

APPENDIX Q
Comments and Responses on the Draft EIS

Appendix Q

FERC's Responses to Comments on the Draft EIS

ID No. Commentor

FEDERAL AGENCIES

FA001 U.S. Department of the Interior (includes USFWS and USGS)
FA002 U.S. Environmental Protection Agency

STATE AGENCIES

SA001 Tennessee Department of Environment and Conservation
SA002 West Virginia Division of Culture and History
SA003 Tennessee Department of Environment and Conservation
SA004 West Virginia Division of Natural Resources

LOCAL AGENCIES

LA001 Fabian Bedne, Nashville Metropolitan Council, District #31

NATIVE AMERICAN TRIBES

NAT001 Eastern Band of Cherokee Indians
NAT002 Eastern Band of Cherokee Indians

COMPANIES AND ORGANIZATIONS

CO001 Teamsters National Pipeline Labor Management Cooperation Trust, Richard Stern
CO002 Ohio Valley Environmental Coalition, William Hughes
CO003 Keep Southeast Nashville Healthy, Christopher Tuley
CO004 Friends of Mill Creek Greenway, Brant N. Miller
CO005 Keep Southeast Nashville Healthy, Heather Hixson-McGovern
CO006 Ohio Valley Environmental Coalition
CO007 Ohio Valley Environmental Coalition, Vivian Stockman
CO008 Friends of Mill Creek Greenway, Brant N. Miller
CO009 West Virginia Rivers Coalition
CO010 Mill Creek Watershed Association
CO011 Allegheny Defense Project, Ohio Valley Environmental Coalition, and Sierra Club
CO012 Keep Southeast Nashville Healthy
CO013 American Petroleum Institute
CO014 Ohio Valley Environmental Coalition, William Hughes

INDIVIDUALS

IND001 Wayne L. Goddard
IND002 Larry B. Dadisman
IND003 Mary Wildfire
IND004 Marianne Hughes
IND005 Alex Cole
IND006 Barbara Jividen

IND007	Caroline Copenhaver
IND008	Tamatha Cheke
IND009	Chris Tuley
IND010	Kristen McCormack
IND011	Suzanne D. Goodman
IND012	Kurt Lydic
IND013	Anna Ortiz
IND014	Betty Guffey
IND015	Carolyn Kennedy
IND016	Carolyn Kennedy
IND017	Charles Whiting
IND018	Dan Lekich
IND019	David Beresford
IND020	Don Wimpelberg
IND021	Elizabeth Garber
IND022	Lauren Spires
IND023	Lillian Hawkins
IND024	Margaret Cortozzo
IND025	Micah Hararove
IND026	Mike Younger
IND027	Rob Spires
IND028	Sam Cartozzo
IND029	Timmey Orr
IND030	Unknown
IND031	Beth Crowder
IND032	Chip Westfall
IND033	Jim Pritt
IND034	Richard Given
IND035	Steve McDiffitt
IND036	Susan Cleaver
IND037	William Douglass
IND038	Dan Thomas
IND039	Susan Couch
IND040	Elenor Dyer
IND041	Calvin Burchett
IND042	Anthony Bonitatibus
IND043	Lou Rife
IND044	Aren Sulfridge
IND045	Barry Vincent
IND046	Suzanne Goodman
IND047	Susan Couch
IND048	Chris Strong
IND049	Matthew Guest
IND050	Michael Younger
IND051	Robert Argo
IND052	Lori Burkett

IND053	Andrew Peterson
IND054	Jamie Peterson
IND055	Michelle (last name unknown – oral statement in Cane Ridge, TN)
IND056	Lillian Hawkins
IND057	Holly Greene
IND058	Margaret Cartozzo
IND059	Heather Hixson-McGovern
IND060	Roger Rotoni
IND061	Carl Harris
IND062	Cynthia D. Ellis
IND063	Christy Gibson
IND064	William Robertson
IND065	Elizabeth Forester
IND066	Terry Flesher
IND067	Nathan Bumgarner
IND068	Patrice Nelson
IND069	Betsy Scott
IND070	Janet Keating
IND071	Marilyn Howells
IND072	Mirijana Beram
IND073	Lillian Hawkins
IND074	Geraldine and Richard Markus
IND075	Mary Sansom
IND076	David Howells
IND077	Karen Kurtz
IND078	Aren Sulfridge
IND079	Cynthia Brewer
IND080	Jason Partch
IND081	Ed Jividen
IND082	Barbara Jividen
IND083	Kathryn M. Pyles
IND084	April Keating

APPLICANT

CPG001	Columbia Gas Transmission
CPG002	Columbia Gulf Transmission

FEDERAL AGENCIES

FA001 – U.S. Department of the Interior (includes USFWS & USGS comments)



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Custom House, Room 244
200 Chestnut Street
Philadelphia, Pennsylvania 19106-2904

April 24, 2017

9043.1
ER 17/0091

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Mail Code: DLC, HL-11.2
888 First St., NE
Washington, DC 20426

RE: Draft Environmental Impact Statement (DEIS) for the Proposed Mountaineer XPress (MXP) and Gulf XPress (GXP) Projects by Columbia Gas Transmission, LLC, FERC Nos. CP16-357-000 and CP16-361-000, West Virginia, Kentucky, Mississippi, and Tennessee.

Dear Secretary Bose:

The U.S. Department of the Interior (Department) has reviewed the DEIS for the Proposed MXP and GXP projects by the Columbia Gas Transmission, LLC. The proposed MXP, would comprise a total of 170.7 miles of new natural gas transmission pipeline and ancillary facilities, and would modify one existing compressor station and result in the construction of two compressor stations in West Virginia (WV). The MXP would provide the available capacity for transport of Columbia Gas' product to markets across Columbia Pipeline Group's system, including the Columbia Gulf Leach interconnect with Columbia GXP. The proposed Columbia GXP would involve the construction and operation of seven new compressor stations in Kentucky (KY), Mississippi (MS), and Tennessee (TN), and an upgrade of an existing meter station in KY.

Fish and Wildlife Service Comments

The U.S. Fish and Wildlife Service (Service) offers the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

General Comments

FA001-1 Mountaineer Xpress (MXP) (WV) - The Service West Virginia Field Office has been working with Columbia Gas since 2015 to identify survey and project information needed, including

FA001-1: Comment regarding the status of section 7 consultations for the MXP is noted, and is consistent with our assessment in the EIS.

FEDERAL AGENCIES

FA001 – U.S. Department of the Interior (includes USFWS & USGS comments) (continued)

FA001-1 (cont.)	<p>surveys for federally listed bats and mussels in West Virginia. Once additional information becomes available the Service will work with the applicant to address any species-specific issues, and to develop avoidance and minimization measures for Service trust resources.</p>
	<p><u>Gulf Xpress (GXP) (KY, MS, & TN)</u> - Project activities in the GXP and potential effects to eight federally-listed species that occur or may occur in the proposed project area located in KY, MS, and TN are covered by the Service approved Multi-Species Habitat Conservation Plan¹ (MSHCP) and the resulting programmatic section 7 consultation. Those species are: Indiana bat (<i>Myotis sodalis</i>), northern long-eared bat (<i>Myotis septentrionalis</i>), Virginia big-eared bat (<i>Corynorhinus townsendii virginianus</i>), gray bat (<i>Myotis grisescens</i>), northern riffleshell (<i>Epioblasma torulosa rangiana</i>), pink mucket (<i>Lampsilis abrupta</i>), running buffalo clover (<i>Trifolium stoloniferum</i>), and Short's bladderpod (<i>Physaria globosa</i>).</p>
FA001-2	<p>Columbia Gas has agreed to adhere to the avoidance and minimizations measures included in the MSHCP for those species. The Service believes that the proposed project GXP is consistent with the MSHCP, and, therefore, no additional consultation is required for these species.</p>
	<p>Specific Comments</p> <p><u>GXP activities in KY</u> - Page ES-11 of the DEIS explains that an additional federally-listed species, snuffbox (<i>Epioblasma triquetra</i>), was not addressed in that February 16, 2016, letter from the Service or in the November 25, 2016, correspondence from Natural Resource Group to which the Service had responded. Snuffbox is not one of the species covered by the MSHCP but is addressed on page ES-12 in the DEIS, where the FERC makes a “no effect” determination for snuffbox and requests concurrence from the Service. The Service is not required to concur with “no effect” determinations. After reviewing our species occurrence information, while the snuffbox does occur in Carter County, where the Grayson Compressor Station is proposed, there is no habitat for the species in the proposed project area and the nearest record of the species is approximately five miles from the project site in a different watershed. Based on the information available to us, we do not anticipate impacts to snuffbox from the proposed project and therefore we will concur with the “no effect” determination.</p> <p>If you have any questions regarding these comments, or require additional information, please contact Christine Willis at (404) 679-7310 or via email at Christine_Willis@fws.gov.</p> <p><u>USGS Comments</u></p> <p>The United States Geological Survey's (USGS) comments are intended to inform readers of concerns for water quality, public water supply, and construction risks to water resources in karst and steep slope conditions, and ecological stream flows.</p> <p>¹ “NiSource Habitat Conservation Plan.” Endangered Species Permits, U.S. Fish and Wildlife Service, issued May 4, 2015, (accessed April 10, 2017), link: https://www.fws.gov/midwest/Endangered/permits/hcp/nisource/pdf/ITPamended1May2015noappendices.pdf</p>

FA001-2: As stated in section 4.7.11.2, we have determined that the GXP would have either *no effect* or would *not likely to adversely affect* any of the federally listed species that could occur in the project vicinity. Consultation with the U.S. Fish and Wildlife Service (USFWS) under section 7 of the Endangered Species Act is complete for these species.

FEDERAL AGENCIES

FA001 – U.S. Department of the Interior (includes USFWS & USGS comments) (continued)

FA001-3	<p>COMMENT: Public supply surface-water intakes.</p> <p>The USGS developed a database containing information about wells, surface-water intakes, and distribution systems of public supply water systems in the United States (Price and Maupin, 2014). Location information for public supply systems is restricted from distribution to the general public, and exact intake locations are not shown in this review. The downstream distance between the MXP proposed route and surface-water intakes identified from the USGS public supply database (PSDB) was estimated along the length of streams in the National Hydrography Dataset. Towns in the following table, have intakes within 5 miles downstream of the ACP known route. As a precaution, these towns should be contacted and alerted to the time of construction activities upstream of their intakes.</p> <table border="1"> <thead> <tr> <th>Town Name</th> <th>State</th> <th>County</th> </tr> </thead> <tbody> <tr> <td>West Union</td> <td>WV</td> <td>Doddridge</td> </tr> <tr> <td>Milton</td> <td>WV</td> <td>Cabell</td> </tr> <tr> <td>Buffalo</td> <td>WV</td> <td>Putnam</td> </tr> </tbody> </table>	Town Name	State	County	West Union	WV	Doddridge	Milton	WV	Cabell	Buffalo	WV	Putnam
Town Name	State	County											
West Union	WV	Doddridge											
Milton	WV	Cabell											
Buffalo	WV	Putnam											
FA001-4	<p>COMMENT: Water-Quality Issues and soil compaction resulting from pipeline and access road construction</p> <p>The Mountaineer XPress and Gulf XPress Projects will traverse a great many streams in West Virginia. As there is potential for water-quality degradation at and downstream of crossings, pre-and post-construction testing will be conducted, as stated in the DEIS. This DEIS does not list the analytes that would be tested before and after pipeline installation across streams. Typically, analytes to test for in this situation would include pH, total suspended solids, total dissolved solids, conductivity, alkalinity, acidity, sulfates, oil/grease, phenolic, iron, manganese, aluminum, copper, lead, nickel, silver, thallium, zinc, chromium, arsenic, mercury, selenium, cyanide, calcium magnesium, hardness, chlorides, antimony, cadmium, beryllium, and fecal coliform. As streams in some areas along the Eastern Seaboard have a high probability of mobilizing arsenic if sediments are disturbed, it is suggested that total arsenic be included on the analyte list. Sampling methods should comply with approved EPA and state sampling methods, analytical and data quality assurance, and quality control procedures. The samples should be analyzed using EPA-approved methods, and the analysis should be performed by a laboratory certified to conduct the analyses in each state/commonwealth.</p> <p>If water-quality issues such as increased turbidity (the most likely problem), low dissolved oxygen, or elevated levels of contaminants of concern persist, the appropriate state and local health and environmental agencies should be informed, and monitoring should continue until background conditions are restored.</p>												
FA001-5	<p>Two additional water-quality topics discussed in the DEIS need additional consideration:</p> <p>4.3.1.4. Wellhead and aquifer protections areas (WHPAs)</p>												

FA001-3: Columbia’s Environmental Construction Standards (ECS, Section IV.A.1) state that “Columbia will notify authorities responsible for potable water supply intakes located within 3 miles downstream, at least one week before beginning work in the waterbody, or as required by state or local regulation.” Revised section 4.3.2.1.1 includes this information.

FA001-4: Columbia Gas does not intend to test water quality of streams crossed by the MXP as there are currently no testing requirements associated with permits for stream crossings issued by the agencies with jurisdiction over the streams or the MXP.

FEDERAL AGENCIES

FA001 – U.S. Department of the Interior (includes USFWS & USGS comments) (continued)

FA001-5 (cont.)	<p>These areas should be protected from contamination to protect public water supplies, as described by the Safe Drinking Water Act. Four WHPAs would be crossed by the Xpress projects (specifically MXP-100) as currently proposed. Changes in local hydrology from clearing, grading, excavation and compaction may be detrimental to these areas and the underlying groundwater. Therefore, serious consideration should be given to rerouting these access roads away from such important recharge areas. Only two mileposts are indicated (50.7 and 113.8) as being within 3 miles of protection areas for four wells, one owned by Doddridge County Park and the other three by Roane-Jackson Technical Center. As a minimum, these two organizations should be informed that pipeline construction will occur between 144-725 feet from the wells.</p>
FA001-6	<p>4.3.1.3 Springs and private water wells</p> <p>Columbia Gas has not completed the process of identifying wells that are within 150 ft of project workspace, though they have identified many, and some are virtually in the path of the pipeline. Water-quality monitoring is only proposed in the DEIS if requested by the well owner. Water-quality monitoring should be conducted whether requested or not, unless forbidden by the well owner. A related comment was given by FERC:</p> <p><i>“Columbia Gas has neither completed identification of all private water wells and potable springs in proximity to project work areas, nor has it identified any specific protection measures that would be implemented for wells located inside the construction work areas. Therefore, we recommend that prior to construction, Columbia Gas should:</i></p> <ul style="list-style-type: none"> • <i>file with the Secretary the location of all water wells and potable springs within 150 feet of all areas of disturbance associated with the MXP pipelines and related aboveground facilities;</i> • <i>offer to test all water wells within 150 feet of construction workspaces;</i> • <i>identify measures that would be used to protect the water well at milepost 107.2; and</i> • <i>provide the status (active, abandoned, capped, etc.) of the two water wells located at milepost 164.3 and, if active, identify measures to protect these water wells during construction.”</i>
FA001-7	<p>COMMENT: Route Variations</p> <p>Section 3.4 describes many potential route variations, many of them minor, but collectively the environmental consequences for a revised route may differ from the currently proposed route. Such changes may move the pipe or right of way closer to wells, residences and other terrestrial features that are not near the currently proposed route. Therefore, additional work to identify residents and infrastructure that may be affected and informing the residents or appropriate parties should be completed for all areas where the route is changed before construction begins.</p>
FA001-8	<p>COMMENT: Construction in steep-slope areas</p> <p>Ground disturbance in steep-slope terrain can cause landslides and other types of land movement. Sudden movement of large amounts of rock, soil and sediment can result in changes to surface-water and groundwater hydrology and water quality. Substantial consideration has</p>

FA001-5: We have added a recommendation to section 4.3.1.2.1 suggesting special notifications prior to and immediately following construction within these areas.

FA001-6: Section 4.3.1.3.1 indicates that Columbia Gas would offer all landowners the option to test any wells within 150 feet of any area disturbed by construction of the MXP. Rather than waiting for a landowner to request testing, Columbia Gas would now initiate the offer.

FA001-7: Section 3.4 discusses the process in which refinements or modifications to the pipeline route would be reviewed for approval should a Certificate be issued. Section 2.6.3, the Post-Approval Variance Process, also discusses the variance approval process in detail, which is consistent with National Environmental Policy Act (NEPA) requirements.

FA001-8: As noted in section 4.1.4.4.1, on April 21, 2017, Columbia Gas filed with the Secretary its Phase I Geohazard Assessment Report, which was prepared using publicly available information. The report preliminarily determined that about 68 percent of the proposed MXP pipeline route has a “moderate to high” or “high” landslide hazard index rating. Based on the

FEDERAL AGENCIES

FA001 – U.S. Department of the Interior (includes USFWS & USGS comments) (continued)

FA001-8 (cont.) been given to this risk category, but additional detail in planning for construction in steep-slope areas should be considered in the DEIS, as stated by FERC.

If there are any comments, please contact J. Michael Norris (mmorris@usgs.gov).

Thank you for the opportunity to provide comments.

Sincerely,



Lindy Nelson
Regional Environmental Officer

results of the Phase I Geohazard Assessment, Columbia Gas has initiated a Phase II Landslide Hazard Assessment. Part of the Phase II assessment includes field verification of the areas of interest that were identified in the Phase I assessment. Section 4.1.4.4.1 contains a recommendation that prior to construction, Columbia Gas should file with the Secretary for review and approval from the Director of OEP, the results of its Phase II Landslide Hazard Assessment. Both the Phase II Landslide Hazard Assessment and the Landslide Mitigation Plan would be developed in consultation with the West Virginia Department of Environmental Protection (WVDEP) and West Virginia Division of Natural Resources (WVDNR).

References:

Price, C.V., and Maupin, M.A., 2014, Documentation for the U.S. Geological Survey Public-Supply Database (PSDB)—A database of permitted public-supply wells, surface-water intakes, and systems in the United States: U.S. Geological Survey Open-File Report 2014-1212, 22 p.

FEDERAL AGENCIES

FA002 – U.S. Environmental Protection Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

APR 24 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: Mountaineer Xpress Project and Gulf Xpress Project Draft Environmental Impact Statement; West Virginia, Kentucky, Tennessee, and Mississippi; February 2017 (FERC Docket No. CP16-357-000, CP16-357-000; CEQ#20170029)

Dear Secretary Bose:

In accordance with the National Environmental Policy Act (NEPA) of 1969 and Section 309 of the Clean Air Act the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for Mountaineer Xpress Project (MXP) and the Gulf Xpress Project (GXP) as proposed by Columbia Gas Transmission, LLC (Columbia Gas) and Columbia Gulf Transmission, LLC (Columbia Gulf). Columbia Gas and Columbia Gulf (the applicants or companies) request authorization from the Federal Energy Regulatory Commission (FERC or commission) to construct, operate, and maintain new and upgraded natural gas pipeline and ancillary facilities. Columbia Gas proposes to construct and operate the MXP, which includes approximately 170 miles of mostly 36 inch-diameter natural gas transmission pipeline, three new natural gas-fired compressor stations (CS) and two new regulator stations, and additional gas-fired and electric compression at one existing CSs and two new CSs which are approved or pending under separate FERC proceedings. Columbia Gulf proposes to construct and operate GXP, which includes seven new gas-fired compressor stations, additional and/or improvements at one approved CS under a separate FERC proceeding and additional compression and/or improvements at one existing meter station. The MXP and GXP (the projects) would provide about 2.7 million and 860,000, respectively, dekatherms per day of natural gas.

EPA is a cooperating agency for this DEIS. This comment letter jointly reflects the review and comments of EPA Regions 3 and 4 on the MXP and GXP DEIS. As a cooperating agency, EPA has engaged FERC in order to raise and resolve issues during scoping, FERC's pre-filing process, and EIS preparation. EPA appreciates the coordination done by FERC with federal agencies and efforts made to incorporate suggestions and address concerns raised during scoping and EIS development. This collaborative approach has resulted in a more thorough and clear analysis and presentation of information in the EIS.

EPA's review was primarily concerned with identifying and recommending corrective action for the environmental impacts associated with the proposal. This letter provides recommendations we believe would further strengthen FERC's EIS and consideration of mitigation as it is finalized, in the areas of geology, streams, wetlands and forests, groundwater and drinking water protection, communities, air protection, and cumulative impacts. More detail on these recommendations are provided in the enclosed technical comments.

FA002-1: Thank you for your review and cooperation in the process.

FEDERAL AGENCIES

FA002 – U.S. Environmental Protection Agency (continued)

It is EPA's policy to review and comment in writing on all draft EISs officially filed with the EPA, to provide a rating of the draft EIS which summarizes EPA's level of concern (EPA Policy and Procedures, 1984). The purpose of the rating system is to synthesize the level of EPA's overall concern with the proposal and to define the associated follow-up that will be conducted with the lead agency (EPA Policy and Procedures, 1984). Assignments of the rating are based on the overall environmental impact of the proposed action, including project impacts that are not fully addressed in the DEIS. EPA rates the environmental impacts associated with the preferred alternative as "Environmental Concerns" and the DEIS information as "Insufficient" under its DEIS rating scheme. See www.epa.gov/nepa/environmental-impact-statement-rating-system-criteria.

We would welcome the opportunity to discuss the comments provided in this letter and the enclosure and answer any questions you may have, at your convenience. EPA recognizes national energy needs and is committed to energy development and distribution, while assuring environmental protection. We will continue to work with FERC to address the topics raised by the agency. Please contact the staff contact for this project Alaina McCurdy at (215) 814-2741 or mccurdy.alaina@epa.gov.

Sincerely,



Jeffrey Lapp
Associate Director
Office of Environmental Programs

Enclosure (1) Technical Comments

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FEDERAL AGENCIES

FA002 – U.S. Environmental Protection Agency (continued)

Enclosure–Technical Comments
Mountaineer Xpress Project and Gulf Xpress Project

1) Geology

FA002-2a We recommend that the final EIS provide additional risk mitigation information related to the challenging geologic conditions likely to be encountered during construction. Given that blasting, in combination with steep slopes across 58.2 miles of the route, and active or abandoned mines and quarries, has the potential to result in adverse impacts, we support FERC’s recommendation regarding timely filing of the results of a Phase I Landslide Hazard Assessment, as well as timely completion of relevant field activities and assessments so that the results may be included in a Phase II Landslide Hazard Assessment to be filed prior to construction. In addition, EPA recommends that the final EIS evaluate the proximity of streams to locations with high landslide susceptibility in order to ensure that impacts to these resources are avoided or minimized with appropriate construction techniques. Because the MXP is entirely within areas with a high incidence and high susceptibility to future landslides zone, we suggest that a Phase II Landslide Hazard Assessment include a steep slope mitigation plan and site specific methodology for erosion control and construction on steep slopes, included as an appendix, or appropriately referenced. This plan could include specific soil stabilization methods in the EIS such as where slope breakers should be implemented.

FA002-2b EPA recommends that the EIS evaluate where improvements during construction and operation of pipelines can be made, based on past performance on other recent pipelines, that may reduce erosion and sediment control issues, turbidity in streams, impact to surface or ground water supply, and introduction of invasive species associated with MXP and GXP. This information could provide recommendations for best management practices (BMPs) and other mitigative approaches for impacts, and can be incorporated into direct, indirect and cumulative impact analysis.

FA002-2c As the DEIS indicates that challenging geologic conditions are likely to be encountered during project construction, the DEIS also discusses construction challenges and constructability issues in the rationale for dismissing the Legacy 2 and LXP Alternatives. We recommend clarification of how the constructability and terrain differs from issues associated with the proposed MXP, such as specifying how much construction workspace is needed, what amount of space would be considered insufficient, and how much of the route was deemed to have insufficient workspace.

2) Wetlands, Streams and Forests

FA002-3 The DEIS reports that construction of the MXP and GXP project would temporarily impact about 7.6 and 0.12 acres of wetlands, respectively. Five hundred eight waterbodies would be crossed by the centerline of MXP pipelines (411 open-cut crossings, 96 dry-ditch crossings, and 1 HDD), and an additional 360 waterbodies would be within the pipeline construction right-of-way (ROW) but would not be crossed by the pipeline directly. GXP could potentially affect 15 waterbodies. Temporary and permanent workspace and water withdrawals for hydrostatic testing may impact additional wetland and stream habitat.

FA002-4 Some waterbodies are proposed to be crossed by MXP multiple times, such as the South Fork Hughes River, Spring Creek and Meathouse Fork, which also contain suitable habitat for federal

FA002-2a: See response to comment FA001-8.

FA002-2b: Our recommendation, included in section 4.1.4.4.1, that prior to construction “Columbia Gas should file with the Secretary for review and approval from the Director of OEP the results of a Phase II Landslide Hazard Assessment, which includes the results of all field activities to investigate and document the status of all potential landslide areas, and provide a Landslide Mitigation Plan that includes site-specific mitigation measures to be conducted during construction and operation of the project on steep slopes and slip-prone soils” is intended to address the concerns raised in this comment. Columbia Gas’ Landslide Mitigation Plan would include:

- a. a description of how construction activities would be conducted on steep slopes and in areas prone to instability;
- b. safety protocols for personnel working on steep slopes or areas prone to instability;
- c. measures Columbia Gas would implement if project-related activities result in instability/landslides during, and after, MXP construction; and
- d. steps to be taken to stabilize and restore such areas affected by project-related activities.

The Phase II Landslide Hazard Assessments and the Landslide Mitigation Plan would be developed in consultation with the WVDEP and WVDNR.

FA002-2c: Pipeline construction in areas of rugged topography is described in section 2.4.4.6 of the EIS. As noted in section 3.3, “The topographic setting of the MXP is characterized by steep slopes, narrow ridgetops and valleys, and shallow soils. Construction of the pipeline would require creating a corridor wide enough to allow for equipment and personnel to deliver, assemble, and install the pipeline safely. Other utilities (e.g., powerlines and pipelines) have taken advantage of ridgetops in the MXP area and are already sited to avoid side slopes and narrow valleys, which may be prone to extensive erosion during heavy rainfall events. Co-location opportunities on ridgetops and in the narrow valleys, which are prominent within the project setting and often contain waterbodies, limits the availability of workspace needed to safely construct and operate the proposed facilities. Even with the limited opportunities available, Columbia Gas was able to co-locate with other utility corridors almost 24 miles, or about 13.9 percent, of the

FEDERAL AGENCIES

FA002 – U.S. Environmental Protection Agency (continued)

FA002-4 (continued)	<p>endangered mussel species. EPA echoes concerns for multiple crossings of the same waterbody and the protection of endangered species habitat expressed by the USFWS, and supports the USFWS recommendation to avoid or drastically minimize the number of crossings to these streams. Water withdrawal may affect recreational and biological uses, stream flow, and result in impacts to stream and wetland habitat, particularly in streams that will be affected by both construction and water withdrawals. Consideration of specific streams and wetlands of concern or high sensitivity, along with coordinating with appropriate resource agencies, may help determine if additional avoidance and minimization efforts may be necessary to reduce impacts to important resources within the project area. Examples include resources on the National Rivers Inventory, communities and riparian habitat.</p> <p>In order to offset the direct and indirect effects from the fragmentation and conversion of regulated waters, EPA recommends that the final EIS present compensatory mitigation addressing both the permanent loss and the permanent conversion of wetlands. EPA can provide expertise on mitigation monitoring, performance measures, success criteria and other CMP components, in an effort to improve mitigation success and more fully address resource loss or conversion.</p>
FA002-5	<p>As reported in Table 4.8-1, of the 3,590 total acres of land affected by MXP construction, 2,327 acres are forested. Based on FERC’s independent analysis, construction of MXP would directly impact of 2,255 acres of core forest areas (CFA). The DEIS recognizes that forest habitat impacts would include fragmentation and edge effects that would impact a number of species that depend on interior forest habitat. EPA recommends that quantification and assessment of effects to interior forest and forest fragmentation also describe the long-term and short-term impacts on migratory bird habitat, including a description of up-front avoidance and minimization efforts and impact mitigation plans for forest resources.</p>
FA002-6	<p>Discussion on the Legacy 2 Alternative asserts that a co-located route with multiple pipelines could inhibit wildlife crossings and further reduce interior forests. While these disadvantages could exist for this alternative, the DEIS does not consider the environmental advantages of preserving existing interior forest blocks elsewhere, or preventing the creation of new forested edges which could inhibit wildlife crossings. We recommend that the FEIS weigh these environmental advantages and disadvantages. Similarly, these environmental advantages should be considered for the LXP Alternative.</p>
	<p>3) <u>Groundwater and Drinking Water Protection</u></p>
FA002-7	<p>While the project area of the planned pipeline does not directly cross wellhead protection areas (WHPAs) as defined by the West Virginia Bureau of Public Health, the DEIS outlines the proximity of the project area to four wellhead protection areas (Doddridge County Park Well #1 and Roane-Jackson Technical Center Wells #1-3). Columbia intends to minimize the potential for impacts on WHPAs through general construction practices as specified in the Erosion Sediment Control Plan and Spill Prevention, Control and Countermeasures plan. Upgraded construction practices could be warranted near the Doddridge County Park Well #1 and Roane-Jackson Technical Center Wells #1-3 in order to protect these drinking water sources.</p>
FA002-8	<p>Many private wells exist in close proximity to the proposed project workspace. Although some private wells have been identified in Table 4.3-3, Columbia should continue to identify (through landowner consultation, civil survey, and county health departments) private drinking water supply</p>

“MXP route.” Beyond environmental and safety concerns associated with co-location of MXP with the Legacy 2 and LXP corridors, neither of these alternatives fully meet the project objective of delivering the required gas volumes to Columbia Gas’ TCO Pool and other markets on the CPG system. Therefore, it is our determination that further evaluation of these alternatives is unwarranted.

FA002-3: On March 2, 2017, Columbia Gas filed a supplement to its application, which included updates to these numbers. See sections 4.3 and 4.4.

FA002-4: As noted in section 4.7.2, the USFWS has been working with Columbia Gas since 2015 to identify survey and project information needed, including surveys for federally listed mussels in West Virginia. Once additional information becomes available, the USFWS will work with Columbia Gas to address any species-specific issues and develop avoidance and mitigation measures for federally protected species affected by the project. Columbia Gas anticipates completing necessary project field surveys in late spring or summer 2017.

Columbia Gas and Columbia Gulf would be required to mitigate for temporary and permanent impacts on wetlands as specified in the conditions of each project’s section 404/401 permit.

FA002-5: Columbia Gas has provided information indicating that it is working towards a long-term agreement with the WVDNR that would incorporate special construction, restoration, and operational conditions within WVDNR controlled tracts of land. Because specific measures have not been finalized, we have included the following recommendation in section 4.5.4.1:

“As soon as information is available and prior to construction, Columbia Gas should identify any specific construction, restoration, replacement, and/or operation mitigation measures identified through its discussions with the WVDNR that it would implement to promote compatibility with the restoration and management of upland forest areas.”

FA002-6: See response to comment FA003-2c.

FA002-7: See response to comment FA001-5.

FEDERAL AGENCIES

FA002 – U.S. Environmental Protection Agency (continued)

FA002-8 (continued)	<p>wells within 150 feet of the project workspace. This table also summarizes these wells and Columbia’s status on identifying private well use. Further, EPA recommends that, prior to construction, Columbia finalize the status of the wells marked as ‘Pending’ due to ongoing consultation with the county health departments. The DEIS mentions that specific protection measures that would be implemented for active wells located inside construction areas have not yet been identified. We recommend that the final EIS identify specific measures that would be used to protect these wells at a level as those identified for human consumption, in addition to the previously mentioned hand-dug water supply well at milepost 107.2.</p>
FA002-9	<p>The DEIS outlines several Surface Water Intake Facilities and Source Water Protection Areas (SWPAs) crossed by the project (Table 4.3-6), and designates whether the project intersects with the Zone of Critical Concern (ZCC), the Zone of Peripheral Concern (ZPC), or both. To prevent impacts on public and private water supplies, we recommend that the final EIS consider route deviations that do not directly pass through state-defined SWPAs, especially those where the project crosses ZCCs multiple times (Convestro, milepost 0.1 – 6.4; Town of West Union, milepost 46.0 – 52.8; Milton Water, milepost 155.8 – 163.9). We recommend that appropriate government entities and/or water utilities that manage each SWPA be identified and coordinated with to identify specific protective measures for any SWPAs crossed by the project be developed prior to construction. Protective measures where the final pipeline route crosses SWPAs may include upgraded construction techniques.</p>
	<p>4) <u>Communities</u></p>
FA002-10	<p>We appreciate FERC’s use of appropriate benchmarks in the Environmental Justice (EJ) analysis. To improve the clarity of the analysis, tables could include the actual benchmarks used to identify areas of Environmental Justice concern be made available in an easily identifiable and simply understood format. While census tracts and block groups of concern are mentioned and identified in the text following the tables, it would be helpful to have all of the benchmark values clearly listed in the table in such a way as to give readers meaningful information that helps to inform and clarify the process. It would also be helpful to indicate which census tracts or block groups exceed the benchmarking criteria in the tables. It would be helpful to include locations of areas of potential EJ concern on appropriately scaled maps.</p>
	<p>The EJ assessment should consider all of the adverse and beneficial impacts that may occur during construction and operation of the project in the study area or adjacent to it, that may reasonably be anticipated to have an impact upon minority and/or low-income populations. It is recommended that the impacts of short term site activities such as construction, truck traffic, noise and fugitive dusts be clearly considered as to their role in impacting the lives of residents in the study area. It is also suggested that FERC consider the air quality impact on populations of concern in non-attainment areas.</p>
FA002-11	<p>The DEIS mentioned that the proposed Cane Ridge Compressor Station “...would result in a noticeable increase in noise levels, the noise levels would remain below our noise criterion....” Please note that the use of electric driven compressor units may result in reduced noise impacts to the community and environment. We suggest that the practicability of such units be considered as a way to reduce noise impacts to the community surrounding the Cane Ridge Compressor Station.</p>
	3

FA002-8: Section 4.3.1.3.1 includes a recommendation that prior to construction, Columbia Gas should:

- file with the Secretary the location of all water wells and potable springs within 150 feet of all areas of disturbance associated with the MXP pipelines and related aboveground facilities;
 - offer to test all water wells within 150 feet of construction workspaces; and
 - provide the status (active, abandoned, capped, etc.) of the two water wells located at milepost 164.3 and, if active, identify measures to protect these water wells during construction.
- Any private drinking water supply well with a “pending” status would be considered active for human consumption and protections would be employed as such.

FA002-9: Section 4.3.2.1.1 has been modified to include a recommendation that Columbia Gas consult with the appropriate government entities and/or water utilities that manage each SWPA to identify specific protective measures for any SWPAs crossed by the project. See also response to comment FA001-3.

FA002-10: The tables in section 4.9.9 (Environmental Justice) have been revised in response to this comment.

FA002-11: Section 3.6 includes an expanded discussion of electric motor driven compressors. Columbia Gulf has determined that gas turbine engines are the most suitable option to achieve hydraulic efficiency at the Cane Ridge Compressor Station. While there may be a noticeable increase over ambient noise levels during operation, as discussed in section 4.11.2.3.2, the predicted noise levels attributable to operation of the Cane Ridge Station at the closest noise-sensitive area (NSA) would be below our noise criterion as well as the Metropolitan Government of Nashville & Davidson County daytime and nighttime limits.

FEDERAL AGENCIES

FA002 – U.S. Environmental Protection Agency (continued)

5) Air Protection

There are (5) major compressor stations located in non-attainment areas or Maintenance areas (see table 4.11. page 4-263). The applicability of these stations to the New Source Review (NSR) regulation is based on the potential-to-emit (PTE) for each compressor station and comparison to applicable permitting thresholds in tons per year. (The PTE are shown in tables 4.11-4 through 4.11-9, presented in sections 4.11.1.2.3 and 4.11.1.2.4.). It is shown that for each station considered individually, the PTE of the station is below the major source threshold requirement of 250 tons per year. However, if they are looked at cumulatively, the total PTE for each criteria pollutant exceeds the 250 ton per year threshold, and in some cases, is greater than ten-times (10x) the threshold. Please see the table below:

	NOX (tpy)	CO (tpy)	VOC (tpy)	PM10/PM2.5 (tpy)	SO2 (tpy)	CO2e (tpy)	Formaldehyde (Single HAP) (tpy)	Total HAPs (tpy)
Total Station Emissions Oak Lane Compressor	127.5	188.36	28.31	15.11	1.65	276,728	1.72	2.5
Emissions from the Sherwood Compressor Station	101.85	239.93	23.7	11.75	1.25	224,976	1.36	2
Emissions from the White Oak Compressor Station	89.35	213.82	18.46	10.32	1.11	193,436	1.22	1.78
Emissions from the Mount Olive Compressor Station	120.39	244	24.93	14	1.51	264,200	1.62	2.37
Emissions from Expansion of the Ceredo Compressor Station	3,582.56	309.93	96.64	41.05	1.21	208,685	40.09	57.78
Emissions from Expansion of the Elk River Compressor Station	98.37	243.38	76.15	11.65	1.27	228,025	1.25	1.86
TOTAL EMISSIONS	4120.02	1439.4	268.2	103.9	8	1396050	47.26	68.29
Major source threshold	250	250	250	250	250	N/A	10	25

The cumulative total emissions would trigger NSR. While such cumulative effects may be considered outside the scope of some permitting programs under the Clean Air Act, air emissions from pipeline compressor station projects such as MXP may have ambient air impacts in such a way as to hamper an area's ability to achieve and maintain national ambient air quality standards (NAAQS). Under 40 CFR 51.160, West Virginia DEQ must consider the cumulative impact from numerous sources on attaining and maintaining air quality standards. We recommend the final EIS consider this situation

FA002-12: The U.S. Environmental Protection Agency (EPA) delegates its permitting authority under the Clean Air Act in West Virginia to the WVDEP and we take no position on the WVDEP's decisions under its federally delegated permitting authority. We understand that the MXP compressor stations were permitted as separate sources (and modeling is performed for each area) and we evaluated them as separate sources given their distance from each other. We analyzed cumulative air quality impacts based on the geographic scope, which was extended to a conservative 50-kilometer radius around each compressor station (per EPA's own Prevention of Significant Deterioration [PSD] guidance). Since the compressor stations do not fall within each other's geographic scope, the emissions were not combined.

FEDERAL AGENCIES

FA002 – U.S. Environmental Protection Agency (continued)

as a component of a cumulative effects analysis and consider additional mitigation efforts to address this issue.

6) Cumulative Impacts

EPA recommends that additional analysis of cumulative impacts be provided in the final EIS. The DEIS concludes that the cumulative effect on surface waterbody resources would be temporary and minor, and that groundwater effects would be less than significant. Aquatic resources have the potential to be cumulatively impacted by many factors, including waterbody crossings, change in recharge patterns, clearing, erosion, landslides, and other geohazards, blasting, and water withdraws for hydrostatic testing. We believe the consideration of these factors from other past, present and reasonably foreseeable projects is critical as other FERC jurisdictional projects occur in similar geologic settings and occur within the same watersheds as the proposed action.

Accordingly, we recommend FERC consider performing a cumulative impact assessment at the individual watershed scale, i. e. by individual HUC 10 or 12. We suggest this assessment include stream crossings and surface and groundwater withdrawals, as these will likely have more impact to surface waters than acres disturbed. Other environmental variables that influence the degree of impact, such as miles of high quality and impaired streams; location of rare, threatened, and endangered species; number of National Pollutant Discharge Elimination System permitted outfalls; and any water restoration plans in the HUC are also relevant to cumulative impacts, and can strengthen FERC's determinations whether cumulative impacts to stream crossings are temporary and minor. We recommend that the cumulative impact analysis also consider impacts to water quality, headwater streams, and high quality and/or sensitive aquatic resources.

We recommend FERC specifically identify subwatersheds where the proposed action would likely have a cumulative impact. Below please review an example of methodology used to assess the cumulative impact of stream crossings, the number of stream crossings per HUC10 and HUC12 for the MXP and other FERC jurisdictional pending or approved projects. This type of data assessment could help highlight areas of special concern and high potential for cumulative impacts, such as the Headwaters Middle Island Creek which is impaired for benthic macroinvertebrates and has high numbers of stream crossings. Headwaters also are critical for the downstream Federally-listed endangered freshwater mussels, where they occur. By identifying these areas, FERC can focus efforts to minimize stream crossings in these areas through minor route modifications.

Table 1: HUC 10's with highest number of cumulative stream crossings

	HUC 10	HUC Name	# of stream crossings	Additional pipelines in HUC with MXP
1	0503020104	Headwaters Middle Island Creek	58	Rover, ACP, MVP
2	0503020102	Fishing Creek	35	ACP, MXP
3	0503020105	Outlet Middle Island Creek	27	ACP, Rover
4	0503010611	Fish Creek	25	LXP
5	0503020103	McElroy Creek	17	ACP, Rover

FA002-13: Cumulative impacts of the MXP and GXP along with other projects occurring or reasonably foreseeable in the same watersheds were considered in our cumulative impacts assessment.

FA002-14: We created a new table that lists the HUC-12 subwatersheds along the MXP project and any other projects we evaluated that occur in the same HUC-12. See table 4.13-5.

FEDERAL AGENCIES

FA002 – U.S. Environmental Protection Agency (continued)

FA002-14 (continued)

Table 2: HUC 12's with the highest number of cumulative stream crossings				
	HUC 12	Name	# of Stream Crossings	Additional pipelines in HUC with MXP
1	050302010402	Buckeye Creek*	19	Rover, ACP, MVP
2	050302031008	Grass Run-South Fork Hughes River	14	n/a
3	050302010403	Meathouse Fork*	13	ACP, MVP
4	050302010204	Upper Fishing Creek	13	n/a
5	050302010404	Nutter Fork-Middle Island Creek*	12	Rover
6	050301061105	Lower Fish Creek	11	LXP

* = located within the same HUC 10, Headwaters Middle Island Creek, 0503020104.

6

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STATE AGENCIES

SA001 – Tennessee Department of Environment and Conservation



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

April 10, 2017

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

re: OEP/DG2E/Gas 4
Columbia Gulf Transmission, LLC
Gulf Express Project: FERC Docket No. CP16-361-000

Dear Ms. Bose:

SA001-1

The Division has reviewed the information that was sent as a notice on intent to prepare an environmental assessment for the Columbia Gas Transmission Project. It is my understanding from reading the document that the only portion of the project that will be in Tennessee is the two new compressor stations located in Cane Ridge/Nashville/Davidson County and Clifton Junction/Wayne County. As proposed this activity does not pose a significant impact on programs regulated by the Division of Water Resources. Review of the site location does not indicate that there are any issues with public water supplies, navigable waters or that the project would impact a river that is part of the Nationwide Rivers Inventory or any wild or scenic river within Tennessee.

SA001-2

The disturbed areas for both properties are well over the one acre threshold and will require a General NPDES Permit for Discharges of Storm Water Associated with Construction Activities (CGP). The exact location of the Clifton Junction compressor station is not given in the draft EIS, but I was able to determine the location via map parcel data for Wayne County. It is not clear from the draft EIS if the Cane Ridge site could impact the unnamed tributary to Mill Creek. If there is the potential for impact, the project will need an Aquatic Resource Alteration Permit (ARAP) application to be filed.

SA001-3

As noted in the draft EIS, the two compressor station sites are located in karst terrain. The particular geologic formations involved are less likely to form sinkholes than some of the other geologic formations in Middle and East Tennessee. Should sinkholes or other karst drainage features be encountered during the two projects, the modification of sinkholes is regulated under the Underground Injection Control (UIC) Program and requires Division approval. The UIC Program is housed in the Drinking Water Unit.

If you have any further questions, I will be glad to try to assist you. You may reach me at (615) 532-0170 or tom.moss@tn.gov.

Sincerely,

Thomas A. Moss
Environmental Review Coordinator
Compliance and Enforcement Unit

SA001-1: The commenter's statements regarding project activities and their impacts on resources within Tennessee regulated by the Division of Water Resources are noted.

SA001-2: The status of NPDES and section 404 permitting requirements for GXP facilities in Tennessee are discussed in section 4.3.2.4.2. As indicated in table 1.5-1, Columbia Gulf anticipates filing its NPDES permit application in June 2017. No impacts on surface waterbodies are anticipated from construction and operation of the Cane Ridge Compressor Station.

SA001-3: As discussed in section 2.4.4.8, geotechnical investigations of the compressor station sites encountered soil materials with karst terrain, but they did not exhibit typical signs of active features. If sinkholes are discovered during development of the sites, Columbia Gulf would comply with Tennessee Department of Environment and Conservation (TDEC) regulations for sinkhole modifications.

STATE AGENCIES

SA002 - West Virginia Division of Culture and History



ORIGINAL

The Culture Center
1900 Kanawha Blvd., E.
Charleston, WV 25305-0300

Randall Reid-Smith, Commissioner
Phone 304.558.0220 • www.wvculture.org
Fax 304.558.2779 • TDD 304.558.3562
EEO/AA Employer

April 7, 2017

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: Draft Environmental Impact Statement dated February 2017
Columbia Gas Transmission, Mountaineer Xpress Project
FERC Docket No(s). CP16-357-000 and CP16-361-000
FR#: 15-800-MULTI-11

Dear Mr. McKee:

We have reviewed the draft Environmental Impact Statement (DEIS) prepared for the aforementioned project to determine its effects on cultural resources. As required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties," we submit our comments.

In general, we are amenable to the information presented in the DEIS; however, a few emendations ought to be made to correct the document. First, our office has not concurred with the argument—either from Columbia Gas, ERM (Columbia's CRM consultant), or FERC—that the pipeline's construction will have no "significant negative impact on the viewshed" of the Morris Memorial Children's Hospital or any other property that is considered eligible for or included in the National Register of Historic Places. As the DEIS noted, consultation continues between our office and Columbia/ERM regarding eligibility and any potential effects the undertaking may have on historic properties. Finally, the DEIS should be corrected to indicate that the Mud River Covered Bridge was listed in the National Register of Historic Places in 1975. It is not, as the DEIS explains, a National Historic Landmark. We will continue to provide additional comments to Columbia and their consultant, ERM, for this undertaking as we receive the information we have previously requested.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 process, please contact Lora A. Lamarre-DeMott, Senior Archaeologist, or Mitchell K. Schaefer, Structural Historian, at (304) 558-0240.*

Sincerely,

A handwritten signature in black ink that reads "Susan M. Pierce".

Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/MKS

CC: Mr. Larry McKee
Senior Archaeologist
Environmental Resources Management
3300 Breckinridge Blvd., Suite 300
Duluth, Georgia 30096

FILED
SECRETARY OF THE
COMMISSION
2017 APR 17 P 2:30
FEDERAL ENERGY
REGULATORY COMMISSION

SA002-1: Thank you for the clarification; section 5.1.10 has been modified to reflect the information provided by the WVSHPO.

STATE AGENCIES

SA003 – Tennessee Department of Environment and Conservation



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

ROBERT J. MARTINEAU, JR.
COMMISSIONER

BILL HASLAM
GOVERNOR

April 24, 2017

Via Electronic Submittal at FERC.gov

Attn: Kimberly D. Bose, Secretary
Office of Energy Projects
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Dear Ms. Bose:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the Columbia Gas Transmission, LLC (Columbia Gas) proposed *Mountaineer XPress Project* (MXP), and the Columbia Gulf Transmission, LLC (Columbia Gulf) proposed *Gulf XPress Project* (GXP) included in the Draft Environmental Impact Statement (Draft EIS) prepared by the Federal Energy Regulatory Commission (FERC). Columbia Gas requests authorization to construct and operate a total of 170.7 miles of natural gas transmission pipeline, new compressor stations, and other appurtenant facilities and to modify one existing compressor station and two pending compressor stations located in West Virginia. Columbia Gulf requests authorization to construct and operate compressor stations and to upgrade an approved compressor station and one existing meter station in Kentucky, Tennessee, and Mississippi.

Actions considered in detail within the Draft EIS include:

- **Proposed Action Alternative** – Columbia Gas requests authorization to construct and operate a total of 170.7 miles of natural gas transmission pipeline, new compressor stations, and other appurtenant facilities, and to modify one existing compressor station and two pending compressor stations, all located in West Virginia. The MXP would provide about 2,700,000 dekatherms per day (Dth/d) of available capacity for transport to multiple Midwest, Northeast, and Mid-Atlantic markets across Columbia Pipeline Group's system, including the Columbia Gulf Leach interconnect with Columbia Gulf. Columbia Gulf requests authorization to construct and operate compressor stations and to upgrade an approved compressor station and one existing meter station in Kentucky, Tennessee, and Mississippi. The GXP would provide about 860,000 Dth/d of natural gas delivery to markets in the Gulf Coast region. Under the proposed action the GXP project would lead to the construction of the Cane Ridge Compressor Station on approximately 23 acres in Antioch Township, Davidson County, Tennessee, and the Clifton Junction Compressor Station on approximately 29 acres in Waynesboro, Wayne County, Tennessee.
- **No-Action Alternative** – Under the no-action alternative, the environmental impacts identified in the Draft EIS would not occur. Existing natural gas transportation systems would continue to provide natural

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STATE AGENCIES

SA003 – Tennessee Department of Environment and Conservation (continued)

gas service to these regions; however, the projects¹ customers would likely seek natural gas and transportation services from other sources. To increase capacity or to provide access to new sources of natural gas, the Companies² may need to construct additional and/or new gas pipeline facilities and appurtenances in other locations (i.e., system alternatives) to provide the volumes of natural gas contracted through the projects' binding precedent agreements with the respective shippers. Alternatively, customers of the projects' shippers could seek to use other energy alternatives, such as alternative fuel or renewable energy sources, which could also require new facilities. If other new natural gas pipeline facilities or other energy infrastructure were approved and constructed, each project would result in specific environmental impacts that could be less than, similar to, or greater than the current proposals.

