur between April 15 and August 1 of any year.

Action Area

The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. The Service has determined that the action area for this project is the entire 98-mile length of the pipeline, including the permanent ROW, temporary ROW, ATWS, pipe and contractor yards, temporary and permanent access roads, and new and modified aboveground facilities with a 1.5-mile buffer around these areas in Pittsylvania, Halifax, Charlotte, Mecklenburg, and Brunswick Counties, VA. The action area also includes the existing aboveground facilities in North Carolina, Maryland, Pennsylvania, and New Jersey (see Figure 1).

STATUS OF THE SPECIES AND CRITICAL HABITAT RANGEWIDE

The Service proposed to list the NLEB as an endangered species and indicated that critical habitat was not determinable under the ESA in October 2013 (78 FR 61045). The Committee on the Status of Endangered Wildlife in Canada listed the NLEB as endangered on February 3, 2012. Similarly, NatureServe classifies NLEBs as G2G3 (globally imperiled² or globally vulnerable³) because the bats are relatively rare throughout their range.

The species description, life history, population dynamics, status, and distribution are at: Amelon and Burhans 2006; Barbour and Davis 1969; Blehert et al. 2009; Bouma et al. 2010; Broders and Forbes 2004; Caceres and Barclay 2000; Caire et al. 1979; Callahan et al. 1997; Carter and Feldhamer 2005; Center for Biological Diversity 2010; Clark et al. 1987; Committee on the Status of Endangered Wildlife in Canada 2012; Cope and Humphrey 1972; Crnkovic 2003; Dobony et al. 2011; FERC 2014; Ford et al. 2011; Foster and Kurta 1999; Frick et al. 2010; Gargas et al. 2009; Grieneisen 2011; Griffin 1940, 1945; Hallam et al. 2011; Harvey et al. 1991, 1992; Hayes 2012; Henderson and Broders 2008; Ingersoll et al. 2013; Johnson et al. 2009, 2012; Kunz and Reichard 2010; Lacki and Schwierjohann 2001; Langwig et al. 2012; Lorch et al. 2011; Maher et al. 2012; Menzel et al. 2002; Meteyer et al. 2009; Mills 1971; Minnis and Lindner 2013; Moore et al. 2011; Moosman et al. 2013; Mumford and Cope 1964; Nagorsen and Brigham 1993; NatureServe 2013; Owen et al. 2002; Perry and Thill 2007; Puechmaille et al. 2011; Sasse and Perkins 1996; Service 2010; Stones and Branick 1969; Timpone et al. 2010; Turner et al. 2011; U.S. Geological Survey 2014; Wells and Richmond 1995; WNS (white-nose syndrome) Science Strategy Report 2008; and Youngbaer 2013.

ENVIRONMENTAL BASELINE

Status of the Species/Critical Habitat Within the Action Area – The status of NLEBs in the action area is unknown. St. Germain (2006) reported acoustically detected NLEBs on Fort Pickett, Nottoway County, VA, adjacent to the northern border of Brunswick County (the eastern terminus of the Project); however, he did not capture any NLEBs despite almost 136 net hours so we treat his report as anecdotal until his data have been independently verified. The Virginia Department of Game and Inland Fisheries (VDGIF) lists NLEBs as “likely to occur” in the five counties that encompass the Project area (VDGIF 2014); however, that conclusion was based on the occurrence of suitable habitat in the counties rather than on data from surveys.

No NLEB hibernacula are known within the action area (i.e., the construction ROW and associated 1.5-mile buffer) or within a 5-mile radius. Four active mineral resource mines were identified within 0.5 miles of the Project (FERC 2013a). NLEB are not likely to utilize active mines because they are sensitive to disturbance within the hibernacula (Tuttle 1976, Luo et al. 2014).

² At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

³ At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

FERC and Transco have not conducted surveys for NLEBs along the alignment of the Project. Because the Project occurs within the range of the species and suitable forested habitat exists in the action area, it is assumed that NLEB utilize this area in the summer.