- **System Alternatives** – To analyze system alternatives, the Draft EIS evaluated potential impacts associated with using other existing interstate natural gas pipelines to transport an equivalent volume of gas to meet customer requirements set forth in the binding precedent agreements, and to provide firm transportation service to Columbia Gas' TCO Pool³, as well as more southerly markets accessible from Columbia Gulf's pipeline. One of the primary purposes of the MXP is to increase deliverability by approximately 1,800,000 Dth/d to the TCO Pool.
- **Major Pipeline Route Alternatives** – FERC received comments during the public scoping period regarding the use of co-location opportunities with other utilities to reduce MXP impacts on landowners, communities, and the environment.⁴ Columbia Gas' route review during the MXP pipeline siting process considered co-location opportunities where practicable, with several caveats. Even with the limited opportunities available, Columbia Gas was able to co-locate with other utility corridors almost 24 miles, or about 13.9 percent, of the MXP route. Additionally, FERC analyzed two major route alternatives to the MXP that involved looping/upgrades to the existing Columbia Gas pipeline systems with greater ability to co-locate pipelines (Legacy 1 and Legacy 2 Alternatives), and one major route alternative (LXP Alternative) that included modifications to a Columbia Gas project currently under FERC review (the LXP; Docket No. CP15-514). These alternatives are substantially different from the proposed MXP route and from each other.
- **Pipeline Route Variation Alternatives⁵** – During development of the MXP, Columbia Gas identified and evaluated numerous route variations and alignment modifications as additional information became available.⁶

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¹ Columbia Gas Mountaineer XPress Project (MXP) and the Columbia Gulf XPress Project (GXP) collectively.

² Columbia Gas Transmission, LLC (Columbia Gas) and Columbia Gulf Transmission, LLC (Columbia Gul) collectively.

³ The TCO Pool is the main pooling point on Columbia Gas' system. Specifically, the TCO Pool refers to Columbia Gas' highly liquid trading pool. Shippers may make deliveries into the TCO Pool, i.e., Columbia Gas' Interruptible Paper Pool, from any source delivered into Columbia Gas' system. The TCO Pool is a daily and monthly pricing point listed by S&P Global Platts as "Columbia Gas, Appalachia."

⁴ A pipeline is considered co-located with an existing corridor if the new right-of-way is adjacent to or overlaps the existing right-of-way.

A pipeline can parallel an existing linear facility without being co-located (i.e., there is a separation between the rights-of-way), but this can result in multiple clear-cuts along similar paths with limited benefit in reducing impacts on environmental and other resources. Parallel configurations are typical for a gas pipeline where the corridor being followed is a foreign pipeline or utility, or where the company does not have multiple line rights within its existing right-of-way. In either scenario, whether truly co-located or simply paralleling another utility, construction within or adjacent to existing rights-of-way can minimize impacts on visual sightlines and intrinsic value, depending on how the new pipeline is configured in relation to the existing corridors. Because co-location usually minimizes vegetation clearing, it subsequently reduces fragmentation of forested habitats. Conversely, multiple corridors can have negative impacts on landowners, and studies have shown there can be detrimental effects on certain species of wildlife in areas with multiple co-located pipelines, as corridors can expand to the point that they create barriers to wildlife passage, and in some cases, effectively isolate populations. The extent of this effect depends on the species, life cycles, the geography of an area, and the cleared corridor width.

⁵ Route variations differ from system or major route alternatives in that they are designed to reduce impacts on specific localized features, are typically shorter than major route alternatives, and do not result in a significant departure from the original alignment.

⁶ In its application filing, Columbia Gas identified and provided its rationale for adopting 21 minor variations and 3 more significant route modifications (the Maxwell Ridge, Sherwood Lateral, and Hurricane Creek Alternatives) that were considered. Two of the modifications

STATE AGENCIES

SA003 – Tennessee Department of Environment and Conservation (continued)

- **MXP Aboveground Facility Site Alternatives** – Columbia Gas selected the proposed compressor station locations to optimize gas flow hydraulics, integrate with other pipelines on the Columbia Gas system, and to minimize construction challenges given that much of the terrain where compression is required is mountainous and rugged. The three new compressor station sites proposed by Columbia Gas are privately owned parcels for which Columbia Gas has obtained purchase rights. No significant issues were identified with any of the three proposed sites, and FERC received no comments to evaluate any specific alternate sites during the public scoping period. As such, FERC did not evaluate alternative sites for the Sherwood, White Oak, or Mount Olive Compressor Stations. Additionally, FERC did not receive comments or evaluate alternatives for modifications at existing compressor facilities during the public scoping period.
- **GXP Compressor Station Alternatives** – The number and locations of the compressor stations proposed for GXP considered the basic flow dynamics of natural gas on Columbia Gulf's system and the effects of the GXP. To determine the amount of compression needed by the GXP and the location of compressor stations, Columbia Gulf used a combination of factors, including compression ratios, fuel consumption, and compressor suction and discharge pressures.⁷

As the environmental and natural resources regulatory authority in Tennessee, TDEC's comments will focus on proposed actions and associated impacts that will occur in Tennessee. Proposed actions occurring in Tennessee are included as part of the GXP project. Under the proposed action, Tennessee would see two new natural gas compressor stations constructed:

- The Cane Ridge Compressor Station is proposed for construction on approximately 23 acres in Antioch Township, Davidson County, Tennessee.
- The Clifton Junction Compressor Station is proposed for construction on approximately 29 acres in Waynesboro, Wayne County, Tennessee.

TDEC's **Office of Energy Programs** has reviewed the Draft EIS and provides the following comments regarding the proposed actions occurring within Tennessee.

SA003-1

- Section 4.5.1.1.1 "Pipeline Facilities" – In the final EIS, TDEC recommends that consideration be given to using electric-powered lawn equipment, which is as much as fifty percent (50%) quieter than traditional gas-operated models. Electric-powered lawn equipment has zero air emissions onsite, reduces petroleum-fuel purchases, and eliminates used oil waste.

SA003-2

- Section 4.1.4.8 "Flash Flooding" – TDEC encourages Columbia Gas to elevate essential electric components, utility boxes, and any backup power generation as a resiliency measure to ensure safe operation in the event of a flash flood or an extreme flood event. Columbia Gas should evaluate beyond

were specifically developed in response to comments received during project scoping. In its October 13, 2016 supplemental filing, Columbia Gas identified an additional 48 route changes, which resulted from further project refinements in consideration of its 2016 field surveys, stakeholder comments, input from FERC staff, and other considerations. These route adjustments were adopted to address landowner concerns, design changes, and constructability constraints, as well as to avoid certain parcels and landmarks.

⁷ Columbia Gulf proposed the new compressor stations to meet the volumetric and pressure requirements for its existing lines, as well as to meet the requirements of the project shippers, while minimizing environmental impacts and maintaining service to existing customers. Applying site-specific conditions to the results of hydraulic modeling led Columbia Gulf to determine that each compressor station must be located within approximately 1 mile upstream and downstream of the optimal compression location. This would achieve the hydraulic efficiency necessary to meet the required project shipper volume.

SA003-1: Lawn maintenance on a 10-acre site with electric powered equipment would be impractical from an efficiency perspective. In its response to our May 9, 2017 data request, Columbia Gulf indicated it would not be using electric-powered lawn equipment. Since maintenance activities would be conducted infrequently on a seasonal basis, we do not anticipate these activities should warrant special mitigation.

SA003-2: TDEC's recommendation is noted.

STATE AGENCIES

SA003 – Tennessee Department of Environment and Conservation (continued)

SA003-2 (cont.)	<p>the FEMA 100-year floodplain map for the Cane Ridge and Clifton Junction Compressor Stations in Tennessee as recent flooding events in Middle Tennessee have exceeded 100-year floodplain levels.⁸</p> <p>TDEC's Division of Water Resources (DWR) has reviewed the Draft EIS and provides the following comments regarding the proposed action occurring within Tennessee.</p>
SA003-3	<ul style="list-style-type: none">The project as proposed will include the disturbance of more than one acre, and will therefore require a NPDES – General Stormwater Construction Permit, as well as a Storm Water Pollution Prevention Plan and Best Management Practices Plan.⁹ TDEC acknowledges that this consideration is included in the Draft EIS and recommends that it be included in the Final EIS.
SA003-4	<ul style="list-style-type: none">It is not clear from the Draft EIS if the Cane Ridge Compressor Station could impact the unnamed tributary to Mill Creek on the east-southeast portion of the property. If there is the potential for impact, the project will need to file an Aquatic Resource Alteration Permit (ARAP) application.¹⁰ TDEC recommends that additional clarification on potential impacts to the unnamed tributary to Mill Creek be included in the Final EIS.
SA003-5	<ul style="list-style-type: none">As noted in the Draft EIS, the two compressor station sites are located in karst terrain. The particular geologic formations involved are less likely to form sinkholes than some of the other geologic formations in Middle and East Tennessee. Should sinkholes or other karst drainage features be encountered during the two projects, the modification of sinkholes is regulated under the Underground Injection Control (UIC) Program and requires DWR approval.¹¹ TDEC recommends that these considerations be addressed in the Final EIS.
SA003-6	<p>TDEC's Division of Archaeology (DoA) has reviewed the Draft EIS and provided the following comments regarding the proposed action occurring within Tennessee. Environmental Resources Management Archaeologists conducted cultural resource surveys at the two proposed compressor stations in Tennessee. Two prehistoric archaeological sites were located within the footprint of this proposed project. However, they were determined to be ineligible for the National Register of Historic Places. The Tennessee State Historic Preservation Officers concurred with these findings (May 16, 2016); DoA also agrees with Columbia Gas' recommendation that no further archaeological surveys are required for this project to move forward.</p>
SA003-7	<p>TDEC's Division of Natural Areas (DNA) has reviewed the Draft EIS and has no specific comments regarding the proposed actions or its alternatives potential impacts to endangered species.¹² In regards to clearing activities, if any wood is transported from site, special consideration should be given to protect against the spread of the Emerald Ash Borer (<i>Agrilus planipennis</i>), a federally regulated invasive species found in Tennessee. TDEC</p>

⁸ For example, the Opry Mills Mall site in Metro Nashville was built two feet above the 100-year floodplain levels, yet the 2010 historic flood exceeded those levels. Similar rainfall levels have been seen in the Metro Nashville area since 2010 and pose significant risk to these same watersheds. For more information visit <http://www.tennessean.com/story/news/local/2015/05/02/promise-floodwall-nashville/26759801/>.

⁹ For more information on NPDES Stormwater Construction Permitting please visit <http://www.tn.gov/environment/article/permit-water-npdes-stormwater-construction-permit>. Additionally, Projects in Metro Nashville where ground cover, natural or man-made, is removed require a grading permit in addition to a CGP. <http://www.nashville.gov/Water-Services/Developers/Stormwater-Review/Who-Needs-A-Grading-Permit.aspx>.

¹⁰ For more information on the ARAP program please visit <https://www.tn.gov/environment/article/permit-water-aquatic-resource-alteration-permit>.

¹¹ TDEC's UIC Program is housed in the Drinking Water Unit, more information can be found at <https://www.tn.gov/environment/article/permit-water-underground-injection-control-permit>.

¹² The Tennessee Wildlife Resources Agency (TWRA) manages information related to state listed rare animal species, and should be consulted in addition to the Division of Natural Areas.

SA003-3

See response to comment SA001-2.

SA003-4: No impacts on surface waterbodies are anticipated from construction and operation of the Cane Ridge Compressor Station. See section 4.3.2.4.2 of the final EIS.

SA003-5: See response to comment SA001-3.

SA003-6: The DoA's concurrence with project findings and recommendations is noted.

SA003-7: The DNA recommendation for Columbia Gulf to inspect wood materials to be transported offsite has been added to section 2.4.1.2.

STATE AGENCIES

SA003 – Tennessee Department of Environment and Conservation (continued)

- SA003-7 (cont.) recommends Columbia Gas include language in the Final EIS to identify any ash trees onsite and check for infestation or otherwise that may be deemed to present a hazard of the spread of the Emerald Ash Borer.¹³
- SA003-8 TDEC's Division of Solid Waste Management (SWM) has reviewed the Draft EIS and recommends the Final EIS reflect that any wastes associated with construction at the two compressor station sites in Tennessee must be handled in accordance with the Solid and Hazardous Waste Rules and Regulations of the state.¹⁴
- TDEC's Division of Air Pollution Control (APC) has reviewed the Draft EIS and provides the following comments regarding the proposed action occurring within Tennessee.
- SA003-9
- The estimated natural gas compressor emissions are likely to be at levels that will require Title V permits to be issued by each of the separate state and county (local air program) jurisdictions they are proposed to be constructed within. TDEC does not issue permits for facilities inside of Davidson County. Facilities inside of Davidson County would fall under the jurisdiction of the Metro Nashville Local Air Program and must comply with their permitting regulations.¹⁵ TDEC recommends that the likely need for Title V permits be referenced in the final EIS.
- SA003-10
- TDEC Title V construction permits for facility ID# 91-0098 were issued August 31, 2016 and September 9, 2016 for the proposed facility located off US 64 Savannah Highway, (Clifton Junction) in Wayne County. Both permits expire on August 30, 2017, and the facility is required to apply for a Title V Operating Permit when the source begins operation. TDEC recommends that the likely need for Title V permits be referenced in the final EIS.
- SA003-11
- Davidson and Wayne counties are both classified as attainment for all National Ambient Air Quality Standards (NAAQS) pollutants. The applicant has conducted air quality modeling using the Environmental Protection Agency's (EPA) approved AERMOD modeling software for the two compressor stations proposed to be constructed in Tennessee and has provided summary reports detailing that emissions will minimally impact the NAAQS for the pollutants evaluated. Because both counties are currently classified as attaining the NAAQS, General Conformity applicability determinations will not be required.
- SA003-12
- No demolition of existing structures is described as planned for this project (in Tennessee), however, if any existing structures were to be subject to demolition, both the state and local asbestos NESHAPs R&D programs will need to be notified 10 working days in advance of the planned demolition(s). Any existing pipeline segments in Tennessee that may be subject to replacement should also be evaluated for both asbestos and PCBs prior to any activities that would otherwise disturb any wrappings or coatings on the pipe found to contain these regulated materials. If these materials are found to be present, appropriate measures must be taken to implement special handling and disposal of the affected pipeline segments in accordance with federal, state and or local asbestos or PCB regulations.
- SA003-13
- The Draft EIS includes a listing on page 4-282 of the State of Tennessee Air Regulations that the Wayne County facility would be subject to with regard to air permitting requirements. TDEC recommends that

¹³ For more information regarding the Emerald Ash Borer please visit <https://www.tn.gov/agriculture/topic/ag-businesses-eab>.

¹⁴ Reference TDEC SWM Rule 0400 Chapter 11 for Solid Waste and Chapter 12 for Hazardous Waste <http://sos.tn.gov/effective-rules>.

¹⁵ For more information on the Metro Nashville, Air Pollution Control program visit <http://www.nashville.gov/Health-Department/Environmental-Health/Air-Pollution-Control.aspx> or contact John Finke, Director Division of Pollution Control Metro Public Health Department 2500 Charlotte Avenue Nashville, TN 37209-4129 Phone: (615) 340-5653 Email: john.finke@nashville.gov.

SA003-8: As stated in section 1.5, Columbia Gulf would be responsible for all permits and approvals required to implement the proposed project prior to construction, consistent with the conditions of any authorization issued by FERC.

SA003-9: Table 1.5-2 has been modified to identify Metropolitan Government of Nashville & Davidson County as the regulatory agency for air permitting in Davidson County. We also have identified the Metropolitan Government of Nashville & Davidson County as the permitting agency for the Cane Ridge Compressor Station in section 4.11.1.3.2.

SA003-10: The Title V applicability for all new compressor stations is noted in section 4.11.1.3.2, Federal Regulations, and more specifically under the Kentucky, Tennessee, and Mississippi Regulations heading in that same section.

SA003-11: Further description of General Conformity is described in section 4.11.1.1.1

SA003-12: See response to comment SA003-8.

SA003-13: We have updated section 4.11.1.3.2 to include this corrected information under Kentucky, Tennessee, and Mississippi Regulations.

STATE AGENCIES

SA003 – Tennessee Department of Environment and Conservation (continued)

SA003-13 (cont.) the applicable Metro (Davidson County) regulations also be listed for the project that is proposed for Davidson County.¹⁶

SA003-14

- Footnote 41 on page 4-290 references a procedure to obtain the modeling information discussed in the Draft EIS. On attempting to obtain this information for review purposes, the following message statement was displayed: "The General and Advanced Searches are not available at this time." It would be desirable to have additional time to review this information and any MOVES modeling results obtained after modeling using the MOVES transportation model.

TDEC appreciates the opportunity to comment on this Draft EIS. Please note that these comments are not indicative of approval or disapproval of the proposed action or its alternatives, nor should they be interpreted as an indication regarding future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,



Kendra Abkowitz, PhD
Director of Policy and Planning
Tennessee Department of Environment and Conservation
Kendra.Abkowitz@tn.gov
(615) 532-8689

cc: Molly Cripps, TDEC, OEP
Lacey Hardin, TDEC, APC
Lisa Hughey, TDEC, SWM
Tom Moss, TDEC, DWR
Mark Norton, TDEC, DoA
Stephanie A. Williams, TDEC, DNA

SA003-14: In its May 16, 2017 response to FERC's data request, Columbia Gulf indicated it has coordinated with TDEC representatives to provide the requested information. Copies of correspondence between Columbia Gulf and TDEC were attached to the response as confirmation.

¹⁶ The Metro Nashville regulations can be found at <http://www.nashville.gov/Health-Department/Environmental-Health/Air-Pollution-Control/Pollution-Downloads.aspx>.

STATE AGENCIES

SA004 – West Virginia Division of Natural Resources

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DIVISION OF NATURAL RESOURCES
Wildlife Resources Section
Operations Center
P.O. Box 67
Elkins, West Virginia 26241-3235
Telephone (304) 637-0245
Fax (304) 637-0250

Jim Justice
Governor

Stephen S. McDaniel
Director

April 24, 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First St. N.E., Room 1A
Washington, DC 20426

Subject: Mountaineer Xpress Project Draft Environmental Impact Statement
Columbia Gas Transmission, LLC
Docket CP16-357

Dear Ms. Bose:

The West Virginia Division of Natural Resources, Wildlife Resources Section has received the Mountaineer Xpress Project Draft Environmental Impact Statement and appreciates the opportunity to review and provide comments on this project. We have provided comments relating to wildlife, wetlands, aquatic resources and public lands in West Virginia.

For questions, please contact Clifford Brown, Environmental Resources Specialist, by phone (304) 637-0245 or email Clifford.L.Brown@wv.gov.

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STATE AGENCIES

SA004 – West Virginia Division of Natural Resources (continued)

Comment #	Comment Author	Page # /Section	Paragraph	Comment
SA004-1	WVDNR	ES-9	5	Proposed locations for vegetative clearing during the May nesting period should be described and justified.
SA004-2	WVDNR	ES-10	1	Because there will be significant fragmentation of cerulean warbler habitat and WV supports the majority of the current cerulean warbler breeding population, replacement of interior forest habitat for unavoidable impacts and adverse effects should be provided.
SA004-3	WVDNR	4-11	First bullet	The Landslide Mitigation Plan should contain notification procedures, including notification of WVDNR for any landslides or slips on WMAS; and notification of both WNDNR and WVDEP for landslides that may impact streams or wetlands.
SA004-4	WVDNR	4-80	Table 4.4-1	Conversion impacts should be determined for both PSS and PFO wetlands.
SA004-5	WVDNR	4-108	First bullet	Replacement of core forest habitat for unavoidable impacts and adverse effects to interior forest wildlife species should be provided.
SA004-6	WVDNR	4-110	First bullet	Columbia should include Integrated Vegetation Management (IVM) in development of BMPs for ROW maintenance and noxious and invasive weed management.
SA004-7	WVDNR	4-121	1	This MOU also obligates FERC to "Require, as appropriate, applicants to mitigate negative impacts on migratory birds and their habitats by proposed actions, in compliance with and/or supporting the intent of the MBTA, Executive Order 13186, BGEPA, ESA and other applicable statutes". Including, "compensating for the impact by replacing or providing substitute resources or environments".
SA004-8	WVDNR	4-154	First bullet	The mussel survey period in WV as outlined in the current West Virginia Mussel Survey Protocols is May 1 to October 1.
SA004-9	WVDNR	4-192	3	Can eminent domain be exercised on State property acquired or managed with Federal funds, e.g. Pittman-Robertson Wildlife Restoration Program?
SA004-10	WVDNR	4-200	Table 4.8-6	Sportsman Park is operated by the Wirt County Commission. WVDNR has a Public Access Site at the park for boating and fishing on the Little Kanawha River.
SA004-11	WVDNR	4-204	4	A portion of Lewis Wetzel WMA was acquired with USFWS Wildlife and Sport Fish Restoration funds, not the Lantz Farm. To date, WVDNR has not made a determination of interference in the purpose of Federal Aid Grant W-35-L from the USFWS, Division of Wildlife and Sport Fish Restoration for this project. WVDNR will provide a statement of determination and supporting documentation to the USFWS for consideration. USFWS will review the documentation provided and subsequently respond to WVDNR with a conclusion of support, or denial, with respect to a determination of interference for the purpose of the grant.
SA004-12	WVDNR	5-17	1	A portion of Lewis Wetzel WMA was acquired with USFWS Wildlife and Sport Fish Restoration funds, not the Lantz Farm. To date, WVDNR has not made a determination of interference in the purpose of Federal Aid Grant W-35-L from the USFWS, Division of Wildlife and Sport Fish Restoration for this project. WVDNR will provide a statement of determination and supporting documentation to the USFWS for consideration. USFWS will review the documentation provided and subsequently respond to WVDNR with a conclusion of support, or denial, with respect to a determination of interference for the purpose of the grant.

SA004-1: In section 4.6.3.1, we have included a recommendation that Columbia Gas file an update with the Secretary regarding the status of Migratory Bird Treaty Act (MBTA) consultations with the USFWS and WVDNR regarding the development of its MBTA Tree Clearing Strategy (and provide a copy of the final plan, if available); and identify special measures, if any, that Columbia Gas would implement to reduce impacts on cerulean warbler habitat.

SA004-2: We are recommending that Columbia Gas continue to consult with the WVDNR and USFWS to further reduce impacts, particularly on the large Core Forest Areas preferred by the cerulean warbler. As stated in section 4.6.5.1, Columbia Gas would continue to consult with authorizing agencies to address location-specific impact minimization and mitigation measures regarding wildlife, wetlands, and other regulated sensitive environmental features.

SA004-3: See response to comment FA002-2b.

SA004-4: Footnote a/ in table 4.4-1 describes how conversion impacts for PSS/PFO wetlands were determined.

SA004-5: The recommendation in section 4.5.4.1 has been modified to include replacement in Columbia Gas' discussions with the WVDNR regarding upland forests.

SA004-6: The recommendation in section 4.5.5.1 has been modified to specify that the BMPs should include IMV.

SA004-7: The Memorandum of Understanding between FERC and the USFWS states in section F.2, the Commission shall "require, as appropriate, applicants to mitigate negative impacts on migratory birds and their habitats by proposed actions, in compliance with and/or supporting the intent of the MBTA, Executive Order

STATE AGENCIES

SA004 – West Virginia Division of Natural Resources (continued)

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13186, BGEPA, ESA, and other applicable statutes.” The memorandum further clarifies that mitigation includes avoiding, minimizing, rectifying, reducing, or compensating for the impact. Although we agree that compensatory mitigation is one way to off-set the impacts resulting from forest loss, there are other avoidance, minimization, and mitigation measures described in section 4.5.4.1 and 4.6.3.1 that would reduce forest fragmentation and impacts on core forests. While FERC does not require compensation, have asked the applicant to develop a MBTA plan, with appropriate mitigation measures, in consultation with USFWS and WVDNR. Columbia Gas is required to obtain the necessary permits and authorizations required to construct and operate the project. As such, to the extent the state has regulatory authority and permitting jurisdiction for these features, Columbia Gas would consult with the appropriate state agency. State agencies would have the opportunity to review Columbia Gas’ proposed crossings during the permitting process and, if necessary, identify additional mitigation measures beyond that proposed.

SA004-8: No changes required to the recommendation. Mussel surveys will be conducted during the permitted survey period as conditions allow. The survey period has been added to section 4.7.2.

SA004-9: As a general matter, a holder of a certificate of public convenience and necessity may exercise eminent domain under section 7(h) of the Natural gas Act to obtain the necessary rights-of-way through State property, regardless of whether the State property was acquired or is managed with federal funding.

SA004-10: We have incorporated this information into table 4.8-6.

SA004-11: Section 4.8.2.2.1 has been revised to include the text provided.

STATE AGENCIES

SA004 – West Virginia Division of Natural Resources (continued)

SA004-12: Section 5.1.8 has been revised such that the information provided relating to the Lewis Wetzel WMA has been removed from the description of Lantz Farm.

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LOCAL AGENCIES

LA001 – Fabian Bedne, Nashville Metropolitan Council, District #31

20170503-0013 FERC PDF (Unofficial) 05/02/2017



METROPOLITAN COUNCIL

Member of Council

FABIAN BEDNE

Metro Council 31st District

Historic Metro Courthouse • One Public Square, Suite 204 • Nashville, TN 37219

Telephone 615-829-6226

April 24, 2017

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, D.C., 20426

ORIGINAL

FILED
SECRETARY OF THE
COMMISSION
2017 MAY -2 P 3 54
FEDERAL ENERGY
REGULATORY COMMISSION

Dear Secretary Bose,

LA001-1

I would like to advocate the interests of my constituents and strongly encourage you to deny certificate approval for FERC Docket Number CP16-361-000, Columbia Gulf Transmission, LLC's Gulf Xpress Project (GXP). The extensive proposed project includes construction of a new gas compressor station in the Cane Ridge community of my district in Davidson County, Tennessee. This gas compressor station will have a direct and negative impact on the surrounding community and have deleterious effects on resident's wellbeing.

LA001-2

The proposed gas compressor station would be located on Barnes Road approximately 0.5 mile west of Old Hickory Boulevard, an area that is zoned residential, not industrial. This station would be in very close proximity to many subdivisions, two schools, and less than a mile away from the Mill Creek Park and from the Greenway system that is currently undergoing an expansion as part of the Master Plan conceived ten (10) years ago. Construction has also just begun on a nearby \$3 million dollar sports field. There is no doubt the location of this gas compressor station will pose health, safety and environmental risks to the surrounding community. It is also clear that the Columbia Gulf company can better locate this station in an alternate site already zoned for industrial uses.

LA001-3

While an FERC fact sheet notes that "accidents are rare and usually the result from outside forces or unauthorized action by someone other than the pipeline company", they cannot guarantee an accident will not occur. What will happen to the residents, schools, and park system in the immediate vicinity?

LA001-4

In a notice for the draft environmental impact statement (EIS) for the GXP, the FERC staff "concludes that approval of the proposed projects would result in some adverse and significant environmental impacts." An FERC fact sheet also notes that "natural gas-fired engines and turbines burn a portion of the natural gas in the pipeline and would emit pollutants." The proposed station would in fact be a natural gas-fired turbine-driven compressor. Even more concerning is the fact that the FERC's EIS acknowledges that generally, station sites are in rural areas with population densities less than the

LA001-1: Comment noted.

LA001-2: Comment noted.

LA001-3: Reliability and Safety are discussed in section 4.12. See response to comments IND009-5 and IND006-4.

LA001-4: Comment noted. The complete quote is as follows: "The draft EIS assesses the potential environmental effects of the construction and operation of the MXP and GXP in accordance with the requirements of NEPA. The FERC staff concludes that approval of the proposed projects would result in some adverse and significant environmental impacts. However, if the projects are constructed and operated in accordance with applicable laws and regulations, the mitigation measures discussed in this EIS, and our recommendations, these impacts would be reduced to acceptable levels." Note that this summary paragraph references both the GXP and the MXP. The only potentially significant environmental impact identified during our review of both projects is associated with the MXP (specifically to Core Forest Areas). See response to comments IND010-4 and IND021-2 regarding air emissions. It is not unprecedented for metropolitan areas to incorporate natural gas infrastructure as part of their energy supply plans. In densely populated areas, additional safety measures are incorporated into the design, testing, and operation of the facilities

LOCAL AGENCIES

LA001 – Fabian Bedne, Nashville Metropolitan Council, District #31 (continued)

20170503-0013 FERC PDF (Unofficial) 05/02/2017

LA001-4 (cont.) statewide averages, *except for the Cane Ridge site in Davidson County, Tennessee, which is the second largest population center in the state. This clearly reveals that Cane Ridge is not an appropriate location for a gas compressor station.*

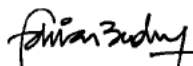
LA001-5 In addition to detrimental health impacts, residents are also worried that property values will dramatically decrease, and the possibility that they could be forced to sell or lease their land for easements or right of ways. This station will not only be a burden to current residents, but will also make the area less desirable for prospective home buyers, further decreasing property values.

LA001-6 Advocates for the compressor station purport that the station will be good for business and create opportunities in the community, but this does little to placate resident's concerns. The previously referenced EIS reports that Columbia Gulf estimates 90% of the construction workforce at the compressor station site will be non-local, leaving just 10% as local hires. Additionally, since the compressor site will be situated in an urban area, unlike the other proposed stations in this project, there will be a substantial increase in traffic along Barnes Road which will result in delays to local commuters.

LA001-7 Constituents have increasingly and overwhelmingly voiced their concerns to me, fellow Council members, and state officials. In light of these concerns, I sponsored an ordinance in 2016 that adds gas compressor stations to the list of facilities that are regulated locally as a major source of air pollutants in Nashville. This ordinance also requires that gas compressor stations obtain construction permits to open. As part of this ordinance, Nashville's health department director could also deny a construction permit if a facility violates air quality standards. The numerous adverse effects of this compressor station necessitate action to protect the surrounding ecosystem and thousands of residents who live in close proximity to this proposed station. It is overwhelmingly apparent that Columbia Gulf Transmission is pursuing this station for their own gain while providing no benefit to the surrounding community.

LA001-8 Again, I implore you to deny certificate approval for Columbia Gulf Transmission for the Gulf Xpress Project, specifically for the Cane Ridge, Tennessee gas compressor station. This community has strongly conveyed their concern and disapproval. I respectfully ask you to consider the health, environmental, and residential implications of this planned station. Thank you for your time and attention.

Sincerely,



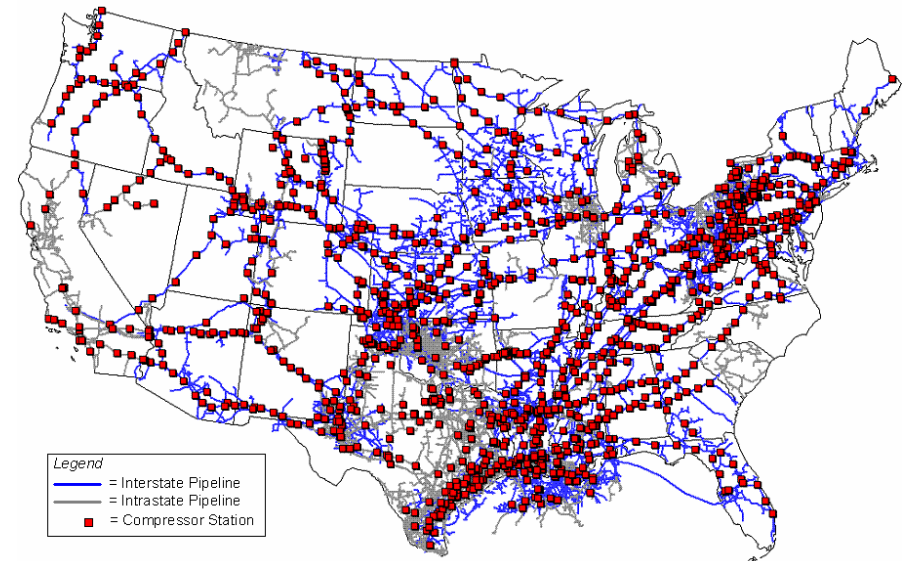
Fabian Bedne
Councilmember, District 31

FB/dg

as required by DOT regulations at 49 CFR 192 (see section 4.12.1).

The U.S. Energy Information Administration map below illustrates the location of natural gas compressor stations in the United States, many of which are located in metropolitan areas.

https://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/compressormap.html



LA001-5: See response to comment IND017-9.

LA001-6: Potential impacts on the local economy are discussed in section 4.9.8.2. While the majority of the construction workforce would be non-local, there would still be a beneficial impact on the community through increases in the local tax revenue as well as through other construction expenses. Potential traffic impacts related to construction and operation of the Cane Ridge Compressor Station are discussed in section 4.9.5.2. Columbia Gulf recognizes the possibility of delays during peak traffic hours and would work with local transportation officials to mitigate transportation and traffic impacts on Barnes Road during the 10-month construction period.

LA001-7: See response to comment CO005-3. Benefits associated with the GXP are discussed in section 4.9.8.2.

LA001-8: Comment noted.

NATIVE AMERICAN TRIBES
NAT001 – Eastern Band of Cherokee Indians



Eastern Band of Cherokee Indians
Tribal Historic Preservation Office
P.O. Box 455
Cherokee, NC 28719
Ph: 828-359-6852 Fax 828-488-2462

DATE: 19 – April – 17

TO: Federal Energy Regulatory Commission
ATTN: To Whom It May Concern
888 First Street, NE
Washington, DC 20426

PROJECT: FERC No. CP16-357-000.

Hello:

The Tribal Historic Preservation Office of the Eastern Band of Cherokee Indians (EBCI THPO) accepts the invitation to comment on this proposed section 106 activity under §36CFR800.

It is the opinion of the EBCI THPO that no cultural resources important to the Cherokee people should be adversely impacted by this proposed federal undertaking. As such, this proposed undertaking may proceed as planned. In the event that project design plans change, or cultural resources or human remains are inadvertently discovered during site prep and construction phase, the EBCI THPO requests that all work cease and be notified so we may continue the nation-to-nation consultation process as stipulated under §36CFR800.

NAT001-1

If we can be of further service, or if you have any comments or questions, please feel free to contact me at (828) 359-6852.

Sincerely,

Holly Austin
Tribal Historical Preservation Office
Eastern Band of Cherokee Indians

NAT001-1: Thank you. Comments are noted.

NATIVE AMERICAN TRIBES
NAT002 – Eastern Band of Cherokee Indians



Eastern Band of Cherokee Indians
Tribal Historic Preservation Office
P.O. Box 455
Cherokee, NC 28719
Ph: 828-359-6852 Fax 828-488-2462

DATE: 19 – April – 17

TO: Federal Energy Regulatory Commission
ATTN: To Whom It May Concern
888 First Street, NE
Washington, DC 20426

PROJECT: FERC No. CP16-361-000.

Hello:

The Tribal Historic Preservation Office of the Eastern Band of Cherokee Indians (EBCI THPO) accepts the invitation to comment on this proposed section 106 activity under §36CFR800.

It is the opinion of the EBCI THPO that no cultural resources important to the Cherokee people should be adversely impacted by this proposed federal undertaking. As such, this proposed undertaking may proceed as planned. In the event that project design plans change, or cultural resources or human remains are inadvertently discovered during site prep and construction phase, the EBCI THPO requests that all work cease and be notified so we may continue the nation-to-nation consultation process as stipulated under §36CFR800.

NAT002-1

If we can be of further service, or if you have any comments or questions, please feel free to contact me at (828) 359-6852.

Sincerely,

Holly Austin
Tribal Historical Preservation Office
Eastern Band of Cherokee Indians

NAT002-1: Thank you. Comments are noted.

COMPANIES AND ORGANIZATIONS

CO001 – Teamsters National Pipeline Labor Management Cooperation Trust

ORIGINAL

March 20, 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Dear Secretary Bose:

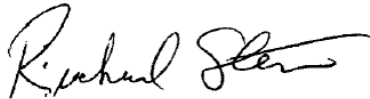
Please find written comments submitted by the "Teamsters National Pipeline Labor Management Cooperation Trust" for the Mountaineer Xpress and Gulf Xpress Pipeline Projects (FERC Docket Numbers CP16-357-000 and CP16-361-000).

I would like this cover letter along with the enclosed "Agreement and Declaration of Trust Establishing the Teamsters National Pipe Line Training Fund" to be part of our comments for the record.

This document gives an overview of our organization's mission.

If you have any questions I can be reached at (703) 508-8690.

Sincerely,



Richard Stern, Administrator
Teamsters National Pipeline Labor
Management Cooperation Trust

Enclosure

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SECRETARY OF THE
COMMISSION
2017 MAR 23 P 4:15
FEDERAL ENERGY
REGULATORY COMMISSION

CO001-1: Thank you for your comment.

Note to reader: This comment letter included over 40 pages of supplemental information related to the pipeline construction industry, including the Declaration of Trust and Purposes for the Teamsters National Pipeline Labor-Management Cooperation, pipeline worker training brochure and employment requirements, information regarding the construction process known as horizontal directional drilling, driver training requirements, drug and alcohol testing policies, and the Teamsters Military Assistance Program. The visibility of the attachments were low quality; therefore were not copied into this appendix. The comment and all attachments can be viewed at <http://www.ferc.gov>. Using the "eLibrary" link, select "Advanced Search" from the eLibrary menu and enter 20170324-0017 in the "Numbers: Accession Number" field.

COMPANIES AND ORGANIZATIONS

CO002 – Ohio Valley Environmental Coalition, William Hughes

Comments submitted on behalf of OVEC by:
William J Hughes
862 Scheidler Run Rd
New Martinsville, WV 26155

DEIS for Columbia Gas Transmission
FERC Docket Number CP16-357; and
CP16-361

Comments to FERC on MVP DEIS for Columbia Gas Transmission, filed by William J Hughes, on behalf of Ohio Valley Environmental Coalition

1. These comments here also include: **Exhibit A**, the red, three binder with 105 photographs; **Exhibit B**, six pages of Descriptions of Photographs which is insider the front cover of the three binder; **Exhibit C**, an eight page list of WVDEP-DWG air quality permits, inserted into the back pocket of the three ring binder. ^{DAQ}
2. Some of my comments here are based on my very detailed, close up observations and documentation of a recently FERC approved, constructed, completed and now in use 30-inch natural gas pipeline. This would be your Docket numbers CP-41-000 and CP15-41-001. It is an EQT pipeline. That project was called the Ohio Valley Connector. My almost daily observations spanned over a 10-month period from January 2016 to late November, 2016.
3. Our home is located near the midway point in the overall length of the OVC pipeline and the right of way for it passes about 150 feet from my mailbox.
4. Our home is about **1.5 miles** from the proposed Right of Way for the Mountaineer Xpress pipeline (MXP) near Mile Post 17. Many of the same roads will be used for construction work. The proposed MXP cuts Wetzel County in half, from north to south slightly east of our home.
5. I am aware that it is not be possible to extrapolate the cumulative environmental impacts from one pipeline construction project to predict the exact outcome of another much larger project. The MXP will have a larger diameter and will be over four times longer. It is not unreasonable to expect the community and environmental impacts to be greater or at least the same as we experienced.
6. Section **4.0** in the MXP DEIS starts the Environmental Analysis; within it is section **4.11** (page 4-260) on Air Quality and Noise and section **4.13** (pg 4-319) on Cumulative Impacts;

Pg 1/7

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COMPANIES AND ORGANIZATIONS

CO002 – Ohio Valley Environmental Coalition, William Hughes (continued)

7. And within that is section 4.13.1 **Projects and Activities Considered** (page 4-319) This paragraph includes:

In accordance with NEPA, we considered the cumulative impacts of the MXP and GXP and other projects or actions in the area of each. As defined by the CEQ, a cumulative effect is the impact on the environment that results from the incremental impact of the proposed action when added to other past, present, or reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions (CEQ, 1997). Although the individual impact of each separate project may be minor, the additive or synergistic effects of multiple projects could be significant. This cumulative impacts analysis includes other actions meeting the following three criteria:

- the action impacts a **resource** that is also potentially affected by the MXP or GXP;
- the action causes the impacts **within all** or part of the same geographic scope as the MXP or GXP; and
- the action causes this impact within all or part of the **temporal** scope for the potential impacts from the MXP or GXP.

8. A few paragraphs further (page 4-320) it says:

"We recognize that oil and natural gas exploration and production activities are ubiquitous in many of the counties crossed by the MXP. Oil and natural gas exploration activities include improvement or construction of roads, preparation of a well pad, drilling and completion of wells, and construction of gathering systems and consequent rights-of-way. We have not examined the impacts associated with these activities to the same extent as the other projects identified in table 4.13-2 because the status, scale, and timing of these facilities are unknown."

9. If one reads and digests the complete statement here this DEIS is actually saying, that FERC and Columbia are required to consider all the cumulative impacts which might affect the same resource, OUR AIR, at about the same time, and in the same general location of our neighborhood. However, then there is the extremely inadequate, borderline high-school-level excuse of why they did not do so, which is that the status, scale and timing are unknown. Someone at Columbia Gas needs to do their homework here. To help Columbia and FERC out, I would like to also submit my **Exhibit C** which took me maybe 30 minutes to find and print. This Exhibit ~~is~~ list eight pages of many dozens of locations just within Wetzel County which have known gas related operations and an WVDEP Air Quality permit. These are not UNKNOWN. A similar list could be quickly generated for every county in West Virginia thru which the MXP passes. These locations and the detailed Air Quality permit

CO002-1: Thank you for this information. See updates to section 4.13.1, which includes a new discussion of gas production facilities in the vicinity of the MXP. Subsection 4.13.2.9.1 addresses concerns related to oil and gas exploration activities on air quality.

CO002-1

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COMPANIES AND ORGANIZATIONS

CO002 – Ohio Valley Environmental Coalition, William Hughes (continued)

CO002-1
(con't)

which accompanies them, of compressor stations; de-hy stations and gas processing plants, are not UNKNOWN. Almost every natural gas compressor station within the state has an DAQ permit now. It is common knowledge; readily available.

10. In general, within this DEIS there are multiple, major omissions, and an apparent, broad based, intentional, concerted effort on the part of Columbia to avoid any real acknowledgement or evaluation of the cumulative impacts on overall air quality by glossing over many nearby contributors to air quality.

CO002-2

11. One of the most significant omissions in the MXP DEIS, is all the thousands of operating gas wells and many hundreds of horizontal gas well pads. Table 4.13-1 on page, 4-322 lists Cumulative Impact Geographic Scope distance of **31 miles** for air quality emissions sources during operations. Every well pad within the counties of Marshall, Wetzel, Tyler and Doddridge are within **31 miles** of one of the MXP compressor stations. Many of these well pads are only small fractions of a mile away from the actual RoW for the MXP.

CO002-3

12. The failure to address air pollution caused by natural gas well pads as a contributor to overall air quality represents a major flaw in this Columbia Gas DEIS for its MXP. There is no reasonable or accurate way to consider the cumulative impacts to long term, total, regional, cumulative air quality natural gas infrastructure when Columbia totally ignores one of the major sources of the air pollution. That is what is being done when FERC allows them to ignore all the existing large well pads with thousands of shale gas wells whose operation is totally interconnected and interdependent. These well pads truly share a symbiotic relationship with the pipelines. They absolutely need each other. The existence and location of these gas producing or processing plants and gas well pads are readily available and easy to locate and identify and quantify. All the work has been done by WVDEP-OOG. Each of these well pads have many (NGL) condensate storage tanks on the well pads, which vent VOC's to the atmosphere; and combustion units within the three phase separators; some have their own small de-hy units on the pad. WVDEP DAQ has on file air quality permits for all these well pad locations. This information is common knowledge. Its omission must have been intended. And the omission of this represent a fatal flaw to any attempt at a comprehensive evaluation of this or any large FERC pipeline. Nowhere within the FERC MXP documents does it make any attempt to take all these sources into consideration.

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CO002-2: See response to comment CO002-1

CO002-3: The EIS was prepared by FERC staff in accordance with NEPA, CEQ guidelines, and other applicable requirements. The EIS is consistent with FERC style, formatting, and policy regarding NEPA evaluation of cumulative impacts. However, we have updated section 4.13.1 to address gas production facilities in the vicinity of the MXP.

COMPANIES AND ORGANIZATIONS

CO002 – Ohio Valley Environmental Coalition, William Hughes (continued)

- CO002-4 13. There are many relevant “minor” point sources of air emissions not included here in the DEIS. The designation of “minor” is only technically correct in that they do not mathematically exceed the 100 TPY of a regulated pollutant to be labeled a “major” source. Calling them “minor” does not mean insignificant of that the air is actually good for long term public health.
- CO002-5 14. Another major, and presumably intentional limitation to the DEIS is the use of a very poor quality base map to show the pipeline route. It is very difficult to see much detail.
- CO002-6 15. Throughout the FERC documents are what I would have to categorize as “non-sequitur” statements or arguments. Meaning, of course, that the simplistic conclusion statement(s) is (are) not at all supported by whatever facts, generalizations or vague allusions which might have preceded them. Table 4.11-1 (page 4-263) shows air quality within this MXP area. It indicates that areas designated as unclassified are treated as : **“attainment”**. Many areas of WV thru which the proposed MVP would travel, are in counties in the category of unclassified with regard to air quality. That means we do not know. It does not mean that they are in attainment. There are very few air monitors across the state of WV and none in Wetzel, Tyler, Doddridge, or Ritchie Counties. The simple truth is that **we do not know** what the current, cumulative air quality is in any of the counties of WV which are being impacted by the ten years of continuing shale gas operations or their associated pipelines like the MXP or the recently completed OVC. There has never been any effort to aggregate the air emissions of all the gas processing and TEG De-hy units and well pads and compressor stations et cet. All of them are usually given a generic DAQ permit as a single, isolated, point source of air pollution as though they exist and operate in an isolated sealed vacuum. Or within a sealed Plexiglas bubble. The FERC documents do in fact give some casual mention that the diesel fumes and compressor stations might contribute to air pollution, and would result in permanent air quality impacts (see pg 4-354 and 4-356) but that acknowledgment is always followed by over-simplified phrases that emissions would be generally localized and minimal, and that therefore we conclude that the cumulative impact of the projects in table 4.13-2 (page 4-324) in combination with the MXP project would not significantly affect local or regional air quality. Unfortunately for all our residents, Table 4.13-2 ff, with the

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CO002-4: “Minor” and “major” point sources are regulatory terms under the Clean Air Act. They are included for disclosure of permitting authorities and not intended to reflect a FERC conclusion or opinion regarding the source’s relative importance. Air regulations and permitting requirements are discussed generally in 4.11.1.1.1, and those applicable to MXP are discussed in section 4.11.1.2.2.

CO002-5: Detailed mapping for the MXP was included in appendix B-1 of the draft EIS and is reproduced in the final EIS.

CO002-6: With respect to air permitting under the Clean Air Act, there is no difference between “unclassified” and “attainment” areas. Designations are based on the most recent set of air monitoring or modeling data characterizing an area. See also response to comment CO012-8 and additional cumulative air discussion under section 4.13.2.9.1.

Regional air monitoring data are available to the public online at <https://www.epa.gov/outdoor-air-quality-data>. Background concentrations used in the modeling analysis were derived from these data. The most representative air quality monitor was used for each compressor station site. See the modeling analysis in section 4.11.1.2.4.

COMPANIES AND ORGANIZATIONS

CO002 – Ohio Valley Environmental Coalition, William Hughes (continued)

exception of many more FERC pipelines, the table does not include any natural gas facilities anywhere.

CO002-7 16. For example of see pages: 4-267; 4-282; 4-319-320; 4-332; Of course, there is no justification to this gross over simplification of air pollution characteristics and related problems. Air pollution does not freeze and sit still forever stuck at the top of the exhaust stack. It does, in fact, get blown away, downwind to where my neighbors live. We do in fact know that no industrial category, toxic or hazardous air pollutant is ever local or contained or confined. Public health professionals have known for decades and they have well documented the "long legs" of small particles from diesel fumes and the downwind spread of the resultant ozone formed by the combined NOx and VOC so prevalent in any active natural gas field operations and production.

CO002-8 17. Once the honest acknowledgment is made that we do not know (unclassified) the actual air quality status of all these WV counties since they are unclassified, absolutely no conclusion can be made as to how much any other project, pipeline or compressor station will make matters much worse or will be insignificant as the FERC DEIS dreamingly states over and over. However, we just cannot keep pretending that air pollution of all forms do not add up and maybe, disperse and travel downwind and accumulate in valleys. The frequent unsubstantiated statement in the DEIS that all emissions for the MXP are "localized" is patently absurd since no air emission can be guaranteed to stay where we put them. Exhaust stack fumes will always travel and spread. Their effect is ongoing and cumulative and has public health consequences even if we pretend otherwise. And the assumption among the gas industry and apparently among some FERC evaluators seems to be that if the WV air is now "sort of OK", then we can continue to dump whatever pollutant we want into our common atmosphere until there is a widespread, recognized and acknowledged public health problem years later. Did not Allegheny County (Pittsburgh) in Penn. come to this obvious conclusion over 50 years ago ? It had filthy, unhealthy, air and it was not good for public health. It behooves us to now avoid public health air problems rather than create them now and force future generations to undo the effects of our ignorant industrial behavior in our rural neighborhood.

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CO002-7: Using an EPA recommended model, air dispersion modeling was performed to predict maximum ground level concentrations of the criteria pollutants that would be emitted from MXP facilities and determine the potential off-site impacts of air pollutants from the compressor stations. No exceedances of the National Ambient Air Quality Standards were predicted. See section 4.11.1.2.4 for a discussion of this analysis. Further background on air dispersion modeling can be found on the EPA's Support Center for Regulatory Atmospheric Modeling website at https://www3.epa.gov/ttn/scram/dispersion_prefrec.htm.

CO002-8: See response to comments CO002-6 and CO002-7.