FERC (2014) indicates that there are five records of NLEBs in the Piedmont and Coastal Plain of Virginia (n = 1) and North Carolina (n = 4; Morris et al. 2009). The Virginia record is from the Great Dismal Swamp on the Coastal Plain (Service 2006). Of the four North Carolina records, two are isolated records: one from Hanover County in the Southern Coastal Plain (David Webster, University of North Carolina Wilmington, 2014 personal communication in FERC 2014), and one from Wake County in the Piedmont (Morris et al. 2009). The other two records involve NLEB mist net captures in Camden and Washington Counties (Morris et al. 2009) on the Coastal Plain. In July and August 2014, surveys in the Piedmont and Coastal Plain of Virginia have documented NLEB in Fauquier and York Counties, and the City of Chesapeake (S. Hoskin, Service, pers. comm., 2014). Additional counties where NLEB has been documented in the Piedmont and Coastal Plain of Virginia are Appomattox, Buckingham, Caroline, Chesterfield, and Louisa (VDGIF 2014).

Prior to the onset of WNS, NLEBs were considered abundant in the forest-dominated landscape of the Appalachian Mountains (Lacki and Hutchinson 1999, Lacki and Schwierjohann 2001, Menzel et al. 2002, Brack et al. 2005, Castleberry et al. 2007, O'Keefe 2009, Francel et al. 2012) including Virginia (Timpone et al. 2011). However, moving east from the mountainous portions of this region (Blue Ridge, Cumberland, and Ridge and Valley physiographic provinces) there is a paucity of data about the distribution and abundance of NLEBs in the Piedmont and Coastal Plain physiographic provinces.

Johnson et al. (2008) examined the distribution of bats by physiographic province (Mountain [i.e. Blue Ridge and west], Piedmont, and Coastal Plain) at 11 National Capital Region Parks in Maryland, Virginia, West Virginia, and Washington D.C. NLEB activity decreased from the Mountains to the Coastal Plain, possibly as a result of proximity to hibernacula (mean bat echolocation passes in Piedmont Province: 0.15, SE = 0.07; mean for the Mountain Physiological Province: 0.61; SE = 0.22; Johnson et al. 2008). No NLEB captures or acoustic detections occurred at any of the sites in Virginia during this study (Johnson et al. 2008).

Factors Affecting Species Environment Within the Action Area – Because there is little information about the distribution and abundance of NLEBs in the action area or the larger Piedmont and Coastal Plain physiographic provinces, the factors that affect them remain uncertain. The vegetation of the Piedmont Plateau has been severely altered by a long history of clearing, agriculture, logging, and other anthropogenic disturbances. Most Piedmont forests have a history of repeated cutting, or have regenerated on former agricultural lands, some of which were abandoned more than 150 years ago. These alterations would have affected the distribution and abundance of NLEBs in the action area, but the impact of those alterations on NLEBs — their demographic or ecological response to those changes — remains unknown.

EFFECTS OF THE ACTION

Direct and Indirect Effects – Direct effects are the direct or immediate effects of the project on the species, its habitat, or designated/proposed critical habitat. Indirect effects are defined as those that are caused by the proposed action and are later in time, but still are reasonably certain to occur (50 CFR 402.02).

Vegetation Clearing

Construction will affect approximately 1,394 acres, including pipeline construction ROW, ATWS, pipe and contractor yards, temporary and permanent access roads, and new and modified aboveground facilities. This includes approximately 482 acres of forested areas as indicated in Table 1.

Approximately 406.2 acres (84 percent) of the forested area will be impacted temporarily (i.e., these areas will be allowed to regenerate naturally over time) and the remaining 75.76 acres (16 percent) of the forested area will be impacted permanently. As discussed in the *Description of the Action* section, experience with other projects of a similar nature suggests that these acreage estimates may increase once construction begins. For the pipeline ROW, these changes might increase the acreage impacted by a total of 81 acres. Approximately 50 acres will be associated with the pipeline ROW, 22.3 acres with ATWS, and 8.7 acres with temporary access roads. About 46 percent of the 482 acres impacted consists of mixed hardwood and pine, another 30 percent consists of planted pine, 14 percent consists of hardwood, and the remainder consists of forested wetlands and pine forest (Table 1).