COMPANIES AND ORGANIZATIONS

CO002 – Ohio Valley Environmental Coalition, William Hughes (continued)

18. The Conclusions and Recommendations section begins on page 5-1. From page 5-22, it states that, "*The air quality impacts associated with construction of the MXP and GXP would include temporary, localized increases in tailpipe emissions from fossil-fueled construction equipment.....and "Operation of the MXP and GXP aboveground facilities would result in long-term air emissions from stationary equipment (e.g., turbines, emergency generators, and heaters at compressor stations and M&R stations), including emissions of NOx, CO, particulate matter, SO2, VOCs, GHGs (including fugitive CH4), and HAPs.....*

However, since this Columbia Gas DEIS at no time includes ANY emissions from horizontal well operations and related gas processing, this then seems to give FERC the perplexing but unsubstantiated ability to simplistically conclude: "*Based on our analysis and compliance with federal and state air quality regulations, we conclude that operational emissions would not have a significant impact on local and regional air quality*". This is just another example, one of many, of the oversimplified, non-sequitur arguments contained throughout the FERC documents. There is absolutely no rational, logical way that the conclusion given can be drawn from the sketchy, partial, wishful thinking style of sentences cobbled together here in this DEIS. We can and must be smarter than this.

19. In Section 4.9.5.1 (pg. 4-230-235) there is a discussion of traffic and transportation issues. Based on my detailed observations and documentation here on the construction of the OVC pipeline, there were literally hundreds of truck trips to and from the four nearby laydown and work yards. Construction equipment was regularly loaded and unloaded from big flatbed trucks on the public highway. The routine travel of all local residents was delayed and restricted daily. On our very narrow local roads, residential traffic was always forced to yield to pipeline workers even when we had the right of way.

Any time, any pipeline associated truck, of any size needed to pull into or out of any laydown yard next to the highway, the pipeline contractor would stop all local, routine traffic. This was done every day for the convenience of the pipeline construction company. Mud was dropped onto the public roadway and sometimes cleaned up. Old, visibly obsolete trucks would be burning black diesel fumes every day all along the public roads used by the pipeline contractor. All of this continual

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CO002-9: See response to comment CO002-1

CO002-9b: Traffic related to construction and operation of the MXP is discussed in section 4.9.5. Cumulative impacts from MXP construction traffic are discussed in section 4.13.2.6.1. Columbia Gas' ECS for MXP addresses Temporary Road Access (and mud tracking) in section II.D.4 (page 7).

COMPANIES AND ORGANIZATIONS

CO002 – Ohio Valley Environmental Coalition, William Hughes (continued)

community impacts for just a 30-inch pipeline which was only 31 miles long here in WV.

- CO002-10 20. There is no way to avoid the obvious connection between all these FERC pipeline projects and the many hundreds of existing and thousands proposed, shale gas wells in WV and Penn and eastern Ohio. The only reason many additional pipelines are allegedly needed is to allow for more shale gas to be produced and transported out of the state and in some cases out of the country. There are currently thousands of conventional wells here in WV. For many decades those wells have not needed these oversized pipelines and their massive compressor stations. Therefore, any reasonable Environmental Impact evaluation must look at the whole picture and attempt to make a reasoned, scientific, factual evaluation of our current and long term air quality and its impact on future public health.
- CO002-11 21. This proposed MXP 36-inch pipeline should not be allowed to be located whereby a residential dwelling would be within the PIR for the rated pressure of the gas.
- CO002-12 22. Given the excessive sedimentation (see photo 90) which I saw here downstream during a routine pump around, all larger streams and rivers crossed by the MXP should be required to use HDD to get the pipe under them.
- CO002-13 23. Since many of us only just recently received the printed hard copy of the MXP DEIS, we would like to request an extension of the final date to submit comments beyond the April 24th.
- CO002-14 24. On page 4-274, emissions data for the Ceredo compressor station are listed. Since three, **11,000 HP** electric powered motors are used for the compressors, their proportionate share of air pollution at the coal fired generating plant which provides the electric power should be included here.

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CO002-10: See response to comment CO006-3. As stated in section 1.1.1, the Commission’s role in reviewing the details of any project is to make a determination of public convenience and necessity. A FERC EIS serves to inform the Commission as to the environmental impacts associated with a proposed action, but does not establish or justify the overall “need” for a project. If a Commission determination of public convenience and necessity is made in the affirmative, after a thorough review of a host of environmental and non-environmental factors, then the “need” for the project is affirmed.

CO002-11: Pipeline Reliability and Safety are discussed in section 4.12. Interstate natural gas pipelines are regularly sited in residential communities, and residential communities are frequently constructed around existing pipelines. Pipelines constructed and operated by U.S. Department of Transportation (USDOT) standards are, by definition, considered safe.

CO002-12: Waterbody construction is discussed in section 2.4.4.2. Permits, Approvals, Consultations, and Regulatory Requirements for waterbody crossings can be found in section 1.5.4. While a horizontal directional drill (HDD) can be a good option for certain waterbody crossings, our experience is that a direct crossing of a waterbody in 24-48 hours can often be preferable from an environmental standpoint than setting up an HDD operation with accompanying extra workspace which could take weeks to complete. As discussed in section 4.3.2.4.1, downstream turbidity from a dry-ditch crossing should dissipate quickly, and sedimentation should be minor.

CO002-13: The commenter’s request to extend the comment period is noted. We have continued to accept and respond to comments received after the close of the public comment period in development of the final EIS.

CO002-14: Because electric-powered sources have no air emissions themselves, they are not regulated by the EPA. The point source generating the electricity is the regulated entity (e.g., a coal-fired electricity generating unit). Section 3.6 has been updated to provide further details regarding electric motor-driven compressors.

COMPANIES AND ORGANIZATIONS

CO002 – Ohio Valley Environmental Coalition, William Hughes (continued)

Note to Reader: As part of this comment submittal package, OVEC included over 100 photographs of pipeline-related construction activities from a different project(s) as exhibit B. Additionally, exhibit C contained a list of air permits issued by the WVDEQ (unrelated to the MXP). We do not have any further responses regarding these photographs or air permits unrelated to the MXP. Due to the volume of pages we have not included those exhibits in this appendix. Persons interested in reviewing the photographs and/or air permits, please follow these steps:

The comment and all attachments can be viewed at <http://www.ferc.gov>. Using the “eLibrary” link, select “Advanced Search” from the eLibrary menu and enter - 20170330-4002 in the “Numbers: Accession Number” field.

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COMPANIES AND ORGANIZATIONS

CO003 – Keep Southeast Nashville Healthy, Christopher Tuley



Motion to Intervene Out of Time

Basis for Intervening:

As the Vice President of Keep Southeast Nashville Healthy, a 501(c)(3) community based group, I represent thousands of private citizens living within three miles of the proposed Cane Ridge Gulf Xpress Compressor Station. The station would adversely impact the health, property values, and lifestyles of these citizens.

CO003-1a If the station were constructed, there would be continual noise pollution disturbing the peace and quiet of residential areas, as a result of over 40,000 horsepower turbines running non-stop, and periodic loud blasts from blowdowns conducted as part of routine maintenance, which also would release raw natural gas/methane and other chemicals into the atmosphere.

CO003-1b The compressor station will have only a small buffer of trees to be planted by CGT along its south side next to Barnes Road, which will offer negligible noise buffering to users of the Mill Creek Greenway, and negligible noise and visual buffering to residences of numerous subdivisions including Stanford Village, Mill Run, Barnes Cove, Hidden Creek and many more. The compressor station's location above the road will allow its noise to resonate down to the Mill Creek Greenway and the subdivisions that lie in the valley of Mill Creek below.

CO003-2 The Station would have a strong negative impact on the air quality of not only Greenway users and nearby neighborhoods, but of Southeast Nashville as well. Hazardous byproducts of this station, which will be continually released into the atmosphere, will include chemicals known to cause cancer, including benzene, formaldehyde, chromium, and others.

CO003-2 Radon gas, which is densely present in this natural gas obtained from Marcellus and Utica shales, would be released into the atmosphere of the surrounding neighborhoods, schools, and parks at all times, creating the risk of lung cancer to users and residents who breathe this air.

CO003-3 In the event of a catastrophic failure of the compressor station, with resulting explosions and fires, nearby residents would surely face serious injury and death.

CO003-4 Mill Creek, which is very close to the proposed gas compressor station (less than half of a mile), is the only habitat of the federally-listed, endangered Nashville Crayfish. Pollutants originating from the Station could pose a hazard to this endangered species.

The proposed compressor would create no local jobs and no revenue for Davidson County. It would add to the pollution (clean air attainment) burden, which could decrease availability for potential job-producing operations to locate to the Nashville area.

CO003-1a: As stated in section 4.11.3.2, noise levels during operation of the Cane Ridge Compressor Station would not exceed our criterion of 55 dBA L_{dn}. Noise from planned or unplanned blowdown events could exceed the noise criteria but would be infrequent and of relatively short duration. Using CadnaA modeling, which takes into account additional parameters such as area terrain, we performed additional noise modeling for the Cane Ridge Compressor Station and found the anticipated noise levels to be lower than Columbia Gulf had initially projected. Based on the analyses conducted, mitigation measures proposed, and our recommendations, we conclude that operation of the GXP would not result in significant noise impacts on residents or the surrounding communities.

Table 4.11-24 provides the gas composition for GXP compressor stations. Gas releases during blowdown events and fugitive gas emissions would be pipeline quality gas that is primarily comprised of CH₄, ethane, and propane (hydrocarbons) and not highly toxic compounds. Hexane is the only gas component that is a listed HAP and is present in only trace amounts.

CO003-1b: The Cane Ridge Compressor Station is proposed for construction on an approximately 31-acre site, of which approximately 10.6 acres would be permanently affected for operation of the facility. The remainder of the site would remain undeveloped to provide a visual and noise buffer to the surrounding community. Noise from the facility would be limited to an L_{dn} of 55 dBA at the nearest receptor, which is less than allowed by local standards. We have updated the EIS with our own noise modeling for the Cane Ridge station, presented in section 4.11.2.3.2.

Columbia Gulf purchased the residential land located within the temporary work space for the Cane Ridge site and would convert it to open land following construction. The visual screening plan developed by Columbia Gulf for the Cane Ridge station is presented in section 4.8.3.2 and appendix M-2.

CO003-2: As discussed in section 4.11.1, models of air quality impact for the Cane Ridge station indicate potential air emissions at concentrations below the National Ambient Air Quality Standards. Our analysis of the risk of exposure to “other chemicals” and radon in natural gas is described in section 4.11.1.3.5.

COMPANIES AND ORGANIZATIONS

CO003 – Keep Southeast Nashville Healthy, Christopher Tuley (continued)

CO003-5 Columbia Gulf Transmission LLC (CGT) did not exercise due diligence in performing its requirement to select potential alternative gas compressor station sites in Davidson County or in surrounding counties. Of four alternative sites selected for evaluation, two were excluded from further analysis (CGT Resource Report 10, 10.6.2.2), one which “was already under contract to be sold,” and the other “because the landowner was not interested in selling their property.” It seems apparent that CGT conducted merely a perfunctory search for alternative sites in order to satisfy a requirement to do so. If CGT were serious about finding alternative sites, they would have done a more thorough search, including in industrially-zoned land and less-populated areas in Davidson and the two adjoining counties, Williamson and Rutherford.

CO003-6 Davidson County Substitute Ordinance No. BL2015-1210 requires land to be zoned as Industrial in order for a gas compressor station to be built there. However, no alternatives were presented on industrially-zoned land in Davidson County. CGT still needs to do everything possible to find an industrially-zoned location, even if it means doing so at extra cost. I, along with numerous other citizens of Davidson County, think that CGT needs to find a suitable location for the gas compressor station, and if in Davidson County, it needs to be situated in an industrially-zoned area to comply with our county ordinance.

Therefore, I am respectfully requesting to be included as an Intervener in Docket CP16-361.

Sincerely,

Christopher Tuley
Vice President
Keep Southeast Nashville Healthy

Keep Southeast Nashville Healthy Mission Statement:

Keep Southeast Nashville Healthy is an organization comprised of diverse community members from the southeast Nashville area who are aligned to focus on keeping our environment healthy, our living areas healthy, and our property investments healthy in our communities.

CO003-3: Safety data for natural gas facilities indicate that operation of the GXP would represent only a very slight increase in risk to the general public. Section 4.12, Reliability and Safety, discusses the safety record of natural gas facilities in the United States, the project impact on public safety, and measures that Columbia Gulf would take to operate its facilities safely.

CO003-4: Potential surface water impact associated with construction and operation of the Cane Ridge station are discussed in section 4.3.2.4.2. Section 4.7.8.2.1 discusses potential impacts on the Nashville crayfish.

CO003-5: Columbia Gulf considered alternative sites during its siting process, prior to the selection of the Cane Ridge site, as discussed in section 3.6.2. As noted in our discussion, certain hydraulic parameters must be met for siting a compressor station; it is not as simple as merely finding a vacant industrial lot to construct on. Further, site availability is an important consideration. Although section 7 of the Natural Gas Act does confer eminent domain authority for aboveground facilities, the Commission greatly prefers that land acquisition for compressor stations be obtained from a willing landowner, rather than through condemnation. The EIS recommending a compressor station site that is not available for sale or lease would run counter to this goal. We requested that Columbia Gulf file information for additional alternatives identified during the draft EIS public comment period. Section 3.6.2 has been revised to include our evaluation of the additional sites.

CO003-6: See response to comment CO003-5. During the draft EIS comment period, we identified one alternative site, and several others were identified in public comments. Our evaluation of these alternatives is presented in the revised section 3.6.2. As noted there, many of the suggested alternative sites would require extra pipeline to connect the compressor station to the existing mainline system, as well as additional looping. The extra impacts associated with such rights-of-way, as well as other factors, led us to conclude that the alternate sites did not confer an environmental advantage or, in some cases, would result in a greater environmental impact compared to the proposed site.

COMPANIES AND ORGANIZATIONS

CO004 – Friends of Mill Creek Greenway, Brant N. Miller

Submission Description: (doc-less) Out-of-Time Motion to Intervene of Friends of Mill Creek Greenway, Mill Creek Park Section under CP16-361-000.

Submission Date: 3/27/2017 8:31:15 PM

Filed Date: 3/28/2017 8:30:00 AM

Dockets

CP16-361-000 Application for Public Convenience and Necessity for the Gulf Xpress Project of Columbia Gulf Transmission, LLC

Filing Party/Contacts:

Filing Party Signer (Representative)
Other Contact (Principal) -----

Friends of Mill Creek Greenway, Mill Creek Park Section
finalvinyl@comcast.net

Basis for Intervening:

CO004-1 As the chairman of Friends of Mill Creek Greenway, I represent hundreds of users of the Mill Creek Greenway, Mill Creek Park Section, which is located within 0.25 mile of the proposed Cane Ridge Gas Compressor Station. The Park and Greenway are operated by Nashville Metro Parks, and used by hundreds of local residents as a place to walk, run, and bike in a tranquil, clean natural setting, which is also a protected natural corridor for native Tennessee wildlife. The Station would adversely impact the experience, and even the health, of Park and Greenway users through noise and air pollution.

CO004-1: Comment noted.

CO004-2 There would be continual noise pollution disturbing the peace and quiet of adjacent residential areas, as a result of 40,000 horsepower turbines running non-stop, and periodic loud blasts from blowdowns conducted as part of routine maintenance, which also would release raw natural gas/methane and other chemicals into the atmosphere.

CO004-2: See response to comment CO003-1.

The compressor station will have only a small buffer of trees to be planted by CGT along its south side next to Barnes Road, which will offer negligible noise buffering to users of the Greenway, and negligible noise and visual buffering to residences of Stanford Village, Mill Run, Barnes Cove, and Hidden Creek. The compressor station's location above the road will allow its noise to resonate down to the Greenway and the subdivisions that lie in the valley of Mill Creek below.

CO004-3 The Station would have a strong negative impact on the air quality of not only Greenway users and nearby neighborhoods, but of Southeast Nashville as well. Hazardous byproducts of this station, which will be continually released into the atmosphere, will include chemicals known to cause cancer, including benzene, formaldehyde, chromium, and others.

CO004-3: See response to comment CO003-2.

COMPANIES AND ORGANIZATIONS

CO004 – Friends of Mill Creek Greenway, Brant N. Miller (continued)

CO004-3 (cont.) Radon gas, which is densely present in this natural gas obtained from Marcellus and Utica shales, would be released into the atmosphere of the Greenway and surrounding neighborhoods at all times, creating the risk of lung cancer to users and residents who breathe this air.

CO004-4 In the event of a catastrophic failure of the compressor station, with resulting explosions and fires, nearby Greenway users and resident would be face injury and death.

CO004-5 Mill Creek, which borders our Greenway and is very close to the proposed gas compressor station, is the only habitat of the federally-listed, endangered Nashville Crayfish. Pollutants originating from the Station could pose a hazard to this endangered species.

CO004-6 The proposed compressor would create no local jobs and no revenue for Davidson County. It would add to the pollution (clean air attainment) burden, which could decrease availability for potential job-producing operations to locate to the Nashville area.

CO004-7 Columbia Gulf Transmission LLC (CGT) did not exercise due diligence in performing its requirement to select potential alternative gas compressor station sites in Davidson County or in surrounding counties. Of four alternative sites selected for evaluation, two were excluded from further analysis (CGT Resource Report 10, 10.6.2.2), one which "was already under contract to be sold," and the other "because the landowner was not interested in selling their property." It seems apparent that CGT conducted merely a perfunctory search for alternatives sites in order to satisfy a requirement to do so. If CGT were serious about finding alternative sites, they would have done a more thorough search, including in industrially-zoned land and less-populated areas in Davidson and the two adjoining counties, Williamson and Rutherford.

Davidson County Substitute Ordinance No. BL2015-1210 requires land to be zoned as Industrial in order for a gas compressor station to be built there. However, no alternatives were presented on industrially-zoned land in Davidson County. CGT still needs to do everything possible to find an industrially-zoned location, even if it means doing so at extra cost. I, along with numerous other citizens of Davidson County, think that CGT needs to find a suitable location for the gas compressor station, and if in Davidson County, it needs to be situated in an industrially-zoned area to comply with our county ordinance.

Therefore, I am respectfully requesting to be included as an Intervener in Docket CP16-361.

Sincerely,
Brant N. Miller, Chairman
Friends of Mill Creek Greenway
Mill Creek Park Section

CO004-4: See response to comment CO003-3.

CO004-5: See response to comment CO003-4.

CO004-6: See response to comment CO005-3.

CO004-7: See response to comment CO003-6.

COMPANIES AND ORGANIZATIONS

CO005 – Keep Southeast Nashville Healthy, Heather Hixson-McGovern

Motion to Intervene Out of Time

Docket # CP16-361

Basis for Intervening: As not only a private citizen and land owner living in the Stanford Village subdivision located directly across from the proposed site with over 100 homes in our community alone, but also as the Secretary and Marketing Chair of Keep Southeast Nashville Healthy, a 501(c)(3) community based group, I feel I represent thousands of citizens in several subdivisions living within three miles of the proposed Cane Ridge Gulf Xpress Compressor Station. As both a group and a community at large we have several concerns regarding the impact this 44,000HP station would have on our area including:

- CO005-1 • The adverse impacts to our health including both air and noise pollution: If the station were constructed, there would be continual noise pollution disturbing the residential areas as a result of the over 40,000 HP turbines running non-stop coupled with the periodic loud blasts from blow downs conducted as part of routine maintenance. These blow downs also pose a concern as they release raw natural gas/methane and other chemicals into the atmosphere. Plans by CGT for the proposed station show only a small buffer of trees to be planted along its south side next to Barnes Road, which will offer minimal noise buffering to not only the many users of the Mill Creek Greenway, but also very minimal noise and visual buffering to the residences of numerous subdivisions including Stanford Village, Mill Run, Delvin Downs, and more. The station would have a strong negative impact on the air quality of not only Greenway users and nearby neighborhoods, but on Southeast Nashville as a whole. Hazardous byproducts of this station, which will be continually released into the atmosphere, will include chemicals known to cause cancer including benzene, formaldehyde, chromium, and others. Radon gas, which is densely present in this natural gas obtained from Marcellus and Utica shales, would be released into the atmosphere of the surrounding neighborhoods, schools (of which there are 2 within a 5 mile radius of the proposed site) and parks at all times, creating the risk of lung cancer to users and residents who breathe this air.
- CO005-2 • Lack of jobs, and therefore a distinct lack of economic assistance gained by this proposed station along with inappropriate zoning: This proposed compressor station would create no local jobs and no revenue for Davidson County and would in fact add to the pollution (clean air attainment) burden, which could, as a result, DECREASE availability for potential job-producing operations to locate to the Nashville area. Columbia Gulf Transmission LLC (CGT) did not exercise due diligence in performing its requirement to select potential alternative gas compressor station sites in Davidson County or in surrounding counties. Of four alternative sites selected for evaluation, two were excluded from further analysis (CGT Resource Report 10, 10.6.2.2), one which “was already under contract to be sold,” and the other “because the landowner was not interested in selling their property.” It seems apparent that CGT conducted merely a perfunctory search for alternatives sites in order to satisfy a requirement to do so. If CGT were serious about finding alternative sites, they would have done a more thorough search, including in industrially-zoned land and less-populated areas in Davidson and the
- CO005-3
- CO005-4

CO005-1: Noise attributable to operation of the Cane Ridge Compressor Station is discussed in detail in section 4.11.2.3.2, including our revised noise analysis and recommended conditions.

CO005-2: See responses to comments CO003-1 and CO003-2.

CO005-3: As detailed further in section 4.9.8, construction of the Cane Ridge Compressor Station would result in minor beneficial socioeconomic impacts due to increases in construction jobs, payroll taxes, local purchases made by the workforce, and expenses associated with the local acquisition of material, goods, and equipment. The GXP has the support of the Teamsters National Pipeline Labor Management Cooperation Trust, who would provide Teamsters members who belong to local unions to perform work with high wages, health insurance, and pension benefits. Operation of the project would have a minor-to-moderate positive effect to the local government’s tax revenues due to the increase in real property taxes that would be collected from Columbia Gulf for the life of the project.

CO005-4: See responses to comments CO003-5 and CO003-6.

COMPANIES AND ORGANIZATIONS

CO005 – Keep Southeast Nashville Healthy, Heather Hixson-McGovern (continued)

CO005-4
(cont.)

two adjoining counties, Williamson and Rutherford. Davidson County Substitute Ordinance No. BL2015-1210 requires land to be zoned as Industrial in order for a gas compressor station to be built there. However, no alternatives were presented on industrially-zoned land in Davidson County. CGT still needs to do everything possible to find an industrially-zoned location, even if it means doing so at extra cost. I, along with numerous other citizens of Davidson County, think that CGT needs to find a suitable location for the gas compressor station, and if in Davidson County, it needs to be situated in an industrially-zoned area to comply with our county ordinance.

Due to the above stated concerns I am respectfully requesting to be included as an Intervener in Docket CP16-361.

Sincerely,
Heather Hixson-McGovern
Secretary/Marketing Chair, Keep Southeast Nashville Healthy

Mission Statement: Keep Southeast Nashville Healthy is an organization comprised of diverse community members from the southeast Nashville area who are aligned to focus on keeping our environment healthy, our living areas healthy, and our property investments healthy in our communities.

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COMPANIES AND ORGANIZATIONS

CO006 – Ohio Valley Environmental Coalition



www.ohvec.org

Ohio Valley Environmental Coalition

Supporting Organized Voices and Empowered Communities Since 1987

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Talking Points for Mountaineer Xpress/ Gulf Xpress DEIS comments

We request an extension of the comment period on the Mountaineer Xpress DEIS of a minimum of one month.

Some concerned citizens in at least Cabell, Putnam and Roane did not receive copies of the DEIS (hardcopy or CD versions) until 10 days prior to the first public comment meeting (In Hurricane). Public libraries and other interested citizens may have received their copies of the DEIS slightly earlier. This is insufficient time to review a 500+ page document, especially for anyone with a full-time job, health issues, and/or family obligations.

The addition of the Gulf Xpress information into the Mountaineer Xpress DEIS is confusing and necessitates additional time to analyze the DEIS.

Since Gulf Xpress information is included in this DEIS, we request that additional public meetings be scheduled for those communities in Kentucky that would be impacted by that pipeline and its associated compressor stations for the Gulf Xpress. There currently are no meetings scheduled in Kentucky.

The DEIS fails to adequately consider the regional cumulative impact of all the proposed pipeline projects in our region, in terms of potential leakages and explosions, habitat fragmentation, impact on human health, impacts of water resources, and more. FERC should address the fact that this and other pipelines will mean more fracking related activities for already besieged communities. Former FERC Chair Norman Bay is quoted as recently saying, "Even if not required by NEPA, in light of the heightened public interest and in the interests of good government, I believe the Commission should analyze the environmental effects of increased regional gas production from the Marcellus and Utica." The DEIS should heed Bay's comments.

The DEIS fails to examine the real possibility of over-capacity, that is too many pipeline built and too little available gas to move through the pipelines.

Climate change impacts from these proposed pipelines, coupled with all other proposed pipelines in our region, should be a major focus of the DEIS, but the DEIS fails to address what this pipeline buildout will have in terms of increasing climate change. Methane and other emissions resulting from increased drilling of the state's shale fields in this state, which would be brought on by having these exporting pipelines built, would contribute significantly to global climate change.

Former FERC Chair Norman Bay is quoted as recently saying, "The use of natural gas, and the resulting methane releases from venting and leakage, is now the primary driver of the increasing climate crisis. Rather than increase the development of natural gas infrastructure, the Commission should take the lead in reducing it significantly." The DEIS should heed these words and should include a thorough analysis of climate change impacts.

The DEIS fails to adequately consider the impacts to the Ohio River – the tap water source for three to five million people. This project jeopardizes the Ohio.

CO006-1: See response to comment CO002-13.

CO006-2: Cumulative impacts are addressed in section 4.13.

CO006-3: As stated in section 1.1.1, the MXP is designed to transport existing natural gas supplies from receipt points in West Virginia, Ohio, and Pennsylvania to markets on the CPG system. The MXP is supported by binding Precedent Agreements with eight shippers, collectively representing more than 96 percent of the project's capacity.

CO006-4: While former Chairman Bay (in reference to a study conducted by the Department of Energy) encouraged FERC to analyze the environmental effects of increased regional gas production from Marcellus and Utica shale formations, such a study is not required by NEPA, and is considered outside the scope of this EIS. The Commission has consistently found that "the environmental effects from natural gas production are generally neither caused by a proposed pipeline (or other natural gas infrastructure) project nor are they reasonably foreseeable consequences of our approval of an infrastructure project."

CO006-5: Impacts on water resources throughout the project areas are discussed in section 4.3.2. Although the MXP is located within the Ohio River watershed, the pipeline corridor does not traverse the Ohio River, nor are any of the proposed compressor or metering facilities located on the Ohio River. Based on our analysis, no long-term impacts on surface water quality or quantity are anticipated to result from construction of the proposed project. Columbia Gas would not significantly or permanently affect any designated water uses; it would bury the pipeline beneath the bed of all waterbodies, implement erosion controls, and restore the streambanks and streambed contours as close as practical to pre-construction conditions.

COMPANIES AND ORGANIZATIONS

CO006 – Ohio Valley Environmental Coalition (continued)

CO006-6	<p>The DEIS should examine whether there really is a “need” for this pipeline, and define what is meant by the word “need” and note whose “needs” are being served.</p>
CO006-7	<p>The DEIS should examine the legal and constitutional ramifications of allowing a for-profit corporation to use eminent domain to seize land, especially when that seizure is conducted under the false banner of “national energy security.”</p>
CO006-8	<p>The DEIS fails to honestly examine alternatives. One alternative is to build renewable energy projects in lieu of these pipelines. The DEIS should consider whether there are alternatives for energy production, not specifically delivering natural gas to a certain location.</p> <p>We note that these critical aspects of project planning are still lacking:</p> <ul style="list-style-type: none"> • landslide risk assessment and mitigation plans • full mapping and analysis of groundwater/well sources • stream crossing restoration plans • HDD Inadvertent Return Contingency Plan for the Kanawha River crossing • other hydrological reports and plans • invasive and noxious weed infestation plans • endangered species reports, including USFWS’ determination for the MXP impacts on the diamond darter, multiple species of endangered mussels, the Indiana bat and Myotis bats • Traffic management plans • noise level evaluations and mitigation plans • archaeological and cultural resource surveys
CO006-9	<p>We disagree strongly with this statement on cumulative impacts, found on p. 42:</p> <p><i>The majority of cumulative impacts would be temporary and minor when considered in combination with past, present, and reasonably foreseeable activities. Minor or negligible cumulative impacts could occur on geological resources, soils, water resources, land use, visual resources, air quality, and noise. However, some long-term cumulative impacts would occur on upland forested vegetation and associated wildlife habitats. Some short- and long-term cumulative benefits to the communities in and around the MXP and GXP project areas would be realized through jobs, wages, purchases of goods and materials, and annual property taxes paid by the Companies.</i></p> <p>We know that construction jobs on the pipeline route will be of a temporary nature and often out-of-state contractors will be supplying these jobs. As for property taxes, we are doubtful that any easement property taxes paid by an interstate pipeline company would adequately compensate communities that could be adversely affected by the installation or operation of these pipelines. We are also well aware that the contents of this pipeline seem primarily destined for international export, not for domestic usage.</p>
CO006-10	<p>We question whether adequate evacuation and/or crisis plans have been developed to protect citizens and property in all communities to be impacted by these pipelines. Without plans in place for a two mile evacuation zone around the entire route of the pipeline, communities could be at risk of serious financial and physical harm.</p> <p>We agree with this statement, found on p 44:</p> <p><i>The MXP’s impacts on upland interior forest habitat and large Core Forest Areas (including habitat for the cerulean warbler) would be significant.</i></p> <p>and this:</p>

CO006-6: The EIS does not consider or reach a conclusion on whether there is a need for the projects. Council on Environmental Quality regulations implementing NEPA (40 CFR 1502.13) requires that an EIS “briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” In other words, the EIS states the purpose of and need for a proposed project in order to define the range of alternative actions that the agency can legitimately consider. The determination of whether there is a “need” for the proposed facilities for the purpose of issuing an authorization under section 7 of the Natural Gas Act will be made in the subsequent Commission Order granting or denying the applicants’ request for Certificate authorization and is based on a balancing of the benefits of the projects against any adverse impacts. After the issuance of the final EIS, the Commission makes the determination of whether a project is in the public convenience and necessity. This evaluation and subsequent decision is based on many factors, including the final EIS and associated recommendations, market analysis, ensuring just and reasonable rates, and engineering analyses. The Commission considers the local, regional, and national benefits of each project against any adverse impacts. This determination has not been made for the proposed projects at this time.

CO006-7: Alternatives are discussed in section 3. The purpose of the projects is to transport natural gas in interstate commerce. Energy production from renewable resources or the gains realized from increased energy efficiency and conservation are not transportation alternatives and are beyond the scope of this EIS.

CO006-8: Studies necessary to prepare project plans are ongoing. The final EIS has been revised to include new information provided by Columbia Gas and/or findings from the regulatory review process. See sections:

- 4.1.4.4.1 - Landslides
- 4.3.1.2.1 and 4.3.1.3.1 - Groundwater
- 4.3.2.4.1 - Stream Crossing Restoration Plans
- Appendix G - HDD Inadvertent Return Contingency Plan for the Kanawha River
- 4.3.2.4.1, 4.7.5.1, and 4.7.10.1 - other hydrological reports and plans
- 2.4.1.2 and 4.5.5.2 - Invasive and Noxious Weed Infestation Plan
- 4.7.3 - Federally Listed Species
- 4.11.2 – Noise, and Appendices N-1 and N-2 (section II.J)
- 4.10 - Cultural Resources

COMPANIES AND ORGANIZATIONS

CO006 – Ohio Valley Environmental Coalition (continued)

CO006-11	<p><i>[There are] 40 project-specific mitigation measures that the Companies should implement to further reduce the environmental impacts that would otherwise result from construction and operation of the projects. We conclude that these measures are necessary to either augment the environmental record for the projects or to reduce adverse impacts associated with the projects; and, in part, we are basing our conclusion on the successful implementation of these measures. Therefore, we recommend that these mitigation measures be attached as conditions to any authorization issued by the Commission. These recommended mitigation measures are presented in section 5.2 of the draft EIS.</i></p> <p>We want to raise questions as to the effectiveness of these mitigation plans, and also to the issue of who will enforce that these plans get carried out prior to, during, and after the start of any construction?</p>
CO006-12	<p>We request that additional filings from Columbia Pipeline group be made public and that there be further public input opportunities on the companies' additional submissions and on any route changes.</p> <p>We would like to emphasize our request for an extension on this comment period until these important documents and mitigation plans are entered into the public record and available for public comment.</p>
CO006-13	<p>We request that Columbia be required to provide pre- or baseline testing of all wells and ground-water sources located in the path of the proposed pipeline route, and we feel that 150 feet is not a sufficient distance to extend this testing; we would request that all wells and springs utilized for human consumption be tested within a mile radius of the pipeline.</p>
CO006-14	<p>We need to stress again that the location of the Kanawha River crossing (or tunnel) is problematic. The river is very shallow in that area, (averaging a depth of between 12 and 16 feet), meaning that any increase in sedimentation could be devastating to the channel of this major waterway-- which is used for both commercial and recreational transportation of citizens, and barge-loads of commercial products. Increased sedimentation and pollution in this area could also be devastating to aquatic and amphibious wildlife populations in the area. Birds and bats may also be impacted.</p> <p>The location of the proposed pipeline's traverse to and from the Kanawha river banks is also problematic. On the Midway, WV, side of the river, the proposed pipeline markers are located very close to a populated area that includes many single family homes, (some with well water), churches, and a greenhouse operation, (Gritt's Midway Greenhouse), that is one of our larger in-state fresh food and plant providers. On the Frazier's Bottom, WV, side of the river the proposed pipeline's markers are very close to an industrial facility – FL Smidth – that manufactures mining equipment and sources cement operations. Local residents report that this plant frequently “lets off blasts” which sometimes shake the walls and windows of their homes. One resident who lives on the other side (Midway) of the river from the plant reports hearing and feeling these blasts frequently (more than once a week). Also on the Frazier's Bottom side of the river, there is an industrial park that contains other businesses, including two food warehouses. There appears to be a small wetlands area near this Industrial Park that is adjacent to markers for the proposed pipeline route. There are also active CSX Railroad tracks, and at least one gas station within this area we have described that is within 500 feet of the pipeline's proposed crossing of the Kanawha River.</p>
CO006-15	<p>The existing pipeline (SM-80 and SM-80 Loop) that the MXP project is proposed to connect to in Cabell and Wayne Counties, WV, is of indeterminate age and, while some segments are being renovated, there is no public information on the condition of the existing line traversing our more densely populated counties. Until the entire length, condition and dimensions of this existing pipeline infrastructure are disclosed to the public, we recommend a denial of the FERC application.</p>
CO006-16	<p>The MXP is proposed to cross under a major highway – Interstate 64 – in between Hurricane, WV and Milton, WV. This is a very heavily traveled stretch of interstate. Truck traffic on this highway – often bumper to bumper – includes daily transport of industrial chemicals and petroleum products. Any rupture of a pipeline in this area could have catastrophic consequences.</p>

CO006-9: Comment noted. Socioeconomic impacts and benefits of the MXP are addressed in section 4.9. See response to comment CO005-3.

CO006-10: Pipeline reliability and safety are addressed in section 4.12. Safety standards and emergency response are discussed in detail in section 4.12.1.

CO006-11: FERC is the federal agency responsible for authorizing applications to construct and operate interstate natural gas pipeline facilities. As part of its responsibilities, FERC enforces regulatory requirements through imposition of civil penalties and other means.

CO006-12: See response to comment CO002-13. Supplemental information filed for the project is publicly available on the FERC website (www.ferc.gov) using the eLibrary link.

CO006-13: See revised section 4.3.1.2. Columbia Gas consulted with the WVDHHR to obtain location data for WHPAs within 3 miles of the MXP pipeline centerlines. Columbia Gas would perform pre- and post-construction monitoring for well yield and water quality for private wells within 150 feet of construction workspaces. If testing results indicate the integrity of any water supply well has been impacted during construction, Columbia Gas would provide a temporary water supply source and compensate the landowner for repairs, installation of a new well, or other options as agreed upon with the landowner. As discussed in section 4.8.1.3, Columbia Gas would implement a landowner complaint resolution process to document and track landowner problems and their resolution.

CO006-14: The Kanawha River is a navigable waterway that would be crossed using HDD to avoid direct impacts (see sections 2.4.4.2.3 and 4.3.2.4.1). Columbia Gas has prepared a site-specific HDD crossing plan for the Kanawha River crossing. The U.S. Army Corps of Engineers (USACE) and WVDEP would issue a permit for this crossing. Details regarding HDD crossings of waterbodies are included in section 2.4.4.2. Appendix G contains the Inadvertent Return Contingency Plan for the Kanawha River.

CO006-15: Pipeline safety is addressed in section 4.12. The USDOT is mandated to provide pipeline safety under 49 U.S.C. 601. The USDOT's Pipeline and Hazardous Materials Safety Administration administers the national regulatory program to ensure the safe transportation of natural gas and other hazardous materials by pipeline. The USDOT regulations require operators to develop and follow a

COMPANIES AND ORGANIZATIONS

CO006 – Ohio Valley Environmental Coalition (continued)

CO006-17 The terminal compressor station for the proposed MXP route is very close to the Tri-State (Huntington, WV) airport, near some suburban residential communities and near the Huntington, WV Veterans Administration Hospital; the air emissions from this station pose a potential public health hazard of catastrophic proportions.

CO006-18 There is no apparent plan for the petroleum resources shipped by this pipeline to be utilized in our state or region. The Columbia MXP appears to be an interstate transport line – in that the Gulf Xpress and the Leach Xpress lines connect into the same system. We believe these pipelines will primarily take our natural resources to export terminals along coastal areas of the country. In conclusion, we believe the potential cost in terms of environmental destruction and endangerment of human health and life is greater than any potential economic benefit to this state or region.

CO006-19 The DEIS fails to evaluate all the ecosystem services and their dollar value that will be eliminated or impacted by the construction, maintenance and operation of this pipeline. Ecosystem services include such services offered by, for instance, intact forests, such as flood control, erosion control, water purification and atmospheric purification. These are real services with extreme economic value.

CO006-20 The DEIS fails to examine the capacity and ability for first responders (often volunteers) and nearby hospitals to respond if/when there is an explosion on the pipeline.

written Integrity Management Program (IMP) that contains all the elements described in 49 CFR 192.911 and addresses the risks on each transmission pipeline segment. Specifically, the rule establishes an IMP that applies to all high-consequence areas.

CO006-16: The commentor's observation on traffic in the project area is noted. See response to comment CO006-10 regarding pipeline safety.

CO006-17: We have determined, as stated in section 4.11.3.1.1, "... any emissions resulting from operation of MXP's compressor stations would not have significant impacts on local or regional air quality." This conclusion is based on factual data, industry- and permitting agency-accepted modeling, and federal regulations.

CO006-18: See response to comment CO006-6. The purpose and need for the MXP is discussed in section 1.1.1.

CO006-19: Socioeconomic impacts from the projects are addressed in section 4.9. We have concluded that construction of the MXP and GXP would result in minor beneficial socioeconomic impacts due to increases in construction jobs, payroll taxes, local purchases made by the workforce, and expenses associated with the local acquisition of material, goods, and equipment. Operation of the projects would have a minor-to-moderate positive effect to the local governments' tax revenues due to the increase in real property taxes that would be collected from the Companies. Our environmental analysis addresses resources affected by the projects. Where specific resources are identified that may be negatively impacted by construction of the MXP, we provide recommendations for avoidance, restoration, or mitigation for these resources. We do not find that the value of these resources can be quantified as proposed by the commentor within the scope of this EIS.

CO006-20: Safety data indicate that operation of the projects would represent only a very slight increase in risk to the general public. Columbia Gas employs qualified and licensed personnel who could be immediately dispatched to the scene of an emergency should the need arise. Section 4.12 discusses the safety record of natural gas facilities in the United States, the project impact on public safety, and measures that the Companies would take to operate their facilities safely.

COMPANIES AND ORGANIZATIONS

CO007 – Ohio Valley Environmental Coalition, Vivian Stockman

1 P R O C E E D I N G S

2 VIVIAN STOCKMAN: My name is Vivian Stockman. V
3 I V I A N, S T O C K M A N. Do you need a title or anything
4 like that? I'm a, well, these are my personal comments. I
5 work for the Ohio Valley Environmental Coalition and we will
6 be submitting longer technical comments.

CO007-1

7 My first request is that we please have an
8 extension of the comment period. It was just several days
9 ago that several people got either the hard copy or the CD
10 version, and there's definitely not enough time to go
11 through the 500-plus pages, even with the April 24th
12 deadline. I would request please, an extension of the
13 comment period so we can really dive deep.

CO007-2

14 I would like to say that I think the DEIS on the
15 MXP fails to address the cumulative impacts on air, water,
16 land, and communities in regards to other oil and gas
17 activities that would be added into this proposed activity
18 in cumulative effects. For instance, the Markwest Plant in
19 Doddridge county, I believe, is ignored; the compressor
20 stations along, that already exist, are ignored. There's
21 lots more that just seems to be ignored.

22 The DEIS says: in accordance with NEPA we
23 considered the cumulative impacts of the MXP and the GXP and
24 other projects or actions in the area of each, but then it
25 goes on to say, we recognize that the oil and gas

CO007-1: See response to comment CO002-13.

CO007-2: See response to comment CO002-1.

COMPANIES AND ORGANIZATIONS

CO007 – Ohio Valley Environmental Coalition, Vivian Stockman (continued)

CO007-2 (cont.)	<p>1 exploration and production activities are ubiquitous in many</p> <p>2 of the counties crossed by the MXP. Oil and gas natural</p> <p>3 exploration activities can include, yada yada, it goes on,</p> <p>4 but it says: We have not examined the impacts associated</p> <p>5 with these activities to the same extent as the other</p> <p>6 projects -- identified in a table in there -- because the</p> <p>7 status, scale, and timing of these facilities are unknown.</p> <p>8 Frankly, that was a jaw dropper. That's truly a</p> <p>9 lame excuse. If FERC is going to bother to look, it will</p> <p>10 find these quote, unquote, "unknowns." For instance, the</p> <p>11 DEP Office of Oil and Gas has air quality information on</p> <p>12 boatloads of oil pads and compressor stations in the, you</p> <p>13 know, within the required radius for the cumulative impacts</p> <p>14 of this proposed pipeline. And the DEIS should not ignore</p> <p>15 this data and it should be considered; and really to say</p> <p>16 they are unknown is just ludicrous.</p> <p>17 Throughout the DEIS there are statements that</p> <p>18 this or this impact will be, quote, "minimal," unquote. For</p> <p>19 instance, there's a statement, emissions generated during</p> <p>20 operation of the pipeline portion of the MXP would be</p> <p>21 minimal, limited to those from maintenance vehicles and</p> <p>22 equipment and fugitive emissions. I just don't see how one</p> <p>23 can conclude that the assorted activities declared to have</p> <p>24 minimal impact would, in fact, have minimal impact, without</p> <p>25 any considerations of the cumulative impacts.</p>
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COMPANIES AND ORGANIZATIONS

CO007 – Ohio Valley Environmental Coalition, Vivian Stockman (continued)

CO007-2 (cont.)	1	So, I think that's a major path and major fail.
	2	I also note that the Ceredo compressor station would have
	3	three huge electrical engines. The DEIS should factor in
	4	the air pollution and greenhouse gas load that these engines
	5	will create at the supplying power plant.
CO007-3	6	Let's see, there's others; I'm not going to go
	7	into much more, but one thing I would like to point out and
	8	then I'll shut up is the DEIS fails to examine the real
	9	possibility of overcapacity, too many pipelines built with
	10	too little available gas to move the pipelines. That would
	11	certainly be something in the bigger picture that the DEIS
	12	should examine. And then the climate change impacts from
	13	these proposed pipelines, coupled with all the proposed
	14	pipelines in our region should be a major factor of the
	15	DEIS, but the DEIS fails to examine what these proposed
	16	pipeline build outs will have, what effect they'll have in
CO007-4	17	terms of increasing climate change.
	18	Methane and other emissions resulting from the
	19	increased drilling of the state shale field in this, which
	20	would be brought on by having these exporting pipelines
	21	built would contribute significantly to global climate
	22	change and these should be considered in the DEIS.
	23	And I'll leave it at that. There's a lot more
	24	but we'll get to those in our written comments.

CO007-3: See response to comment CO006-3.

CO007-4: Our discussion of climate change is presented in section 4.11 and in revised section 4.13.

COMPANIES AND ORGANIZATIONS

CO008 – Friends of Mill Creek Greenway, Brant N. Miller

COMMENTS REGARDING FERC DRAFT EIS (FERC/DEIS-0275) BY BRANT N. MILLER, CHAIR OF FRIENDS OF MILL CREEK GREENWAY – DOCKET NO. CP16-361-000

As the chairman of Friends of Mill Creek Greenway, I represent hundreds of users of the Mill Creek Greenway, Mill Creek Park Section, which is located within 0.25 mile of the proposed Cane Ridge Gas Compressor Station. The Park and Greenway are operated by Nashville Metro Parks, and used by hundreds of local residents as a place to walk, run, and bike in a tranquil, clean natural setting, which is also a protected natural corridor for native Tennessee wildlife. The Station would adversely impact the experience, and even the health, of Park and Greenway users through noise and air pollution.

CO008-1

There would be continual noise pollution disturbing the peace and quiet of adjacent residential areas, as a result of 40,000 horsepower turbines running non-stop, and periodic loud blasts from blowdowns conducted as part of routine maintenance, which also would release raw natural gas/methane and other chemicals into the atmosphere.

CO008-1: See response to comment CO004-2.

CO008-2

The compressor station would have only a small buffer of trees to be planted by CGT along its south side next to Barnes Road, which would offer negligible noise buffering to users of the Greenway, and negligible noise and visual buffering to residences of Stanford Village, Mill Run, Barnes Cove, and Hidden Creek. The compressor station's location above the road would allow its noise to resonate down to the Greenway and the subdivisions that lie in the valley of Mill Creek below.

CO008-2: See response to comment CO003-1.

CO008-3

The Station would have a strong negative impact on the air quality of not only Greenway users and nearby neighborhoods, but of Southeast Nashville as well. Hazardous byproducts of this station, which will be continually released into the atmosphere, will include chemicals known to cause cancer, including benzene, formaldehyde, chromium, and others.

CO008-3: See response to comment CO003-2.

Radon gas, which is densely present in this natural gas obtained from Marcellus and Utica shales, would be released into the atmosphere of the Greenway and surrounding neighborhoods at all times, creating the risk of lung cancer to users and residents who breathe this air.

CO008-4

In the event of a catastrophic failure of the compressor station, with resulting explosions and fires, nearby Greenway users and resident would be face injury and death.

CO008-4: See response to comment CO003-3.

CO008-5

Mill Creek, which borders our Greenway and is very close to the proposed gas compressor station, is the only habitat of the federally-listed, endangered Nashville Crayfish. Pollutants originating from the Station could pose a hazard to this endangered species.

CO008-5: See response to comment CO003-4.

COMPANIES AND ORGANIZATIONS

CO008 – Friends of Mill Creek Greenway, Brant N. Miller (continued)

COMMENTS REGARDING FERC DRAFT EIS (FERC/DEIS-0275) BY BRANT N. MILLER, CHAIR OF FRIENDS OF MILL CREEK GREENWAY – DOCKET NO. CP16-361-000 (CONTINUED)

CO008-6 The proposed compressor would create no local jobs and no revenue for Davidson County. It would add to the pollution (clean air attainment) burden, which could decrease availability for potential job-producing operations to locate to the Nashville area.

CO008-7 Columbia Gulf Transmission LLC (CGT) did not exercise due diligence in performing its requirement to select potential alternative gas compressor station sites in Davidson County or in surrounding counties. Of four alternative sites selected for evaluation, two were excluded from further analysis (CGT Resource Report 10, 10.6.2.2), one which “was already under contract to be sold,” and the other “because the landowner was not interested in selling their property.” It seems apparent that CGT conducted merely a perfunctory search for alternatives sites in order to satisfy a requirement to do so. If CGT were serious about finding alternative sites, they would have done a more thorough search, including in industrially-zoned land and less-populated areas in Davidson and the two adjoining counties, Williamson and Rutherford.

CO008-8 Davidson County Substitute Ordinance No. BL2015-1210 requires land to be zoned as Industrial in order for a gas compressor station to be built there. However, no alternatives were presented on industrially-zoned land in Davidson County. CGT still needs to do everything possible to find an industrially-zoned location, even if it means doing so at extra cost. I, along with numerous other citizens of Davidson County, think that CGT needs to find a suitable location for the gas compressor station, and if in Davidson County, it would need to be situated in an industrially-zoned area to comply with our county ordinance.

CO008-9 In order to facilitate CGT’s further investigation of alternative sites, I have attached a number of maps and one table which show and describe the location of industrially-zoned parcels, all of which lie within 2 miles of the gas pipeline and within a 3.5 mile radius of the current proposed compressor site, within Davidson County. There are two maps showing the location of the industrially-zoned parcels in relation to the currently proposed compressor station and the gas pipeline. Their file names are CR_Industrial_Mar23_17.pdf and CR_Industrial_Mar28_17 aerial.pdf. There are maps of each of the twelve (12) parcels included, which are screenshots from Nashville Planning Department’s interactive Parcel Viewer (<http://maps.nashville.gov/ParcelViewer/>), with each map’s file name being the same as its parcel number. Table 1 lists each parcel, with its address, owner, acreage, zoning, land use description, planned development (none, according to Nashville Planning Department’s Development Tracker (<http://maps.nashville.gov/developmenttracker/>), and comments.

CO008-6: See response to comment CO005-3.

CO008-7: See response to comment CO003-5.

CO008-8: See response to comment CO003-6.

CO008-9: We have reviewed the information provided and determined that none of the proposed alternatives have significant environmental advantages to the proposed location for the Cane Ridge Compressor Station (see section 3.6.2). All of the sites would require additional suction/discharge piping (which would necessitate additional right-of-way and impact a number of landowners) to interconnect with the Columbia Gulf system, as well as additional looping ranging from 9-17 miles on Columbia Gulf’s mainline system (see tables 3.6-3 and 3.6-4). See also response to comments CO003-5 and CO003-6.

COMPANIES AND ORGANIZATIONS

CO008 – Friends of Mill Creek Greenway, Brant N. Miller (continued)

COMMENTS REGARDING FERC DRAFT EIS (FERC/DEIS-0275) BY BRANT N. MILLER, CHAIR OF FRIENDS OF MILL CREEK GREENWAY – DOCKET NO. CP16-361-000 (CONTINUED)

CO008-9
(cont.)

I, as the representative of hundreds of users of the Mill Creek Greenway, Mill Creek Park Section, and as a resident of the affected Cane Ridge Community, urge FERC to require CGT to carefully review and consider these industrially-zoned parcels as alternative sites for their proposed gas compressor station. In terms of impacts on adjoining neighborhoods and outdoor recreational areas, it would appear that any of these alternative sites would be a much more acceptable than the proposed location, which is next to our Park and Greenway, and adjacent to many residential subdivisions.

Thank you!

Sincerely,

Brant N. Miller, Chair
Friends of Mill Creek Greenway, Mill Creek Park Section

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COMPANIES AND ORGANIZATIONS

CO008 – Friends of Mill Creek Greenway, Brant N. Miller (continued)

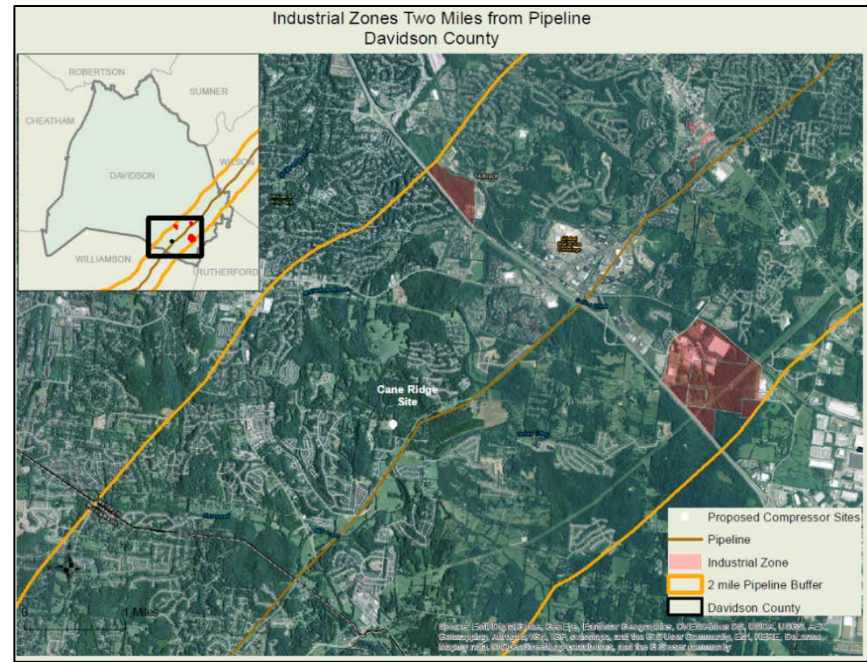
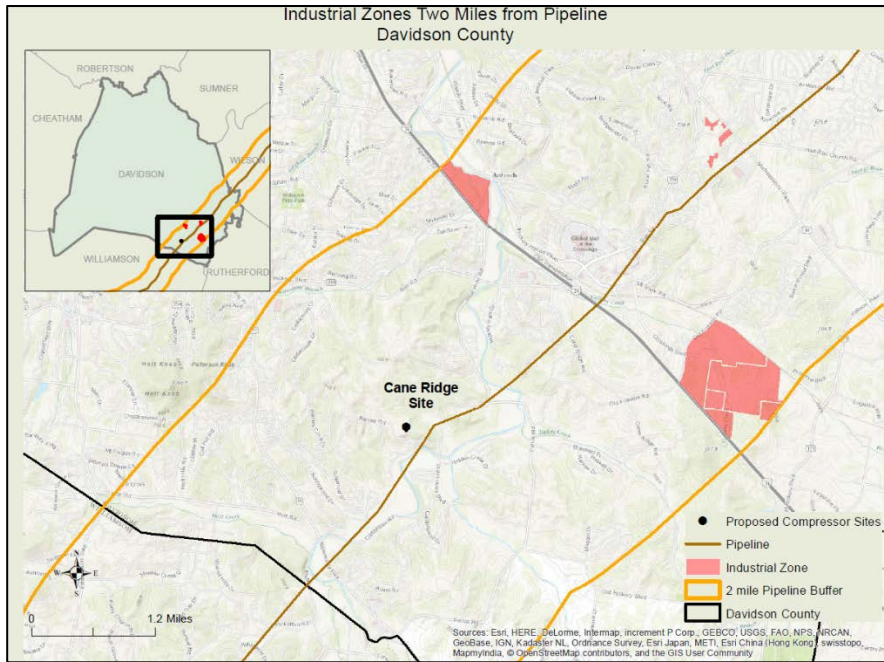


TABLE 1: ALTERNATIVE GAS COMPRESSOR SITES ON INDUSTRIALLY-ZONED PARCELS

PARCEL ID	ADDRESS	OWNER	ACREAGE	ZONING	LAND USE DESCRIPTION	PLANNED DEVELOPMENT *	COMMENTS
PARCELS SOUTH OF PIPELINE							
17400003200	5900 CROSSINGS BLVD, ANTIOCH TN 37013	INDUSTRIAL DEVELOPMENT BD OF METRO GOV'T	54.74	IWD**	SMALL WAREHOUSE	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
17500002300	0 OLD HICKORY BLVD, ANTIOCH TN 37013	METRO GOVERNMENT	187.82	IWD**	VACANT COMMERCIAL LAND	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
17500012600	0 OLD HICKORY BLVD, ANTIOCH TN 37013	METRO GOVERNMENT	20.00	IWD**	VACANT RURAL LAND	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
17500013700	0 OLD HICKORY BLVD, ANTIOCH TN 37013	METRO GOVERNMENT	30.57	IWD**	VACANT COMMERCIAL LAND	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
17500018100	0 OLD HICKORY BLVD, ANTIOCH TN 37013	METRO GOVERNMENT	5.25	IWD**	VACANT COMMERCIAL LAND	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
17400023700	0 OLD FRANKLIN RD, ANTIOCH TN 37013	METRO GOVERNMENT	21.38	IWD**	MORTUARY/CEMETARY	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
17500021400	0 OLD HICKORY BLVD, ANTIOCH TN 37013	METRO GOVERNMENT	6.29	IWD**	VACANT COMMERCIAL LAND	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
17500014000	12872 OLD HICKORY BLVD	TEGRAH RESOURCES, LLC	4.99	IWD**	SINGLE FAMILY	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
17500019400	12575 OLD HICKORY BLVD	COLONIAL PIPELINE COMPANY	118.19	IR***	VACANT INDUSTRIAL LAND	NONE	JUST OUTSIDE 2 MILES FROM COLUMBIA PIPELINE
PARCELS NORTH OF PIPELINE							
16200001400	0 BLUE HOLE RD, ANTIOCH TN 37013	CURRY, PETER, TR. FOR PATTERSON, D.G.JR	32.02	IWD**	VACANT COMMERCIAL LAND	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
14800003800	0 BLUE HOLE RD, ANTIOCH, TN 37013	CURRY, PETER, TR. FOR PATTERSON, D.G.JR	51.33	IWD**	VACANT COMMERCIAL LAND	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE
14800003700	0 ACCESS RD, ANTIOCH, TN 37013	CURRY, PETER, TR. FOR PATTERSON, D.G.JR	9.91	IWD**	VACANT COMMERCIAL LAND	NONE	WITHIN 2 MILES OF COLUMBIA PIPELINE

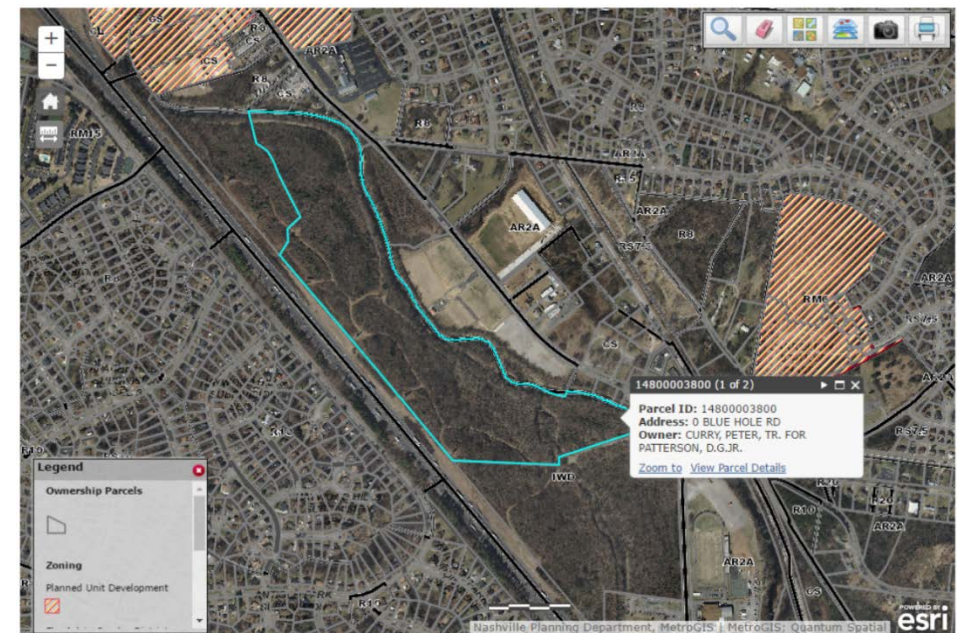
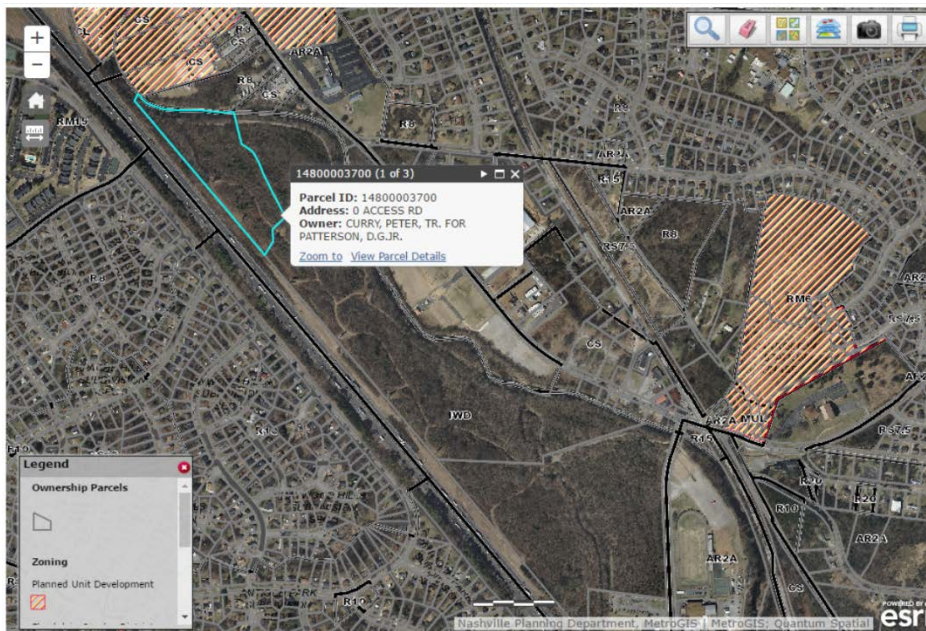
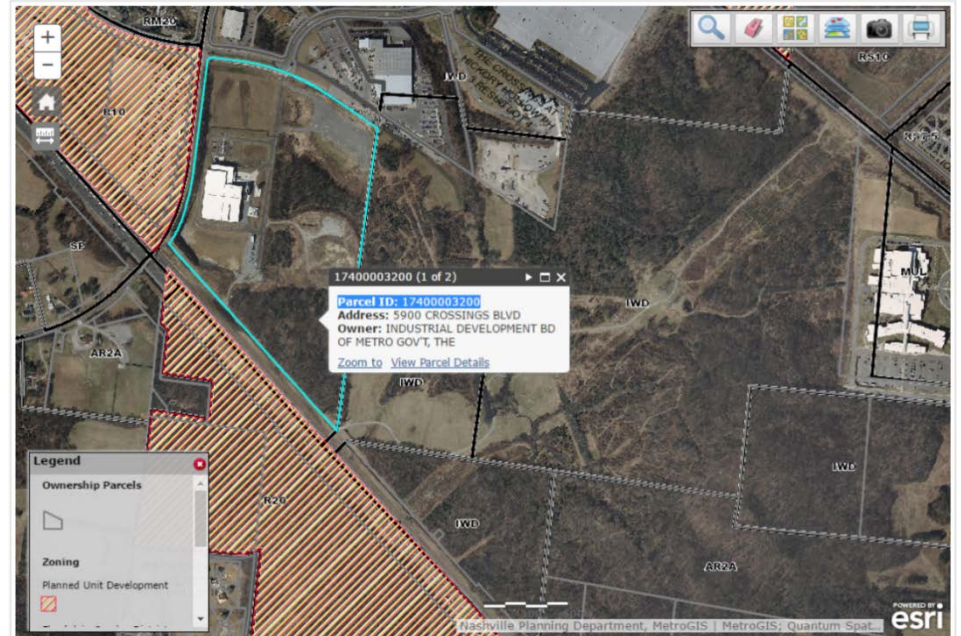
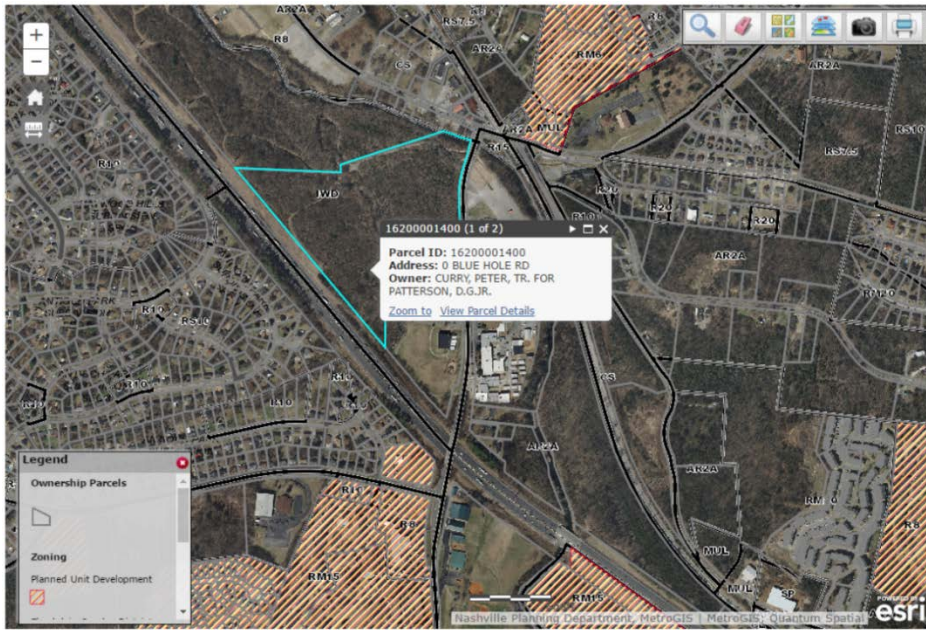
* INFORMATION FROM NASHVILLE PLANNING DEPARTMENT DEVELOPMENT TRACKER MAP

**INDUSTRIAL ZONING: INDUSTRIAL WAREHOUSING/DISTRIBUTION, INTENDED FOR A WIDE RANGE OF WAREHOUSING, WHOLESALING, AND BULK DISTRIBUTION USES

***INDUSTRIAL ZONING: INDUSTRIAL RESTRICTIVE, INTENDED FOR A WIDE RANGE OF LIGHT MANUFACTURING USES AT MODERATE INTENSITIES WITHIN ENCLOSED STRUCTURES

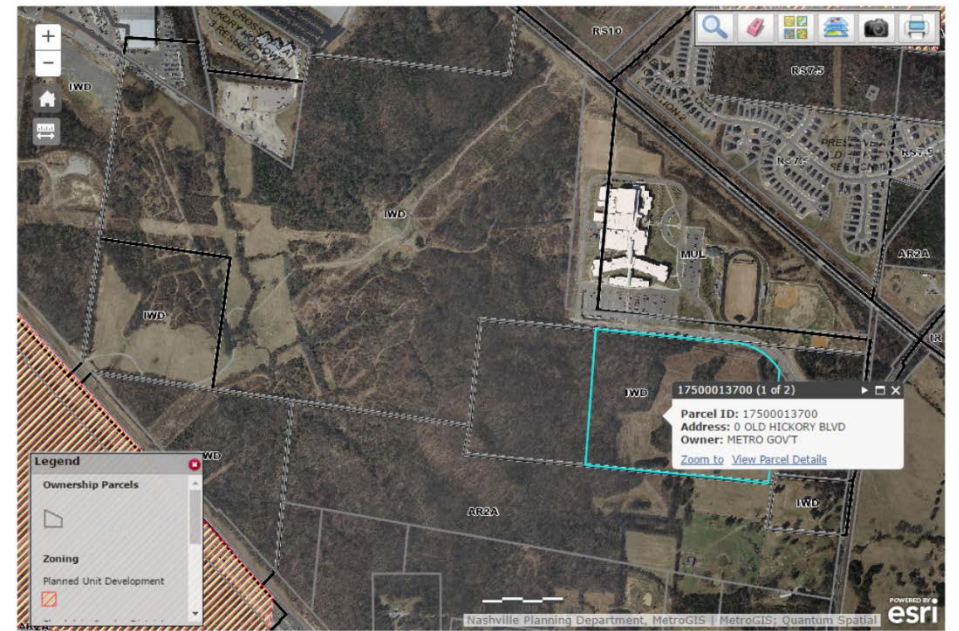
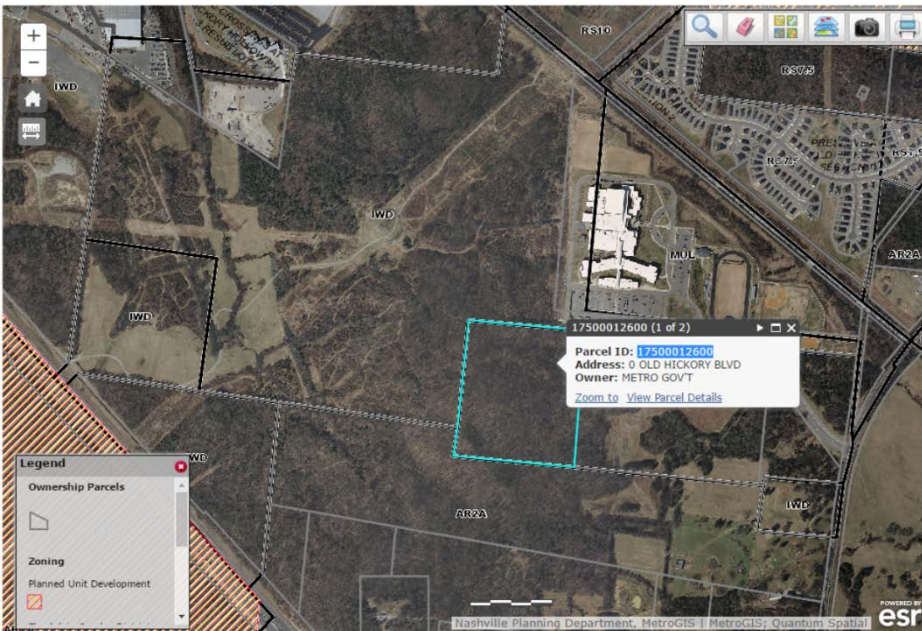
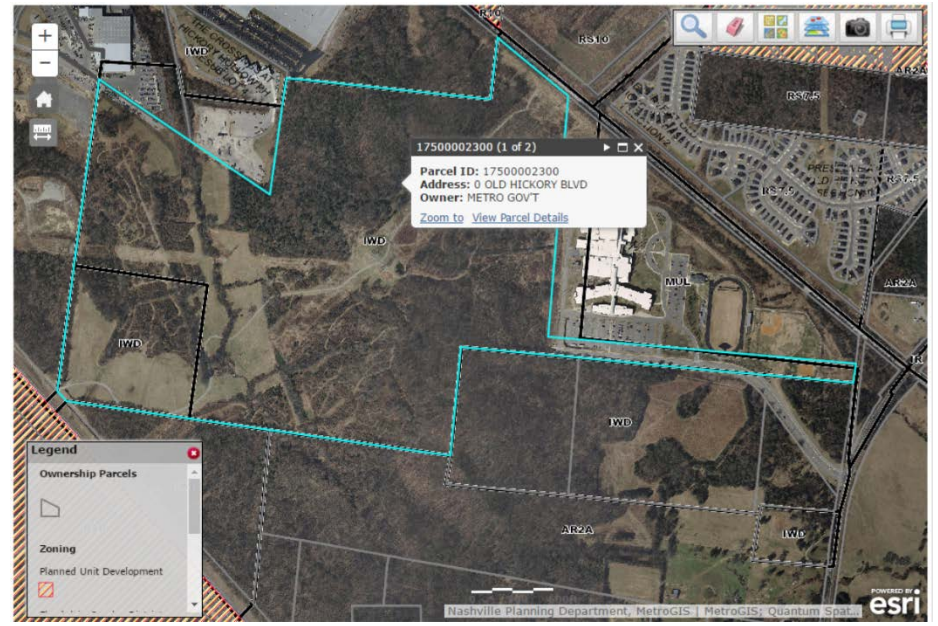
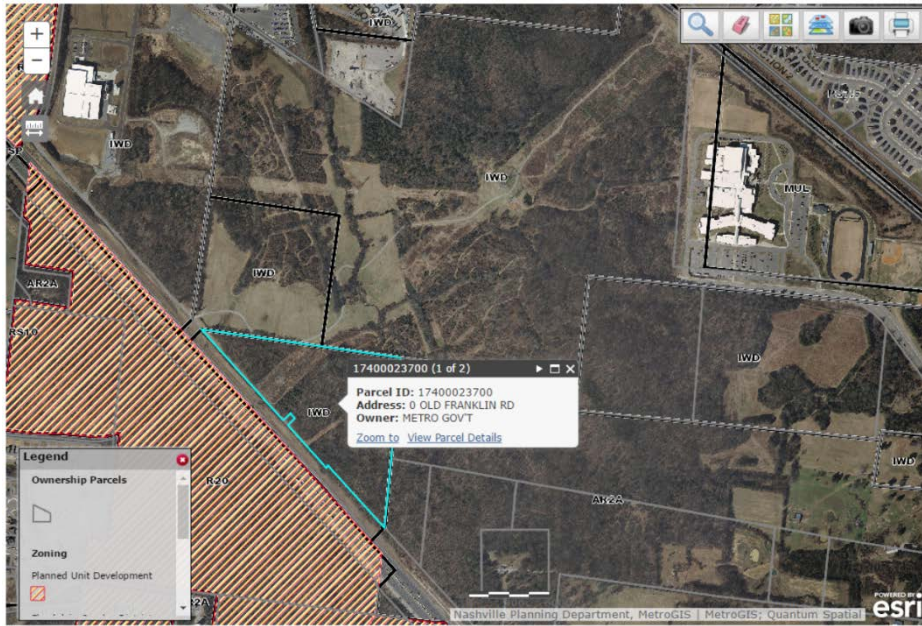
COMPANIES AND ORGANIZATIONS

CO008 – Friends of Mill Creek Greenway, Brant N. Miller (continued)



COMPANIES AND ORGANIZATIONS

CO008 – Friends of Mill Creek Greenway, Brant N. Miller (continued)



COMPANIES AND ORGANIZATIONS

CO009 – West Virginia Rivers Coalition



April 24, 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Submitted electronically at www.ferc.gov

Re: Draft Environmental Impact Statement, Docket No. CP16-357-000

Dear Secretary Bose,

West Virginia Rivers Coalition, along with the organizations signed below, respectfully submit the following comments on the Draft Environmental Impact Statement (DEIS) for the Mountaineer XPress Pipeline (MXP), Docket No. CP16-357-000.

CO009-1 We found the DEIS lacking of the critical information needed to fully analyze the significant impacts of the project. Due to the lack of adequate information, we are unable to provide a comprehensive analysis of the DEIS. Because of this deficiency, we request a revised DEIS to be issued for the proposed project with all the necessary information to meet the requirements of the National Environmental Policy Act (NEPA). Specifically, the regulation explains that "NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." The MXP DEIS released fails to meet NEPA requirements and a revised DEIS must be issued. A complete DEIS is necessary to provide the planning and analysis required so that agency decision-makers can mitigate or avoid impacts, and can correctly identify the least-impacting alternative.

CO009-2 Furthermore, we request that the revised DEIS address only the MXP. Combining the two projects into a single DEIS is problematic. The two projects, while proposed by the same parent company during the same time frame, are managed by two separate subsidiaries. The two projects are dissimilar in their nature and will require different mitigation measures. Therefore, combining the two projects into one DEIS does not adequately address the impacts. The fact that the Certificate issuance would be separate warrants a separate DEIS. If these two projects are combined into a single DEIS, then FERC should undertake a programmatic DEIS for all pipeline projects in the greater east coast region.

Conserving and Restoring West Virginia's Exceptional Rivers and Streams

3501 MACCORKLE AVENUE SE #129 CHARLESTON, WEST VIRGINIA 25304 • 304-637-7201 • WWW.WVRIVERS.ORG

CO009-1: The draft EIS represents a comprehensive review and environmental analysis of existing conditions and the potential impacts of construction and operation of the projects on numerous physical, cultural, and socioeconomic resources. Additionally, the document addresses alternatives to the two projects. Our analysis is based on information provided by the applicants, field investigations, public scoping, literature research, contacts with or comments received from federal, state, and local agencies, and comments from the public. The EPA, USACE, WVDEP, and West Virginia Division of Natural Resources participated as cooperating agencies in preparation of the draft EIS. The draft EIS considered all direct, indirect, and cumulative impacts associated with the projects, consistent with NEPA, and concludes that although the projects would result in some adverse environmental impacts, if the projects are constructed and operated in accordance with applicable laws, the successful implementation of mitigation measures identified in the EIS, and the Commission's regulations, the impacts would be reduced to acceptable levels.

CO009-2: The decision to review the two projects in a single EIS is explained in the Executive Summary and in section 1.0.

COMPANIES AND ORGANIZATIONS

CO009 – West Virginia Rivers Coalition (continued)

Additionally, we request the following to be addressed in the revised DEIS:

1.1 Project Purpose and Need

CO009-3

Page 1-2: The DEIS does not adequately address the need of the project. The only evidence of need for the pipeline is that Columbia has contracts with shippers who are not identified. There does not appear to be any detailed analysis of existing pipeline capacity. This leads to expensive overbuilding and needless environmental impacts. Former Commission Chairman Norman Bay said the commission should also consider whether capacity is needed to ensure deliverability to power generators, reliability benefits and concerns “that anticipated markets may fail to materialize.” The DEIS states, “However, determining project need is beyond the scope of the EIS.” The FERC must determine whether there is a need for the project. This issue must be fully analyzed in a revised DEIS.

3.4 Pipeline Route Variations

CO009-4

Page 3-19: The DEIS does not address the full scope of environmental and cultural resource impacts. The DEIS states “All four of these requested route adjustments would require further environmental and cultural resource surveys”. The final route has not been determined; and therefore, the DEIS does not contain the full scope of environmental impacts because they are still being determined. A revised DEIS must be issued to address these deficiencies.

4.1.4.4 Landslides

CO009-5

Mountaineer XPress Project, page 4-10: The DEIS fails to adequately address landslides. The DEIS states “Columbia Gas should file with the Secretary the results of a Phase I Landslide Hazard Assessment”. FERC needs this information to “further refine our assessment of proposed mitigation measures in areas characterized by steep slopes or slip-prone soils”. Additionally, FERC is requesting the Phase II Landslide Hazard Assessment prior to construction meaning the results of the Assessment will not be incorporated into the DEIS or available for public comment. Mitigation designs for steep slopes is critical in evaluating the hazards posed by construction on slip prone areas. The public must be provided access to this information in a revised DEIS. The failure to include complete information on this issue in the DEIS implies that information on steep slopes is not particularly important to decision-making, a conclusion contradicted by both science and common sense, as slope hazards can lead to catastrophic failure of the pipeline. Such a failure could lead to substantial damage to the natural environment, private and public property, and loss of human life, which, according to 40-CFR-1508.27, clearly would be defined as a significant impact, and which therefore, must be addressed in a revised DEIS.

2

CO009-3: See response to comments CO006-3 and CO006-3. Purpose and need for the projects is discussed in section 1.1. The use of existing pipeline capacity is addressed as System Alternatives in section 3.2.

CO009-4: On May 16, 2017, Columbia Gas filed additional information addressing environmental and cultural resource impacts. This information has been incorporated into the appropriate sections of the EIS (see response to comment CO006-8). If the MXP is approved by the Commission, we anticipate that a number of minor changes would occur in response to environmental, engineering, and landowner considerations. See section 2.6.3 for information on the post-approval variance process.

CO009-5: On April 21, 2017, Columbia Gas filed its Phase I Geohazard Assessment Report. Based on the results of the Phase I Geohazard Assessment, Columbia Gas has initiated a Phase II Landslide Hazard Assessment. See our recommendation in section 4.1.4.4.1.

Supplemental information filed for the projects is publicly available on the FERC website (www.ferc.gov) using the eLibrary link.

COMPANIES AND ORGANIZATIONS

CO009 – West Virginia Rivers Coalition (continued)

4.2 Soils

CO009-6 **Mountaineer XPress Project, pages 4-29 & 4-32: The DEIS does not contain an updated Erosion Control Plan.** The Erosion Control Plan (ECP) filed by Columbia is inconsistent with FERC's plan in regards to removal of rock greater than 4 inches and topsoil segregation. FERC requests that the ECP be modified and provided to the Secretary prior to construction; however, this would prohibit the public from having the opportunity to review the plan. Additionally, FERC must have this information prior to issuing a certificate for the project to ensure that the project will comply with FERC procedures. This issue must be rectified in a revised DEIS.

4.3.1.5 Water Supply Wells and Springs

CO009-7 **Page 4-45: The DEIS does not supply sufficient information on water supply wells and springs.** The DEIS states "Columbia Gas has neither completed identification of all private water wells and potable springs in proximity to project work areas, nor has it identified any specific protection measures that would be implemented for wells located inside the construction work areas." This information is critical in determining the impacts of construction on private drinking water sources. The results of the completed field surveys must be included in a revised DEIS.

4.3.2.1 Public Water Supplies

CO009-8 **Mountaineer XPress Project, page 4-54: The DEIS does not adequately address impacts to public drinking water supplies.** The DEIS states "The ZCCs and ZPCs warrant a more detailed inventory and management due to their proximity to the source water and susceptibility to potential contaminants" Table 4.3-6 of the DEIS identifies 7 water treatment facilities whose ZCC or ZPC are crossed by the MXP. However, the DEIS does not identify measures that will be used to reduce or avoid impact to the source water. A turbidity analysis is needed where the pipeline would impact source water protection areas. Excess sediment in source water accelerates the formation of haloacetic acids when chlorine is added for treatment purposes. Haloacetic acids are regulated by EPA under the Safe Drinking Water Act. Excess sediment in source water can cause water utilities to exceed the standards resulting in undue hardships on the water utility and endangering human health. This issue must be addressed in a revised DEIS.

4.3.2.4 Impacts and Mitigation

CO009-9 **Mountaineer XPress Project, Dry Ditch Stream Crossing, page 4-63: The DEIS does not adequately address stream restoration.** The DEIS recommends that a waterbody crossing

3

CO009-6: On May 16, 2017, Columbia Gas filed a revised ECS document, which we find to be consistent with our Plan and Procedures. The revised ECS is presented in appendix D-1 of the EIS.

CO009-7: See revised section 4.3.1.3.

CO009-8: See response to comment FA002-9.

COMPANIES AND ORGANIZATIONS

CO009 – West Virginia Rivers Coalition (continued)

CO009-9 (cont.)	restoration plan should be submitted prior to construction. Restoration plans are vital to assessing the impacts of construction on waterbodies. The public and agencies must be able to review the restoration plans and thus they must be included in a revised DEIS.
CO009-10	Mountaineer XPress Project, HDD Crossing, page 4-65: The DEIS contains incomplete information regarding the HDD crossing of the Kanawha River. The DEIS states, “the plan presents no insight into how a release from underneath the river (directly into the water) would be discovered or what Columbia Gas would do following such a discovery to limit impact on the river.” This information is critical to understanding the impacts of the HDD crossing on the Kanawha River and must be included in a revised DEIS.
CO009-11	Mountaineer XPress Project, Hydrostatic Testing and Dust Control, page 4-69: The information contained in the DEIS on water withdrawals for hydrostatic testing and dust control is incomplete. Columbia has identified the sources and anticipated quantities for hydrostatic testing, but the DEIS fails to mention the sources and anticipated quantities for dust control. Sources and quantities of water used for dust control must be included in a revised DEIS. Additionally, the DEIS fails to mention the locations for discharging the hydrostatic testing waters. The discharge locations are crucial to assessing the impacts of hydrostatic testing. For the WVDEP NPDES permit needed to discharge hydrostatic test water, requirements of the permit include discharging the hydrostatic test water back to the original water source. These issues must be addressed in a revised DEIS.
CO009-12	First-order Streams: The DEIS fails to address cumulative impacts on headwater streams. First-order or headwater streams are vitally important to the health of the watershed. The overall health of a watershed is dependent on its network of tributaries. Further analysis is needed to understand the impacts to headwater streams. A project of this magnitude that impacts multiple watersheds must be assessed at a regional scale. The DEIS must contain an analysis on the projects total impacts within each watershed to determine the overall impacts of the project. MXP must provide an analysis for each watershed including information on the number of headwater stream crossings by watershed and the number of stream crossings on each stream if waterbodies are crossed multiple times. At the landscape level, impacts from the ROW are exacerbated by the cumulative impacts of the proposed access roads. There is a negative correlation between road miles within a watershed and water quality. An analysis of the pre-construction vs. post-construction ratio of roads within a basin must be included in the DEIS to adequately assess the impacts from the proposed project.
CO009-13	Stream Bank Cover: The DEIS fails to address loss of stream bank cover due to stream crossings. The DEIS should include an analysis of the loss of stream bank cover on a watershed

CO009-9: Columbia Gas’ proposed stream crossing restoration techniques, which are provided in its ECS, have been reviewed and approved by the WVDEP. Confirmation of the WVDEP’s approval was filed on April 21, 2017.

CO009-10: Columbia Gas’ revised HDD Inadvertent Return Contingency Plan for the Kanawha River is provided in appendix G.

CO009-11: See revised section 4.3.2.4.1 for additional information on hydrostatic test water.

CO009-12: Section 4.13.2.1 has been revised to include HUC-12 subwatersheds crossed by the proposed MXP pipelines and aboveground facilities.

COMPANIES AND ORGANIZATIONS

CO009 – West Virginia Rivers Coalition (continued)

CO009-13 (cont.)	<p>scale to determine the % loss of stream bank cover by watershed to provide a better understanding of the potential impacts of the project.</p> <p><u>4.3.2.5 Conclusion</u></p>
CO009-14	<p>Page 4-76: The DEIS prematurely concludes that the project would not significantly impact surface water quality or quantity. The ECP, Restoration Plan, HDD Contingency Plan and hydrostatic testing discharge plan have not been completed; therefore, FERC is premature in concluding that the project will not significantly impact water resources. FERC must have all the pertinent information before drawing that conclusion.</p> <p><u>4.3.3.1 Wetland Mitigation</u></p>
CO009-15	<p>Page 4-84: The Wetlands Mitigation plan is not included within the DEIS. The DEIS states Columbia Gas states that it would prepare a compensatory wetland mitigation plan for project impacts." The wetlands mitigation plan is not included in the DEIS and FERC makes no recommendation to submit it. This plan is critical in assessing whether the impacts to wetlands have been mitigated properly. Not requiring the plan to be submitted to be included in the DEIS prevents the public from reviewing and commenting on the wetland mitigation plan, undermining the public's participation and failing to meet the requirements of NEPA. The Wetland Mitigation Plan must be included in a revised DEIS.</p>
CO009-16	<p>Wetland Impacts: The DEIS fails to address the project's impact on wetland functions regarding water storage for flood prevention. The DEIS must provide an analysis of the disruption of water storage for flood control. The analysis must include watershed-based wetland impacts with details on the acres of impacted wetlands by watershed to determine whether flooding within the watershed has the potential to significantly increase as a result of the loss of wetland functions during construction and operation of the pipeline.</p> <p><u>4.4.4 Conclusion</u></p>
CO009-17	<p>Mountaineer XPress Project, Page 4-84: The DEIS prematurely concludes that the project would not significantly impact wetlands. The DEIS states "By implementing construction and mitigation measures outlined in Columbia Gas' ECS, completing compensatory mitigation as determined by the USACE and other appropriate agencies, and complying with federal and state permit conditions, we conclude that the MXP would not result in any significant impacts on wetlands." The mitigation plan has not been completed, the wetland permits have not been issued and the ECS has not been finalized; therefore, FERC is premature in concluding that the project will not significantly impact wetlands. FERC must have all the pertinent information before drawing that conclusion.</p>

CO009-13: See response to comment CO009-9. Columbia Gas would implement the measures contained in its ECS during construction to minimize instream impacts, including erosion controls and revegetation of disturbed areas.

CO009-14: See response to comment CO006-8.

CO009-15: Project wetland mitigation plans are prepared in support of permit applications to state and federal regulatory agencies (i.e., the USACE and WVDEP). Compensatory mitigation for unavoidable project impacts would be determined during the permit approval process. Columbia Gas would be required to demonstrate that it had complied with all section 10/404/401 permit conditions as a pre-requisite to our issuance of a notice to proceed with construction should the project be approved by the Commission.

Supplemental information filed for the projects is publicly available on the FERC website (www.ferc.gov) using the eLibrary link.

CO009-16: Section 4.4.2 discusses wetland impacts and mitigation. Wetland impacts are anticipated to be minor and temporary. There would be no net loss of wetlands as a result of project construction. See table 4.4-1 for details on MXP construction and operation impacts on wetlands.

CO009-17: See responses to comments CO009-15 and CO009-16.

COMPANIES AND ORGANIZATIONS
CO009 – West Virginia Rivers Coalition (continued)

4.5.6 Habitat Fragmentation and Edge Effects

CO009-18 **Page 4-165: The DEIS analysis on forest fragmentation is incomplete.** The DEIS states “Several agencies, including the FS and WVDNR, have expressed concerns regarding forest fragmentation and the impacts on interior forest and their associated wildlife species.” FERC recommends several additional items be submitted prior to the close of the DEIS comment period to address the deficiency. The additional information should have been included in the DEIS. A revised DEIS must be issued containing this critical information.

4.7 Endangered Species

CO009-19 **Mountaineer XPress Project, pages 4-153, 4-154 & 4-159: The DEIS does not adequately address impacts on endangered species.** Construction of MXP will negatively affect endangered bat and mussel species and the diamond darter. Mussel and bat surveys have not been completed. Consultations with the US Fish and Wildlife Service and WVDNR have not been completed. Consultations could result in additional mitigation, conservation measures, or reroutes. This lack of sufficient information must be corrected in a revised DEIS.

4.8.2.4 Natural, Recreational, or Scenic Rivers and Trails

CO009-20 **Mountaineer XPress Project, Page 4-207: The DEIS fails to adequately address impacts on recreation.** MXP proposed to cross 18 recreational trails. The DEIS states “Columbia Gas would work with the respective trail management agencies to develop site-specific crossing methods and restoration plans for each trail crossing.” The DEIS does not specify whether these consultations with trail management agencies are in progress and site-specific plans have not been included in the DEIS. Without this information, one cannot adequately address how construction will impact recreation and tourism in these areas. This information must be included in a revised DEIS.

4.9 Socioeconomics

CO009-21 **The DEIS fails to analyze economic impacts to West Virginia gas users.** Almost certainly, the MXP would result in significant increases in price of gas in WV, which will adversely affect current users. The DEIS needs to analyze these impacts on the economy, and completely fails to do so. Former Commission Chairman Norman Bay has previously stated “Overbuilding may subject ratepayers to increased costs of shipping gas on legacy systems. If a new pipeline takes customers from a legacy system, the remaining captive customers on the system may pay higher rates.” This issue must be addressed in a revised DEIS.

CO009-18: See revised section 4.5.4.1.

CO009-19: The USFWS is working with Columbia Gas to address any species-specific issues and develop avoidance and mitigation measures for federally protected species affected by the MXP. See revisions to section 4.7 for the current status of surveys and consultations for federally protected species.

CO009-20: See revised section 4.8.2.4.1.

CO009-21: Comment noted. See response to comment CO009-3. The purpose and need for the projects is discussed in section 1.1. More than 96 percent of the new capacity created by MXP is subscribed and supported by binding, long-term precedent agreements with project shippers, thereby demonstrating the need for the project, and that “overbuilding” is not an issue. The Commission considers all evidence submitted reflecting on the need for a project, including, but not limited to precedent agreements, demand projections, potential cost savings to consumers, or a comparison of projected demand with the amount of capacity currently serving the market. The requested economic analysis is beyond the scope of this EIS.

COMPANIES AND ORGANIZATIONS

CO009 – West Virginia Rivers Coalition (continued)

4.11.1.2.4 Operational Air Emission Impacts and Mitigation

The DEIS fails to adequately address greenhouse gas emissions. While this DEIS does provide some information on greenhouse gases, it does not include a detailed analysis of methane emissions. Additionally, it does not address the basic question of whether cumulative emissions will increase or decrease, whether the CO2 emissions of end users of the gas from the MXP pipeline displace, or add to, emissions from existing coal-fired power plants, or the impacts of "upstream" emissions from additional gas drilling, pipelines and compressor stations. Former Commission Chairman Norman Bay called on the commission to "analyze the environmental effects of increased regional gas production from the Marcellus and Utica" and consider "the downstream impacts of the use of natural gas and ... a life-cycle greenhouse gas emissions study." The revised DEIS must address these issues.

In conclusion, for the reasons outlined above, we request a revised DEIS to be issued with complete and accurate information in order to comply with the NEPA requirements. A complete DEIS is necessary to provide the planning and analysis needed so that the agency decision-makers can mitigate or avoid impacts, and can correctly identify the least-impacting alternative. We appreciate the opportunity to submit these comments and look forward to further participation in this proceeding.

Respectfully Submitted,

Angie Rosser & Autumn Crowe
West Virginia Rivers Coalition

Cindy Ellis & Cindy Rank
West Virginia Highlands Conservancy

Chris Hale
Friends of Water

April Keating
Sierra Club, West Virginia Chapter

Kevin Campbell
Mountain Lakes Preservation Alliance

Becky Park
Citizens' Climate Lobby of Southern West Virginia

CO009-22: Comment noted. Operational GHG emission estimates for the MXP are presented, as CO_{2e}, in tables 4.11-4 through 4.11-9. A detailed discussion on impacts from project GHG emissions and climate change is included in section 4.13.2.11. See response to comment CO006-4.

COMPANIES AND ORGANIZATIONS

CO010 – Mill Creek Watershed Association

Micah Hargrove, Mill Creek Watershed Association, Nashville, TN.
The Mill Creek Watershed Association opposes the proposed gas compressor pump station.

CO010-1 The selected site is not zoned for industrial use. The gas compressor station needs to be placed on a site zoned for industrial use.

CO010-2 The gas compressor station will use the existing pipeline infrastructure to convey oil. The new compressor station will increase the pressure and volume loads on the pipe. The existing pipeline infrastructure is estimated to have installed 40-50 years prior. Before construction can begin to be considered, the existing pipeline infrastructure will require a thorough inspection to determine if the pipeline can handle the projected pressure and volume loads. There are at least three existing pipeline crossings along Mill Creek. If just one of these crossings ruptured, the damage to Mill Creek would be devastating and irreparable to the local wildlife and vegetation.

CO010-3 We request that the gas compressor station be relocated to an area zoned for industrial land use and for the existing pipeline to be repaired to prevent future ruptures in the pipeline. The MCWA seeks to protect the community and water quality within the Mill Creek watershed; we ask that the Federal Energy Regulatory Commission do the same in return.

CO010-1: See revisions to section 3.6.2 and our response to comments CO003-5 and CO003-6.

CO010-2: The Columbia Gulf system transports natural gas; it does not transport oil or oil products. The proposed compressor station would compress the natural gas to allow for an increase in capacity to the existing system. Columbia Gulf has not requested an increase in the maximum allowable operating pressure (MAOP). By law (49 CFR 192, subparts L and M), Columbia Gulf must maintain its pipeline and perform routine inspections as required by the USDOT's Pipeline and Hazardous Materials Safety Administration.

CO010-3: See response to comments CO010-1 and CO010-2.

COMPANIES AND ORGANIZATIONS

CO011 - Allegheny Defense Project, Ohio Valley Environmental Coalition, and Sierra Club

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Columbia Gas Transmission, LLC
Columbia Gulf Transmission, LLC

Docket No. CP16-357-000
Docket No. CP16-361-000

MOTION TO INTERVENE AND COMMENTS OF ALLEGHENY DEFENSE
PROJECT, OHIO VALLEY ENVIRONMENTAL COALITION, AND SIERRA CLUB

I. MOTION TO INTERVENE

Pursuant to 18 C.F.R. §§ 157.10 and 385.214, the following parties move to intervene in the above-captioned proceedings:

Allegheny Defense Project is a grassroots conservation organization headquartered at 117 West Wood Lane, Kane, PA 16735 and is dedicated to the protection and restoration of the Allegheny Bioregion. Formed in 1994, our organization works to protect the Allegheny National Forest and other public lands and resources from the impacts of industrial extraction such as oil and gas drilling. In addition to the environmental impacts caused by pipeline construction are the impacts of related Marcellus and Utica shale gas development. This drilling is fundamentally altering the Allegheny Bioregion with new roads, well sites, wastewater disposal pits, gathering lines, and other infrastructure. By approving the Projects, FERC will authorize Columbia to build a pipeline that will only encourage further shale gas drilling in the Allegheny Bioregion and, as a result, further degradation of our land, air, and water.

Ohio Valley Environmental Coalition ("OVEC") is a grassroots conservation organization headquartered at P.O. Box 6753, Huntington, WV 25773-6753. OVEC's mission is to organize and maintain a diverse grassroots organization dedicated to the improvement and preservation of the environment and our communities through education, grassroots organizing

Note: comments on the DEIS begin on page 4.

COMPANIES AND ORGANIZATIONS

CO011 - Allegheny Defense Project, Ohio Valley Environmental Coalition, and Sierra Club (continued)

and coalition building, leadership development and media outreach. OVEC's works encompasses much of West Virginia as we seek to defend our water from pollution arising from mountaintop removal coal mining, "disposal" of coal prep plant waste, and deep-shale gas extraction and waste "disposal" activities.

The Sierra Club is a national nonprofit organization with 67 chapters and over 740,000 members dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. The Sierra Club is a national leader in the movement to end reliance on fossil fuels that cause climate disruption and to transition to a clean energy economy.

The Sierra Club seeks to intervene in this proceeding because the Mountain XPress Project severely impacts our water resources and headwaters in the mountains of West Virginia, fragments core forest areas, threatens endangered species, disrupts cultural attachments and communities adjacent to the corridor, impacts our historic resources, inflicts economic damage on communities and continues to block the development of renewable energy sources. Further, the cumulative impacts of the Mountain XPress and Gulf XPress Projects combined with the impacts from the Mountain Valley Pipeline, Atlantic Coast Pipeline, and the WB XPress Project are unknown and require further analysis of cumulative impacts on a regional scale.

Although these groups share common goals, each group has its own independent mission and supporter base and each group joins this motion as individual movants, requesting independent intervenor status on behalf of their organizations in the above-captioned proceedings. The movants do not support the Projects, their interests are not adequately

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COMPANIES AND ORGANIZATIONS

CO011 - Allegheny Defense Project, Ohio Valley Environmental Coalition, and Sierra Club (continued)

represented by any existing party to the proceedings, and their participation would further the public interest. This motion is timely filed in accordance with FERC's February 27, 2017 Notice.