Table 1. Estimates of the impacts of the proposed Virginia Southside Expansion Project on different forested cover types along the pipeline alignment.	
Vegetative Cover Type	Total (acres)
Forested Wetland	24.53
Permanent loss	6.74
Temporary loss	17.79
Hardwood	65.55
Permanent loss	4.76
Temporary loss	60.79
Mixed Hardwood/Pine	222.58
Permanent loss	30.38
Temporary loss	192.20
Pine	23.89
Permanent loss	5.78
Temporary loss	18.11
Planted Pine	145.42
Permanent loss	28.10
Temporary loss	117.32
Total Acres Affected	481.97

Total Acres Affected Permanently and Temporarily (including Planted Pine**)	
Permanent loss	75.76
Temporary loss	406.20
Total Acres Affected Permanently and Temporarily (excluding Planted Pine**)	
Permanent loss	47.67
Temporary loss	288.88
*	“Permanent loss” represents the acreage that will be permanently affected along the pipeline ROW.
**	“Temporary loss” represents the acreage that will be cut for temporary workspace during construction. Once construction is complete, these areas will be allowed to revegetate naturally.

Tree clearing during construction will result in: 1) direct impacts to individuals if an occupied roost tree is felled during the summer season (April 1 to September 15); 2) indirect effects from the removal of maternity roost trees during the winter season that may result in decreased viability of a maternity colony; and 3) indirect effects from the removal of summer habitat (roosting and foraging) resulting in substantial habitat degradation.

Effects from Summer Season Clearing

Removal of roost trees while NLEBs are present may result in direct effects by killing, injuring, or otherwise harming NLEBs. Clearing during the summer season may impact non-maternity individuals in summer habitat (males and non-reproductive females), and females and juveniles roosting in a maternity tree. To minimize direct effects, Transco plans to clear NLEB habitat after September 15 or conduct surveys if summer season tree removal is planned (Conservation Measure #1). With the implementation of Conservation Measure #1 and #2, the risk of direct effects to all bats is reduced.

Effects from Removing Maternity Roost Trees

Indirect effects to NLEBs may occur if maternity roost trees (i.e., occupied in the summer) are cleared during the fall swarming or hibernation period. Periods of pregnancy, birth, and lactation are the most sensitive and energetically demanding times of year for reproductive females. Removal of maternity roost trees during the winter season renders them unavailable to pregnant bats that exhibit maternity area and/or maternity roost tree fidelity following migration in the spring. If no adequate primary and alternate maternity roosts remain adjacent to the area of impact, indirect effects would be expected to occur as pregnant females search potentially unfamiliar habitat for new roosting and foraging areas the following year. Resulting indirect effects from the loss of maternity trees may include increases in energetic demands, exposure to inter- and intra-specific competition, and decreases in the long-term reproductive success and viability of the colony in the area.

Although NLEBs exhibit fidelity to maternity roost areas, they appear to use networks of roosts arranged around a central node roost tree and switch between roosts in that network frequently during the summer (Johnson et al. 2012). Given the ephemeral nature of roosts and the apparent relationship between roost network structure and roosting area, it seems likely that roosting areas could shift with roost loss (Silvis et al. 2014). Silvis et al. (2014) examined the effect of roost

removal on roosting networks in Indiana bats (*M. sodalis*) in Kentucky and reported that roosting networks had a 50 percent chance of fragmenting when 5 percent of the roosts had been removed in 2009 while removing 30 percent of roosts was required to generate a 50 percent chance of fragmentation in 2010.

To estimate the probable consequence of habitat loss on NLEBs, geographic information system was used to estimate (1) the acreage of potentially suitable forest habitat within a 1.5-mile buffer of the Project ROW and (2) the acreage of that habitat impacted by construction and operation of the Project (expressed as a percentage of the potential suitable forest habitat in the 1.5 buffer). Considering the 34 areas that encompassed the Project ROW and a 1.5-mile buffer, the mean percent of potentially suitable forest impacted by the Project is 0.51 percent (95 percent CI = 0.44 to 0.57 percent). If an additional 81 acres are impacted by changes that might occur during construction, the mean percent of potentially suitable forest impacted will increase to 0.54 percent (95 percent CI = 0.47 to 0.61 percent). These percentages were assumed to correspond to the percentage of roosts that might be removed by applying the conclusions of Silvis et al. (2014). NLEBs along the Project ROW will have probabilities of experiencing roost fragmentation that are substantially lower than 50 percent.