II. COMMENTS

The following comments are provided on behalf of the Allegheny Defense Project, OVEC, and Sierra Club regarding the Federal Energy Regulatory Commission's ("FERC") draft environmental impact statement ("DEIS") for Columbia Gas Transmission's ("Columbia Gas") proposed Mountaineer XPress Project ("MXP") and Columbia Gulf Transmission's ("Columbia Gulf") proposed Gulf XPress Project ("GXP") (collectively, "Projects"). Columbia Gas proposes to construct and operate the following facilities in West Virginia: (i) 164.3 miles of new 36-inch-diameter pipeline known from Marshall County to Cabell County; (ii) 5.9 miles of new 24-inch-diameter pipeline in Doddridge County; (iii) three new compressor stations in Doddridge, Calhoun, and Jackson Counties; (iv) two new regulating stations in Ripley and Cabell Counties; (v) 296 feet of new, 10-inch-diameter natural gas pipeline at the Ripley Regulator Station to tie Columbia Gas' existing X59M1 pipeline into the MXP-100 pipeline in Jackson County; (vi) 0.4-mile-long replacement section of 30-inch-diameter natural gas pipeline in Cabell County; (vii) upgrades to one existing compressor station (Wayne County) and two compressor stations (Marshall and Kanawha Counties) either approved or pending under separate FERC proceedings; and (viii) related facilities in various West Virginia Counties. Columbia Gulf proposes to construct and operate the following facilities in Kentucky, Tennessee, and Mississippi: (i) seven new compressor stations in Kentucky (Rowan, Garrard, and Metcalfe Counties), Tennessee (Davidson and Wayne Counties), and Mississippi (Union and Granada Counties); (ii) upgrades

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COMPANIES AND ORGANIZATIONS

to one approved compressor station in Carter County, Kentucky; and (iii) upgrades at one existing meter station in Boyd County, Kentucky.

FERC's decision to grant a certificate to construct the Projects is a "major Federal action" within the meaning of the National Environmental Policy Act (NEPA), and it must be preceded by the preparation of an Environmental Impact Statement (EIS). 42 U.S.C. § 4332. FERC's EIS must address:

(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between the local short-term uses of the project as compared to the long term use of the land, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

42 U.S.C. § 4332. Under NEPA, "agencies [must] take a 'hard look' at the environmental effects of their planned action." *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989). Pursuant to the Administrative Procedure Act (APA), reviewing courts are to set aside as arbitrary and capricious any major Federal action that is taken without the requisite "hard look" at the relevant factors in an EIS. 5 U.S.C. § 706(2)(A). FERC's analysis in the DEIS for the Projects fails to meet NEPA's standards in several ways and must be significantly improved or FERC's decision will be subject to vacatur under the APA.

CO011-1

A. FERC's purpose and need statement and range of alternatives are inadequate.

FERC failed to provide the legally required purpose and need statement in the DEIS. The Council on Environmental Quality's ("CEQ") regulations implementing NEPA (adopted by FERC under 18 C.F.R. § 380.1) require FERC to "specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." 40 C.F.R. § 1502.13. FERC must "exercise a degree of skepticism in dealing with self-serving

CO011-1: Comment noted. As described in section 1.1, the applicants developed the projects in response to customers' demands and then filed applications with the FERC for authorization to construct and operate the proposed facilities. The EIS is limited to assessing the potential environmental impacts of the proposed projects and an appropriate range of alternatives. While the EIS does consider whether alternative actions might meet the customers' demands, the document does not consider or reach a conclusion on whether there is a "public need" (i.e., in terms of a "public convenience and necessity") for the proposed projects. Council on Environmental Quality regulations implementing NEPA (40 CFR 1502.13) require that an EIS "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." In other words, the EIS states the purpose of and need for a proposed project in order to define the range of alternative actions that the agency can legitimately consider.

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CO011-1
(cont.)

statements from a prime beneficiary of the project.” *Simmons v. U.S. Army Corps of Eng’s*, 120 F.3d 664, 669 (7th Cir. 1997) (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 209 (D.C. Cir. 1991) (Buckley, J., dissenting)). FERC “cannot restrict its analysis to those ‘alternative means by which a particular applicant can reach his goals.’” *Id.* (quoting *Van Abbema v. Fornell*, 807 F.2d 633, 638 (7th Cir. 1986); see also *Nat’l Parks & Cons. Ass’n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1072 (9th Cir. 2009) (finding a purpose and need statement that included the agency’s goal to address long-term landfill demand, and the applicant’s three private goals was too narrowly drawn and constrained the possible range of alternatives in violation of NEPA).

According to FERC, “determining project need is beyond the scope of the EIS.” DEIS at 1-3. This is in direct violation of the plain language of the CEQ regulation, which requires FERC to “specify the underlying purpose *and need*” for the project in the EIS. 40 C.F.R. § 1502.13 (emphasis added). Without performing an independent assessment of the need for the project, FERC cannot determine the reasonable range of alternatives that must be analyzed in the DEIS. In particular, without determining the need for the project, FERC cannot reasonably assess the desirability of the required “no action” alternative. Furthermore, by waiting until some unspecified future date to determine the need for the project, FERC denies the public its right to comment on all aspects of the DEIS, including the statement of need and the alternatives analysis that depends on that statement.

Not only did FERC completely fail to provide a statement of need for the Project, but it also framed its statement of purpose far too narrowly. FERC primarily relies on the applicants’ “stated objectives” for the Projects which are to:

- Increase firm transportation service from receipt points in the Appalachian Basin to markets in the Midwest, Northeast, Mid-Atlantic, South, and Gulf Coast; specifically

The determination of whether there is a “public need” for the proposed facilities (for the purpose of considering an authorization under section 7 of the Natural Gas Act) will be made in the subsequent Commission Order granting or denying the applicants’ requests for Certificate authorization and is based on a balancing of the benefits of the projects against any adverse impacts. See also response to comment CO002-10.

The purpose of the proposed projects is to transport natural gas in interstate commerce. The FERC is an independent regulatory agency responsible for, among other things, responding to applications for the interstate transportation of natural gas. It has no mandate for determining overall U.S. energy policy or what components of a national policy should or should not be promoted. Energy production from renewable resources or alternative energy sources, or the gains realized from increased energy efficiency and conservation, are not transportation alternatives and are considered beyond the scope of this EIS.

COMPANIES AND ORGANIZATIONS

CO011-1
(cont.)

to increase natural gas deliverability by 1,800,000 Dth/d to Columbia Gas' TCO Pool, as well as up to an additional 900,000 Dth/d to Columbia Gas' Leach Interconnect with Columbia Gulf's existing system; and

- Provide an additional 860,000 Dth/d of natural gas supplies to markets in Mississippi and Louisiana.

DEIS at 3-1. By relying almost exclusively on the applicants' ambitions for the Projects to frame its statement of purpose, FERC impermissibly "restrict[ed] its analysis to just those 'alternative means by which a particular applicant can reach his goals.'" *Simmons*, 120 F.3d at 669 (quoting *Citizens Against Burlington*, 938 F.2d at 209 (Buckley, J., dissenting)); see also *Nat'l Parks & Cons. Ass'n*, 606 F.3d at 1072.

For example, FERC acknowledges that if it selects the no-action alternative, "customers of the projects' shippers could seek to use other energy alternatives, such as alternative fuel or renewable energy sources, which could also require new facilities." DEIS at 3-3. Rather than exploring such alternatives, FERC flatly states that if such facilities were approved and constructed, "each project would result in specific environmental impacts that could be less than, similar to, or greater than the current proposals." *Id.* This is a meaningless statement that fails to compare other reasonable alternatives to the proposed actions. FERC's categorical refusal to consider alternative energy and increased energy efficiency alternatives is at odds with other recent statements.

For example, in the Constitution Pipeline DEIS, FERC considered energy conservation/efficiency and renewable energy alternatives. See Constitution Pipeline DEIS at 3-3 – 3-12 (Docket CP13-499-000). While FERC ultimately decided against considering these alternatives in greater detail, it at least considered them in some detail. That is in stark contrast to this DEIS. Therefore, FERC must prepare a revised or supplemental DEIS that includes an independent assessment of both "purpose and need", taking into account not only the applicant's

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CO011-1 (cont.) stated purpose but also the broader public purpose and need, and put the complete DEIS out for public comment.

CO011-2 **B. The lack of complete information in the DEIS renders it legally deficient.**

Throughout the DEIS, FERC indicates that information provided by the applicants is incomplete. This incomplete information forms the basis for many of the proposed conditions that FERC staff recommends be attached to any certificate authorizing the Atlantic Sunrise Project. *See* DEIS at 5-26 – 5-36. Much of this information should have been included in the DEIS so that the public had an opportunity to review it and provide comments.

The NEPA EIS requirement “guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.” *Department of Transportation v. Public Citizen*, 541 U.S. 752, 768 (2004) (citation omitted). This “informational role” assures the public that the agency has considered environmental concerns in its decisionmaking process and provided a “springboard for public comment” in that decisionmaking process. *Id.* (citation omitted). “The purpose here is to ensure that the ‘larger audience[]’ . . . can provide input as necessary to the agency making the relevant decisions.” *Id.* (citation omitted); *see also League of Wilderness Defenders v. Connaughton*, 752 F.3d 755, 761 (9th Cir. 2014) (“Informed public participation in reviewing environmental impacts is essential to the proper functioning of NEPA.”).

In reviewing an EIS, courts look at “whether the EIS’s form, content and preparation foster both informed decisionmaking and informed public participation.” *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982). Here, FERC decided to publish a DEIS knowing that it lacked information that is critical for its own review, and for meaningful public review and

CO011-2: Comment noted. As with any project of this magnitude, studies necessary to prepare project plans are ongoing and continue. None of the “information gaps” noted will provide information upon which a determination of significant impact hinges.

The final EIS has been revised to include new information provided by Columbia Gas and/or findings from the regulatory review process. See sections:

- 4.1.4.4.1 - Landslides
- 4.3.1.2.1 and 4.3.1.3.1 - Groundwater
- 4.3.2.4.1 - Stream Crossing Restoration Plans
- Appendix G HDD - Inadvertent Return Contingency Plan for the Kanawha River
- 4.3.2.4.1, 4.7.5.1, and 4.7.10.1 - other hydrological reports and plans
- 2.4.1.2 and 4.5.5.2 - Invasive and Noxious Weed Infestation Plan
- 4.7.3 - Federally Listed Species

Supplemental information filed for the projects is publicly available on the FERC website (www.ferc.gov) using the eLibrary link.

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<p>CO011-2 (cont.)</p>	<p>comment. As such, the DEIS is legally deficient and must be redone in accordance with CEQ's regulations. <i>See</i> 40 C.F.R. § 1502.9(a).</p> <p>We are particularly concerned about the Project's untold water impacts, and the DEIS' myriad information gaps with respect to these impacts exemplifies why FERC cannot proceed with supplementing its inadequate draft. For example, FERC states that Columbia Gas and/or Columbia Gulf must provide the following information either before the end of the DEIS comment period or before construction:</p> <ul style="list-style-type: none"> • A modified version of its ECS (section II.I.1) that is consistent with the 2013 version of FERC's Upland Erosion Control, Revegetation, and Maintenance Plan ("Plan") at section V.A.4. • A modified version of its ECS (section II.D.2) that is consistent with the 2013 version of FERC's Plan at section IV.B.1.a. • The location of all water wells and potable springs within 150 feet of all areas of disturbance associated with the MXP pipelines and related aboveground facilities. • A waterbody crossing restoration plan. • A revised HDD Inadvertent Return Contingency Plan for the Kanawha River. • An alternative stream/source of hydrostatic test water for Grasslick Run. • A flow regime for each waterbody where Columbia Gas will withdraw hydrostatic test water at the time of the year when testing is anticipated and specific measures to protect instream habitat and downstream uses. <p>DEIS at 5-31- 5-32. Such information gaps pervade the DEIS. FERC similarly requests that the applicants provide the following information either before the end of the DEIS comment period or before construction:</p> <ul style="list-style-type: none"> • Descriptions, maps, and environmental impacts comparisons regarding route variations of the proposed MXP-100 route on the Umstead, Hall, Elliot, and Cobb properties. • The results of a Phase I Landslide Hazard Assessment, Phase II Landslide Hazard Assessment, and a Landslide Mitigation Plan. • Specific construction, restoration, and/or operation mitigation measures to promote compatibility and management of forested areas. • A noxious and invasive weed management plan. • An update regarding the status of Migratory Bird Treaty Act ("MBTA") consultations with U.S. Fish and Wildlife Service ("USFWS") and West Virginia Department of Natural Resources ("WVDNR") regarding the development of a Migratory Bird Plan
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<p>CO011-2 (cont.)</p>	<p>(and provide a draft copy of the plan, if available); and identify special measures to reduce impacts on cerulean warbler habitat.</p> <ul style="list-style-type: none"> • Required mussel surveys and an update on discussions with USFWS regarding recommendations on stream crossing locations and construction methodologies where federally protected mussel species may be present. • Required bat surveys, an update on discussions with USFWS regarding the Indiana bat and the northern long-eared bat, and a Myotis Bat Conservation Plan. • Documentation of consultation with WVDNR for state-listed mussels, including updated stream crossing plans and/or additional mitigation measures. • Updated consultations with Kentucky Department of Fish and Wildlife Resources (KDFWR) regarding state-listed species identified in Appendix K. <p><i>Id.</i> at 5-30 – 5-34. This information is relevant to FERC’s evaluation of “reasonably foreseeable significant adverse effects” and it should have been included in the DEIS. 40 C.F.R. § 1502.22.</p> <p>The sheer volume of incomplete information indicates that FERC issued a legally deficient DEIS. The fact that the requested information concerns impacts to waterbodies and wetlands, drinking water supplies, threatened and endangered species, and other public resources only underscores the inadequacy of the DEIS. By publishing the DEIS without the required information, FERC denied the public an opportunity to meaningfully participate in the decisionmaking process. <i>Public Citizen</i>, 541 U.S. at 768; <i>League of Wilderness Defenders</i>, 752 F.3d at 761.</p>
<p>CO011-3</p>	<p>C. The EIS fails to take a “hard look” at the direct and indirect effects of the Projects.</p> <p>FERC must take a “hard look” at the direct and indirect effects of the Atlantic Sunrise Project. <i>Robertson v. Methow Valley Citizens Council</i>, 490 U.S. 332 (1989). Direct effects are “caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). Indirect effects are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b). To satisfy the “hard look” requirement, FERC must ensure that it has “adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary and capricious.” <i>Nevada v. Dep’t of Energy</i>, 457</p>

CO011-3: Issues associated with the Atlantic Sunrise Project (FERC Docket No. CO15-138-000; final EIS issued on December 30, 2016) are beyond the scope of this EIS. The MXP and GXP EIS was prepared in accordance with NEPA, CEQ guidelines, and other applicable requirements. The EIS is consistent with FERC style, formatting, and policy regarding NEPA evaluation, “hard look,” of the different types of impacts (direct, indirect, and cumulative). The EIS includes sufficient detail to enable the reader to understand and consider the issues raised by the proposed projects and addresses a reasonable range of alternatives.

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CO011-3 (cont.) F.3d 78, 93 (D.C. Cir. 2006) (*quoting Balt. Gas & Elec. Co.*, 462 U.S. 87, 98 (1983)). The DEIS for the Projects fails to provide the requisite “hard look” at both the direct and indirect effects of the proposal.

1. The DEIS fails to adequately analyze the direct effects of the Projects on waterbodies and wetlands.

CO011-4

a. Waterbodies

The proposed MXP pipelines would directly cross 417 minor waterbodies, 86 intermediate waterbodies, and 5 major waterbodies in West Virginia. *See* DEIS at 4-53. Another 360 waterbodies could be indirectly impacted by construction since they are located in the pipeline construction rights-of-way. *Id.* The GXP could impact an additional 12 ephemeral streams. *Id.*

West Virginia’s anti-degradation policy establishes three tiers for protecting waters of the state. *See* <http://www.dep.wv.gov/WWE/Programs/wqs/Pages/default.aspx>. “The higher the tier, the more stringent the requirements are for protection.” *Id.* Tier 1 “[m]aintains and protects existing uses of a water body and the water quality conditions necessary to support such uses.” *Id.* “A waterbody that is listed as impaired on the state’s 303(d) list is considered a Tier 1 water as it pertains to the specific pollutant listed.” *Id.* Tier 2 “[m]aintains and protects ‘high quality’ waters – water bodies where the level of water quality exceeds levels necessary to support recreation and wildlife and the propagation and maintenance of fish and other aquatic life.” *Id.* Tier 3 “[m]aintains and protects water quality in outstanding national resource waters.” *Id.* Tier 3 waters include, but are not limited to: (i) all streams and rivers within Wilderness Areas, (ii) all federally designated Wild and Scenic Rivers, (iii) all streams and other waterbodies in state parks which are HQWs or naturally producing trout streams, (iv) waters in National Parks and National Forests which are HQWs or naturally reproducing trout streams, (v) waters designated under the

CO011-4: Comment noted.

Beginning with our pre-filing process (initiated September 16, 2015), there have been a number of opportunities for public comment into our review of the MXP, including open houses held by Columbia Gas (October 2015), public scoping (November 2015), and public comment on the draft EIS.

The MXP would not cross any waterbodies designated as Tier 3 by the State of West Virginia. This issue does not support the necessity for issuing a revised or supplemental document.

Our *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures) provide a baseline set of practices and mitigations sufficient to support a determination of no significant impact on waterbodies when the Procedures are employed. The potential for significant impact to occur when our Procedures are employed is remote, and simply doesn’t support the requirement to use HDD techniques for every waterbody crossing (or even all high quality waters [HQWs]). *See* also response to comment CO002-12.

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CO011-4
(cont.)

National Parks and Recreation Act of 1978, and (vi) those waters whose unique character, ecological, or recreational value, or pristine nature constitute a valuable national or state resource. DEIS at 4-60. Tier 3 waters “shall be maintained and protected and improved where necessary.” *Id.*

The MXP pipelines and aboveground facilities would cross or disturb 43 sensitive waterbodies. *See* DEIS at 4-61. Most of these waterbodies are classified as high-quality waters (“HQW”), *i.e.*, Tier 2 waters. *Id.* at 4-60. According to FERC, existing HQWs “must be maintained at their existing high quality unless it is determined necessary to accommodate important economic or social development.” *Id.*

This explanation is incomplete and leads the reader to believe that agencies may simply ignore Tier 2 protections if they determine economic or social development interests are allegedly more important. However, according to West Virginia’s anti-degradation policy for Tier 2 waters:

[E]xisting high quality waters of the state must be maintained at their existing high quality unless it is determined *after satisfaction of the intergovernmental coordination of the state’s continuing planning process and opportunity for public comment and hearing* that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

47 CSR2 § 47-2-4.1.b (emphasis added). Thus, in order to override Tier 2 protections, there must be an intergovernmental process that includes opportunities for public comments and hearings. Only then can Tier 2 protections be overruled.

According to FERC, construction of the MXP “would not significantly or permanently affect any designated water uses[.]” DEIS at 4-76. This conclusion is insufficient. Whether existing designated water uses will be “significantly or permanently affect[ed]” does not answer the question of whether the existing designated water uses will be maintained. By adding the

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qualifying language, FERC fails to state whether the MXP may affect designated water uses.

FERC must remedy this in a revised or supplemental DEIS.

Moreover, it is apparent that FERC needs more information about existing designated water uses. For example, FERC states that “[t]he MXP *does not appear* to cross any Tier 3 streams (WVDEP, 2015d).” DEIS at 4-60 (emphasis added). The proposed MXP either does or does not cross Tier 3 waters. FERC cannot leave it up to the public to figure out whether the MXP actually crosses Tier 3 waters. FERC must remedy this in a revised or supplemental DEIS.

FERC’s decision whether to permit Columbia Gas to cross dozens of HQWs is a significant matter. According to FERC, however, Columbia Gas is proposing to use trenchless crossing methods at just one crossing for the Kanawha River. *See* DEIS at 4-53. FERC must require Transco to reconsider use of trenchless methods for the other proposed crossings of HQW waterbodies. This reconsideration should be disclosed, independently scrutinized by FERC and the public, and appropriately incorporated into any potential certification by FERC of the Projects.

Absent the requirement to use trenchless crossing techniques for every water crossing, the Project will have significant water impacts that must be disclosed and weigh towards denial of FERC certification. In its recent water quality certification denial for the proposed Constitution Pipeline, the New York Department of Environmental Conservation (“NYDEC”) explained that “[o]pen trenching is a highly impactful construction technique involving significant disturbance of the existing stream bed and potential long-term stream flow disruption, destruction of riparian vegetation and establishment of a permanently cleared corridor.” NYDEC, Notice of WQC Denial for Constitution Pipeline, p. 8 (Apr. 22, 2016) (“Constitution WQC Denial”), *available at*

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(cont.) http://www.dec.ny.gov/docs/administration_pdf/constitutionwc42016.pdf. In addition, NYDEC

explained the importance of looking at the cumulative impacts of pipeline construction:

Cumulatively, impacts to both small and large streams from the construction and operation of the [Constitution Pipeline] Project *can be profound* and include loss of available habitat, changes in thermal conditions, increased erosion, creation of stream instability and turbidity, impairment of best usages, as well as *watershed-wide impacts* resulting from placement of the pipeline across water bodies in remote and rural areas.

Id. at 12.

The NYDEC also recently denied WQC for National Fuel Gas Company's ("National Fuel") proposed Northern Access 2016 Project. *See* NYDEC, Notice of WQC Denial for Northern Access 2016 Project (Apr. 7, 2017), *available at*

http://www.dec.ny.gov/docs/permits_ej_operations_pdf/northaccesspipe42017.pdf. NYDEC required National Fuel to evaluate "all [192] stream crossings . . . for environmental impacts and [explained] that trenchless technology was the preferred construction method for stream crossing." *Id.* at 5. After acknowledging that "additional expense [] may be associated with such methods[.]" NYDEC "focused on more environmentally sensitive or significant waterbodies for purposes of additional analysis." *Id.* at 5-6. This resulted in the selection of 55 stream crossings for further trenchless feasibility analysis. *Id.* FERC must require a similar analysis for the MXP.

NYDEC's WQC denials for the Constitution and Northern Access pipelines are a cautionary tale for FERC as it reviews the proposed Projects. According to NYDEC, Constitution Pipeline's "Trenchless Feasibility Study" did not include information requested by multiple agencies and "did not provide a reasoned analysis to enable [NYDEC] to determine if the [Constitution Pipeline] Project demonstrates compliance with water quality standards."

Constitution WQC Denial at 10-11. NYDEC further explained that:

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Of the 251 streams to be impacted by the [Constitution Pipeline] Project, [the Trenchless Feasibility] Study evaluated only 87 streams, in addition to the Schoharie Creek, as part of the Phase I desktop analysis which Constitution used to determine if surface installation methods warranted consideration for a trenchless design. Of the 87 streams reviewed, Constitution *automatically eliminated* 41 streams from consideration for trenchless crossing because those streams were 30 feet wide or less . . . Using its review criteria, Constitution’s [Trenchless Feasibility] Study finally concluded that *only 11 stream crossings of the 251* displayed preliminary evidence in support of a potentially successful trenchless design and were chosen for the Phase III geotechnical field analysis. [NYDEC] staff *consistently told Constitution that its November 2013 Trenchless Feasibility Study was incomplete and inadequate.*

Id. at 11 (emphasis added) (citation omitted).

Did Columbia Gas prepare a similar trenchless feasibility study for the *entire* MXP? If not, why not? If so, does it suffer from the same inadequacies that plagued the one prepared for the Constitution Pipeline? For example, did Columbia Gas “automatically eliminate” streams from consideration for trenchless crossing because they were 30 feet wide or less? These are important questions that must be answered in light of the fact that there are more stream crossings involved in the MXP than in the Constitution Pipeline Project and even fewer proposed uses of trenchless crossings.

According to FERC, the only “site-specific crossing plan” that Columbia Gas has provided is “for the Kanawha River, which would be crossed using the HDD method[.]” DEIS at 4-53. This is woefully insufficient. FERC must require Columbia Gas to submit site-specific crossing plans for *all* waterbody crossings (or, at a minimum, all Tier 2 and Tier 3 waters) and provide a detailed trenchless feasibility study such as the one that NYDEC sought (but never received) in the Constitution Pipeline proceeding. FERC cannot issue a certificate until Columbia Gas submits this information and makes it available for additional public review and comment.

b. Wetlands

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CO011-5: Response begins on next page.

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Pipeline construction can have significant adverse impacts on wetlands. For example, construction of Tennessee Gas Pipeline Company's "300 Line" in northern Pennsylvania "highly impacted" the hydrological connectivity between a wetlands complex and a stream to the point that the stream, which had previously flowed from the wetlands complex, is now "barely discernable." *See* FERC Docket No. CP15-148-000, Accession No. 20150402-5213.¹ In addition, according to the Western Pennsylvania Conservancy, construction of a pipeline through Tamarack Swamp in Clinton County "appears to have been particularly disruptive, physically separating contiguous sections of wetland, altering hydrological patterns and introducing strips of highly altered substrate that will not easily recover." Western Pennsylvania Conservancy, Clinton County Natural Heritage Review at 79 (2002), available at http://www.clintoncountypa.com/departments/county_departments/planning/pdfs/Natural%20Heritage%20Inventory.pdf.

The MXP will almost certainly have significant adverse impacts on numerous wetlands in West Virginia. FERC acknowledges that "[c]onstruction of MXP facilities would have temporary and permanent impacts on wetlands within project workspaces." DEIS at 4-79. The examples above from Pennsylvania demonstrate that pipeline construction impacts on wetlands can extend beyond "project workspaces."

Instead of substantively analyzing the impacts on wetlands, however, FERC relies on Columbia Gas' yet-to-be-developed "project-specific wetland restoration plan" and the U.S. Army Corps of Engineers ("USACE") future determination in regard to compensatory mitigation. *See* DEIS at 4-84. First, if Columbia Gas is going to develop a "project-specific

¹ This disclosed in Tennessee Gas Pipeline Company's "Aquatic Resources Report" in for its proposed Susquehanna West Project and was included as Appendix 2-A in Resource Report 2, which can be found by the referenced docket and accession numbers.

CO011-5: The draft EIS presents our "worst-case" analysis of project-related impact on wetlands. See response to CO009-15.

Additionally, we recognize the legitimate role and significant expertise of the USACE in the development of appropriate wetland compensatory mitigation. This is acknowledged by the USACE in consenting to be a cooperating agency (within the meaning of NEPA) in the preparation of this EIS.

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CO011-5 (cont.) wetland restoration plan,” that plan should have been included in the DEIS so that the public had an opportunity to review and comment on it. Second, with regard to relying on USACE’s determination on compensatory mitigation, FERC cannot delegate its NEPA responsibilities by deferring “to the scrutiny of other [agencies].” *Idaho v. Interstate Commerce Comm’n*, 35 F.3d 585, 595 (D.C. Cir. 1994) (citing *Calvert Cliffs’ Coordinating Comm., v. U.S. Atomic Energy Comm’n*, 449 F.2d 1109 (D.C. Cir. 1971)). FERC should prepare a revised or supplemental DEIS that includes Columbia Gas’ project-specific wetland restoration plan and the hard-look analysis on wetlands impacts that NEPA requires.

CO011-6 **2. The DEIS Fails to Consider the Indirect Impacts of the Reasonably Foreseeable Shale Gas Drilling That Would Be Induced by the Projects.**

In analyzing the potential impacts of its approval of the Projects, FERC must consider the indirect effects of shale gas development. Indirect effects are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”² “Indirect effects are defined broadly, to ‘include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.’”³

For several years, however, FERC has categorically refused to consider induced gas development as an indirect effect of pipeline projects such as the MXP and GXP. FERC’s argument is usually two-fold. First, FERC claims that gas drilling and pipeline projects are not “sufficiently causally related” to warrant a detailed analysis.⁴ Second, FERC claims that even if

² 40 C.F.R. § 1508.8(b).

³ *Natural Res. Def. Council v. U.S. Army Corps of Eng’rs*, 339 F. Supp. 2d 386, 404 (S.D.N.Y. 2005) (quoting 40 C.F.R. § 1508.8(b)).

⁴ See e.g., *Nat’l Fuel Gas Supply Corp.*, 150 FERC ¶ 61,162, at P 44 (2015).

CO011-6: Comment noted. See response to comment CO006-4.

The commentator argues that the Commission has specific information in this proceeding sufficient to show a causal link between the projects and natural gas production. Generally, the commentator cites statements by a trade association, business executives, and the Energy Information Administration suggesting both that insufficient transportation infrastructure can limit production growth and that additional transportation infrastructure spurs production growth.

In order to identify the appropriate scope of the Commission’s environmental review, Commission staff sent the *Notice of Intent to Prepare an Environmental Impact Statement for the Planned Mountaineer XPress Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings* to more than 1,300 interest parties, including federal, state, and local government representatives and agencies, elected officials, environmental and public interest groups, Native American tribes, affected property owners, and other interested parties. Additionally, Commission staff held four scoping meetings and an interagency meeting in West Virginia in December 2015.

A causal relationship sufficient to warrant Commission analysis of the non-pipeline activity as an indirect impact would only exist if a proposed pipeline would transport new production from a specified production area and that production would not occur in the absence of the proposed pipeline (i.e., there will be no other way to move the gas). Though the commentator disagrees with our position, we continue to believe that the opposite causal relationship is in fact more likely, i.e., once production begins in an area,

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gas drilling and pipeline projects are “sufficiently causally related,” the potential environmental impacts of the gas development are not “reasonably foreseeable” as contemplated by CEQ’s NEPA regulations.⁵

The DEIS continues this head-in-the-sand approach, failing to consider at all the indirect effects of shale gas development, completely ignoring shale gas development as an indirect effect. FERC’s certificate approvals could plausibly induce new natural gas production since new pipelines will be made available to transport fracked gas. In fact, the applicant makes just such a claim in its press release announcing the project filing with FERC, claiming that the project “will create approximately 2.7 billion cubic feet per day of firm transportation capacity from existing and new points of receipt along or near Columbia Transmission’s system, providing producers in the Marcellus and Utica shale areas new transportation options to move gas out of the capacity-constrained supply basin and into the interstate market.”⁶ Therefore, it seems reasonable for FERC to conduct NEPA analyses of the upstream development that would likely occur due to its certificate approvals. Arguments have been made that current levels of natural gas production are adequate to supply any new natural gas infrastructure,⁷ and so the construction of new pipelines does not induce new natural gas production.⁸ However, it is

⁵ *Id.*

⁶ Available at: <https://www.cpg.com/about-us/news-room/2015/09/23/columbia-pipeline-group-and-columbia-pipeline-partners-mountaineer-xpress-pipeline-advances-enters-pre-filing-with-federal-energy-regulatory-commission>.

⁷ Opening Brief of Petitioners Catskill Mountainkeeper, Inc., et al. at 22-23, *Catskill Mountainkeeper, Inc., et al. v. FERC*, No. 16-345-L (2d Cir. July 12, 2016).

⁸ In fact, if that is the case, it undercuts the need for a new pipeline. A revised or supplemental DEIS must clarify if the pipeline is in fact needed and, if so, how much new gas development it would induce.

shippers or end users will support the development of a pipeline to move the produced gas.

The evidence cited by the commentator does not demonstrate the requisite reasonably close causal relationship between the projects and the impacts of future natural gas production to necessitate further analysis. The fact that natural gas production and transportation facilities are all components of the general supply chain required to bring domestic natural gas to market is not in dispute. This does not mean, however, that the Commission’s approval of these particular projects will cause or induce the effect of additional or further shale gas production. A number of factors, such as domestic natural gas prices and production costs, drive new drilling. If the projects were not constructed, it is reasonable to assume that any new production spurred by such factors would reach intended markets through alternate pipelines or other modes of transportation. Any such production would take place pursuant to the regulatory authority of state and local governments. The projects are responding to the need for transportation, not creating it.

The Commission has found that the potential environmental impacts resulting from natural gas production are generally not reasonably foreseeable. Because production-related impacts are highly localized, even if the Commission knows the general source area of gas likely to be transported on a given pipeline, a meaningful analysis of production impacts would require more detailed information regarding the number, location, and timing of wells, roads, gathering lines, and other appurtenant facilities, as well as details about production methods, which can vary by producer and which depend on the applicable regulations in the various states.

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unlikely that current production would be sufficient to supply natural gas for the life of a pipeline, which could be up to fifty years,⁹ meaning that new production could be induced to continually supply a pipeline throughout its lifespan.¹⁰ Therefore, the indirect effects of FERC's certificate approvals, including induced production, must be included in its NEPA analysis of the Projects.

Commissioner Bay recently stated that, "in light of the heightened public interest and in the interests of good government . . . the Commission should analyze the environmental effects of increased regional gas production from the Marcellus and Utica" shale formations.¹¹

Commissioner Bay noted that "[t]he Department of Energy has conducted a similar study in connection with the exercise of their obligations under Section 3(a) of the Natural Gas Act."¹²

Commissioner Bay further stated that FERC should also consider "analyzing the downstream impacts of the use of natural gas and [] performing a life-cycle greenhouse gas emissions study, both of which DOE has conducted in issuing permits for LNG exports."¹³ Thus, there is no reason why FERC cannot perform such an analysis for the Projects.

⁹ Interstate Natural Gas Association of America, *The Interstate Natural Gas Transmission System: Scale, Physical Complexity and Business Model, Executive Summary* (2010), <http://www.ingaa.org/file.aspx?id=10751>.

¹⁰ Roger Howard, *Is the Fracking Boom a Bubble?* Newsweek, July 11, 2014, <http://www.newsweek.com/2014/07/18/how-long-will-americas-shale-gas-boom-last-260823.html>; see also IEEFA Study, *supra* note 50 at 11 (finding that the pipeline capacity being proposed in the Atlantic Coast and Mountain Valley pipelines exceeds the amount of natural gas likely to be produced from the Marcellus and Utica formations over the lifetime of the pipelines).

¹¹ *Nat'l Fuel Gas Supply Corp.*, 158 FERC 61,145, Commissioner Bay Separate Statement at 5 (Feb. 3, 2017).

¹² *Id.*

¹³ *Id.*

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a. **There is a Clear Causal Connection Between the Proposed Projects and Shale Gas Development**

Courts have said that an agency must consider something as an indirect effect if the agency action and the effect are “two links of a single chain.”¹⁴ It cannot be disputed that gas development and infrastructure that transports that gas are “two links of a single chain.” The gas industry certainly considers them to be so; for example, in a 2014 report, the Interstate Natural Gas Association of America (“INGAA”) stated that

midstream infrastructure development is crucial for efficient delivery of growing supplies to markets. Sufficient infrastructure goes hand in hand with well-functioning markets. *Insufficient infrastructure can constrain market growth and strand supplies. . . . New infrastructure will be required to move hydrocarbons from regions where production is expected to grow to locations where the hydrocarbons are used. Not all areas will require significant new pipeline infrastructure, but many areas (even those that have a large amount of existing pipeline capacity) may require investment in new capacity to connect new supplies to markets. In analogous cases to date, oil and gas producers and marketers have been the principal shippers on new pipelines. These “anchor shippers” have been willing to commit to long-term contracts for transportation services that provide the financial basis for pipeline companies to pursue projects. Going forward, producers will likely continue to be motivated to ensure that the capacity exists to move supplies via pipelines. Producers have learned from past experience that the consequences of insufficient infrastructure for gas transport are severe, and that the cost of pipeline transport is a relatively small cost compared with the revenues lost as a result of price reductions or well shut-ins that occur when transport from producing areas to liquid pricing points is constrained.*¹⁵

In other words, according to INGAA, gas producers rely on there being sufficient infrastructure capacity to continue, if not expand, production activities. If new infrastructure is not built, prices

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¹⁴ *Sylvester v. U.S. Army Corps of Eng'rs*, 884 F.2d 394, 400 (9th Cir. 1989).

¹⁵ INGAA, *North American Midstream Infrastructure through 2035: Capitalizing on Our Energy Abundance, Executive Summary*, p. 1, 8-9 (Mar. 18, 2014) (emphasis added), available at <http://www.ingaa.org/file.aspx?id=21498>.

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drop, new production slows, well shut-ins occur, and the attendant environmental and social impacts of drilling are reduced or eliminated.

According to the Energy Information Administration (“EIA”), pipeline projects facilitate an increase in gas production. In a recent report on natural gas liquids (NGL) market trends, EIA stated that “[e]thane production is increasing as midstream infrastructure projects become operational and ethane recovery and transport capacities grow.”¹⁶ In other words, an increase in infrastructure to transport a product results in an increase in production of that product.

Indeed, Columbia claims that the MXP will “provid[e] [gas] producers in the Marcellus and Utica shale areas new transportation options to move gas out of the capacity-constrained supply basin and into the interstate market.” Columbia Pipeline Group, Community News (Sept. 23, 2015), available at <https://www.cpg.com/about-us/news-room/2015/09/23/columbia-pipeline-group-and-columbia-pipeline-partners-mountaineer-xpress-pipeline-advances-enters-pre-filing-with-federal-energy-regulatory-commission>. Without the pipeline to move the gas from the production areas, the drilling would simply not be economical and would not occur.

Recent statements from other oil and gas industry officials corroborate this. For example, in May 2015, Dennis Xander, president of Denex Petroleum spoke about the recent downturn in gas drilling, stating that “[d]rilling is hard to justify” due, in part, “to lack of infrastructure[.]”¹⁷ According to Mr. Xander, “there are several infrastructure projects in progress that will change

¹⁶ EIA, *Hydrocarbon Gas Liquids (HGL): Recent Market Trends and Issues*, p. 6 (Nov. 2014), available at <http://www.eia.gov/analysis/hgl/pdf/hgl.pdf>.

¹⁷ Casey Junkins, *Number of Drilling Rigs on the Decline*, The Intelligencer/Wheeling News-Register (May 19, 2015), available at <http://wvpress.org/news/ohio-hit-harder-than-w-va-by-drilling-decline/>.

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all that.”¹⁸ Mr. Xander continued that “[b]y 2017 and 2018, things will be very busy – count on it.”¹⁹

According to Corky DeMarco, executive director of the West Virginia Oil and Natural Gas Association, “when drilling slows down, that is when you build pipelines” because “[i]t’s just the way the industry works.”²⁰ According to Tim Greene, owner of Mineral Management of Appalachia, “more pipelines will lead to more drilling all across [West Virginia].”²¹ Indeed, according to Mr. DeMarco, “[o]nly 5 percent of the potential Marcellus wells have even been permitted[.]”²²

In July 2016, Brian Sheppard, Dominion Transmission’s vice president of pipeline operations, said the ACP “will increase pipeline capacity and stimulate drilling activity[.]”²³ In April 2017, Mr. Xander said that “[u]ntil new pipelines are built from West Virginia to new markets, natural gas prices will remain flat and producers will struggle[.]”²⁴ In the same article,

¹⁸ *Id.*

¹⁹ *Id.* The ACP facilities were scheduled to be placed in service no later than November 1, 2018. See ACP Application at 3.

²⁰ *Id.*

²¹ Casey Junkins, *Billion-Dollar Projects to ‘Become the Norm’*, *The Intelligencer/Wheeling News-Register* (Oct. 26, 2014), available at <http://www.theintelligencer.net/news/top-headlines/2014/10/billion-dollar-projects-to-become-the-norm/>.

²² *Id.*

²³ Lisa Troshinsky, *Oil and gas companies in north central West Virginia are optimistic despite industry decline*, *The Exponent Telegram* (July 17, 2016), available at https://www.theet.com/news/local/oil-and-gas-companies-in-north-central-west-virginia-are/article_56e0f30c-b9ee-5bf1-b144-6facb8268f26.html.

²⁴ Austin Weiford, *W.Va. Oil, Gas Industry Poised for Boom, Part 2*, *The State Journal* (Apr. 2, 2017), available at https://www.theet.com/statejournal/w-va-oil-gas-industry-poised-for-boom-part/article_e1933cb7-cf51-52e9-83c7-0444221cc2f9.html.

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Al Schopp, regional senior vice president of gas producer Antero Resources, said that natural gas prices would improve once there are more “pipelines out of the basin to get the gas to other places[.]”²⁵ According to Mr. Schopp, “for the energy industry to see another boom like 2008 and 2009, the pricing of natural resources will have to improve, which he hopes will come with the upcoming pipeline projects [in West Virginia].”²⁶ These industry statements make clear that major pipeline projects such as MXP and GXP are planned not only to transport current production but in anticipation of and to facilitate long-term increases in production.

FERC, however, has previously claimed that it need not consider the indirect effects of shale gas development because “such development will likely continue regardless of whether the proposed projects are approved because multiple existing and proposed transportation alternatives for production from the region are available.”²⁷ As the statements above indicate, that does not appear to be the case. The corollary to “more pipelines will lead to more drilling” is that fewer pipelines may lead to less drilling. Moreover, when FERC says shale gas development will continue because there are other “proposed transportation alternatives,” those other “proposed transportation alternatives” are almost certainly interstate natural gas pipelines subject to FERC’s jurisdiction. To say in one proceeding that shale gas development will continue regardless of whether that particular project is approved because there are other similar projects that will likely be authorized by FERC itself only proves the causal connection between FERC’s decision to approve pipeline projects and shale gas development.

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Nat’l Fuel Gas Supply Corp.*, 150 FERC ¶ 61,162, at P 45 (2015).

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A recent EIS prepared by the Surface Transportation Board (“Board”) demonstrates why FERC’s logic is incompatible with NEPA. In April 2015, the Board published a DEIS for the Tongue River Railroad Company’s (“TRRC”) proposal to build a railroad to transport coal to market.²⁸ According to the Board, the proposed railroad would “transport low-sulfur, subbituminous coal from proposed mine sites yet to be developed in Rosebud and Powder River Counties, Montana.”²⁹ The Board continued that, “[b]ecause the Tongue River region contains additional quantities of coal, future rail traffic could also include shipments of coal from other mines whose development could be induced by the availability of a nearby rail line.”³⁰ As a result, the Board prepared an analysis of various coal production scenarios in southeastern Montana should the Board approve the railroad. The Board’s analysis included consideration of domestic and export markets, coal production costs, transportation routes, and emissions forecasts. The results of the analysis revealed that approval of the railroad was likely to induce the development of at least two additional coal mines in southeastern Montana.³¹

The Board’s decision to consider induced coal production in its review of TRRC’s proposed railroad is important because, just as FERC has no jurisdiction over gas production, the Board has no jurisdiction over coal production. Nevertheless, the Board did not completely ignore its obligation under NEPA to consider indirect effects. Rather, it prepared a review of

²⁸ See Board, Tongue River Railroad DEIS, available at <https://www.stb.gov/decisions/readingroom.nsf/fc695db5bc7ebe2c852572b80040c45f/e7de39d1f6fd4a9a85257e2a0049104d?OpenDocument>.

²⁹ *Id.* App. C at C.1-2, available at [https://www.stb.gov/decisions/readingroom.nsf/UNID/E7DE39D1F6FD4A9A85257E2A0049104D/\\$file/AppC_CoalProduction.pdf](https://www.stb.gov/decisions/readingroom.nsf/UNID/E7DE39D1F6FD4A9A85257E2A0049104D/$file/AppC_CoalProduction.pdf).

³⁰ *Id.*

³¹ *Id.* at C.3-1.

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likely coal production scenarios that could occur should it approve TRRC's project. Likewise, FERC must review likely gas production scenarios that could occur should it approve the Projects.

b. The Impacts of Shale Gas Development Are Reasonably Foreseeable

Shale gas development is not only causally related to construction of the Projects, but is also reasonably foreseeable. An indirect effect 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."³² "[W]hen the *nature* of the effect is reasonably foreseeable but its *extent* is not, [an] agency may not simply ignore the effect."³³ "Agencies need not have perfect foresight when considering indirect effects, effects which by definition are later in time or farther removed in distance than direct ones."³⁴ Here, additional shale gas drilling is sufficiently likely to occur that a person of ordinary prudence would take it into account when assessing the impact of the Projects on the environment. Moreover, FERC is well aware of the nature of the effects of shale gas development and, therefore, may not ignore those effects.

FERC, however, has consistently and stubbornly claimed that even if there is a sufficient causal relationship between projects such as the one under review here and induced gas production, "such production is not reasonably foreseeable as contemplated by CEQ's

³² *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992).

³³ *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003) (emphasis in original); see also *Habitat Educ. Ctr. v. U.S. Forest Serv.*, 609 F.3d 897, 902 (7th Cir. 2010).

³⁴ *WildEarth Guardians v. U.S. Office of Surface Mining*, 104 F. Supp. 3d 1208, 1230 (D. Colo. 2015).

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regulations and case law.³⁵ There, FERC said that it “need not address remote and highly speculative consequences.”³⁶ FERC also said that it is not required “to engage in speculative analysis” or “to do the impractical, if not enough information is available to permit meaningful consideration.”³⁷ Finally, FERC said that even if it knew the “identity of a supplier of gas . . . and even the general area where the producer’s existing wells are located,” it does not mean that FERC can engage in forecasting future development.³⁸ The DEIS for the Projects adopts this flawed interpretation of “reasonably foreseeable.”³⁹

FERC’s claim that if it does not know the *exact* timing and location of future shale gas development, it may “simply ignore the effect” cannot be squared with the requirements of NEPA.⁴⁰ FERC’s practice “would require the public, rather than the agency, to ascertain the cumulative effects of a proposed action.”⁴¹ “Such a requirement would thwart one of the ‘twin aims’ of NEPA – to ‘ensure[] that the *agency* will inform the *public* that it has indeed considered environmental concerns in its decision making process.”⁴² Compliance with NEPA “is a

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³⁵ See, e.g., *Nat’l Fuel Gas Supply Corp.*, 150 FERC ¶ 61,162, at P 46 (2015).

³⁶ *Id.* (citing *Hammond v. Norton*, 370 F. Supp. 2d 226, 245-46 (D.D.C. 2005)).

³⁷ *Id.* (citing *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1078 (9th Cir. 2011)).

³⁸ *Id.*

³⁹ See DEIS at 1-20.

⁴⁰ See *Mid States Coal.*, 345 F.3d at 549.

⁴¹ *Te-Moak Tribe of Western Shoshone of Nevada v. U.S. Dep’t of the Interior*, 608 F.3d 592, 605 (9th Cir. 2010). While this case was about cumulative impacts, the same rationale holds true for indirect effects in terms of effects being “reasonably foreseeable.”

⁴² *Id.* (quoting *Balt. Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97, 103 S.Ct. 2246, 76 L.Ed.2d 437 (1983)) (emphasis added by Ninth Circuit).

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primary duty of every federal agency; fulfillment of this vital responsibility should not depend on the vigilance and limited resources of environmental plaintiffs.”⁴³ Thus, FERC’s insistence that it is incumbent upon others to produce the kind of information it claims to need is wholly inconsistent with its obligations under NEPA.

As the D.C. Circuit has explained, “[r]easonable forecasting and speculation is ... implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as ‘crystal ball inquiry.’”⁴⁴ Here, FERC has attempted to “shirk [its] responsibilities” by characterizing the future environmental effects of induced shale gas drilling as “crystal ball inquiry” despite abundant available information regarding the impacts of the gas drilling that would be facilitated by construction of the Projects, thus violating NEPA.⁴⁵

Reasonable forecasting of the impacts of the type of future drilling that would be necessary to supply the Projects is being performed in other federal regulatory contexts. For example, on November 25, 2016, the U.S. Fish & Wildlife Service (“FWS”) announced its intent to prepare an EIS for the proposed issuance of a 50-year incidental take permit under the Endangered Species Act (“ESA”) for the draft “Oil & Gas Coalition Multi-State Oil and Gas

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⁴³ *City of Carmel-by-the-Sea v. U.S. Dep’t of Transp.*, 123 F.3d 1142, 1161 (9th Cir. 1997) (quoting *City of Davis v. Coleman*, 521 F.2d 661, 671 (9th Cir. 1975); see also *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1166 (9th Cir. 2003) (“The procedures prescribed both in NEPA and the implementing regulations are to be strictly interpreted ‘to the fullest extent possible’ in accord with the policies embodied in the Act....” [g]rudging, pro forma compliance will not do.”) (citations omitted)).

⁴⁴ *Delaware Riverkeeper Network v. F.E.R.C.*, 753 F.3d 1304, 1310 (quoting *Scientists’ Inst. For Pub. Info., Inc. v. Atomic Energy Comm’n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973)); see also *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1078-79 (9th Cir. 2011).

⁴⁵ See *Delaware Riverkeeper*, 753 F.3d at 1310.

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Habitat Conservation Plan (“O&G HCP”).⁴⁶ The O&G HCP would “streamline environmental permitting and compliance with the ESA for nine companies in conjunction with their respective midstream and upstream” operations in Ohio, Pennsylvania, and West Virginia.⁴⁷ The companies are seeking incidental take coverage for five species of bat: Indiana bat, northern long-eared bat, little brown bat, eastern small-footed bat, and tri-colored bat.⁴⁸

According to FWS, the covered activities would include upstream well development, production, decommissioning, and reclamation as well as construction of midstream gathering, transmission, and distribution pipelines.⁴⁹ Importantly, FWS explains that “[a] model of the proposed covered activities will be used to estimate potential impacts to the covered species by overlaying the predicted covered activity implementation (including the type and location of infrastructure build-out) on the covered species’ habitats.”⁵⁰ If FWS can use a model to predict how oil and gas development activities will impact five threatened and endangered bat species over the next half-century, then FERC cannot claim such modeling is infeasible for the Projects.⁵¹

Nor may FERC claim that the environmental impacts of those activities cannot be reasonably predicted. FERC is well aware of the nature of the impacts of shale gas drilling. In

⁴⁶ See 81 Fed. Reg. 85,250 (Nov. 25, 2016).

⁴⁷ *Id.* at 85,251.

⁴⁸ *Id.* at 85,252.

⁴⁹ *Id.* at 85,252.

⁵⁰ *Id.* (emphasis added).

⁵¹ Commenters discuss the EIS for the 50-year incidental take permit for the O&G HCP only to demonstrate the feasibility of future forecasting of shale gas development, not to express any support for the issuance of such a permit.

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CO011-6 (cont.) the FEIS for the Constitution Pipeline, for example, FERC relied on multiple agency reports and statistics to describe the nature of the impacts caused by Marcellus shale development activities.⁵² FERC stated that “an average well requires approximately 4.8 acres during construction and 0.5 acre during operation[.]”⁵³ FERC determined 13,402 acres of earth disturbance could result to supply the Constitution Pipeline.⁵⁴ Thus, FERC is clearly aware of the nature of shale gas drilling.