Effects from Clearing of Foraging and Roosting Habitat

Vegetation clearing at any time of year may result in substantial loss/degradation of habitat quantity or quality. Degradation of remaining habitat is also likely to occur from increased fragmentation. NLEBs at all life stages (juveniles and adults) may be affected via a significant impairment of behavioral patterns, including breeding, feeding, or sheltering. However, along the entire Project length, the mean percent of potentially suitable forest we expect to be affected is 0.51 percent (95 percent CI = 0.44 to 0.57 percent) or 0.54 percent (95 percent CI = 0.47 to 0.61 percent) if an additional 81 acres are affected by changes that might occur during construction. Most of the forested acreage (84.3 percent) will be allowed to regenerate after construction is completed, although there will be a time lag until the vegetation becomes suitable habitat for foraging and/or roosting. Based on this analysis, we do not anticipate that removal of foraging and roosting will result in substantial degradation of NLEB habitat within the action area.

All impacts to NLEB bat habitat are expected to occur during construction. Cutting or removal of vegetation during construction could lead to increased soil erosion, or the spread of noxious, invasive, or non-native plant species. Clearing and construction activities could also result in soil compaction, which could interfere with revegetation success. Transco has proposed Conservation Measures #2, 3, 4, and 5 to minimize these impacts.

Effects from Operation and Maintenance

No impacts are expected to NLEB habitat during operation and maintenance. Although some ecological succession will occur on the permanently maintained ROW, periodic maintenance via mowing, brush clearing, and branch trimming will ensure that the ROW will be an open area for the term of the Project. Expected impacts during operation and maintenance include noise and presence of humans for ROW repair, access road maintenance, and aerial/on foot inspection. Conservation Measure #9 will reduce impacts from routine vegetation maintenance clearing since it will not be conducted from April 15 through August 1 of any year. We anticipate that

impacts during operation and maintenance will not result in disturbance to breeding, feeding, or sheltering of NLEBs.

Noise

Noise and vibrations are physical impacts to the environment that will be caused by construction on-site with variable intensity, depending on the source. Equipment used for vegetation clearing, such as chain saws, will generate noise at an estimated noise level of 110 dBA or higher on the A-weighted scale, which is louder than typical construction equipment at an average of 85 dBA (FHWA 2014). During pipeline construction noise levels may exceed 55 dBA; however, the noise will be intermittent and limited to short periods over 3 to 4 weeks at any location (FERC 2013a). To put these noise levels into perspective, normal human conversation measures about 60 dBA (FHWA 2014).

Current ambient noise within the Project site varies depending on proximity to roads, waterways, and bordering residential communities. Transco compared the background sound level with the estimated sound level of the Project to determine the change in background sound level for 2 compressor stations, 2 HDDs, and 1 other facility. The results indicated that sound level increases will range from 0.1 to 6.1 dBA. The Banister River #1 HDD site had the biggest change in background sound level at 6.1 dBA. There are 4 HDD construction activities planned. Transco has proposed Conservation Measure #7 to minimize noise impacts at 2 of the HDD areas due to their distance to residences, schools, or churches.

We anticipate that noise will be a short-term impact that may affect breeding, feeding, and roosting behaviors and that NLEBs may avoid these areas until the disturbance ceases. Other suitable habitat is available and in close proximity to the Project. The noise impacts will diminish as the distance is increased from the work area depending on the existing topography and the forest cover in the action area (Aylor 1972, Herrington 1976, Reethof and Heisler 1976, Fang and Ling 2003, Bentrup 2008). Noise decreases by approximately 5 dBA per doubling of distance from source over soft ground with heavy vegetative ground cover (FHWA 2014).

It is difficult to determine how blasting will affect NLEBs without knowing where the blasting will occur and where the bats are located. However, blasting will raise noise levels above baseline levels temporarily. All blasting will occur in daytime hours when the bats are the least active and Transco will implement Conservation Measure #8 to minimize any impacts. We anticipate that any blasting will disturb bats breeding, feeding, or sheltering in the area. Bats may move from the area until disturbance ceases.

Interrelated and Interdependent Actions – An interrelated activity is an activity that is part of the proposed action and depends on the proposed action for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation. The Service is not aware of activities interrelated to or interdependent with the proposed action at this time.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this conference opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. The Service is not aware of any future State, tribal, local, or private actions within the action area at this time.

CONCLUSION

Because construction (including all clearing of trees) will begin after NLEBs migrate to their fall swarming habitat and/or hibernacula, individual bats are not expected to be directly affected. We anticipate that the Project will reduce the amount of summer roosting and foraging habitat available to bats when they migrate into the construction ROW beginning in 2015. We expect that because the Project will have a long narrow/linear footprint, the impacts to any one habitat patch or maternity area are minimal.

Although the Project will result in permanent and temporary loss of potentially suitable forested habitat, the acreage affected represents about one half of 1 percent of the potentially suitable habitat available to NLEBs within a 1.5-mile distance of the pipeline corridor. Temporary and small-scale reductions in foraging or roosting opportunities for NLEB may occur. NLEBs may change roosting or foraging areas and seek roosts and foraging habitats that are farther away from the active disturbance area, but changes in behavior are expected to be short-term. Although NLEBs exhibit fidelity to maternity roost areas, they appear to use networks of roosts arranged around a central node roost tree and switch between roosts in that network frequently during the summer. Given the ephemeral nature of roosts and the apparent relationship between roost network structure and roosting area, it seems likely that roosting areas could shift with roost loss.

After reviewing the current status of the NLEB, the environmental baseline for the action area, the effects of the proposed Project and the cumulative effects, it is the Service's conference opinion that the Project, as proposed, is not likely to jeopardize the continued existence of the proposed NLEB. Critical habitat has not been proposed for this species.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns, which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take

that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The prohibitions against taking the species found in section 9 of the ESA do not apply until the species is listed. However, the Service advises FERC to consider implementing the following reasonable and prudent measures. If this conference opinion is adopted as a biological opinion following a listing or designation, these measures, with their implementing terms and conditions, will be non-discretionary and must be undertaken by FERC so that they become binding conditions of any grant or permit issued to Transco, as appropriate, for the exemption in section 7(o)(2) to apply. FERC has a continuing duty to regulate the activity covered by this incidental take statement. If FERC (1) fails to assume and implement the terms and conditions or (2) fails to require Transco to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, FERC or Transco must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR 402.14(i)(3)].

AMOUNT OR EXTENT OF TAKE ANTICIPATED

The Service anticipates incidental take of the NLEB will be difficult to detect for the following reasons:

1. Individuals are relatively small and occupy habitats where they are difficult to find;
2. Finding dead or injured specimens during or following project implementation is unlikely; and
3. Most incidental take will be non-lethal and undetectable.

However, take of this species can be anticipated by loss of habitat assumed to be occupied by the NLEB. We used the following approach to estimate the number of NLEBs that will be incidentally taken:

1. Estimate number of net sites that would have been sampled along the corridor if bat surveys had been conducted along the Project ROW. A survey plan was not developed so a minimum of one net site per kilometer was assumed based on current guidelines (Service 2014a, b).
2. Use data from existing Indiana bat protocol (Service 2014a, b) and surveys for NLEB to estimate the proportion of net sites in which NLEBs were present. Data from 10 surveys conducted in Virginia's Appalachian Ecoregion (the Mountain Province) and West Virginia was used. Although the limited evidence from Johnson et al. (2008) suggests that NLEBs would be detected at higher rates in surveys in these areas than in the Piedmont Province, data from these surveys should provide NLEBs the benefit of doubt in the face of uncertainty about their actual occurrence along the Project ROW. Transco

conducted meta-analyses on data from the 10 surveys conducted in Virginia's Appalachian Ecoregion (the Mountain Province) and West Virginia to estimate the mean proportion of net sites (and 95 percent confidence interval) that detected NLEBs. Transco conducted a meta-analysis for proportions following the procedures described in Borenstein et al. (2009) and Cumming (2012).