Despite FERC’s awareness of these impacts, it likely underestimated them in the Constitution Pipeline FEIS.⁵⁵ For example, according to a 2012 U.S. Geological Survey (“USGS”) report,

[a] recent analysis of Marcellus well permit locations in Pennsylvania found that well pads and associated infrastructure (roads, water impoundments, and pipelines) required nearly 3.6 hectares (9 acres) per well pad with an additional 8.5 hectare (21 acres) of indirect edge effects (Johnson, 2010). This type of extensive and long-term habitat conversion has a greater impact on natural ecosystems than activities such as logging or agriculture, given the great dissimilarity between gas-well pad infrastructure and adjacent natural areas and the low probability that the disturbed land will revert back to a natural state in the near future (high persistence) (Marzluff and Ewing, 2001).⁵⁶

The USGS figures on surface disturbance are substantially higher than the figures FERC relied on in the Constitution Pipeline FEIS. According to the West Virginia Department of Commerce

⁵² See Constitution Pipeline FEIS at 4-232 – 4-235 (Docket No. CP13-499-000, Accession No. 20141024-4001).

⁵³ *Id.* at 4-233.

⁵⁴ *Id.*

⁵⁵ Commenters cannot determine if FERC underestimated these impacts in the MVP DEIS because it made no such estimations.

⁵⁶ Slonecker, E.T., et al., *Landscape Consequences of Natural Gas Extraction in Bradford and Washington Counties, Pennsylvania, 2004-2010: USGS Open-File Report 2012-1154*, p. 8 (2012), available at <https://pubs.usgs.gov/of/2012/1154/of2012-1154.pdf> (“USGS Report”).

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CO011-6 (cont.)	<p>(“WVDOC”), approximately 2,700 Marcellus shale wells have been drilled in West Virginia.⁵⁷</p> <p>Using the USGS figures, it is reasonable to assume that approximately 24,300 acres of West Virginia’s landscape have been converted to shale gas infrastructure with 56,700 acres of additional indirect edge effects.</p> <p>These are enormous impacts to our landscapes, watersheds, wildlife habitat, and recreation opportunities that FERC routinely fails to fully evaluate under NEPA. FERC has the information required to assess the impacts of the shale gas drilling that would be induced by its approval of the Projects. FERC may not shirk its responsibilities under NEPA by dismissing the environmental impacts of that future shale gas extraction in the Marcellus and Utica shale formations as too speculative.⁵⁸ FERC has failed to analyze the reasonably foreseeable impacts of the Projects in the DEIS in violation of NEPA.</p>
CO011-7	<p>D. FERC Fails to Take a Hard Look at the Direct and Indirect Effects of the Project on Climate Change.</p> <p>There is a “pressing need” for agencies to account for climate change in performing their duties under NEPA. <i>Conservation Nw. v. Rey</i>, 674 F. Supp. 2d 1232, 1253 (W.D. Wash. 2009).</p> <p>As a result, it has become relatively routine practice to account for indirect greenhouse gas (GHG) emissions from proposed federal actions.⁵⁹ FERC, however, concludes that “[b]ecause</p> <hr/> <p>⁵⁷ See WVDOC, Fossil Energy – Marcellus Shale, available at http://www.wvcommerce.org/energy/fossil_energy/marcellusshale.aspx.</p> <p>⁵⁸ <i>Delaware Riverkeeper</i>, 753 F.3d 1304, 1310.</p> <p>⁵⁹ See, e.g., BLM, Final EIS for South Gillette Area Coal Lease Applications (Aug. 2009) available at http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA/hpdo/south_gillette/feis.Par_57426.File.tmp/vol1.pdf (BLM accounted for the emissions from coal mining and the combustion of coal in its NEPA review of mine leases. BLM did not evaluate GHG emissions from the transportation of the coal because it claimed that data was unavailable); see also <i>WildEarth Guardians v. U.S. Forest Serv.</i>, 828 F. Supp. 2d 1223, 1231 (D. Colo. 2011)</p>

CO011-7: Climate change is discussed in sections 4.11 and 4.13. We have updated section 4.13.2.11 to further address this comment.

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(cont.)

we cannot determine the projects' incremental physical impacts on the environment caused by climate change, we cannot determine whether the projects' contribution to cumulative impacts on climate change would be significant." DEIS at 4-361. The analysis falls short in at least three ways. First, FERC's quantification of the direct GHG emissions are underestimated. Second, FERC underestimated the indirect emissions from the project while also impermissibly narrowing the scope of the indirect emissions it quantified. Third, the conclusory statement that FERC "cannot determine whether the projects' contribution to cumulative impacts on climate change would be significant" fails to meet the hard-look standard required under NEPA.

CO011-8

I. FERC Underestimates the Project's Direct Emissions

First, FERC's quantification of the direct GHG emissions from the Project, DEIS at 4-260, have been underestimated. The DEIS understates the Project's direct GHG emissions, by understating the impact of methane emissions. The primary component of natural gas is methane, and methane is also a potent GHG. The DEIS does not identify the Project's methane emissions. Instead, it reports GHG emissions in terms of carbon dioxide equivalents ("CO_{2e}"). To calculate CO_{2e}, emissions of non-CO₂ GHGs are multiplied by a pollutant-specific "global warming potential" ("GWP"), which reflects the ratio between the amount of warming a ton of that pollutant causes and the amount of warming that would be caused by a ton of CO₂.⁶⁰ While methane is a much more potent GHG than carbon dioxide, methane is much shorter-lived in the

(discussing final EIS by Forest Service that included an evaluation of GHG emissions from mining a coal seam and from combustion of the recovered coal).

⁶⁰ See EPA, *Glossary of Climate Change Terms - Carbon Dioxide Equivalent*, <http://www.epa.gov/climatechange/glossary.html#C> (last visited June 16, 2014).

CO011-8: As described in a footnote in section 4.11.1.1, our use of carbon dioxide equivalents (CO_{2e}) is consistent with the EPA's methods for characterizing methane in greenhouse gas estimates, allowing a common standard for comparison across projects.

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(cont.)

atmosphere.⁶¹ Thus, in converting methane to CO₂e, different values must be used for different timescales.

The DEIS's use of a methane GWP of 25 is flawed for two reasons. DEIS at 4-260. First, FERC must explain the basis for its decision to use the 100-year, rather than 20-year, assessment of methane's impacts. *See id.* at n. 35. Authorities including the Environmental Protection Agency (EPA), the Obama Administration, and the Intergovernmental Panel on Climate Change ("IPCC") have emphasized the importance of acting quickly on climate change and the danger of reaching "tipping points" triggering cascading releases of GHGs within the coming decades.⁶² A century-long assessment therefore is an inappropriate period to use to evaluate the impacts of the Project's methane emissions.

Second, even on the 100-year timeframe, the 100-year methane GWP used in the DEIS does not represent the best available science. The basis for this figure is unclear. FERC cites that it is relying on the EPA's requirements but it does not specifically cite to those requirements. *See* DEIS at 4-260. Nor are any EPA reports listed in Appendix O.

⁶¹ IPCC, *Climate Change 2013: The Physical Science Basis, Carbon and Other Biogeochemical Cycles* 473 (2013), *available at* http://www.climatechange2013.org/images/report/WG1AR5_Chapter06_FINAL.pdf.

⁶² IPCC, *Climate Change 2013: The Physical Science Basis, Long-term Climate Change: Projections, Commitments, and Irreversibility* 1029-1119 (2013), *available at* http://www.climatechange2013.org/images/report/WG1AR5_Chapter12_FINAL.pdf (discussing irreversible effects of climate change and tipping points); *see also* U.S. Envtl. Prot. Agency, Proposed Rule, Carbon Pollution: Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, http://www2.epa.gov/sites/production/files/2014-05/documents/20140602proposal_cleanpowerplan.pdf ("[r]ecognizing the urgent need for actions to reduce GHG emissions"); *see also* U.S. Global Change Research Program, *Climate Change Impacts in the United States: The Third National Climate Assessment* 657 (Jerry M. Melillo et al. eds 2014) ("delay by any of the major emitters makes meeting any such target even more difficult and may rule out some of the more ambitious goals"); *see also id.* at 5, 28, 592 (discussing tipping points and thresholds in climate system).

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(cont.)

As the U.S. Department of Energy (“DOE”) acknowledged in its report titled “Life Cycle Greenhouse Gas Perspective On Exporting Liquefied Natural Gas From The United States,” the IPCC’s superseding Fifth Assessment Report represents the best available science regarding methane’s GWP.⁶³ In previous EISs, FERC has acknowledged that the IPCC “is the leading international, multi-governmental scientific body for the assessment of climate change.” Atlantic Sunrise DEIS at 4-287 (Docket No. CP15-138-000); *see also* Mountain Valley Pipeline DEIS at 4-514 (Docket No. CP16-10-000); Atlantic Coast Pipeline DEIS at 4-509 (Docket No. CP15-554-000; PennEast Pipeline DEIS at 4-283 (Docket No. CP15-558-000); NEXUS Pipeline DEIS at 4-286; and Leidy South Project EA at 86 (Docket No. CP15-492-000). The omission of the IPCC from this DEIS is a stark departure from previous EISs and calls into question whether FERC is relying on the best available science when it comes to climate change.

The most recent IPCC report estimates that fossil methane has 36 times the GWP of carbon dioxide over a 100-year time frame and at least 86 times the GWP of carbon dioxide over a 20-year time frame.⁶⁴ Thus, the available evidence overwhelmingly indicates that the methane GWP FERC used in the DEIS is too low. Because the Fifth Assessment Report represents the best available science, FERC should use the GWPs identified therein.

CO011-9

2. FERC’s DEIS Fails to Consider Indirect Emissions

⁶³ DOE, Nat’l Energy Technology Lab., Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States (May 29, 2014), *available at* <http://www.energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf> (“DOE Life Cycle GHG Perspective”); *see also* IPCC, Climate Change 2013: The Physical Science Basis, Anthropogenic and Natural Radiative Forcing 714, Table 8.7 (2013), *available at* http://www.climatechange2013.org/images/report/WG1AR5_Chapter08_FINAL.pdf [hereinafter IPCC AR5].

⁶⁴ IPCC AR5. These figures represent the global warming potential of methane when climate feedbacks are included in the analysis. Although DOE used the estimates without climate feedbacks, that decision was unsupported; FERC must use the more comprehensive estimates.

CO011-9: Continued on following page.

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(cont.)

The Commission's assessment of indirect GHG emissions is limited to direct emissions from construction and operation of the pipeline and related infrastructure. FERC acknowledges that operation of Projects "would support the increased transportation demand for natural gas in the Utica and Marcellus basins by increasing the capacity of Columbia Gas' system by up to 2,700,000 dekatherms per day" and "expand the capacity of Columbia Gulf's existing system to allow for an additional 860,000 dekatherms per day of natural gas delivery" to the Gulf Coast. DEIS at ES-2. FERC acknowledges that "the downstream end-use could result in about 52.3 million metric tons of carbon dioxide per year." *Id.* at 4-361. However, contrary to Commissioner Bay's recent statement, FERC failed to consider the "environmental effects of increased regional gas production from the Marcellus and Utica[.]" including "performing a life-cycle greenhouse gas emissions study[.]" *Nat'l Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145 (2017) (Commissioner Bay, Separate Statement at 5). FERC cannot continue to ignore the effects on the climate from production, transport, and combustion.

EPA has asked the Commission to discuss "emissions associated with the production, transport, and combustion of the natural gas."⁶⁵ Natural gas production, processing, and transmission are a significant source of GHGs, particularly methane. Methane is the primary component of natural gas. Methane can be directly vented into the atmosphere or can escape from the wells, the gathering pipelines at the well pads and the larger pipelines in the distribution system, and the compressor stations that shuttle the gas through the distribution system.⁶⁶

⁶⁵ Env'tl. Protection Agency, Comments on the Draft Guidance Manual for Environmental Report Preparation for Applications Filed Under the Natural Gas Act, Jan. 19, 2016.

⁶⁶ Dana R. Caulton et al., *Toward a better understanding and quantification of methane emissions from shale gas development*, Proc. Nat'l Acad. Sci. (Apr. 14, 2014), submitted herewith (evaluating methane emissions from fractured wells in the Southwestern Pennsylvania Marcellus shale region during drilling prior to gas flow stimulation and finding that "overall sites

CO011-9: See response to comments CO006-4 and IND031-1. Natural gas production, including drilling, exploring, and recovery of existing supplies, are not regulated by FERC and are outside the scope of this EIS.

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(cont.)

Estimates vary about the quantities of methane leaked into the atmosphere during the natural gas lifecycle, but some estimates range from 1.4 to over 15 percent of the total produced gas.⁶⁷ EPA has identified natural gas systems as the “single largest contributor to United States anthropogenic methane emissions,” with emissions from the oil and gas industry amounting to over 40 percent of total methane emissions.⁶⁸ Even when using an estimate of total methane emissions that many recent studies have criticized as too low, and a GWP that has been superseded by recent higher estimates, EPA concluded that methane emissions from the oil and gas industry constituted five percent of all CO₂e emissions in the country.⁶⁹

As discussed above, the climate change impacts of methane are of particular concern because methane has 86 times the GWP of CO₂ over 20 years, when considering the potential for positive climate carbon feedbacks.⁷⁰ The latest IPCC Report also found that methane has 70

leak rates can be higher than current inventory estimates”); *see also* Anna Karion et al., *Methane emissions estimates from airborne measurements over a western United States natural gas field*, 40 *Geophysical Res. Letters* 4393-97 (2013) (measuring methane emissions from a producing oil and gas field in Utah, and finding emissions were five times the US EPA nationwide average estimate of leakage from the production and processing of natural gas).

⁶⁷ EPA’s Inventory of Greenhouse Gas Emissions and Sinks uses a “bottom-up” method based on engineering estimates of emissions from particular pieces of equipment or events multiplied by estimate of the census of such events. Many of these studies have estimated total lifecycle leak rates around 1.4 percent. *See, e.g.*, Jeffrey Logan et al., JOINT INST. FOR STRATEGIC ANALYSIS, *Natural Gas and the Transformation of the U.S. Energy Sector 5* (2012), available at <http://www.nrel.gov/docs/fy13osti/55538.pdf>. The academic literature published in 2014 on methane leakage over the natural gas lifecycle showed leakage rate measurements well in excess of 15 percent in some parts of the country. A review and short summary of those studies are available at <http://chesapeakeclimate.org/wp/wp-content/uploads/2015/01/2014-methane-leakage-studies.pdf>.

⁶⁸ EPA, Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 76 *Fed. Reg.* 52,738, 52,792 (Aug. 23, 2011).

⁶⁹ *Id.* at 52,791–92.

⁷⁰ IPCC AR5 at 714.

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CO011-9 (cont.)	<p>times the global temperature change potential, the change in global mean surface temperature resulting from emissions, of CO₂.⁷¹ Emissions of methane therefore will have a greater and more immediate effect on the climate than emissions of CO₂.</p> <p>FERC's analysis, therefore, underestimates the emissions from the transport of the gas. It further completely fails to quantify the emissions from upstream production and transportation, giving the public and decision makers no information with which to form a decision. This head-in-the-sand approach is irrational and fails to meet the "hard look" standard of NEPA.</p>
CO011-10	<p style="text-align: center;">3. FERC's Statement that it Cannot Determine Whether the Project Will Significantly Contribute to Climate Change Is Insufficient Under NEPA.</p> <p>NEPA is our "basic national charter for protection of the environment."⁷² The statute makes environmental protection a part of the mandate of every federal agency, and requires federal agencies to take environmental considerations into account in their decision-making "to the fullest extent possible."⁷³ Accordingly, each agency must take a "hard look" at the environmental consequences of its proposed actions.⁷⁴</p> <p>FERC states that "[t]he [Projects'] emissions would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources, and contribute incrementally to climate change that produces the impacts [identified on p. 4-360]." DEIS at 4-361. However, FERC simply concluded that it "cannot determine whether the</p> <hr/> <p>⁷¹ <i>Id.</i></p> <p>⁷² 40 C.F.R. § 1500.1(a).</p> <p>⁷³ 42 U.S.C. § 4332; <i>Calvert Cliffs Coordinating Comm. v. U.S. Atomic Energy Comm'n</i>, 449 F.2d 1109, 1112 (D.C. Cir. 1971).</p> <p>⁷⁴ <i>Marsh v. Or. Natural Res. Council</i>, 490 U.S. 360, 378 (1989).</p>

CO011-10: Comment noted.

The EIS was prepared in accordance with NEPA, CEQ guidelines, and other applicable requirements. The EIS is consistent with FERC style, formatting, and policy regarding NEPA evaluation of climate change and cumulative impacts from climate change. However, we have updated section 4.13.2.11 to further address this comment.

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(cont.)

projects' contribution to cumulative impacts on climate change would be significant" because it "cannot determine the projects' incremental physical impacts on the environment caused by climate change[.]" *Id.* Such conclusory assertions do not satisfy the "hard look" requirement.

E. The DEIS fails to take a hard look at cumulative impacts, including those impacts associated with gas development.

In addition to considering the direct and indirect effects of the project, FERC must also consider cumulative impacts. A cumulative impact is the:

[I]mpact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7. FERC's cumulative impact analysis in the DEIS is impermissibly restrictive and does not satisfy NEPA's "hard look" standard.

CO011-11

1. FERC's analysis of cumulative impacts is impermissibly restrictive and impermissibly excluded substantial cumulative impacts from past, present, and reasonably foreseeable gas development.

FERC's cumulative impacts analysis is fatally flawed because it substantially limited the analysis area. For example, FERC states that it only considered other actions if those actions cause impacts "within all or part of the same geographic scope as the MXP or GXP[.]" DEIS at 4-320. For impacts to surface waters, groundwater, and aquatic resources, FERC used the HUC-12 sub-watershed boundary as the analysis area for the MXP. *Id.* at 4-321. For wetlands, FERC used the HUC-12 sub-watershed boundary for the MXP and 0.25-mile radius for the GXP. *Id.* For vegetation and wildlife, FERC used 2 miles from the MXP and 0.25 mile for the GXP. *Id.* For land use and special interest areas, FERC used 0.5 mile for both the MXP and GXP. *Id.* For air quality (operation), FERC used a 31-mile radius. *Id.* at 4-322.

CO011-11: Comment noted.

See response to comment CO011-6. There is no conflict between what NEPA requires for cumulative impact analysis and our approach as reflected in section 4.13.

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(cont.)

Based on these restrictive analysis areas, FERC concluded that, “as a whole, minimal cumulative effects are anticipated when the impacts of each project are added to the past, present, and reasonably foreseeable future projects within the MXP’s and GXP’s geographic scopes.” *Id.* at 4-361. Such a limited cumulative impacts analysis is plainly inconsistent with both the Council on Environmental Quality’s (“CEQ”) and Environmental Protection Agency’s (“EPA”) guidance on cumulative impacts.

The CEQ guidance recommends significantly expanding the cumulative impacts analysis area beyond the immediate area of the proposed action that is often used for the “project-specific analysis” related to direct and indirect effects:

For a project-specific analysis, it is often sufficient to analyze effects within the immediate area of the proposed action. When analyzing the contribution of this proposed action to cumulative effects, however, the geographic boundaries of the analysis *almost always should be expanded*. These expanded boundaries can be thought of as differences in hierarchy or scale. Project-specific analyses are usually conducted on the scale of counties, forest management units, or installation boundaries, *whereas cumulative effects analysis should be conducted on the scale of human communities, landscapes, watersheds, or airsheds*.

CEQ, Considering Cumulative Effects under the National Environmental Policy Act, p. 12 (1997) (emphasis added) (“CEQ NEPA Guidance”). CEQ further says that it may be necessary to look at cumulative effects at the “ecosystem” level for vegetative resources and resident wildlife, the “total range of affected population units” for migratory wildlife, an entire “state” or “region” for land use, and the “global atmosphere” for air quality. *Id.* at 15. FERC’s selected geographic scopes for surface waters, groundwater, aquatic resources, wetlands, vegetation, wildlife, land use, and special interest areas are not consistent with CEQ guidance.

EPA’s guidance states that “[s]patial and temporal boundaries should not be overly restrictive in cumulative impact analysis.” EPA, Consideration of Cumulative Impacts in EPA Review of NEPA Documents, p. 8 (1999). EPA specifically cautions agencies to not “limit the

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scope of their analyses to those areas over which they have direct authority or to the boundary of the relevant management area or project area.” *Id.* Rather, agencies “should delineate appropriate geographic areas including *natural ecological boundaries*” such as ecoregions or watersheds. *Id.* (emphasis added). Therefore, FERC’s assertion that, “for the most part, the area of potential cumulative impact is *limited to the area directly affected by the Project* and, depending on the resources, in the *adjacent areas*,” is plainly inconsistent with CEQ’s and EPA’s guidance on cumulative impacts. As a result, the cumulative impacts analysis is fatally flawed and cannot support FERC’s conclusion that there will be “minimal cumulative effects” upon construction and operation of the Projects.⁷⁵

Moreover, FERC excluded the impacts of oil and gas production from its cumulative impacts analysis. FERC excluded these impacts despite “recognize[ing] that oil and natural gas exploration and production activities are *ubiquitous* in many of the counties crossed by the MXP” and involve similar construction methods that cause “erosion and sedimentation, and impacts on wetlands, waterbodies, and other natural resources.” DEIS at 4-320 (emphasis added). The “ubiquitous” nature of shale gas production is evident in Figure 1.

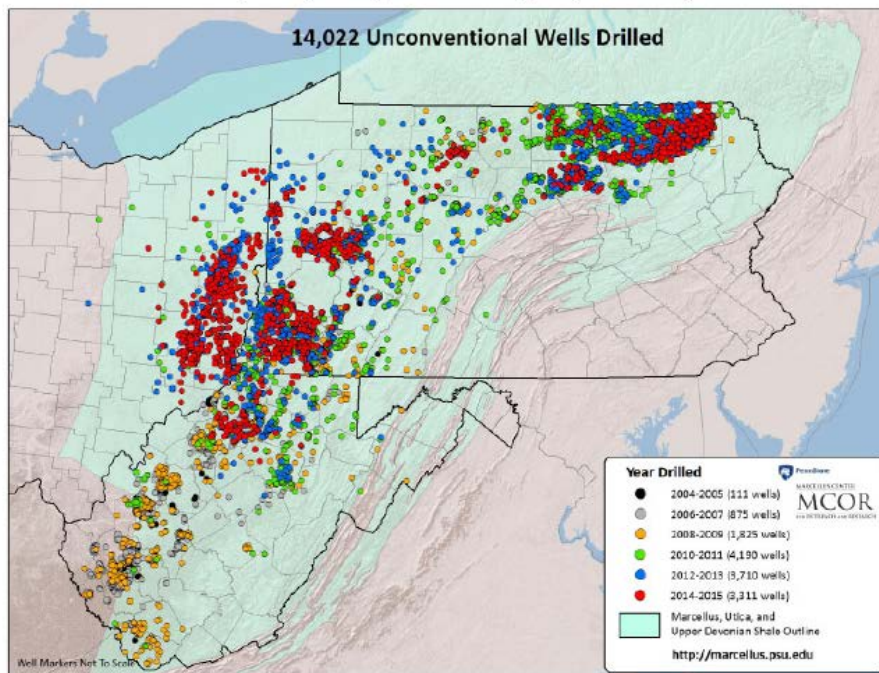
⁷⁵ FERC provides no rationale explanation for selecting such restrictive analysis areas and, unlike previous EISs, did not even state that it relied on CEQ and EPA guidance to prepare its cumulative impacts analysis. See DEIS, App. O.

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Figure 1. Unconventional Wells Drilled in Ohio, Pennsylvania, and West Virginia (2004-2015).⁷⁶



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⁷⁶ See Penn State, Marcellus Center for Outreach & Research, available at: <http://www.marcellus.psu.edu/images/tristate-Spud-Map-2014-2015---201512.jpg>.

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FERC attempts to justify its decision to exclude oil and gas production facilities “because the status, scale, and timing of these facilities are unknown.” *Id.* This statement does not make sense with regard to existing production facilities. Oil and gas production facilities are regulated by the West Virginia DEP’s Office of Oil and Gas. See <http://www.dep.wv.gov/oil-and-gas/Pages/default.aspx>. FERC should be able to consult with West Virginia DEP to determine the location of existing oil and gas production facilities in the counties that would be crossed by MXP should it be constructed. If Penn State’s Marcellus Center for Outreach and Research could acquire statewide oil and gas production locations from three different states to produce the map in Figure 1, then FERC should be able to consult with a single state agency to acquire similar data for the MXP. The notion that “these facilities are unknown” is unreasonable and really just an attempt by FERC to avoid disclosing and considering the substantial impacts of “ubiquitous” oil and gas production in the Projects’ cumulative impacts analysis.

FERC cannot ignore the cumulative impacts of reasonably foreseeable gas development either. As the D.C. Circuit has explained, “[r]easonable forecasting and speculation is . . . implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as ‘crystal ball inquiry.’” *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1310 (D.C. Cir. 2014) (quoting *Scientists’ Inst. For Pub. Info., Inc. v. Atomic Energy Comm’n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973)); see also *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1078-79 (9th Cir. 2011). By claiming that it need not consider reasonably foreseeable future impacts of gas drilling because such “facilities are unknown,” FERC is attempting to “shirk [its] responsibilities” by characterizing future environmental impacts of gas drilling as “crystal ball inquiry,” thus violating NEPA. *Del. Riverkeeper Network v. FERC*, 753 F.3d at 1310.

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Finally, the temporal scope of the cumulative impacts analysis is too restrictive.

According to FERC:

The temporal scope for cumulative actions includes past, present, and reasonably foreseeable projects and actions where the duration of time for construction, operation, and/or restoration overlaps with the timeframe for construction, operation, and restoration of the MXP and GXP.

DEIS at 4-322. While FERC claims that it included “operation” of projects facilities into its calculus for analyzing cumulative impacts, it is clear that it excluded projects from the analysis if they did not overlap in construction and restoration, even though the projects would significantly overlap in operation.

For example, according to FERC, “MXP pipeline construction activities would occur within the HUC-12 sub-watershed of . . . 18 waterbodies[.]” DEIS at 4-335. FERC further states that “11 past, present, or reasonably foreseeable future actions/projects are located within the same HUC-12 subwatershed as portions of MXP[.]” *Id.* at 4-336. However, FERC excluded five of these projects stating that “they are outside the temporal scope for cumulative impacts” because “construction of [these projects] was completed in 2016” or “will be completed prior to construction beginning on the MXP[.]”⁷⁷ *Id.* Under this rationale, if a project was completed on one day and construction of another project in the same area began the following day, there would be no cumulative impacts on the water resources in that area. This ignores the fact that “the most devastating environmental effects may not result from the direct effects of a particular action, but from the combination of individually minor effects of multiple actions *over time*.” CEQ NEPA Guidance at 1 (emphasis added).

⁷⁷ While this statement was in reference to cumulative impacts on groundwater, FERC extended this rationale to surface waters as well. *See* DEIS at 4-337.

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FERC must revise or supplement the DEIS to expand the geographic and temporal scopes for considering cumulative impacts and to consider the past, present, and reasonably foreseeable future impacts of oil and gas production.

2. **FERC’s analysis of cumulative impacts on specific resource areas is inadequate.**

CO011-12

a. **Water Resources and Wetlands**

According to FERC, “there are six projects within the geographic scope (HUC-12 subwatershed) of the MXP[.]” DEIS at 4-337. FERC continues, however, that “the MXP is most likely to contribute to a cumulative impact on surface water when combined with the Rover Pipeline Project or the [Leach XPress Project (“LXP”).” *Id.* FERC made the same assertion with regard to wetlands. *See id.* at 4-338. This is due to FERC’s assumption that the Rover Pipeline Project and LXP “are constructed within the same temporal scope[.]” *Id.* at 4-337. As stated above, this demonstrates why the temporal scope of the cumulative impacts analysis on water resources and wetlands is too restrictive.

With respect to wetlands, FERC claims that “[a]ll FERC-regulated natural gas pipelines are held to similar robust standards for construction at wetlands and waterbodies[.]” *Id.* at 4-338. Recent events during construction of the Rover Pipeline call the robustness of FERC’s standards into question. On April 13-14, 2017, the Ohio Environmental Protection Agency (“OEPA”) discovered two releases of drilling fluids into wetlands. *See* OEPA Notices of Violation, Incident Nos. 1704-70-0756 and 1704-76-0751.⁷⁸ The first incident resulted in “an estimated 50,000 gallons of drilling fluids” being released into “an estimated 30,000 square foot area of the wetland.” OEPA, Notice of Violation 1704-70-0756. The second incident resulted in “an

⁷⁸ The OEPA’s Notices of Violation were included in Rover’s submission to FERC in Docket No. CP15-93-000. *See* Accession No. 20170418-5244.

CO011-12: The Commission is taking appropriate steps to investigate issues associated with construction of the Rover Pipeline. That investigation is beyond the scope of environmental review for the MXP.

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estimated 2 million gallons of drilling fluids” being released into “an estimated 500,000 square foot area of the wetland.” OEPA, Notice of Violation 1704-76-0751. This second incident impacted “a Category 3 wetland adjacent to the Tuscarawas River[.]” *Id.* Category 3 wetlands have “superior habitat, or superior hydrological or recreational functions.” OEPA, Ohio Rapid Assessment Method for Wetlands v. 5.0, p. 3 (Feb. 1, 2001), *available at* http://www.epa.state.oh.us/portals/35/401/oram50um_s.pdf. Category 3 wetlands “are typified by high levels of diversity, a high proportion of native species, and/or high functional values” and include “wetlands which contain or provide habitat for threatened or endangered species, are high quality mature forested wetlands, vernal pools, bogs, fens, or which are scarce regionally and/or statewide.” *Id.*

According to the FEIS for the Rover Pipeline, “[t]he pipeline route would be monitored and the circulation of drilling mud would be observed throughout the HDD operation for indications of an inadvertent drilling mud release” and “[i]f a release is observed or suspected, Rover would immediately implement corrective actions.” Rover FEIS at 2-31 (Docket No. CP15-93-000, Accession No. 20160729-4001). In addition, Rover would “notify the appropriate agencies [such as OEPA] immediately upon discovery by telephone, e-mail, and/or facsimile of any inadvertent release to a wetland or waterbody.” *Id.*, App. G-1 at 2. Did Rover follow these procedures in response to these two incidents? According to OEPA’s Notices of Violation, the drilling fluid releases were “discovered” on April 13 and 14, 2017. It is unclear whether OEPA discovered these releases during its own inspection or whether it was reported to OEPA by Rover. In light of Rover’s release of millions of gallons of drilling fluid into Category 3 in Ohio, FERC must reassess the “robustness” of its standards for reviewing contingency plans and monitoring compliance during construction.

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CO011-12 (cont.)

Moreover, the exclusion of oil and gas production facilities and associated roads renders FERC’s conclusion that there would only be an “overall minor short-term cumulative impact on surface waters” invalid. DEIS at 4-337. For example, the current path of the MXP crosses Riggins Run, Brush Run, and Ned’s Run from MP 39 – MP 43 south and west of the town of Ashley in Doddridge County. *See* DEIS, App. B-1 at 17-18. These streams either flow directly into McElroy Creek or into other streams that flow into McElroy Creek. There are numerous oil and/or gas wells and access roads in this area. *See* Ex. 1. At no point did FERC consider the cumulative impacts of the MXP and the existing oil and gas wells and access roads on these waterbodies. Without analyzing how existing oil and gas roads, which FERC acknowledges are ubiquitous, it cannot conclude that the cumulative impacts on these and other waterbodies will be “minor” and/or “short-term.”

CO011-13

b. Vegetation and Wildlife

FERC failed to take a hard look at the cumulative effects of shale gas development on vegetation and wildlife. FERC acknowledges that “cumulative impacts [of MXP and other projects] could be significant.” DEIS at 4-399 – 4-341. In particular, FERC states that it is “still evaluating the significance of the MXP on large [core forest areas (“CFAs”)] that are considered suitable habitat for the cerulean warbler.” *Id.* at 4-341. FERC has “recommended Columbia Gas prepare a Migratory Bird Plan and consider special mitigation measures for minimizing impacts on large CFAs in the MXP area.” *Id.* That plan, however, was not included in the DEIS, depriving the public of the opportunity to review and comment on it during this comment period. Due to FERC’s acknowledgement that impacts on CFAs “could be significant” without special mitigation measures outlined in a Migratory Bird Plan, it was unreasonable for FERC to publish

CO011-13: Potential cumulative impacts are addressed in section 4.13. The Commission has consistently found that “the environmental effects from natural gas production are generally neither caused by a proposed pipeline (or other natural gas infrastructure) project nor are they reasonably foreseeable consequences of our approval of an infrastructure project.”

Our discussion of potential impact on Core Forest Areas is presented in sections 4.5.4 and 4.6.2. Potential cumulative impact on Core Forest Areas is presented in section 4.13.2.4.

Supplemental information filed for the projects is publicly available on the FERC website (www.ferc.gov) using the eLibrary link. The absence of the mitigation contained in a Migratory Bird Plan will only lessen potential impact.

See response to comment CO011-1 (scope of analysis area).

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(cont.)

the DEIS before preparation of the Migratory Bird Plan. FERC should issue a revised or supplemental DEIS that includes Columbia Gas' Migratory Bird Plan.

The analysis area was also too restrictive. FERC utilized a 2-mile geographic scope for analyzing cumulative impacts on vegetation and wildlife. *See* DEIS at 4-321. CEQ specifically recommends considering cumulative effects on wildlife at the "ecosystem" level for resident wildlife and the "total range of affected population units" for migratory wildlife. *See* Cumulative Effects under the National Environmental Policy Act, p. 15. This is particularly important in the context of pipeline expansions and related shale gas development. For example, according to recent research published in Environmental Science & Technology:

Potential effects [of shale gas drilling] on terrestrial and aquatic ecosystems can result from many activities associated with the extraction process and the rate of development, such as road and pipeline construction, well pad development, well drilling and fracturing, water removal from surface and ground waters, establishment of compressor stations, and by unintended accidents such as spills or well casing failures . . . The cumulative effect of these potential stressors will depend in large part on the rate of development in a region. Depending on extent of development, oil and gas extraction has the potential to have a large effect on associated wildlife, habitat and aquatic life.

Brittingham, M.C., et al., Ecological Risks of Shale Oil and Gas Development to Wildlife, Aquatic Resources and their Habitats, Environmental Science & Technology, pp. 11035-11037 (Sept. 4, 2014) (citations omitted) (Ex. 2). Shale gas development "changes the landscape" as "[I]and is cleared for pad development and associated infrastructure, including pipelines, new and expanded roads, impoundments, and compressor stations[.]" *Id.* at 11037 (citations omitted). "Seismic testing, roads, and pipelines bisect habitats and create linear corridors that fragment the landscape." *Id.*

"Habitat fragmentation is one of the most pervasive threats to native ecosystems and occurs when large contiguous blocks of habitat are broken up into smaller patches by other land uses or bisected by roads, transmission lines, pipelines or other types of corridors." *Id.* "Habitat

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fragmentation is a direct result of shale development with roads and pipelines having a larger impact than the pads.” *Id.* (citations omitted). In Bradford County, PA, “forests became more fragmented primarily as a result of the new roads and pipelines associated with shale development, and development resulted in more and smaller forest patches with loss of core forest (forest > 100 m from an edge) at twice the rate of overall forest loss.” *Id.* (citation omitted). “Pipelines and roads not only resulted in loss of habitat but also created new edges.” *Id.* “Fragmentation from linear corridors such as pipelines, seismic lines, and roads can alter movement patterns, species interactions and ultimately abundance depending on whether the corridor is perceived as a barrier or territory boundary or used as an avenue for travel and invasion into habitats previously inaccessible.” *Id.* (citations omitted).

According to the NYDEC, “development of one horizontal [shale] well requires over 3300 one-way truck trips.” *Id.* at 11038 (citation omitted). “This is a concern because roads of all types have a negative effect on wildlife through direct mortality, changes in animal behavior, and increased human access to areas, and these negative effects are usually correlated with the level of vehicular activity.” *Id.* (citations omitted). “Even after a well is drilled and completed, new roads and pipelines provide access for more people, which results in increased disturbance.” *Id.* “In Wyoming, Sawyer et al. found that mule deer migratory behavior was influenced by disturbance associated with coal bed gas development and observed an increase in movement rates, increased detouring from established routes, and overall decreased use of habitat along migration routes with increasing density of well pads and roads. *Id.* (citation omitted).

Shale gas development “is associated with both short-term and long-term increases in noise.” *Id.* “In the short term, site clearing and well drilling, [high volume hydraulic fracturing], and construction of roads, pipelines and other infrastructure are a limited time disturbance

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(cont.)

similar to disturbance and sound associated with clearing land and home construction.” *Id.*

(citation omitted). “Depending on number of wells drilled, construction and drilling can take anywhere from a few months to multiple years.” *Id.*

“Compressor stations, which are located along pipelines and are used to compress gas to facilitate movement through the pipelines, are a long-term source of noise and continuous disturbance.” *Id.* (citation omitted). “Because chronic noise has been shown to have numerous costs to wildlife, compressors have potential to have long-term effects on habitat quality. *Id.* (citation omitted). “For many species of wildlife, sound is important for communication, and noise from compressors can affect this process through acoustical masking and reduced transmission distances.” *Id.* “Studies on effects of noise from compressors on songbirds have found a range of effects including individual avoidance and reduced abundance, reduced pairing success, changes in reproductive behavior and success, altered predator-prey interactions, and altered avian communities . . . Greater sage-grouse (*Centrocercus urophasianus*) gather at leks where males display in order to attract females.” *Id.* “Lek attendance declined in areas with chronic natural gas-associated noise and, experimentally, sage-grouse were shown to experience higher levels of stress when exposed to noise.” *Id.* (citations omitted).

“Because of the large overlap between the Appalachian shale play and core forest habitat in the East, many forest species are vulnerable to development.” *Id.* at 11040. “Area-sensitive forest songbirds are primarily insect-eating Neotropical migrants, are an important component of forest ecosystems, and, as a group, many have declined in numbers in response to forest fragmentation.” *Id.* (citations omitted). “These birds are area-sensitive because breeding success and abundance are highest in large blocks of contiguous forest, and numerous research studies have documented negative effects of fragmentation on abundance and productivity[.]” *Id.* “The

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impact that shale development has on this group of species will depend on the scale and extent of development.” *Id.* “By some estimates, less than 10% of potential shale gas development has occurred in the Appalachian basin [and] [i]f this is the case, there is the potential for a 10-fold increase in the amount of shale gas development which would likely have negative impacts on area-sensitive forest songbirds and other forest specialists. *Id.* (emphasis added) (citation omitted).

“Development of shale resources, which clears land for well pads and roads, is occurring across a large portion of the native range of brook trout, especially in Pennsylvania.” *Id.* (emphasis added) (citation omitted). “If remaining high-quality stream reaches become unsuitable to brook trout, there may be further fragmentation of the larger meta-population.” *Id.*

“Rare species with limited ranges are always a concern when development occurs” and “any type of disturbance can be very detrimental to them.” *Id.* “Freshwater mussels are an additional taxonomic group of interest because of already high numbers of listed species and relative sensitivity to toxicants.” *Id.* (citation omitted). “The endangered Indiana Bat, (*Myotis sodalis*), is another example of a species where a large portion of its native range is within areas of shale development.” *Id.* (citation omitted). “Gillen and Kiviat 2012 reviewed 15 species that were rare and whose ranges overlapped with the Marcellus and Utica shale by at least 35%.” *Id.* “The list included the West Virginia spring salamander (*Gyrinophilus subterraneus*), a species that is on the IUCN Red List as endangered and whose range overlaps 100% with the shale layers.” *Id.* This salamander “requires high quality water and is sensitive to fragmentation suggesting that this species is at great risk to oil and gas development.” *Id.* “The list also included eight Plethodontid salamanders, a group that tends to be vulnerable because of the

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overlap between their range and shale layers, their dependence on moist environments and sensitivity to disturbance.” *Id.* at 11040-11041.

“Habitat fragmentation, effects on water quality and quantity, and cumulative effects on habitats and species of concern have already been identified as problems and are expected to increase in magnitude as shale resource development continues to expand.” *Id.* at 11043.

Brittingham et al. (2014) “suggests that species and habitats most at risk are ones where there is an extensive overlap between a species range or habitat type and one of the shale plays (leading to high vulnerability) coupled with intrinsic characteristics such as limited range, small population size, specialized habitat requirements, and high sensitivity to disturbance.” *Id.*

“Examples include core forest habitat and forest specialists, sagebrush habitat and specialists, vernal pond inhabitants, and stream biota.” *Id.*

Brittingham et al. (2014) demonstrates the substantial impact that shale gas drilling is having and will continue to have on wildlife throughout the Marcellus and Utica shale region. Such impacts will only worsen if FERC continues facilitating such drilling by authorizing infrastructure projects such as the one proposed here without analyzing the cumulative impacts on wildlife, disclosing that information to the public, and incorporating it into FERC’s decisionmaking process.

According to Souther et al. (2014):

The few studies that consider cumulative impacts suggest that shale-gas development will affect ecosystems on a broad scale . . . As cumulative impacts’ methodology and knowledge improve, research should move toward detecting synergies between shale development and other likely drivers of extinction, such as climate change, as site-specific or single variable risk assessments likely underestimate threats to ecological health.

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Souther et al. (2014), Biotic impacts of energy development from shale: research priorities and knowledge gaps. *Frontiers in Ecology and the Environment* 12(6): 334 (Ex. 3). These researchers further state that:

Using criteria related to the environmental risks and current understanding of these impacts, we suggest that top research priorities are related to probabilistic events that lead to contamination of fresh water, such as equipment failure, illegal activities, accidents, chemical migration, and wastewater escape, *as well as cumulative ecological impacts of shale development.*

Id. at 337 (emphasis added).

The U.S. Fish and Wildlife Service has expressed concerns about the potential noise impacts of National Fuel's Tuscarora Lateral Project on wildlife:

Since the project involves the increase of horsepower at one compressor station and the construction of a new station, we recommend the FERC request data on operating noise levels at the compressor stations, and an analysis be completed of how the project noise levels will affect wildlife. Noise levels over background levels can adversely affect wildlife, particularly songbirds, that rely on call identification for successful breeding. If noise levels will exceed background levels, the environmental document should identify mitigation measures that will be employed to reduce noise impacts on wildlife such as vegetation screening or barriers.

U.S. Fish and Wildlife Service January 27, 2015 Letter to FERC (Docket CP14-112-000, Accession No. 20150202-0104). While these comments were specific to the Tuscarora Lateral Project, the same rationale applies for other projects as well, such as the one at issue here where Columbia is constructing 10 new compressor stations as part of the MXP and GXP. The DEIS, however, contains no discussion of the potential noise impacts on wildlife resulting from these new compressor stations. FERC may not rely on an EIS that does not include an analysis of the cumulative noise impacts on wildlife associated with these and other compressor station upgrades in the region. In addition to the noise impacts from new and expanded compressor stations, the cumulative noise impacts of shale gas development on wildlife must be considered.

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It is likely that the dramatic increase in shale gas drilling in Pennsylvania has already disrupted wildlife populations. For example, in 2012, the New York Department of

Environmental Conservation (“NYDEC”) revised its “Bobcat Management Plan” because:

Observations by hunters and trappers, and reports from the general public suggest that bobcat populations are increasing and expanding throughout New York State outside of their historic core range in the Taconic, Catskill, and Adirondack mountains and into central and western New York. *In addition, emigration of bobcats from Pennsylvania has likely fostered growth of the bobcat population in the southern tier of the state* (Matt Lovallo, Pennsylvania Game Commission, personal communication).

New York Department of Environmental Conservation. Management Plan for Bobcat in New York State 2012-2017. p. 8. 2012 (emphasis added). *available at:*

http://www.dec.ny.gov/docs/wildlife_pdf/finalbmp2012.pdf. The plan further stated:

The presence of bobcat in New York’s Southern Tier has *increased dramatically* over the past decade. What began as occasional sightings along the New York/Pennsylvania border has progressed to large numbers of observations, trail camera photos, and incidental captures and releases by trappers. *Over the past five years* there have been 332 bobcat observations documented in the harvest expansion area[.]

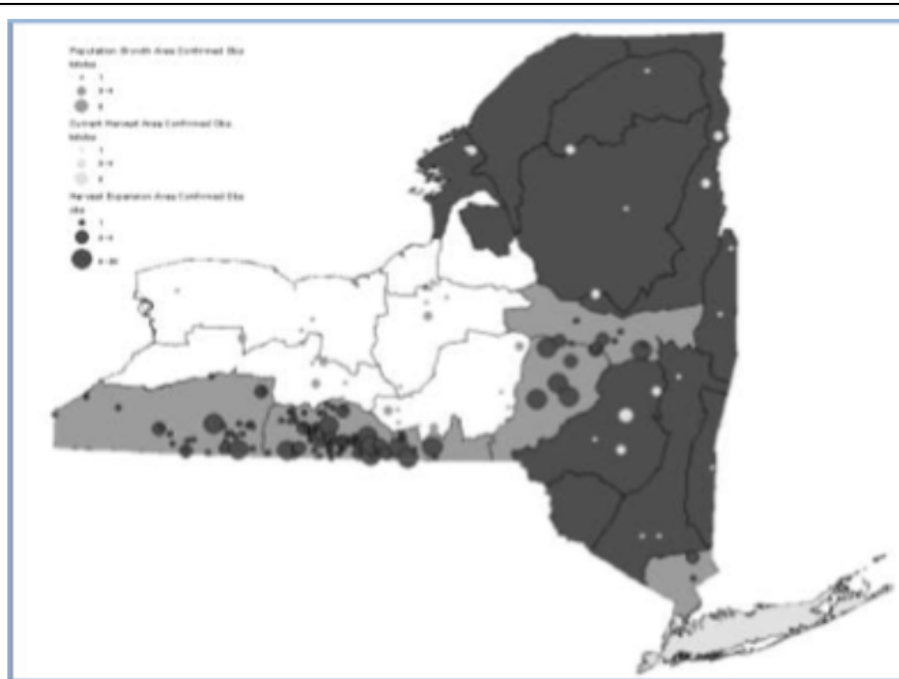
Id. at 17 (emphasis added). The following figure, showing the number confirmed bobcat observations in New York from 2006-2011, reveals a concentration of observations along the Pennsylvania border:

Figure 2: Total Confirmed Bobcat Observations, 2006-2011.

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Source: NYDEC Bobcat Management Plan, p. 17.

While NYDEC was documenting an increase in bobcat observations in the southern tier of New York between 2006-2011, hundreds and then thousands of shale gas wells were being drilled in the northern tier of Pennsylvania. *See* Figure 2 above. As Figure 2 indicates, between 2006-2011, gas companies drilled at least 4,858 shale gas wells in Pennsylvania. Many of these wells were drilled in Pennsylvania's northern tier. Thus, at the same time the gas industry began and then rapidly escalated gas drilling across the northern tier of Pennsylvania, the bobcat population in the southern tier of New York "increased dramatically." Since there has been no shale gas development in New York throughout this time period due to a moratorium (and now ban)⁷⁹ on

⁷⁹ *See* New York State Department of Conservation and Natural Resources, *High-Volume Hydraulic Fracturing in NYS*, available at <http://www.dec.ny.gov/energy/75370.html>.

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CO011-13 (cont.) shale gas development, this suggests that the rapid increase in shale gas development in Pennsylvania may be causing “emigration of bobcats from Pennsylvania” into southern New York.

National Fuel’s 2013 Annual Report suggests why this could be happening. For example, National Fuel stated that the drilling operations of its exploration and production subsidiary, Seneca Resources, occur 24-hours a day. *See* National Fuel 2013 Annual Report, p. 3, available at http://s2.q4cdn.com/766046337/files/doc_financials/2013/NFG_SAR_13_Final.pdf (emphasis added). If Seneca and other shale gas drilling companies are operating in remote, forested areas 24-hours a day, then it is reasonable to assume that those operations have significant consequences on wildlife that depend on remote, forested habitat for survival, not just in Pennsylvania, but in West Virginia as well. FERC must examine the impacts that 24-hour shale gas drilling operations are having on wildlife populations, not only in this region but throughout the Appalachian Basin. Failing to adequately consider these “inter-regional” cumulative impacts on wildlife populations would “eviscerate NEPA.” *Natural Resources Defense Council v. Hodel*, 865 F.2d 288, 299 (D.C. Cir. 1988).

c. Special Status Species

CO011-14 In addition to wildlife in general, FERC failed to take a hard look at cumulative impacts on special status species. The entire section on special status species is just eight paragraphs in a 532-page EIS. *See* DEIS at 4-341 – 4-343. Regarding the MXP, FERC states that USFWS “expressed concerns regarding stream crossings and potential adverse effects to the federally endangered snuffbox and clubshell mussels and their habitat.” As a result, FERC states that “until consultations on sensitive mussel species are complete, we conclude some of the other

CO011-14: See General Comment FA001-1 from Department of Interior and response to comment FA002-4.

Table 4.1-2 in the Geology section (section 4.1.2.1) identifies 1,650 oil and gas wells within 0.25 mile of the MXP that were considered in our cumulative impacts analysis. Additionally, revised section 4.13.1 includes a discussion of gas production facilities in the vicinity of the MXP. Table 4.13-2 has been revised to include natural gas wells in the MXP area.

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(cont.)

projects, in combination with the MXP, could have a minor cumulative impact on sensitive mussel species.” *Id.* at 4-343. These concerns should be even more prescient in light of the “ubiquitous” nature of oil and gas development in the region.