3. The mean number of NLEBs reported in roosts was estimated (from data published by Johnson et al. 2012; with accompanying 95 percent confidence intervals).
4. The net sites estimated in Step 1 were multiplied by the proportion of those net sites in which NLEBs would be expected to be detected (Step 2). The result was assumed to represent the initial number of roosts expected to occur along the Project ROW.
5. The results of Step 4 were multiplied by the mean number of NLEBs expected to occur in roosts. The result was assumed to represent the initial number of NLEBs expected to occur in forested habitat along the Project ROW.
6. Because the survey data used in Step 2 were collected prior to WNS, the results of Step 5 were adjusted to account for the mean reduction in the number of NLEBs and their density caused by WNS.

The results of this approach are presented in Table 2. This approach estimated between 28 and 277 NLEBs (95 percent CI = 18 to 387) might be incidentally taken as a result of reductions in summer roosting and foraging habitat and noise. Scenarios J and K (see Table 2 for the assumptions associated with these and other scenarios) seem to be the most representative of the effect of WNS on NLEBs (Scenario J being consistent with the magnitude of the reduction reported by Reynolds, [personal communication 2014 *in* FERC 2014]) and Scenario K representing the magnitude of decline reported by Francl et al. (2012).

The estimate most consistent with available data indicates 28 NLEBs (95 percent CI = 18 to 39) will be incidentally taken as a result of reductions in summer roosting and foraging habitat and noise. This take will be in the form of harass.

Table 2. Scenarios used to estimate the number of NLEBs affected by the Project. The *Estimated Number of NLEB Exposed* to the proposed Virginia Southside Expansion Project results from the following formula: $(\text{Estimated \# of Forested Blocks that Intersect Alignment}) * (\text{Mean Proportion of Forested Blocks with Roosts}) * (\text{Mean Number of NLEB/Roost}) * (\text{Percent Reduction in NLEB Density Given White-Nose Syndrome})$. The mean estimate is considered the best or most likely estimate, but upper and lower 95 percent confidence intervals are provided. Estimated number of blocks provided by GIS analysis; mean proportion of blocks with roosts estimates using meta-analysis of 10 different studies from Virginia (counties other than the five counties along the Project alignment) and West Virginia that are assumed to be representative of Virginia's Piedmont Province; mean number of bats/roost is from Johnson et al. (2012); adjustments for WNS are based on the studies identified in the scenario description (see text for further explanation of the methodology).

Scenario	Estimated No. Blocks	Mean Proportion of Blocks w/ Roosts (Unadjusted)	Upper 95% CI Proportion of Blocks w/ Roosts (Unadjusted)	Lower 95% CI Proportion of Blocks w/ Roosts (Unadjusted)	Mean No. Bats/Roost	Adjust for WNS (mean % reduction in density)	Estimated # NLEB Exposed (Mean)	Estimated # NLEB Exposed (U 95% CI)	Estimated # NLEB Exposed (L 95% CI)	
A	Uncorrected for WNS	159	0.3549	0.4964	0.2350	4.9	0.0	277	387	183
B	Corrected for WNS (10% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.1	249	348	165
C	Corrected for WNS (20% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.2	221	309	146
D	Corrected for WNS (30% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.3	194	271	128
E	Corrected for WNS (40% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.4	166	232	110
F	Corrected for WNS (50% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.5	138	193	92
G	Corrected for WNS (60% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.6	111	155	73
H	Corrected for WNS (70% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.7	83	116	55
I	Corrected for WNS (80% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.8	55	77	37
J	Corrected for WNS (90% reduction in NLEB abundance/density)	159	0.3549	0.4964	0.2350	4.9	0.9	28	39	18
K	Corrected for WNS (77.1 reduction in capture rates Francl et al. 2012)	159	0.3549	0.4964	0.2350	4.9	0.77	63	89	42

EFFECT OF THE TAKE

In the accompanying conference opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species. Critical habitat has not been proposed for this species.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of the NLEB.

The prohibitions against taking the species found in section 9 of the ESA do not apply until the species is listed. However, the Service advises FERC to consider implementing the following reasonable and prudent measures. If this conference opinion is adopted as a biological opinion following a listing or designation, these measures, with their implementing terms and conditions, will be nondiscretionary.

1. Minimize forested habitat disturbance.
2. Minimize construction activities at night.
3. Minimize noise levels during construction activities.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the ESA if the NLEB is listed, FERC must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. If this conference opinion is adopted as a biological opinion following a listing or designation, these terms and conditions will be non-discretionary.

1. Avoid nighttime construction activities and associated lighting in NLEB habitat, with the exception of HDD activities, refueling, and water pumping.
2. Implement all practicable measures to reduce noise levels along the entire pipeline corridor.
3. Complete all HDD activities and blasting activities from September 16 through April 14, if feasible.
4. Provide the blasting plans that document the proposed mitigative measures to the Service via the contact email provided below.
5. Notify the Service at the contact email provided below when HDD activities will be conducted.
6. Document acres of trees cleared and provide a final report of that acreage to the Service

via the contact email provided below.

7. Care must be taken in handling any dead specimens of proposed or listed species to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens, the finder has the responsibility to ensure that evidence intrinsic to determining the cause of death of the specimen is not unnecessarily disturbed. The finding of dead specimens does not imply enforcement proceedings pursuant to the ESA. The reporting of dead specimens is required to enable the Service to determine if take is reached or exceeded and to ensure that the terms and conditions are appropriate and effective. Upon locating a dead specimen, notify the Service's Virginia Law Enforcement Office at 804-771-2883 and the Service's Virginia Field Office at 804-693-6694.

The Service believes that no more than 28 NLEBs will be incidentally taken as a result of the proposed action. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- Support research or survey efforts that aid in the understanding of how FERC-authorized projects impact the NLEB. This research could inform the development of best management practices to be incorporated into project plans to minimize impacts to NLEB and to assist with the species' conservation.
- Pursue acquisition of parcels or easements to protect NLEB roosting and foraging habitat.

For the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes the conference for the Project. You may ask the Service to confirm the conference opinion as a biological opinion issued through formal consultation if the NLEB is

listed. The request must be in writing. If the Service reviews the proposed action and finds that there have been no significant changes in the action as planned or in the information used during the conference, the Service will confirm the conference opinion as the biological opinion on the project and no further section 7 consultation will be necessary.

After listing of NLEB as endangered/threatened and any subsequent adoption of this conference opinion, the Federal agency shall request reinitiation of consultation if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect the species or critical habitat in a manner or to an extent not considered in this conference opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the species or critical habitat that was not considered in this conference opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action.

The incidental take statement provided in this conference opinion does not become effective until the species is listed and the conference opinion is adopted as the biological opinion issued through formal consultation. At that time, the project will be reviewed to determine whether any take of the NLEB has occurred. Modifications of the opinion and incidental take statement may be appropriate to reflect that take. No take of the NLEB may occur between the listing of the NLEB and the adoption of the conference opinion through formal consultation, or the completion of a subsequent formal consultation.

If you have any questions, please contact Kimberly Smith of this office at (804) 824-2410, or via email at Kimberly_Smith@fws.gov.

Sincerely,

Cindy Schulz
Field Supervisor
Virginia Ecological Services

cc: Corps, Lynchburg, VA (Attn: Jeanne Richardson)
Service, State College, PA (Attn: Lora Zimmerman)
Service, Annapolis, MD (Attn: Genevieve LaRouche)
Service, Pleasantville, NJ (Attn: Eric Shrading)
Service, Cortland, NY (Attn: David Stillwell and Robyn Niver)
VDCR, DNH, Richmond, VA (Attn: René Hypes)
VDGIF, Richmond, VA (Attn: Rick Reynolds)

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