FERC, however, only considered “the projects listed in table 4.13-2” in considering cumulative impacts on special status species. DEIS at 4-343. That table does not include any oil and gas production facilities. Thus, FERC’s conclusion that there would only be a “minor cumulative effect on sensitive mussel species” is based on the absence of any consideration of the cumulative impacts of past, present, and reasonably foreseeable oil and gas development. When oil and gas facilities and roads are included in the equation, it is possible that the “minor” cumulative impacts FERC is projecting could actually be major cumulative impacts. The failure to consider the “ubiquitous” oil and gas production facilities and roads that already exist in conjunction with the impacts of MXP and other projects in Table 4.13-2 is arbitrary and capricious. FERC should revise or supplement the DEIS to consider the cumulative impacts of oil and gas development on all special status species.

CO011-15

d. Air Quality

FERC failed to take a hard look at the cumulative impacts of the Projects and other past, present and reasonably foreseeable future projects, including oil and gas production facilities, on air quality. While FERC acknowledges that “[o]peration of the MXP and GXP would result in permanent air quality impacts associated with the new and modified compressor stations over the lifetime of the projects” (DEIS at 4-354), it largely relies on other permitting authorities to avoid taking a hard look at the air quality impacts in the DEIS. *See id.* at 4-356 (“All projects that trigger permitting due to the potential emissions would be required to both obtain a construction permit and operate under any required operating permits.”).

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CO011-15: Comment noted.

See revisions to section 4.13.1, including a discussion of gas production facilities in the vicinity of the MXP.

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(cont.)

The fact that other project sponsors would need to comply with applicable air regulations does not excuse FERC from its obligation of analyzing in depth these cumulative impacts. FERC has an independent duty to review the environmental and human health impacts of the Project and cannot simply rely on the regulatory efforts by the EPA and DEP. *See, e.g., Idaho v. Interstate Commerce Comm'n*, 35 F.3d 585, 595-96 (D.C. Cir. 1994) (agency fails to take a “hard look” when it “defers to the scrutiny of others”); *North Carolina v. Fed. Aviation Admin.*, 957 F.2d 1125, 1129-30 (4th Cir. 1992) (“[NEPA] precludes an agency from avoiding the Act’s requirements by simply relying on another agency’s conclusions about a federal action’s impact on the environment.”)

Moreover, the issuance of a permit simply means that a polluting source has met a “minimum condition”; it does not establish that a project will have no significant impact under NEPA. *Calvert Cliff’s Coordinating Comm. v. U.S. Atomic Energy Comm’n*, 449 F.2d 1109, 1123 (D.C. Cir. 1971); *WildEarth Guardians v. U.S. Office of Surface Mining, Reclamation & Enforcement*, 104 F. Supp 3d 1208, 1227-28 (D. Colo. 2015) (rejecting argument that coal mine’s compliance with the Clean Air Act exempts mine from review for significant impacts to the environment under NEPA because “[i]t is the duty of OSM [Office of Surface Mining] to determine where a mining plan modification would contribute to such an effect, whether or not the mine is otherwise in compliance with the Clean Air Act’s emissions standards.”)

CO011-16

F. FERC must avoid overbuilding pipeline infrastructure

Commenters are concerned that FERC and the gas industry are engaged in a rapid overbuilding of infrastructure in the Appalachian basin. In considering the impact of new construction projects, FERC’s policy is to consider, among other factors, the possibility of overbuilding natural gas infrastructure. *Certification of New Interstate Natural Gas Pipeline*

CO011-16: See response to comment CO009-21.

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<p>CO011-16 (cont.)</p>	<p><i>Facilities</i>, 88 FERC ¶ 61,227, p. 2 (1999), <i>clarified</i>, 90 FERC ¶ 61,128 (2000), <i>further clarified</i>, 92 FERC ¶ 61,094 (2000) (“Certificate Policy Statement”). FERC must consider and address the potential for overbuilding before it may issue a certificate for the Projects.</p> <p>“The financial dynamics of the natural gas industry encourage overbuilding of natural gas pipelines” and a “weak regulatory process and a lack of coordinated planning for natural gas infrastructure facilitate this process.” Institute for Energy Economics and Financial Analysis, <i>Risks Associated With Natural Gas Pipeline Expansion in Appalachia</i>, p. 4 (Apr. 2016) (“IEEFA Report”), available at http://ieefa.org/wp-content/uploads/2016/05/Risks-Associated-With-Natural-Gas-Pipeline-Expansion-in-Appalachia- April-2016.2.pdf. “[C]urrent low natural gas prices in the Marcellus and Utica region are driving a race among natural gas pipeline companies that want to capitalize on low prices by building new pipeline capacity to higher-priced markets.” <i>Id.</i> at 5. “Some upstream producers of natural gas . . . have also moved into the pipeline construction business [which] . . . promises a relatively stable revenue stream compared to the volatility of the natural gas drilling business.” <i>Id.</i> at 6. However, “[s]uch short-term balance sheet considerations . . . do not translate into rational planning of long-term infrastructure.” <i>Id.</i></p>
<p>CO011-17</p>	<p>G. Conclusion</p> <p>FERC must prepare a revised or supplemental DEIS that (i) considers in more detail the purpose and need for the project and range of alternatives; (ii) discloses information that is critical to the public’s understanding of how the Projects will impact the environment and communities; (iii) takes a hard look at the direct, indirect, and cumulative effects of the Projects; and (iv) considers mitigation practices, especially for impacts to wetlands, wildlife habitat, and air quality. By underestimating the severity of the impacts of the Projects, FERC is also</p>

CO011-17: Comment noted. The EIS discusses the No-Action Alternative in section 3.1.

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(cont.)

underestimating the need for mitigation practices, and the benefits to society that would come from requiring the applicant to avoid, minimize, or mitigate those adverse impacts. When significant adverse impacts cannot be mitigated, the agency should consider a No Action alternative. Finally, with the large number of pipelines that have been construction and that are currently pending before FERC, the agency must consider whether it is permitting the overbuilding of pipeline infrastructure.

Dated: April 24, 2017

Respectfully submitted,

/s/ Ryan Talbott
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Note to reader: This comment letter included a GoogleEarth map and two publications, which were cited within the letter:

Brittingham, Margaret C., et al. 2014. *Ecological Risks of Shale Oil and Gas Development to Wildlife, Aquatic Resources and their Habitats*. Environmental Science & Technology. September 4, 2014. 48, 11034 – 11047.

and

Souther, Sara, et al. 2014. *Biotic impacts of energy development from shale: research priorities and knowledge gaps*. Frontiers in Ecology and the Environment. 12(6): 330-338.

To view the full comment letter, including the map and the two attached publications, please go to the website: <http://www.ferc.gov>. Using the “eLibrary” link, select “Advanced Search” from the eLibrary menu and enter 20170424-5602 in the “Numbers: Accession Number” field.

COMPANIES AND ORGANIZATIONS

CO011 - Allegheny Defense Project, Ohio Valley Environmental Coalition, and Sierra Club (continued)

CERTIFICATE OF SERVICE

Pursuant to Rule 2010 of FERC's Rules of Practice and Procedure, 18 C.F.R. § 385.2010,
I hereby certify that I have this day served the foregoing document upon each person designated
on this official list compiled by the Secretary in this proceeding.

Dated: April 24, 2017

Respectfully submitted,

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

In the Matter of the Application of:

Columbia Gulf Transmissions, LLC

Docket No. CP16-361-000

Filed: April 24, 2017

COMMENTS OF KEEP SOUTHEAST NASHVILLE HEALTHY
ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE
PROPOSED GULF XPRESS (GXP) PROJECT

Keep Southeast Nashville Healthy (KSNH) files these comments on the Draft Environmental Impact Statement (DEIS) prepared by Commission staff for the TransCanada Corporation (TransCanada)¹ and its proposed Gulf Xpress Project, Docket No. CP16-361-000 (the Project).² According to TransCanada, the Project is designed to increase the company's ability to quickly transport more natural gas to markets in the Gulf Coast region.³

CO012-1

Although TransCanada proposes to construct and operate seven new natural gas compressor stations in Kentucky, Tennessee, and Mississippi as part of its Gulf Xpress Project,⁴ these comments will focus on only one of the compressor stations, specifically, the proposed 42,000 horsepower Cane Ridge Compressor Station (Compressor Station),⁵

¹ Columbia Gas Transmission, LLC, an indirect, wholly owned subsidiary of Columbia Pipeline Group, filed an application with the Commission in April 2016. DEIS at 1-1. On July 1, 2016, TransCanada Corporation acquired Columbia Pipeline Group, Inc. *Id.* See also <https://www.cpg.com/> ("Effective July 1, 2016, TransCanada Corporation acquired Columbia Pipeline Group, Inc., and eventually this website will be retired."). These comments will refer to the applicant as TransCanada for ease of reference.

² The DEIS covers both the Gulf Xpress Project and the Mountaineer Xpress Project, *see* DEIS at ES-1, but these comments will be limited to the Gulf Xpress Project. We welcome any questions about these comments and the opportunity, if necessary, to provide additional or clarifying information.

³ DEIS at ES-2.

⁴ DEIS at ES-2.

⁵ TransCanada's Part 70 Operating Permit Application submitted to the Metropolitan Health Department on May 26, 2016.

CO012-1: We note that these comments pertain specifically to the proposed GXP Cane Ridge Compressor Station.

See response to comments CO009-1 and CO009-3 regarding the adequacy of our NEPA analysis.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-1
(cont.)

which would be located in a densely populated and residential area of Metropolitan Nashville, Tennessee. Having ignored or minimized the significance of the Compressor Station's size and proposed location, the DEIS's analysis of the Compressor Station's impacts is legally deficient under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality's (CEQ) regulations. In addition, the DEIS's conclusion that the project will not have a significant impact on the environment is unsupported by substantial evidence in the record. More specifically, after summarizing the factual background related to the proposed location of the Compressor Station, these comments will focus on the following alleged deficiencies:

- the Commission does not discuss or establish a public purpose for the project;
- neither the Commission nor TransCanada assert a need for the Project in whole or in part;
- the DEIS is based on incomplete, inadequate, or withheld information;
- the analysis of alternatives is inadequate under Section 1502 of CEQ regulations;
- the Commission did not adequately analyze environmental justice or socioeconomic issues;
- the Commission does not adequately examine impacts to air quality and improperly assumes that adverse impacts will be addressed in the permitting process;
- the Commission fails to analyze the lifecycle of greenhouse gases and climate change impacts;
- the Commission's noise impact analysis is inadequate;
- the DEIS does not adequately account for the karst terrain;
- the existence of endangered species in proximity to the Compressor Station is not adequately analyzed;
- the DEIS ignores safety issues;
- the DEIS fails to consider the indirect impacts of shale gas drilling such as the lifecycle of greenhouse gases and climate change; and
- the Commission did not address the cumulative impacts of additional emissions sources in the Nashville area.

CO012-2

Based on the deficiencies identified in these comments, we respectfully request that the Commission issue a revised draft EIS for public comment. Alternatively, the Commission must issue a supplemental draft EIS for public comment.

CO012-2: Comment noted.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-3 We respectfully ask that the Commission include this letter in the administrative record for its proceedings under the National Environmental Policy Act, the Natural Gas Act, and the agency's Certificate Policy Statement in docket number CP16-361-000.

I. BACKGROUND

CO012-4 Nashville, Tennessee is the 25th most populous city in the United States;⁶ its metropolitan statistical area includes 1,700,000 people,⁷ and it is expected to grow by more than 1,000,000 more residents over the next 15 years.⁸ Not only is Nashville one of the most densely populated areas in Tennessee, as the following three maps show, but the Compressor Station is proposed for one of the most densely populated areas of the county. The area is likely to become even more dense; it is projected to see the highest rate of development over the next 15 years as compared to other neighborhoods in Nashville, as shown below.

The first map depicts the population density of Middle Tennessee per census tract. Metropolitan Nashville-Davidson County is located at the center of the map, and the Compressor Station's proposed location is within one of the densest population clusters:

⁶ Lance Williams, "Nashville now one of 25 largest cities in the U.S.," TENNESSEAN (May 22, 2014), available at <http://www.tennessean.com/story/money/2014/05/22/nashville-now-one-largest-cities-us/9464115/>.

⁷ DEIS at 4-218.

⁸ Nashville Area Metropolitan Planning Organization, 2040 Regional Transportation Plan (2016), available at http://www.nashvillempo.org/docs/2040RTP/Adopted/Chapter3_Trends.pdf.

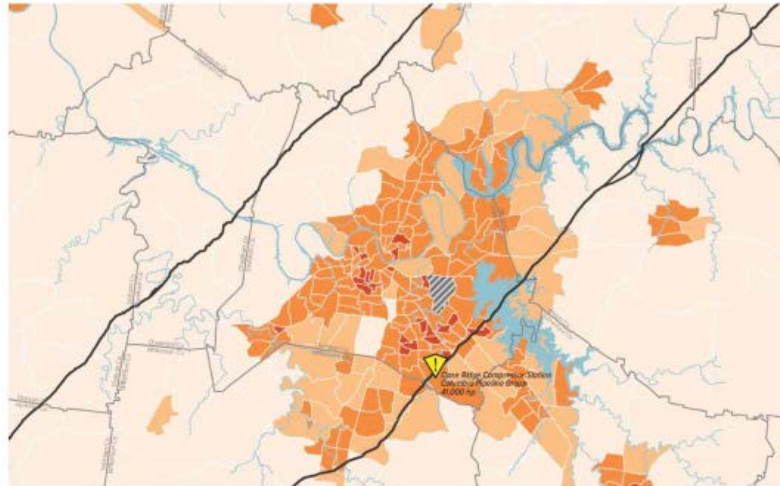
CO012-3: This comment letter, along with all the other comments received on the draft EIS, were filed to the project docket numbers and are part of the official record.

CO012-4: Demographic information provided by the commentor is noted. Environmental justice considerations associated with the GXP are discussed in section 4.9.9.2.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-4
(cont.)



LEGEND

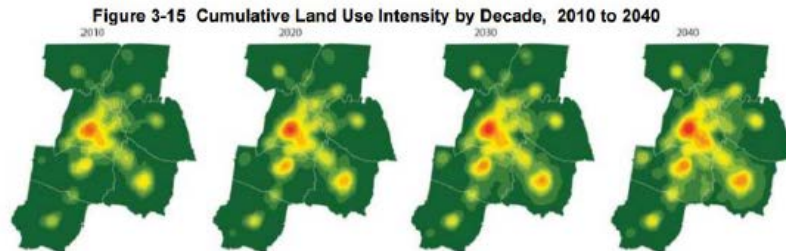
- Compressor Station - Proposed
- Pipeline



© Tennessee Gas Pipeline Company, Inc. The information on this map is provided for informational purposes only. It is not intended to be used for any other purpose. The information on this map is provided for informational purposes only. It is not intended to be used for any other purpose. The information on this map is provided for informational purposes only. It is not intended to be used for any other purpose.

Map created by: Jovani Saez (jsaez@seecolaw.com) and Shannon Griffin (sgriffin@seecolaw.com)
Last updated: October 21, 2016
Data sources: US Census Bureau, CDC, USGS, etc.
Southern Environmental Law Center

These next two maps show (a) the projected regions of development (again with Metropolitan Nashville-Davidson County at the center of the map) and (b) the projected land use and residential growth of the area, both of which show concentrated development along the same corridor where the Compressor Station is proposed:

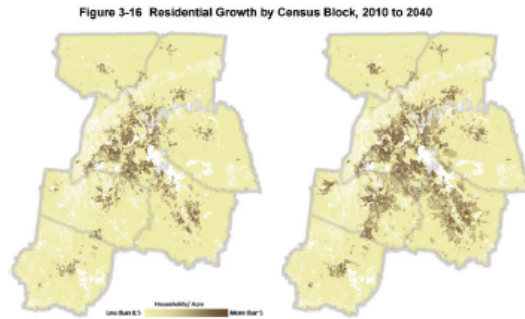


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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-4
(cont.)



Nashville Area Metropolitan Planning Organization, *2040 Regional Transportation Plan*, at 3-8 and 3-9 (2016).⁹

The projected growth in southeast Nashville was also recently captured by the city's long-range plan, which included an historical perspective: "The Southeast Community continues to grow at a striking pace. In 1990, the total population of the Southeast Community plan area was 63,324 people. According to the U.S. Census, in 2000 the Southeast Community had 77,318 residents, an increase of approximately 22 percent over the ten-year period from 1990 to 2000. In 2010, according to the U.S. Census, the Southeast Community had 100,569 people, an increase of approximately 30 percent since 2000, and about 3,500 more people than forecasted in the early 1990s."¹⁰ The current aerial photo from October 2016 shows yet more dense residential development,¹¹ which stands in stark contrast to the description of the area in the DEIS as land that is zoned agricultural.¹²

⁹ Available at: http://www.nashvillempo.org/docs/2040RTP/Adopted/Chapter3_Trends.pdf.

¹⁰ NashvilleNext: A General Plan for Nashville & Davidson County, Vol. III (Southeast) (June 22, 2015), available at http://www.nashville.gov/Portals/0/SiteContent/Planning/docs/CommPlans2015/next-vol3-Southeast%20Nashville_Final.pdf.

¹¹ Google Earth Satellite Photo (Oct. 23, 2016).

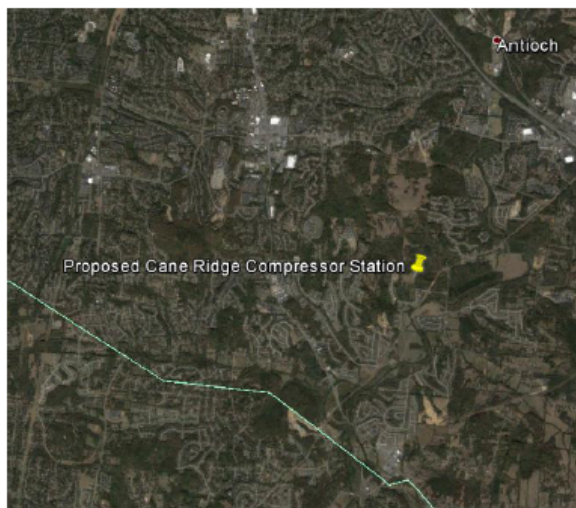
¹² DEIS at 4-199.

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-4
(cont.)



Further, according to the Metropolitan Nashville Planning Department's website, approximately 100 development applications or filings have been recently submitted to the Department for the South Nashville/Antioch/Percy Priest area.¹³

Finally, as discussed below, the DEIS recognizes that the the demographic composition of the community surrounding the proposed Compressor Station is an environmental justice community.¹⁴

CO012-5

I. NO PURPOSE OR NEED FOR THE PROJECT HAS BEEN IDENTIFIED BY THE COMMISSION THAT WOULD JUSTIFY THE COMPRESSOR STATION'S ENVIRONMENTAL IMPACTS.

The Commission has failed to identify a public purpose for the Compressor Station, account for market trends that undercut the project's proposed purpose, or

¹³ See <http://www.nashville.gov/Planning-Department.aspx>.

¹⁴ Exec. Order No. 12898, 3 C.F.R. 859 (1995) reprinted as amended in 42 U.S.C. § 4321 (1994 & Supp. VI 1998).

CO012-5: Comment noted. See response to comment CO006-6, CO009-3, and CO011-1.

After the issuance of the final EIS, the Commission will make the determination of whether the projects are in the public convenience and necessity. This evaluation and subsequent decision is based on many factors, including the final EIS and associated recommendations, market analysis, ensuring just and reasonable rates, and engineering analyses. The Commission considers the local, regional, and national benefits of each project against any adverse impacts. This determination has not been made for the proposed projects at this time.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-5
(cont.)

identify any need for the project apart from fulfilling contractual relationships of private parties.

Assessment of the need for a pipeline is a critical component of a DEIS for a Commission-regulated project under both NEPA and the Natural Gas Act. With respect to NEPA, project purpose and need are relevant because “the goals of an action delimit the universe of the action’s reasonable alternatives,” and enable agencies to exclude from consideration those alternatives that will not achieve the purpose of the project. *See Theodore Roosevelt Conservation P’ship v. Salazar*, 661 F.3d 66, 73 (D.C. Cir. 2011) (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991)). An agency is not obligated to consider alternatives that do not meet the project’s purpose. *Partners in Forestry Co-op. v. U.S. Forest Serv.*, 638 Fed. Appx. 456 (6th Cir. 2015). However, an agency is not obligated to accept an applicant’s preferred alternative where the applicant fails to justify the need for the project to begin with. *See Soda Mountain Wilderness Council v. Norton*, 424 F. Supp. 2d 1241, 1262 (E.D. Cal. 2006) (“NEPA forces agencies to explain what it is they seek to do, why they seek to do it, what the environmental impacts may be of their proposed action, and what alternatives might be available to the agency that might lessen environmental impact. Without a clear ‘what and why’ statement, the public is kept in the dark.”). *Cf. 1000 Friends of Wisconsin v. U.S. Department of Transportation*, No. 11-0545, 2015 WL 2454271 (E.D. Wis. May 22, 2015) (finding no need for major highway in light of outdated demographic information).

In addition, under the Natural Gas Act, the Commission may only grant a certificate for a project that is “required by the present and future public necessity and convenience.” 15 U.S.C. §717f(e). “[O]therwise such application shall be denied.” *Id.* To

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-5
(cont.) assess whether a project meets the statutory “public necessity and convenience” standard, the Commission balances a project’s benefits, such as need, against burdens imposed on customers and property owners.¹⁵ Because the establishment of project need plays a key role in the Commission’s ultimate decision regarding issuance of a certificate, the Commission must identify such a need in a revised draft EIS or supplemental draft EIS.

CO012-6 **A. The DEIS Inadequately Establishes the Public Purpose for the Project.**

The Commission does not offer its own analysis of need for the Compressor Station (at all or in the proposed location), or question TransCanada’s very general claims that the purpose of the Project is to expand its existing system’s capacity.¹⁶ For example, the DEIS does not address the fact that market demand for new gas-fired power generation is static or perhaps dropping. Without this information, the Commission cannot fairly evaluate alternatives to TransCanada’s proposal, and it misleads the public’s review of its impacts.¹⁷

Although the standard for purpose and need statements is deferential to the agency, it is not without limits. For example, in rebuffing a challenge to a highway project’s purpose and need statement,¹⁸ the Sixth Circuit recently explained that “[t]he Purpose and Need Statement is reasonable because it is supported by detailed study of

¹⁵ *Certificate Policy Statement* at 23, 25 (“Depending on the type of project, there are three major interests that may be adversely affected by approval of major certificate projects, and that must be considered by the Commission. These are: the interests of the applicant’s existing customers, the interests of competing existing pipelines and their captive customers, and the interests of landowners and surrounding communities. There are other interests that may need to be separately considered in a certificate proceeding, such as environmental interests. . . . The amount of evidence necessary to establish the need for a proposed project will depend on the potential adverse effects of the proposed project on the relevant interests.”), available at <https://www.ferc.gov/legal/maj-ord-reg/PL99-3-000.pdf>.

¹⁶ DEIS § 1.1.2 at 1-3.

¹⁷ See *Hughes Watershed Conservancy v. Glickman*, 81 F.3d 437, 446 (4th Cir. 1996) (holding that “misleading economic assumptions can . . . defeat the second function of an EIS by skewing the public’s evaluation of a project”).

¹⁸ *Coal. for Advancement of Reg’l Transp. v. Fed. Highway Admin.*, 576 F. App’x 477, 487-89 (6th Cir. 2014).

CO012-6: See response to comment CO012-5.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

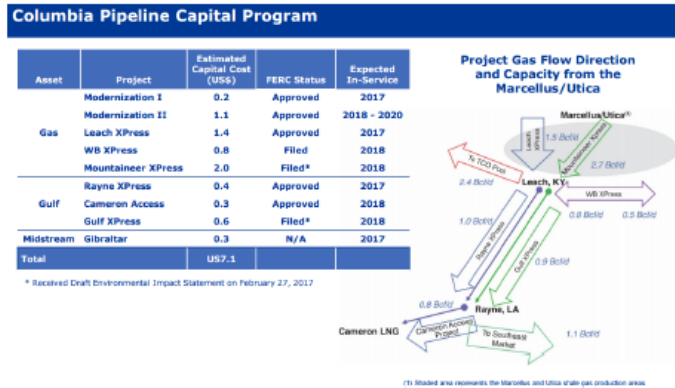
CO012-6
(cont.)

existing traffic, safety, and other cross-river mobility problems, and described the use of extensive socioeconomic data and state-of-the-art modeling of future travel conditions to project future transportation needs of the region.”¹⁹ Here, the DEIS falls far short of this standard.

CO012-7

i. *The purpose of the project will not benefit the community impacted by the Compressor Station.*

The DEIS does not establish a public benefit for the Project or Compressor Station. Section 1.1.2 of the DEIS describes the purpose of the Project to expand the capacity of TransCanada’s existing system to allow for an additional 860,000 Dth/d of natural gas delivery to high-demand southern markets in Mississippi and Louisiana.²⁰ The only information about where the natural gas will be shipped appears to be the statement in the DEIS informing the public that TransCanada has executed four agreements with shippers to identified receipt points.²¹ Additional information available on TransCanada’s website suggests that the Project may be designed for the export market:



¹⁹ *Id.* at 488.

²⁰ DEIS at 1-3.

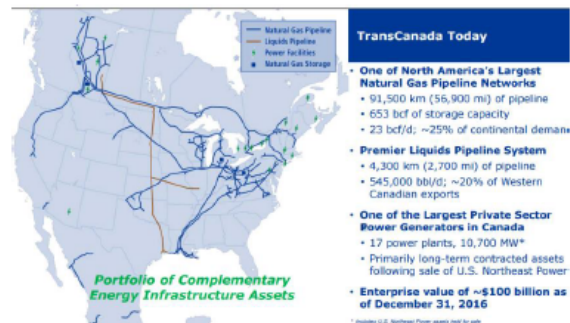
²¹ DEIS at 1-3.

CO012-7: The Council on Environmental Quality’s NEPA regulations require the Commission to “briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” (40 CFR 1502.13). The draft EIS includes an appropriate purpose and need statement in section 1.1.2 in compliance with NEPA. The Commission’s decision on whether to authorize the GXP will be based on an evaluation under the Certificate Policy Statement of whether there is a need for the project and if it will serve the public interest. In balancing the public benefits against the potential adverse consequences, this evaluation considers many factors, including but not limited to impacts to landowners and communities affected by the construction.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-7
(cont.)



TransCanada Corporate Profile (April 2017).²² Namely, these slides show (1) the Gulf Xpress project facilitating the flow of Marcellus/Utica gas from Leach, Kentucky to Rayne, Louisiana “To Southeast Market” and (2) the Louisiana-based lines terminating in the Gulf rather than extending to other places in the “Southeast.”

In addition, TransCanada’s customer for this project appears to be Antero Resources, which has provided additional information about the Project’s privately beneficial purpose in its own materials:

In the second quarter of 2015, **Antero entered into 700 MMcf/d of incremental firm transportation agreements with Columbia Pipeline Group through Columbia’s Mountaineer Xpress (“MXP”) and Gulf Xpress (“GXP”) pipeline projects.** Both projects are expected to be placed in service in the fourth quarter of 2018. Antero will have a firm commitment on MXP of 700 MMcf/d to Leach, Kentucky, where the Company will be able to sell its gas at TCO based pricing. Antero will have the further option, through its firm transportation agreement with GXP, to ship approximately 180 MMcf/d of the 700 MMcf/d to the Gulf Coast. These firm transportation agreements result in Antero’s firm transportation portfolio growing to 4.8 Bcf/d by the end of 2018, enabling Antero to sell its expected gas production at currently favorable price indices such as TCO, Chicago, and CGTLA.²³

²² Available at: http://www.transcanada.com/docs/Investor_Centre/TransCanada-Corporate-Profile.pdf.

²³ Antero Resources Press Release (July 15, 2015) (emphasis added), available at <http://investors.anteroresources.com/investors-relations/press-releases/press-release-details/2015/Antero-Resources-Announces-Second-Quarter-2015-Operations-Update/default.aspx>.

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-7 (cont.)	<p>The DEIS inappropriately determined that the project will serve a public purpose when it is a joint venture between private parties. Because the DEIS does not address whether the project purpose will serve the public necessity and convenience, it is deficient.</p>
CO012-8	<p>ii. <i>The economy of the community impacted by the Compressor Station will be negatively constrained and impacted.</i></p> <p>Because of Nashville’s air quality impairments, the proposed Compressor Station has the potential to pose a threat to public health rather than providing a public benefit. Under the Clean Air Act, the EPA sets ambient air standards for a variety of pollutants, and Middle Tennessee has a history of violating these standards for air certain pollutants.²⁴ Policymakers are justifiably concerned that the area could fall out of attainment with current ambient air standards or forthcoming standards that are stricter. A report included in the Appendix to these comments argues:</p> <p>The greater Nashville area is currently in compliance with the National Ambient Air Quality Standards (NAAQS) for ozone, although the margin of compliance is small. The NAAQS as defined by the U.S. Environmental Protection Agency (EPA) is 0.070 parts per million (ppm), defined as the annual fourth highest daily maximum 8-hour average concentration averaged over three years.¹ Using the Hendersonville, Tennessee monitor as the representative ozone monitoring site, the design value for Nashville as determined for monitored data over the 2013-2015 time period is 0.067 ppm. However, more than one ozone monitor in the greater Nashville area has measured an ozone design value above 0.070 ppm in the recent past. In fact, the Hendersonville monitor had an ozone design value in excess of the 0.070 ppm NAAQS in all four of the prior three year time periods, <i>i.e.</i>, 2009-2011, 2010-2012, 2011-2013, and 2012-2014. . . .</p> <p>Newly released EPA ozone modeling data also show that future ozone levels around Nashville are very sensitive to changes in levels for ozone precursor emissions. Compared to other areas of the United States, relatively small changes in ozone precursor emissions from new/modified sources around Nashville can elicit a much larger response in the ambient ozone levels. Extrapolating from new EPA modeling studies suggest that the two proposed</p>

²⁴ See Section V for more information.

CO012-8: If the area around the proposed Cane Ridge Compressor Station were out of attainment, we would evaluate all non-permitted emissions under General Conformity. In this case, that would principally be limited to construction and fugitive emissions. See section 4.11.1.1.1 for further discussion of General Conformity.

The Metropolitan Government of Nashville & Davidson County has a federally delegated responsibility under the Clean Air Act to permit air emissions in its jurisdiction and attain regional air quality compliance to the air quality standards set for each region by the EPA and/or state administrators under the Clean Air Act.

During our environmental review, we present models of operational emissions of criteria air pollutants to disclose local air quality impacts and assure that proposed interstate natural gas facilities authorized by the Commission meet the National Ambient Air Quality Standards (NAAQS) at their fencelines. Modeling results demonstrate that the GXP compressor stations would not exceed the NAAQS and the area air quality would continue to remain protective of human health and public welfare for all listed pollutants.

See section 4.11.1.2 for further information on ambient air quality, regulatory standards, construction and operation air impacts, modeling studies, mitigation, and permitting requirements for the GXP. See section 4.13.2.9.2 for a discussion of air quality cumulative impacts with GXP including the Broad Run Expansion Project.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-8
(cont.)

compressor stations would generate sufficient NOx precursor emissions to reduce the ozone NAAQS compliance margin in Nashville by 50%, assuming no change in meteorological conditions from the 2013-2015 baseline period.²⁵

The DEIS assumes a condition of attainment and does not address the fact that non-attainment has consequences beyond the designation given to a region when its air quality is worse than the National Ambient Air Quality Standards (NAAQS). A non-attainment designation has real economic impacts: “There are increased costs to businesses and consumers due to special requirements for vehicles, fuels sold in the area, and for commercial and consumer products. As of 2014, the Nashville area is considered in compliance with the standards. If the standards are strengthened by EPA, it is likely the Nashville area may fall out of compliance.”²⁶

Using reported emissions and background concentration data, the Commission should have evaluated the effect of the addition of emissions from the Compressor Station and other major sources proposed contemporaneously, such as a 60,000 horsepower compressor station proposed in north Nashville, on Metro Nashville’s attainment status.²⁷ The Commission will have more precise information, but for reference sake we have provided a place to begin this kind of analysis: For example, TransCanada has provided modeled “impact” figures for criteria pollutants; these figures represent the additional contribution to the concentration of a pollutant in ambient air at any given time. TransCanada used AERMOD to model impact. We constructed an approximate “budget” of allowable emissions before NAAQS are exceeded by comparing

²⁵ D. Howard Gebhart, *The Siting of New Proposed Nitrogen Oxide (NOx) Emission Sources in the Greater Nashville Region and Implications for Ozone NAAQS Compliance* (Jan. 17, 2017), Attachment A.

²⁶ NashvilleNext Natural Resources Plan at p. 230, available at http://www.nashville.gov/Portals/0/SiteContent/Planning/docs/NashvilleNext/PlanVolumes/next-volume2-Elements_NRHA.pdf.

²⁷ This issue will be more fully discussed in the section related to Cumulative Impact Analysis.

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-8
(cont.)

background levels of criteria emissions to the budget ceiling, represented by the NAAQS concentration. We used Metro’s background concentrations for all of the calculations, because the background concentrations reported by TransCanada and other permittee vary considerably.

Approximate NAAQS “Budget” for Metro Nashville

Pollutant	Averaging period	NAAQS max concentration (µg/m ³)	Background levels, Metro (µg/m ³)	Percentage of NAAQS “budget” used by background levels	Percentage remaining in the “budget”
NO ₂	1-hour	188.00	73.33	0.39	0.61
	Annual	100.00	16.13	0.16	0.84
CO	1-hour	40000.00	2060.00	0.05	0.95
	8-hour	10000.00	1831.00	0.18	0.82
PM2.5	24-hour	35.00	19.70	0.56	0.44
	Annual	12.00	9.76	0.81	0.19
PM10	24-hour	150.00	30.00	0.20	0.80
PM2.5/10	N/A	N/A	N/A	N/A	N/A
VOC	N/A	N/A	N/A	N/A	N/A
SO ₂	1-hour	196.00	18.31	0.09	0.91
	3-hours (SECONDARY)	365 (24 hours)	18.31	N/A	N/A

Davidson County is closer to the NAAQS budget ceiling for some pollutants than other. For example, background levels of PM2.5 (averaged annually) occupy 81% of the budget, leaving Davidson County with only 20% to fill with new sources of emissions.

Using reported emissions and background concentration data, we compared the cumulative emissions and NAAQS levels to roughly indicate if the addition of the proposed Compressor Station and another large compressor station proposed for the county, the proposed Joelton Compressor Station, will threaten Davidson County’s attainment status. Overlooking the variation in model outputs given the limited purposes of this exercise, we added the companies’ self-reported modeled impacts to the

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-8 (cont.) background concentration provided by Metro then divided this sum by the maximum concentration of the pollutant associated with NAAQS.

Percentage Self-Reported Modeled Impact²⁸

Pollutant	Averaging period	Self-reported modeled impact, Joelton (µg/m ³)	Self-reported modeled impact, Cane Ridge (µg/m ³)	NAAQS max concentration (µg/m ³)	Background levels, Metro (µg/m ³)	Percentage self-reported modeled impact
NO ₂	1-hour	31.23	7.70	188.00	73.33	0.60
	Annual	0.65	N/A	100.00	16.13	N/A
CO	1-hour	31.69	23.30	40000.00	2060.00	0.05
	8-hour	25.21	9.50	10000.00	1831.00	0.19
PM2.5	24-hour	0.68	0.40	35.00	19.70	0.59
	Annual	0.04	0.00	12.00	9.76	0.82
PM10	24-hour	N/A?	0.40	150.00	30.00	N/A
PM2.5/10	N/A	N/A?	N/A	N/A	N/A	N/A
VOC	N/A	N/A?	N/A	N/A	N/A	N/A
SO ₂	1-hour	N/A?	0.70	196.00	18.31	N/A
	3-hours (SECONDARY)		0.2 (24-hr avg)	365 (24 hours)	18.31	N/A

An NO₂ (1-hour averages) concentrations consume more of the budget than the other pollutants. The additional NO₂ contributions modeled and reported by the companies contribute to a substantial increase in the percentage of the NO₂ NAAQS budget: background concentrations of NO₂ occupy 39% of the budget, while the percent of the budget used increases to 60% with the contributions of the new compressor stations. In order to understand the cumulative impact, we completed the same calculations for TransCanada's self-modeled impacts and Metro's SCREEN3 modeled impacts for Kinder Morgan's proposed compressor station in northeast Metro Nashville (Joelton). Background concentrations of NO₂ occupy 39% of the budget, while the percent of the budget increases to 73% with the contributions of the new compressor

²⁸ The Cane Ridge self-reported modeled impacts for each pollutant are significantly lower than those reported by Kinder Morgan.

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-8
(cont.)

stations. Finally, when we completed the same calculations for TransCanada’s self-modeled impacts and Metro’s AERMOD modeled impacts for Joelton, the percent of the budget occupied by NO₂ increases from 40% to 54% with the contributions of the new compressor stations. The additional NO₂ contributions modeled and reported by the companies contributes to a substantial increase in the percentage of the NO₂ NAAQS budget.

In addition, the additional 248 tons of NO_x emissions that could be released yearly by the two proposed compressor stations could contribute to a 1.1% increase in ozone levels. If these ozone levels are recorded at the Hendersonville monitoring station downwind of Metro Nashville, they could reduce the margin of compliance at this station by one-third.²⁹ The burden on the Nashville community was not—but should have been—evaluated by the Commission in the DEIS.

CO012-9

B. The DEIS Fails to Assert or Establish a Project Need.

Section 1.1 of the DEIS is supposed to describe the “Protects Purpose and Need.” It does not. The DEIS is therefore legally deficient. *See* Section 1.1.2 (discussing project purpose but not need).³⁰ Even if one were one to assume the Project is needed to increase capacity to meet market demand, the size of the Project and the 42,000 horsepower capacity of the Compressor Station beg the question as to whether there is enough gas to support the need for added capacity long-term. The need for added infrastructure to

²⁹ Gebhart, Howard D. “The Siting of New Proposed Nitrogen Oxide (NO_x) Emission Sources in the Greater Nashville Region and Implications for Ozone NAAQS Compliance.” 19 January 2017.

³⁰ DEIS at 1-2 to 1-3.

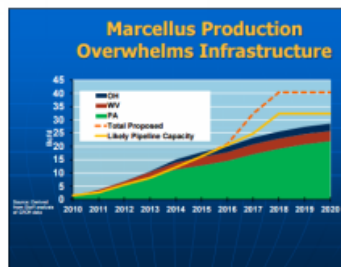
CO012-9: See response to comment CO012-5.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

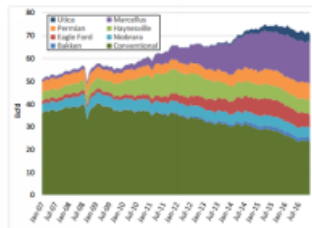
CO012-9
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transport Marcellus Gas is contracting, and sufficient pipeline capacity will be in place to handle Marcellus production according to the Commission's own projections.³¹



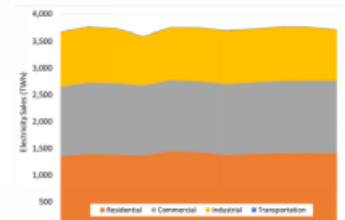
In April 2017, the Commission also conceded that production for natural gas declined in 2016, that electricity demand has been stagnant for a decade, and that the largest increases of capacity are coming from renewables:

Natural Gas Production Declines in 2016 but Could Rebound in 2017



Source: Derived from Energy Information Administration data

Electricity Demand Growth Remains Low



Derived from EIA data

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³¹ Chart from FERC State of Markets Presentation (March 2015), available at <http://www.ferc.gov/CalendarFiles/20150319162231-A-3.pdf> (lines show growth in pipeline capacity). See also *Marcellus-Utica Could Soon Be Overpiped*, Kallanish Energy (February 1, 2016), available at <https://www.kallanishenergy.com/2016/02/01/marcellus-utica-could-soon-be-overpiped/>.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-9
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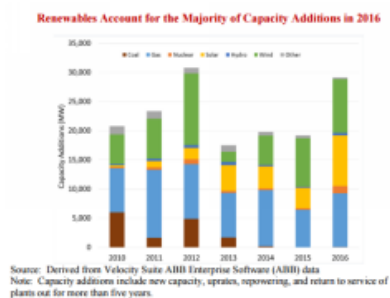


Chart from FERC State of Markets Presentation (April 2017).³² In fact, in February 2017, then-Commissioner Norman Bay wrote a separate statement to an order issuing a certificate to encourage the Commission to consider more than private contracts when establishing “need” pursuant to its certificate reviews under section 7(c) of the Natural Gas Act.³³

The certificate policy statement, which was issued in 1999, lists a litany of factors for the Commission to consider in evaluating need. Yet, in practice, the Commission has largely relied on the extent to which potential shippers have signed precedent agreements for capacity on the proposed pipeline. This is a useful proxy for need, because presumably shippers would not sign up for capacity unless it was needed. **But focusing on precedent agreements may not take into account a variety of other considerations, including, among others:** whether the capacity is needed to ensure deliverability to new or existing natural gas-fired generators, whether there is a significant reliability or resiliency benefit; whether the additional capacity promotes competitive markets; whether the precedent agreements are largely signed by affiliates; or whether there is any concern that anticipated markets may fail to materialize. As an example of the latter consideration, LNG import terminals that were built during the early 2000 time period became stranded as shale gas increasingly substituted for LNG imports from overseas. **There are other long-term issues that weigh in favor of examining whether other evidence, in addition to precedent agreements, can help the Commission evaluate project need.**

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³² Available at: <https://www.ferc.gov/market-oversight/reports-analyses/st-mkt-ovr/2016-som.pdf>.

³³ No. 20170203-3051; 158 FERC ¶ 61,145 at 92 (Feb. 3, 2017).

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CO012-9
(cont.)

Thus, because the Commission is not able to evaluate alternatives to the Project and Compressor Station until it has determined the purpose and need, and because no public purpose was established and no need identified, the draft EIS is “so inadequate as to preclude meaningful analysis,” and the Commission must prepare a revised DEIS and release it for public comment.³⁴ Alternatively, the Commission must issue a supplemental DEIS that addresses the new information that it received and continues to receive from Columbia since the publication of the draft EIS.³⁵

CO012-10

II. THE DEIS FOR THE CANE RIDGE COMPRESSOR STATION IS BASED ON INCOMPLETE, INADEQUATE, AND WITHHELD INFORMATION

The National Environmental Policy Act (NEPA) requires federal agencies to prepare a “detailed” environmental impact statement for every “major federal action significantly affecting the quality of the human environment.”³⁶ The EIS is fundamentally an information dissemination tool: it allows federal agencies and the public to understand the environmental impacts of proposed actions before they are commenced and resources are irretrievably committed.³⁷ Courts have described this process as one designed to bring “clarity and transparency” to federal decisions that affect the environment.³⁸ Its centerpiece is the involvement of the public. The Act affords interested citizens an

³⁴ *Id.* § 1502.9(a).

³⁵ *See* 40 C.F.R. § 1502.9(c).

³⁶ 42 U.S.C. § 4332(C); *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 757 (2004).

³⁷ *See, e.g., Ariz. Cattle Growers’ Ass’n v. Cartwright*, 29 F. Supp. 2d 1100, 1116 (D. Ariz. 1998) (quoting *Or. Envtl. Council v. Kunzman*, 817 F.2d 484, 492 (9th Cir. 1987) (The NEPA requirement to issue an EIS serves two purposes: to “ensure[] that federal agencies have sufficiently detailed information to decide whether to proceed with an action in light of potential environmental consequences” and “to provide[] the public with information on the environmental impact of a proposed action and encourage[] public participation in the development of that information.”).

³⁸ *N.C. Wildlife Fed’n v. N.C. Dep’t of Transp.*, 677 F.3d 596, 603 (4th Cir. 2012) (citing *Pub. Citizen*, 541 U.S. at 756-57).

CO012-10: Comment noted. See response to comment CO009-1.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-10
(cont.)

opportunity to raise the issues that they are concerned about during the scoping process³⁹ and then comment again on a thorough agency analysis of the likely impacts of the proposed action in the DEIS.⁴⁰

A DEIS must be as complete as possible to allow informed public comment on the proposed project.⁴¹ The public is entitled to review, and NEPA obligates the Commission to provide, the agency's analysis of the significance of the impacts.⁴² But for many potential impacts of the Compressor Station, the Commission cannot and does not provide its analysis of the significance of impacts.

CO012-11

A. The Basis for the Decision to Site the Compressor Station in a Densely Populated Residential Area Has Not Been Adequately Disclosed to the Public

The Commission has repeatedly asked TransCanada for additional information to justify its request for a Certificate of Convenience and Necessity.⁴³ Unfortunately, critical information is still missing from the public record. Namely, earlier this year, the Commission asked for more data related to the fact that comments during the scoping process raised concerns “regarding the siting of the Cane Ridge Compressor Station within a densely populated residential area.”⁴⁴ In response, just five days later, TransCanada stated that “the siting of the compressor station was determined, among other considerations, for the need to maximize the optimum hydraulic efficiency needed

³⁹ 40 C.F.R. § 1501.7.

⁴⁰ *Id.* § 1503.4.

⁴¹ See *id.* § 1502.9(a) (“The draft statement must fulfill and satisfy to the fullest extent possible the requirements established for final statements in section 102(2)(C) of the Act. If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action.”).

⁴² *Id.* § 1502.16(a)-(b) (requiring agencies to discuss “[d]irect effects and their significance” and “[i]ndirect effects and their significance”) (emphases added).

⁴³ See Docket No. 20160617-3036 (June 17, 2016); Docket No. 20160824-3015 (Aug. 24, 2016).

⁴⁴ See January 23, 2017 Letter.

CO012-11: It is not unprecedented for metropolitan areas to incorporate natural gas infrastructure as part of their energy supply plans. See revised section 3.6.2 for additional information on hydraulic studies and alternative sites evaluated for the Cane Ridge Compressor Station. See also response to comments CO003-5 and IND055-1.

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(cont.)

to meet the required Gulf XPress Shipper volume. As a result of these hydraulic studies, TransCanada Gulf determined that each compressor station must be located within an approximate one-mile radius of the optimal compressor station location.” Virtually all of the materials used to justify this response were filed under seal with TransCanada, which claimed that the material is “critical energy infrastructure information.”⁴⁵

More specifically, when the Commission asked TransCanada to explain its need to site the Compressor Station in a densely populated residential area, TransCanada responded that it determined the “optimal location” by inputting the equidistant point between existing compressor stations into the hydraulic studies. In other words, the “optimal location” was not determined by the hydraulic studies, it was predetermined based on TransCanada’s inputs:

Due to the full utilization of existing facilities for this Project, the locations of existing compressor stations on the existing pipelines were a primary driver for determining the optimal locations of the proposed compressor stations. The optimal locations for the seven proposed compressor stations are the pipeline mileposts equidistant along the pipeline between the eight existing compressor stations. As such, the optimal location was an input to the hydraulic studies and not a result of such studies. The hydraulic studies conducted by TransCanada Gulf were initiated on the basis that the optimal location for the proposed compressor stations was the point along the existing pipelines equidistant between two existing compressor stations.⁴⁶

The TransCanada “equidistant” concept may sound reasonable in a theoretical vacuum, but it is absurd to accept that siting need not be adjusted to account for major challenges (*i.e.*, urban *v.* rural) at the calculated equidistant point.⁴⁷ The Commission should require proof that TransCanada is not using the term “optimal” as a synonym for

⁴⁵ See Jan. 31, 2017 Letter.

⁴⁶ Jan. 31, 2017 Letter from TransCanada to FERC.

⁴⁷ *Cf.* 15 U.S.C. § 717b-1 (addressing state and location safety considerations and land use near the location).

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-11 (cont.) “least cost.” The least-cost compression scenario is equidistant siting of compressors stations, such that this would only be “optimal” siting from TransCanada’s financial perspective.

The public has been denied important information and cannot play a meaningful role in the NEPA process without it. “When relevant information ‘is not available during the [impact statement] process and is not available to the public for comment’—as is the case here—“the [impact statement] process cannot serve its larger informational role, and the public is deprived of [its] opportunity to play a role in the decision-making process.”⁴⁸

B. Additional Categories of Missing Information.

As described in the following sections, the DEIS is also inadequate because it does not contain sufficient information or omits critical information about impacts on water resources and species based on the karst nature of the terrain underlying the site.

CO012-12

III. THE DEIS LACKS MEANINGFUL DISCUSSION OF ALTERNATIVES TO SITING THE COMPRESSOR STATION IN A DENSELY POPULATED RESIDENTIAL AREA WITHOUT ADDITIONAL EMISSIONS CONTROLS

The Commission fails to provide complete analyses for the public necessity of the project or alternatives that would justify siting the Compressor Station in a densely populated residential area. Consideration of alternatives is at the “heart” of NEPA’s required environmental analysis.⁴⁹ It should present comparative environmental impacts

⁴⁸ *N.C. Wildlife Fed’n*, 677 F.3d at 604-05 (alterations in original) (quoting *N. Plains Res. Council*, 668 F.3d at 1085). See also *Nat’l Audubon Soc’y*, 422 F.3d at 184 (“NEPA requires an agency to disseminate widely its findings on the environmental impacts of its actions. Thus, it ensures that the public and government agencies will be able to analyze and comment on the action’s environmental implications.”).

⁴⁹ 40 C.F.R. § 1502.14. *Accord Natural Resources Defense Council v. U.S. Forest Service*, 421 F.3d 797 (9th Cir. 2005) (failure to consider alternatives to timber program that would have provided greater protection for old-growth habitat); *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810 (9th Cir. 1987), *judgment rev’d on other grounds*, 490 U.S. 332 (1989) (must consider alternative sites);

CO012-12: Section 3.6.2 has been revised to include a detailed analysis of additional sites identified by Friends of Mill Creek Greenway and FERC staff.

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-12
(cont.)

and provide a “clear basis for choice among options” by both the decision maker and the public.⁵⁰ The Commission’s rules implementing NEPA recognize as much, too, and so require applicants to submit project alternatives as part of their application.⁵¹ Here, the DEIS does not consider alternative technologies to minimize environmental impact, nor does it adequately consider other sites. Both TransCanada’s analysis and the Commission’s analysis over-value the ability to acquire a site, approaching this metric as the sole criteria for site selection. Careful consideration of alternative technologies and sites should be incorporated into a revised or supplemental EIS, particularly when substantial evidence shows this area’s unsuitability.

A. The DEIS Does Not Sufficiently Analyze Alternative Technologies That Would Reduce the Environmental Impact of the Compressor Station.

Coalition for Canyon Preservation v. Bowers, 632 F.2d 774 (9th Cir. 1980) (two-lane rather than four-lane highway); *Wild Fish Conservancy v. National Park Serv.*, 8 F. Supp. 3d 1289 (W.D. Wash. 2014) (failure to consider operation of fisheries at reduced levels); *Colorado Environmental Coalition v. Salazar*, 875 F. Supp. 2d 1233 (D. Colo. 2012) (alternative to oil and gas leasing involving minimal surface disturbance); *Flaherty v. Bryson*, 850 F. Supp. 2d 38 (D.D.C. 2012) (failure to consider annual catch limits, accountability measures, and alternatives for addressing bycatch in fisheries management plan amendments); *Dine Citizens Against Ruining our Environment v. Klein*, 747 F. Supp. 2d 1234 (D. Colo. 2010), *appeal dismissed*, 439 Fed. Appx. 679 (10th Cir. 2011) (failure to consider imposing conditions on renewal of coal mining permits); *Natural Resources Defense Council, Inc. v. U.S. Army Corps of Engineers*, 457 F. Supp. 2d 198 (S.D. N.Y. 2006) (alternative methods of dredging contaminated harbor); *Western Land Exchange Project v. U.S. Bureau of Land Management*, 315 F. Supp. 2d 1068 (D. Nev. 2004) (land privatization, should have considered alternative of smaller acreage); *Border Power Plant Working Group v. Department of Energy*, 260 F. Supp. 2d 997 (S.D. Cal. 2003) (must consider conditioning power plants to mitigate environmental impacts in permits authorizing power lines to import electricity from Mexico); *Ayers v. Espy*, 873 F. Supp. 455 (D. Colo. 1994) (must discuss unevenaged as well as evenaged forest management); *People ex rel. Van de Kamp v. Marsh*, 687 F. Supp. 495 (N.D. Cal. 1988) (alternative site and project modifications); *Com. of Mass. v. Clark*, 594 F. Supp. 1373 (D. Mass. 1984) (deletion of tracts from offshore lease sale); *Town of Matthews v. U.S. Dept. of Transp.*, 527 F. Supp. 1055 (W.D. N.C. 1981) (bypass as alternative to highway project); *Natural Resources Defense Council, Inc. v. U.S. Nuclear Regulatory Commission*, 606 F.2d 1261 (D.C. Cir. 1979); *National Wildlife Federation v. Morton*, 393 F. Supp. 1286 (D.D.C. 1975) (use of off-road vehicles on public lands); *I-291 Why? Ass'n v. Burns*, 372 F. Supp. 223 (D. Conn. 1974), *decision aff'd*, 517 F.2d 1077 (2d Cir. 1975) (alternative highway routes). *See also Akers v. Resor*, 443 F. Supp. 1355 (W.D. Tenn. 1978) (alternative of delay to allow completion of mitigation measures).

⁵⁰ *Id.*

⁵¹ 18 C.F.R. §380.12.

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CO012-13

An environmental impact statement should address alternatives to avoid or minimize the environmental impact of the proposal under consideration. However, the Commission does not address the additional emissions controls that could be placed on the Compressor Station, instead abdicating its responsibility to look at true alternatives by referencing the generally applicable federal regulations.⁵²

A closer look at TransCanada’s proposal for the Compressor Station shows that meaningful alternatives exist that could reduce the environmental impact of the proposal. Namely, TransCanada has proposed two Solar Titan 130 Turbines operating 8,760 hours per year, which could emit approximately 80 tons per year of nitrogen oxides, 10 tons per year of volatile organic compounds and 1 ton of formaldehyde, among other pollutants:⁵³

Table 4.11-18
Potential Emissions from the Proposed Cane Ridge Compressor Station

Emissions Source	NO _x (tpy)	CO (tpy)	VOC (tpy)	PM ₁₀ /PM _{2.5} (tpy)	SO ₂ (tpy)	CO ₂ e (tpy)	Formaldehyde (Single HAP) (tpy)	Total HAPs (tpy)
Solar Titan 130 Turbine	39.1	100.4	5.1	4.7	0.5	82,567	0.5	0.7
Solar Titan 130 Turbine	39.1	100.4	5.1	4.7	0.5	82,567	0.5	0.7
Waukesha Emergency Generator	0.3	0.5	0.1	0.0	0.0	53	0.0	0.0
Process Heater	0.6	0.5	0.0	0.0	0.0	723	0.0	0.0
40 Catalytic Heaters	1.2	1.0	0.1	0.1	0.0	1,477	0.0	0.0
Condensate Tank	N/A	N/A	0.0	N/A	N/A	N/A	N/A	N/A
Equipment Leaks	N/A	N/A	0.2	N/A	N/A	244	N/A	N/A
Venting a/	N/A	N/A	0.5	N/A	N/A	662	N/A	N/A
Blowdowns b/	N/A	N/A	6.2	N/A	N/A	8,001	N/A	N/A
Total Station Emissions	80.3	202.8	17.3	9.5	1.0	176,294	1.0	1.4
Title V Threshold	100	100	100	100	100	N/A	10	25
PSD Major Source Threshold	250	250	250	250	250	N/A	N/A	N/A

a This includes emissions from the pneumatic actuators and compressor unit dry seals.
b This includes emissions from turbine shutdown blowdowns and one full station blowdown.

Reasonably available control technologies exist that would reduce and/or eliminate emissions in this densely populated residential area. In fact, companies like

⁵² DEIS at 4-306.

⁵³ DEIS 4-288.

CO012-13: Discussion of operational air emission impacts and mitigation can be found in section 4.11.1.3.4. The Cane Ridge Compressor Station is currently in the Clean Air Act permitting process with the Metropolitan Government of Nashville & Davidson County, which has jurisdiction to identify and enforce the appropriate emissions control technology for the station.

Section 3.6 has been updated to include further discussion on electric alternatives and the relative emissions. We do not believe electric driven motors present a significant environmental advantage to the proposed gas-fired turbines for the Cane Ridge station.

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(cont.)

Kinder Morgan and Columbia Gas Transmission have installed facilities with more stringent controls than those proposed for Cane Ridge. For example, new compression requirements at the Tennessee Gas Pipeline Coudersport, PA Station 313 were fulfilled with a no-emissions electric motor driver.⁵⁴ Similarly, an electric drive compressor unit replacement was installed at Kinder Morgan’s Station 104 in Kansas.⁵⁵ The Commission dismisses electric-driven compressors for reasons not applicable to the Cane Ridge Compressor Station.⁵⁶ The Commission’s electric motor-driven compressors alternative analysis is not sufficient. The additional load on the electric grid would be dispersed—not concentrated in one community as are the emissions from these turbines. Moreover, electricity for those turbines would come in part from non-emitting sources, such as solar, wind, or nuclear.

As explained by in the attached report,⁵⁷ selection of Electric Motor Drive (EMD) for a compressor station in Tennessee would result in substantially less greenhouse gas emissions than would otherwise be emitted by the Titan 250 gas turbines. The project site is in TVA service territory. TVA forecasts that its average system-wide greenhouse gas emission rate will be approximately 600 pounds per megawatt-hour (lb/MWh) by 2019.4 The TVA greenhouse gas emission trend is shown in Figure 1. In contrast, the Titan 250 emits over 1,100 lb/MWh of greenhouse gas emissions, almost double the TVA system-

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⁵⁴ Gas Electric Partnership Research Consortium, Reliability Review of Electric Motor Drives for Pipeline Centrifugal Compressor Stations, presented at Gas Electric Partnership Conference, Southwest Research Institute, February 9, 2012, p. 11.

⁵⁵ Powers, Bill. “Electric Motor Drive Is Viable RACT Alternative to Two Titan Turbines at Proposed Joelton, Tennessee Compressor Station.” 18 November 2016. Attachment B, pg. 1.

⁵⁶ DEIS at 3-23.

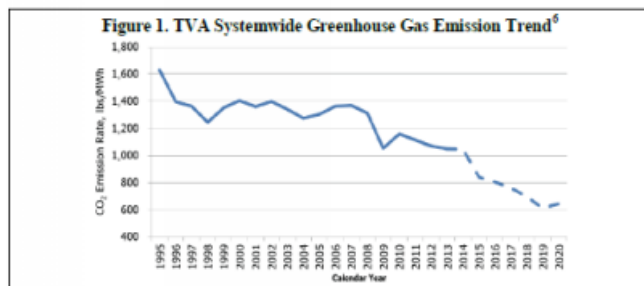
⁵⁷ Bill Powers, P.E., *Electric Motor Drive Is Viable RACT Alternative to Two Titan Turbines at Proposed Joelton, Tennessee Compressor Station* (Nov. 18, 2016).

COMPANIES AND ORGANIZATIONS

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(cont.)

wide average projected for 2019.⁵⁸ If EMD was selected for the compressors at the site, the TVA electric power serving the compressor EMDs would have a substantially lower greenhouse gas footprint than the proposed Titan 250 gas turbines. Although the attached analysis was conducted for a different compressor station, the underlying assumptions also apply to the Cane Ridge Compressor Station, and the conclusion remains applicable.



Electric motors and natural gas-fired combustion turbines have approximately the same installed cost.⁵⁹ The cost of electricity drives the operating cost of EMD compressors.

Wholesale electricity prices have declined substantially in recent years. The average wholesale electricity price in TVA service territory in 2015 was about \$38 per megawatt-hour (3.8 cents per kilowatt-hour).⁶⁰ Wholesale electricity prices were even lower in neighboring service territories. For example, the average wholesale electricity

⁵⁸ Gas Turbine World, *2016 Performance Specifications – 32nd Edition*, January-February 2016, Volume 46,

No. 1, p. 6 and p. 18.

⁵⁹ Interstate Natural Gas Association of America, *Interstate Natural Gas Pipeline Efficiency*, October 2010, p. 35.

⁶⁰ TVA, *Refining the Wholesale Pricing Structure, Products, Incentives and Adjustments for Providing Electricity to TVA Customers - Final Environmental Assessment: Appendix A - Wholesale Power Rates and Charges for Standard Service Customers*, July 2015, p. 31. Average of summer, winter, and transition onpeak and off-peak wholesale rates is approximately \$38 per megawatt-hour.

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CO012-14
(cont.)

concerns.⁶² Indeed, when a Platts database of natural gas compressor stations in the Southeast is sorted by horsepower, the six next largest and six next smallest stations to the Cane Ridge Compressor Station when placed next to their population shows that the Cane Ridge Compressor Station is an outlier and should have received a more robust alternatives analysis:

Station	Owner	Horsepower	State	County	City	City population
MT PLEASANT	Texas Eastern Transmission Corp.	45000	TN	Giles	Lynnville	282
BANNER STATION 6	Columbia Gulf Transmission Co.	43300	MS	Calhoun		
STATION 11 & 11A MT. VERNON	Florida Gas Transmission Co.	42400	AL	Mobile	Mount Vernon	1,555
CEREDO	Columbia Gas Transmission Corp.	42200	WV	Wayne	Huntington	49,177
STATION 14, QUINCY	Florida Gas Transmission Co.	41400	FL	Gadsden	Quincy	7,965
#96 CAMPBELLSVILLE	Tennessee Gas Pipeline Co.	41200	KY	Taylor	Campbellsville	10,803
Proposed Cane Ridge Compressor Station	Columbia Pipeline Group	41000	TN	Davidson	Nashville, Cane Ridge	678,889
STANTON STATION 1	Columbia Gulf Transmission Co.	39800	KY	Powell	Clay City	1,069
HAMPSHIRE STATION 4	Columbia Gulf Transmission Co.	39600	TN	Maury	Mount Pleasant	4,654
#79 LOBELVILLE	Tennessee Gas Pipeline Co.	39099	TN	Perry	Lobelville	890
NO 125 MONROE (4)	Transcontinental Gas Pipe Line Corp.	38800	GA	Walton	Monroe	13,466
#63 BATESVILLE	Tennessee Gas Pipeline Co.	38500	MS	Panola	Batesville	7,457
NO. 145 GROVER	Transcontinental Gas Pipe Line Corp.	37500	NC	Cleveland	Grover	699

When the stations above 40,000 horsepower are sorted by city population, the largest 10 stations still show the Cane Ridge Compressor Station as an outlier (as

⁶² E.g., DEIS at 4-236 to 4-237 (discussing property values); DEIS at 4-312 (discussing safety concerns); DEIS at 4-315 (discussing pipeline accident data).

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(cont.)

discussed more fully in the “cumulative impact” section of these comments, another large compressor station—the Joelton Compressor Station—is proposed for the Metropolitan Nashville area).

Station	Owner	HP	State	County	City	City pop
Proposed Joelton Compressor Station	Tennessee Gas Pipeline Co.	60000	TN	Davidson	Nashville (Joelton neighborhood)	678,889
Proposed Cane Ridge Compressor Station	Columbia Pipeline Group	41000	TN	Davidson	Nashville, Cane Ridge	678,889
CEREDO	Columbia Gas Transmission Corp.	42200	WV	Wayne	Huntington	49,177
NO. 150 - DAVIDSON	Transcontinental Gas Pipe Line Corp.	54300	NC	Iredell	Mooresville	34,887
GLADEVILLE TN	Texas Eastern Transmission Corp.	48500	TN	Wilson	Lebanon	28,408
NO. 120 - STOCKBRIDGE	Transcontinental Gas Pipe Line Corp.	71240	GA	Henry	Stockbridge	27,265
CORINTH STATION 5	Columbia Gulf Transmission Co.	45550	MS	Alcorn	Corinth	14,870
NO. 160 - REIDSVILLE	Transcontinental Gas Pipe Line Corp.	53400	NC	Rockingham	Reidsville	14,162
NO. 140 - SPARTANBURG	Transcontinental Gas Pipe Line Corp.	56000	SC	Spartanburg	Moore	13,673
#87 - PORTLAND	Tennessee Gas Pipeline Co.	49700	TN	Sumner	Portland	11,993

The Commission examined only two alternative sites, both of which were proposed by TransCanada and quickly dismissed from consideration.⁶³ The alternative analysis for the site was artificially constrained by TransCanada’s assertion that the “optimal location” was equidistant to two existing compressor stations or within a 1-mile radius of the optimal location.⁶⁴ The Commission’s concurrence that the optimal location is that which “maximize[s] the hydraulic efficiency of the system”⁶⁵ rather than that

⁶³ DEIS § 3.6.2 at 3-25.

⁶⁴ DEIS § 3.6.2 at 3-25.

⁶⁵ DEIS at 3-27 (“Based upon our review of the engineering hydraulic models and flow diagrams, we agree Columbia Gulf’s proposed optimal location for the new Cane Ridge Compressor Station would maximize the hydraulic efficiency of the system. As a result, we conclude that Columbia Gulf’s design constraint of

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CO012-14
(cont.)

which protects the public health and welfare is fatally flawed. In addition, the two sites the Commission was willing to consider as alternatives were only evaluated for “environmental advantages” that did not take into consideration the benefits to human health.

IV. THE DEIS DID NOT ADEQUATELY ANALYZE ENVIRONMENTAL JUSTICE AND SOCIOECONOMIC ISSUES RELATED TO THE COMPRESSOR STATION

CO012-15

A. The Commission Failed to Perform the Required Environmental Justice Analysis.

By enacting NEPA, Congress declared that “each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.”⁶⁶ When federal agencies fail to adequately consider how their decisions can harm environments inhabited by low-income communities and communities of color, this central goal of NEPA is thwarted.⁶⁷ The Commission did not take a “hard look” at how the operation of the compressor stations will degrade the “healthful environment” for environmental justice communities in Nashville.

Federally mandated environmental justice review is not satisfied by inserting top-line demographic data into a DEIS template.⁶⁸ Executive Order 12898 and related guidance from the Council on Environmental Quality instead mandate that federal agencies work to minimize potentially adverse effects on minority and low-income

limiting the siting of the Cane Ridge Compressor Station to a 1-mile radius of the optimal location is reasonable and therefore properly designed.”)

⁶⁶ 42 U.S.C. § 4331(c).

⁶⁷ See Ellem M. Gilmer, FERC’s environmental justice, climate review scrutinized (Apr. 19, 2017), available at <https://www.enews.net/stories/1060053253>.

⁶⁸ DEIS at 4-212 *et seq.* and 4-242 *et seq.*

CO012-15: Section 4.9.9.2 identified the community in the vicinity of the Cane Ridge Compressor Station as a “minority majority” (61.4 percent) community. However, project construction and operation would not cause impacts that are expected to adversely affect the health or welfare of the population living in the project area, nor would it generate air emissions at levels constituting either nuisance or human health hazards offsite. The draft EIS reasonably concludes that the project is not anticipated to cause adverse environmental or socioeconomic effects to any community at all, and certainly not disproportionately high to minority or low-income populations.

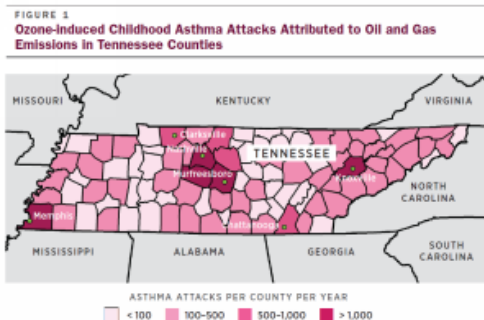
COMPANIES AND ORGANIZATIONS

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(cont.)

communities.⁶⁹ The voices of these communities must be incorporated into the decision-making process. That has not happened here. Federal actions should be carefully scrutinized to avoid disproportionate adverse environmental effects on people of color and low-income populations. Agencies are required to consider whether projects that have environmental impacts will place disproportionate risks or burdens on these vulnerable communities.⁷⁰ The sections of the DEIS relating to environmental justice and socioeconomics exclude significant information that is necessary to make these critical determinations.

The Commission's conclusion in the DEIS that environmental justice populations would not be disproportionately affected by the Compressor Station is not supported by the facts presented in the DEIS itself. First, to set the scene, it is important to note that the Compressor Station is proposed for an area that already suffers from the impacts of oil and gas emissions:



⁶⁹ Council on Environmental Quality, Environmental Justice Guidance under the National Environmental Policy Act 4 (1997), https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_ceq_1297.pdf [hereinafter CEQ, Environmental Justice NEPA Guidance].

⁷⁰ Summary of Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629 (February 16, 1994), <https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice>.

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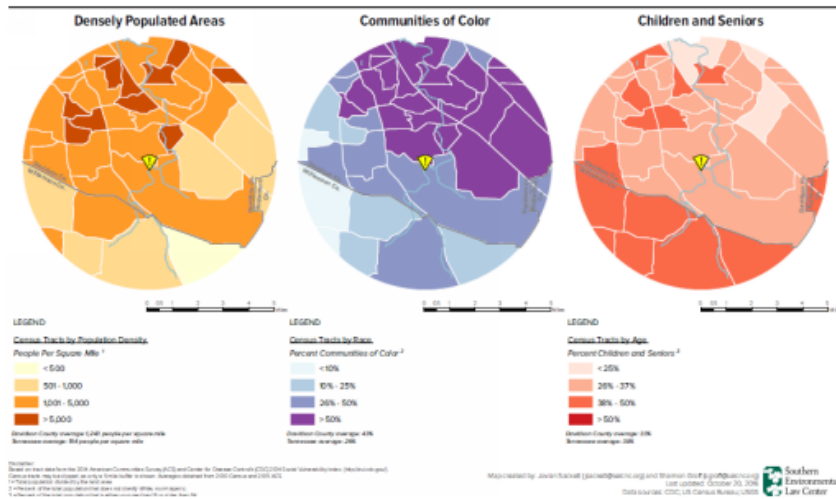
COMPANIES AND ORGANIZATIONS

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(cont.)

Report, “Health Risks in Tennessee from Oil and Gas Air Pollution” (Feb. 2017).⁷¹

Second, at the census tract level, the site proposed by TransCanada is more densely populated, has more communities of color, more children and seniors who are susceptible to the Compressor Station’s impacts, and more immigrants and refugee populations.



U.S. Census: Total Population Density (Foreign Born) by Census Tract with Proposed Compressor Station Location Indicated



⁷¹ Available at: <http://tinyurl.com/HealthEffectsTN>.

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-16

B. The Commission’s Demographic Information is Incomplete.

The Cane Ridge Compressor Station would be situated in a very densely populated area with a significantly greater than average minority population.⁷² The census block encompassing the proposed Cane Ridge Compressor Station has a population density of 1,541 people per square mile. More than 1,500 housing units are situated in the 2.5 square mile census block in which the new Compressor Station would be located, housing almost 4,000 residents. The census block has a 61% minority population, placing it at the 86th percentile in the state.⁷³ A greater percent of residents live under the poverty line in Census Tract 191.12 than the county as a whole:

Population living below the poverty level in Davidson County and in Census Tract 191.12

Davidson County		Census Tract 191.12	
Individuals below poverty level	Percent below poverty level	Individuals below poverty level	Percent below poverty level
116,031	18.2%	931	20.2%

In general, it is important to look at the census tract level for the a compressor station because fugitive emission from equipment leaks and any blowdown emissions affect the adjacent community.⁷⁴ The Commission spends less time discussing a “visual screening plan” that will lessen the visual impact on nearby residences.⁷⁵ Whether the

⁷² “‘Minority’ is defined as individuals who are Black or African American; Asian; American Indian or Alaskan Native; Native Hawaiian or Pacific Islander; or Hispanic.” DEIS at 4-242.

⁷³ All data from EPA’s EJSCREEN tool. See also DEIS at 4-243=7.

⁷⁴ See, e.g., DEIS at 4-293 (“Fugitive gas emissions can occur because of leaks from gas pipeline equipment such as tie-ins, valves, and regulator stations. Fugitive gas can also be emitted from blowdowns at compressor stations. These emissions have been estimated for each GXP compressor station as shown in tables 4.11-14 through 4.11-21. Fugitive emissions from equipment leaks are estimated to be less than 1 tpy for each compressor station. Blowdown emissions are estimated to be in the range of 5 to 7 tpy at each compressor station.”).

⁷⁵ DEIS at 4-248 to 4-249.

CO012-16: Identifying national origin of minorities that may be affected by a federal action is not a requirement of Executive Order 12898 (EO). The EO only requires federal agencies to identify and address, as appropriate, “disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations of low-income populations.” Regardless of the requirement, the incorporation of such information would not have changed our conclusion that impacts from the Cane Ridge Compressor Station would not cause disproportionately “high and adverse human health or environmental effects” to the surrounding population.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-16
(cont.)

Project will be visually displeasing, though, should be a secondary concern to the real question: whether the project will harm the adjacent community.

In its demographic analysis, the Commission lumps all “minorities” together when determining whether environmental justice concerns are present in a given census tract. This approach masks the impacts the pipeline will have on particular racial or ethnic groups. For example, in one of the impacted census tracts in Davidson County (191.12), the total “minority” population is 61.2%. U.S. Census data from 2000 shows that Tennessee’s foreign-born average is 2.8% of the population; Metropolitan Nashville-Davidson County’s foreign-born average is 5.9% of the population; and census tract 191.12 where the Compressor Station is proposed has a foreign-born population of 17.9%.⁷⁶ According to the Mayor’s Office of New Americans, within five miles of the proposed Compressor Station, there are at least five organizations that support immigrants and refugees;⁷⁷ within five miles, there are also at least five churches, one Hindu temple, and the Islamic Center of Tennessee.

Foreign-born residents of Tennessee, Davidson County, and Census Tract 191.12 (2000)

	Tennessee		Davidson County		Census Tract 191.12	
	Individuals	Percent of total population	Individuals	Percent of total population	Individuals	Percent of total population
Native	5530279	97.2%	530295	93.1%	1957	82.1%
Foreign-born	159004	2.8%	39596	6.9%	426	17.9

⁷⁶ See U.S. Census Bureau, 2000 Summary File (Thematic Map of Total population; Percent; NATIVITY, CITIZENSHIP STATUS, AND YEAR OF ENTRY - Total population - Foreign born), available at <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>.

⁷⁷ <https://www.nashville.gov/Portals/0/SiteContent/MayorsOffice/NewAmericans/docs/DirectoryList.pdf>

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-16
(cont.)

Foreign-born residents of census tract 191.12, country of birth (2015)

Region or country of birth	Number of individuals
Total	907
Europe	64
Italy	22
Portugal	2
Romania	35
Bosnia and Herzegovina	5
Asia	349
China	72
Iran	38
Thailand	14
Vietnam	116
Iraq	109
Africa	37
Kenya	7
Egypt	6
South Africa	2
Ghana	22
Americas	457
West Indies	17
Mexico	227
El Salvador	146
Guatemala	33
Chile	9
Guyana	9
Peru	6
Canada	10

Moreover, the Commission did not consider the correlations between race and poverty, and instead considered those demographic categories in isolation. These kinds of disparities are the result of a multi-generational legacy of segregation, discrimination, and exclusion from opportunities for economic advancement that were not eased until the

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-16
(cont.)

1970s, creating few opportunities to build assets that can be passed along to future generations.⁷⁸

CO012-17

C. Environmental Justice Communities Will Suffer Disproportionate Exposure to Risk of Catastrophic Accidents.

There is an unacceptable risk of hazard exposure for those who live near the Compressor Station that appreciably exceeds the general population. Accidents may be rare, but when they occur, they can be deadly. This topic is more fully addressed, below.

CO012-18

D. There Are Increased Risks of Adverse Health Impacts from Pollution at the Compressor Station.

The Commission did not have sufficient information to support a finding that there are no increased health risks from the operation of this compressor station.⁷⁹ The record should reflect that this is not a hypothetical problem: at a public hearing related to the Compressor Station on November 15, 2016, neighbors have shared their personal stories and health concerns:

- Ms. Lacey's husband is Vietnam vet with complications (Multiple Myeloma and Ischemic Heart Disease) from Agent Orange exposure. His health issues manifested 40 years after exposure. She asks the question - "The gas compressor station's amount of chemical emissions/fumes (benzene, formaldehyde, chromium, radon, etc.) may be considered "safe" now, but we don't know what will show up in exposed Nashville citizens in 40+ years, do we?"
- Ms. Kurtz is a homeowner "extremely close" to the Compressor Station site. She suffers from asthma and is very sensitive to chemical smells.
- Ms. Litts lives less than a mile from the compressor site. She has family health concerns: her husband suffers from shortness of breath and her grandson has Aspergers and is sensitive to environmental pollutants. The youngest kids attend schools within a two mile radius and use the greenway.

⁷⁸ See, e.g., Melvin Oliver & Thomas Shapiro, *Black Wealth/White Wealth: A New Perspective on Racial Inequality* (1995).

⁷⁹ DEIS at 4-249.

CO012-17: See response to comment CO003-3.

CO012-18: The EPA sets the NAAQS to be protective of public health, including sensitive subpopulations. Conservative (or "worst case") modeling of each of the proposed GXP compressor stations showed predicted air quality concentrations below the NAAQS, as described in section 4.11.1.3.4. See section 4.11.1.3.5 for further discussion in response to comments about health impacts near the GXP.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-18
(cont.)

- Mr. Tuck suffers from asthma. The pair is in the process of building a new home on Brockman Lane, located within a mile of the Compressor Station.
- Ms. Williams has asthma, and her doctor has recently prescribed a daily inhaler for her asthma.
- Mrs. Markus and her husband are in their late 60s. She has asthma.
- Ms. Amoroso and her husband have respiratory issues, and they moved from Los Angeles to enjoy cleaner air,

This topic is more fully addressed, below.

CO012-19

E. Conclusion.

Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Native American tribe “should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population.”⁸⁰ The DEIS reveals that the Commission’s attention to these fundamental environmental justice concerns was absent. Given the lack of attention to appropriate data, relevant comparisons, or consideration of potential environmental health concerns of vulnerable communities, the DEIS lacks sufficient information for the public to understand the Commission’s conclusion that there are no environmental justice concerns from the construction or operation of the Compressor Station.⁸¹

CO012-20

V. THE DEIS DOES NOT ADEQUATELY DISCUSS IMPACTS ON AIR QUALITY

The Commission’s reliance on other agencies to evaluate and mitigate impacts—particularly when those permits have not been issued—is legally insufficient under

⁸⁰ CEQ, Environmental Justice NEPA Guidance, *supra* note 69, at 10.

⁸¹ *Id.* at 15 (“This statement [whether a disproportionately high and adverse human health or environmental impact on minority populations, low-income populations, or Indian tribe is likely to result from the proposed action] should be supported by sufficient information for the public to understand the rationale for the conclusion.”).

CO012-19: We disagree. See responses to comments CO012-15 through CO012-18.

CO012-20: Air quality standards are discussed in section 4.11.1. Air quality regulations for the Cane Ridge area are discussed in section 4.11.1.3.2, operational air emission impacts and mitigation are discussed in section 4.11.1.3.4, and responses to comments regarding air quality and health are provided in section 4.11.1.3.5.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-20
(cont.)

NEPA as interpreted by *Idaho v. I.C.C.*, 35 F.3d 584 (D.C. 1994). There, the court found that the Interstate Commerce Commission (ICC) failed to take the required “hard look” when it approved Union Pacific’s abandonment of, and salvage activities on, a railroad line in Idaho. There, the ICC imposed six conditions that included requirements to consult with EPA and the Corps of Engineers, and to obtain a Clean Water Act permit if the Idaho Department of Environmental Quality determined one is necessary. 35 F.3d at 589-90. The ICC then found that the project would not significantly affect the quality of the human environment “with the above-mentioned protective conditions.” *Id.* at 590. Accordingly, the court found that the ICC had failed to take the required “hard look” because it “deferred to the scrutiny of others by authorizing salvage subject to conditions that require Union Pacific to consult with various federal and state agencies about the specific environmental impacts that fall within their jurisdictions.” *Id.* Thus, the DEIS’s reliance on eventual compliance with a CAA permit does not satisfy NEPA.

CO012-21

A. Nashville’s History of Non-Attainment with Air Quality Standards and the Potential Economic Cost of Future Non-Attainment Were Not Sufficiently Analyzed.

The Commission incorrectly concludes that because the Compressor Station would not cause NAAQS to be exceeded, the standards are protective of public health.⁸² However, the Commission does not discuss the fact that Middle Tennessee has a history of violating these standards for air certain pollutants.⁸³ Nor does the DEIS address the

⁸² DEIS at 4-292.

⁸³ Nashville was designated nonattainment for the 1-hour ozone standards in the 1990s, and was re-designated as in attainment in 1996. Davidson County narrowly avoided an ozone nonattainment designation in 2004. EPA. “Nashville, Tennessee Ozone Attainment and Maintenance Plan.” 30 October 1996. <https://www3.epa.gov/region4/air/sips/TN-Nashville-Ozone.pdf>. In 1997, the EPA revised NAAQs for ozone, reducing the standard value from a 0.12 ppm 1-hour standard to 0.08 ppm 8-hour average standard. The Middle Tennessee area had exceeded the new standards enough times that, by 2004, Davidson County was faced with the possibility of a nonattainment designation. As an alternative to a nonattainment designation, EPA offered the option of entering into an Early Action Compact. The compact

CO012-21: See response to comment CO012-8.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-21
(cont.)

fact that in recent years, two pollutants exceeded NAAQS in Davidson County: sulfur dioxide and PM2.5. In the 2014-2016 period, sulfur dioxide levels exceeded the primary NAAQS value of 75 ppb once. Between 31 March 2015 and 31 March 2016, PM2.5 levels exceeded the primary NAAQS value of 12.0 µg/m³ 222 times (out of 1043 total measurements reported throughout the year), and 98 measurements have exceeded the absolute secondary NAAQS value of 15.0 µg/m³. Even though both pollutants exceeded NAAQS, the Air Quality Control Region remained “in attainment” because the design values were below the NAAQS for both substances.

Although Nashville remains in attainment with the 2008 ozone standard, the 8-hour ozone levels in recent years indicate that Nashville may face challenges achieving continuous compliance with the new standard, even at the current emissions rate.⁸⁴ In 2015, EPA reduced the primary and secondary NAAQS for ozone from 0.075 ppm to 0.07 ppm to “improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers.”⁸⁵ In the 2014-2016 period, ozone levels in Davidson County exceeded the new NAAQS five times.

Indeed, Nashville’s ozone Air Quality Index (AQI) values have risen to unhealthy levels for sensitive groups multiple times during four of the past six years, and have risen to levels unhealthy for the broader population on at least three occasions (see Figure 1).

required that the area develop a plan to bring the ozone design value into attainment by 2007. Metro Government of Nashville & Davidson County. Metropolitan Public Health Department Division of Pollution Control, Regulation No. 8. <http://www.nashville.gov/Health-Department/Environmental-Health/Vehicle-Inspection/Regulation-8.aspx>.

⁸⁴ Metro Nashville/Davidson County Health Department Air Pollution Control Division, *Air Pollution Control – 2013 Annual Report* (publication pending).

⁸⁵ USEPA “2015 Revision to 2008 Ozone National Ambient Air Quality Standards Supporting Documents.” <https://www.epa.gov/ozone-pollution/2015-revision-2008-ozone-national-ambient-air-quality-standards-naaqs-supporting>.

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-21
(cont.)

Further, while the Tennessee Department of Environment and Conservation has predicted that Nashville will be in compliance for ozone, TDEC has also informed EPA that the design value for one of the two monitoring stations in Davidson County is not valid for 2013-2015 due to data incompleteness.⁸⁶

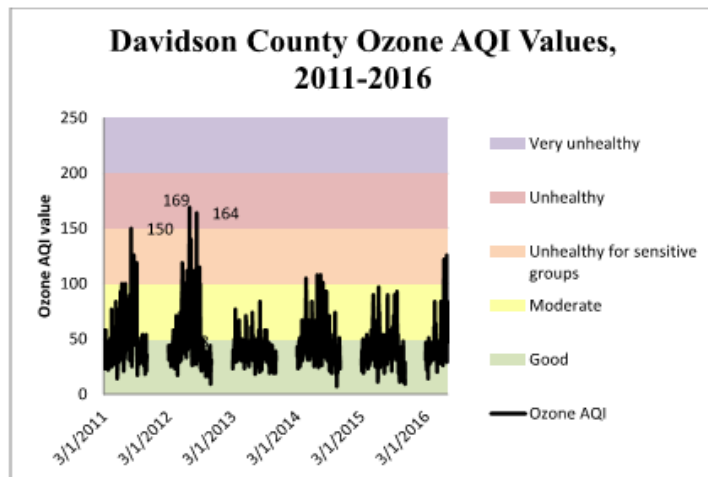


Figure 1: Davidson County Ozone AQI Values, 2011-2016; data from EPA AirData; Nashville and Davidson County's mandated ozone monitoring period is from March 1 through October 31.

CO012-22

B. The DEIS Did Not Adequately Address Concerns About the Potential Health Impacts Associated with Emissions of Pollutants.

The EPA has set ambient air standards for a variety of pollutants emitted by natural gas compressor stations, including but not limited to NO_x (oxides of nitrogen), VOC (volatile organic compounds), CO (carbon monoxide), PM₁₀ (particulate matter with aerodynamic diameter less than 10 microns), and SO₂ (sulfur dioxide).⁸⁷ These

⁸⁶ See Attachment C - Letter from TDEC Commissioner Martineau to EPA Regional Administrator McTeer Toney (Sept. 29, 2016).

⁸⁷ EPA also requires SIP submissions needs to demonstrate that the agency has a complete PSD permitting program covering all requirements for NSR pollutants, including greenhouse gases. Compressor stations

CO012-22: See response to comments CO012-20 and CO012-8.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-22 (cont.)	pollutants are regulated because of the harm they can cause, both to public health and the environment. ⁸⁸
CO012-23	<p><i>i. Nitrogen Oxides</i></p> <p>For example, short-term exposure to nitrogen dioxide (NO₂), a compound within the larger category of oxides of nitrogen (NO_x), is associated with adverse respiratory effects in people with and without asthma. Long-term exposure to NO₂ may decrease lung function in children and adults and increase the risk of respiratory symptoms. NO₂ has been associated with acute bronchitis and chronic respiratory symptoms in children and cough and phlegm symptoms in adults.⁸⁹ Research has identified a connection between exposure to nitrogen dioxide and hospital admissions for respiratory and cardiovascular diseases and all-cause, cardiovascular and respiratory mortality.⁹⁰ There is moderately strong evidence that children, adolescents, elderly, and asthmatics are particularly vulnerable to exposure to NO₂.⁹¹ Additionally, NO_x can react with other compounds to form secondary pollutants, including ozone, acid aerosol and particles.</p>

have the potential to emit significant quantities of greenhouse gases; per an initiative of the Mayor of Nashville, an inventory of Nashville and Davidson County's greenhouses gasses is currently in progress. See <https://www.nashville.gov/Mayors-Office/Infrastructure-and-Sustainability/Programs-and-Initiatives.aspx>.

⁸⁸It is possible for a natural gas compressor station to operate using an electric motor driver instead of a natural gas fired engine or turbine, which would virtually eliminate air emissions, but it would still be subject to the Clean Air Act's jurisdiction because the facility would attract or produce additional vehicle trips and otherwise indirectly increase the emission of pollutants. See, e.g., Siemens Industry, Inc., *Application Notes - Compression in the Oil and Gas Industry*, 2013, available at <https://www.industry.usa.siemens.com/verticals/us/en/oil-gas/Documents/Application%20Note%20-%20Compression%20for%20OG.pdf>. Additionally, electric motor drive is discussed further in Section III-A of these comments.

⁸⁹ World Health Organization. "Health aspects of air pollution with particulate matter, ozone and nitrogen dioxide: report on a WHO working group, Bonn, Germany 13-15 January 2003." (2003).

⁹⁰ Mills, I. C., et al. "Quantitative systematic review of the associations between short-term exposure to nitrogen dioxide and mortality and hospital admissions." *BMJ open* 5.5 (2015): e006946.

⁹¹ Latza, Ute, Silke Gerdes, and Xaver Baur. "Effects of nitrogen dioxide on human health: systematic review of experimental and epidemiological studies conducted between 2002 and 2006." *International journal of hygiene and environmental health* 212.3 (2009): 271-87.

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CO012-23: See section 4.11.1.3.4 for a discussion of emissions of NO_x, CO, and VOC from operation of the combustion turbines, and proposed mitigation.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-24

ii. *Volatile Organic Compounds*

The suite of Volatile Organic Compounds (VOCs) includes a wide range of compounds that vary in toxicity, and the health effects resulting from VOC exposure vary depending on the nature of the compound and the level and length of exposure.⁹² Exposure to certain VOCs may result in a range of health effects, including: eye, nose and throat irritation, headaches, loss of coordination and nausea; and damage to the liver, kidney, and central nervous system. Animal research has implicated exposure to some VOCs in the development of cancer in animals, and EPA reports that some VOCs are suspected or known to cause cancer in humans.⁹³ In particular, the National Toxicology Program's Thirteenth Report on Carcinogens classifies benzene and formaldehyde, both associated with compressor station emissions, as known human carcinogens.⁹⁴

CO012-24: See response to comment CO012-23.

CO012-25

iii. *Ozone*

Ozone, which results from a combination of NOx and VOCs, is a lung irritant, and inhalation of ground-level ozone may trigger a range of health effects and increase morbidity and mortality from respiratory issues.^{95,96} In particular, ozone may cause respiratory symptoms, aggravate existing lung disease, increase the frequency of asthma attacks, make the lungs more susceptible to infection, and cause and exacerbate chronic

CO012-25: See response to comment CO012-23.

⁹² US National Library of Medicine. "Volatile Organic Compounds." *Tox Town*. Accessed at: https://toxtown.nlm.nih.gov/text_version/chemicals.php?id=31.

⁹³ EPA. "Volatile Organic Compounds Health Effects." *Indoor Air Quality*. Accessed at: https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality#Health_Effects.

⁹⁴ US National Library of Medicine. "Volatile Organic Compounds." *Tox Town*. Accessed at: https://toxtown.nlm.nih.gov/text_version/chemicals.php?id=31.

⁹⁵ EPA. "Health Effects of Ozone Pollution." *Ozone Pollution*. Accessed at: <https://www.epa.gov/ozone-pollution/health-effects-ozone-pollution>.

⁹⁶ World Health Organization. *Air quality guidelines: global update 2005: particulate matter, ozone, nitrogen dioxide, and sulfur dioxide*. World Health Organization, 2006.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-25
(cont.)

obstructive pulmonary disease (COPD).⁹⁷ Short-term exposure to ozone is associated with hospital admissions from respiratory disease, pneumonia, COPD, and asthma.⁹⁸ Long-term exposure may exacerbate existing asthma, and is likely to be a contributor to asthma development.⁹⁹ People with asthma, children, elderly, outdoor workers, people with certain genetic profiles, and people with low intake of certain nutrients are particularly vulnerable to ozone exposure.¹⁰⁰ *Accord Am. Petroleum Inst. v. Costle*, 665 F.2d 1176, 1181 (D.C. Cir. 1981) (holding that primary and secondary NAAQS for ozone supported by rational basis on the record), *cert. denied*, 455 U.S. 1034 (1982).

Ozone exposure “can result in health effects that are observed in broad segments of the population, including respiratory symptoms, reduced lung function, and airway inflammation, as well as more serious effects such as increased hospital admissions and increased daily mortality. Respiratory symptoms can include coughing; throat irritation; pain, burning, or discomfort in the chest when taking a deep breath; chest tightness, wheezing, or shortness of breath.”¹⁰¹ Ozone forms when nitrogen oxides react with

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⁹⁷ EPA. “Health Effects of Ozone Pollution.” *Ozone Pollution*. Accessed at: <https://www.epa.gov/ozone-pollution/health-effects-ozone-pollution>.

⁹⁸ Ji, Meng, Daniel S. Cohan, and Michelle L. Bell. “Meta-analysis of the association between short-term exposure to ambient ozone and respiratory hospital admissions.” *Environmental Research Letters* 6.2 (2011): 024006.

⁹⁹ EPA. “Health Effects of Ozone Pollution.” *Ozone Pollution*. Accessed at: <https://www.epa.gov/ozone-pollution/health-effects-ozone-pollution>.

¹⁰⁰ Vinikoor-Imler, Lisa C., et al. “Evaluating potential response-modifying factors for associations between ozone and health outcomes: a weight-of-evidence approach.” *Environmental Health Perspectives (Online)* 122.11 (2014): 1166.

¹⁰¹ EPA, *Ozone and Your Patients’ Health: Course Outline/Key Points*, <https://www.epa.gov/ozone-pollution-and-your-patients-health>.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-25 (cont.)	<p>volatile organic compounds.¹⁰² Because the reaction is catalyzed by heat and sunlight, high ozone days occur most frequently during hot stagnant summers.¹⁰³</p>
CO012-26	<p><i>iv. Particulate Matter</i></p> <p>Fine particles also cause health problems such as heart attacks, aggravated asthma, decreased lung function, and irregular heartbeats.¹⁰⁴ One study of associations between mortality and low-concentration PM_{2.5} found that exposure to fine particle concentrations as low as ten micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)—which is lower than the current federal standard—was associated with a two percent increase in premature deaths for exposures as brief as two days in the study cohort, and a seven to nine percent increase for long-term exposures.¹⁰⁵ Decreases in fine particle concentrations add months, if not years, onto people’s lives.¹⁰⁶</p>
CO012-27	<p>C. Health Impacts Associated with Emissions of Pollutants Appear to Disproportionately Affect Children, Low-Income, and Minority Populations in Nashville</p> <p>That emissions of these pollutants already have an impact on Nashville residents’ health is indisputable. The prevalence of diseases associated with exposure to criteria pollutants, such as asthma and chronic lower respiratory disease, remain high in the area. These diseases place a disproportionate burden upon children, low-income individuals, and minorities in Nashville.</p> <hr/> <p>¹⁰² NASA, <i>Chemistry of Ozone Formation</i>, http://earthobservatory.nasa.gov/Features/ChemistrySunlight/chemistry_sunlight3.php (describing tropospheric ozone production). ¹⁰³ See <i>id.</i>; see also Jeannie Allen, <i>The Ozone We Breathe</i>, NASA (Apr. 19, 2002), http://earthobservatory.nasa.gov/Features/OzoneWeBreathe/. ¹⁰⁴ See generally EPA, <i>Particulate Matter (PM) Health</i>, https://www3.epa.gov/pm/health.html. ¹⁰⁵ Lihua Shi et al., <i>Low-Concentration PM_{2.5} and Mortality: Estimating Acute and Chronic Effects in a Population-Based Study</i>, <i>Envtl. Health Persp.</i> (Jan. 2016), http://ehp.niehs.nih.gov/1409111/. ¹⁰⁶ See C. Arden Pope III et al., <i>Fine-Particulate Air Pollution and Life Expectancy in the United States</i>, <i>360(4) New Eng. J. Med.</i> 2009 376, 382–84 (Jan. 22, 2009), http://www.nejm.org/doi/pdf/10.1056/NEJMsa0805646.</p>

CO012-26: See table 4.11-19. Modeling results demonstrate that the Cane Ridge Compressor Station would not exceed the NAAQS for particulate matter.

CO012-27: The Cane Ridge Compressor Station would not exceed the NAAQS, which are set by EPA to protect the health of the general population, including sensitive subgroups.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-28

Eleven percent of Davidson County residents interviewed in a 2001 Community Behavior Survey conducted by the Metro Public Health Department reported that they had been diagnosed with asthma, a figure higher than the state rate.¹⁰⁷ Davidson County has an annual average inpatient hospitalization rate from asthma of 2,034 per 100,000 people.¹⁰⁸ Asthma affects a disproportionate number of low-income people and members of minority groups in Davidson County. Results from the 2001 survey indicated that Davidson County residents making less than \$10,000 a year were more likely to be diagnosed than those with incomes of more than \$25,000 per year. Additionally, 12.5% of African Americans reported having had an asthma diagnosis, compared to 10.4% of whites.¹⁰⁹

Children are more vulnerable to respiratory conditions than adults, and they are more susceptible to air pollution's effects. The American Lung Association estimates that 14,026 Davidson County Residents suffer from pediatric asthma.¹¹⁰ Davidson County has an average annual asthma emergency department visit rate of 1,373/100,000 among 1-17 year-olds; this rate was increasing through the most recent published data in 2006. The burden of childhood asthma is greater for black children in Davidson County than for white children – black children average 2,372 emergency department visits per 100,000

¹⁰⁷ Metro Public Health Department. "Community Health Behavior Survey 2001." Epidemiology, Surveillance, and Response. December 2003. <http://www.nashville.gov/Portals/0/SiteContent/Health/PDFs/HealthData/BRFSSreport.pdf>

¹⁰⁸ Tennessee Department of Health. "The Burden of Asthma in Tennessee, 2001-2010." Division of Policy, Planning & Assessment. November 2012. <https://www.tn.gov/assets/entities/health/attachments/BurdenofAsthma2001-2010.pdf>

¹⁰⁹ Metro Public Health Department. "Community Health Behavior Survey 2001." Epidemiology, Surveillance, and Response. December 2003. <http://www.nashville.gov/Portals/0/SiteContent/Health/PDFs/HealthData/BRFSSreport.pdf>

¹¹⁰ American Lung Association. "State of the Air." 2016.

CO012-28: See response to comment CO012-27.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-28
(cont.)

population while white children average 665.¹¹¹ Asthma attacks place a unique financial burden upon the families of young sufferers in Davidson County; Davidson County has the highest per visit charges for inpatient asthma hospitalizations in the state for 1-17 year olds, with charges averaging \$9,911 per visit.

Chronic lower respiratory disease (chronic obstructive pulmonary disease, or COPD, is the most deadly of these diseases) is the third leading cause of death in Tennessee.¹¹² The American Lung Association estimates that 51,058 individuals suffer from COPD in Davidson County.¹¹³ The Centers for Disease Control report that the age-adjusted chronic lower respiratory disease mortality rate for Davidson County was 49.9 per 100,000 population.¹¹⁴ Low socio-economic status is related to adverse COPD health outcomes, including disease severity, lung function, and physical functional limitations.^{115,116} In Tennessee, respondents to the Center for Disease Control Behavioral Risk Factor Surveillance System were more likely to report COPD if they had a household income less than \$25,000. Other risk factors identified were being female,

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¹¹¹ Tennessee Department of Health. "Childhood Asthma in Tennessee, 1997-2007." Office of Policy Planning and Assessment. 2009. https://www.tn.gov/assets/entities/health/attachments/Childhood_Asthma_Report_07.pdf.

¹¹² Tennessee Department of Health. "Tennessee Deaths 2013." August 2014. Accessed at: <https://www.tn.gov/assets/entities/health/attachments/TnDeaths13.pdf>.

¹¹³ American Lung Association. "State of the Air." 2016.

¹¹⁴ Centers for Disease Control. "Chronic lower respiratory disease (CLRD) deaths, Davidson County, TN." *Community Health Status Indicators*. 2015. Accessed at: <http://wwwn.cdc.gov/CommunityHealth/profile/currentprofile/TN/Davidson/50012>.

¹¹⁵ Eisner, Mark D., et al. "Socioeconomic status, race and COPD health outcomes." *Journal of epidemiology and community health* (2009): jech-2009.

¹¹⁶ Prescott, Eva, and Jørgen Vestbo. "Socioeconomic status and chronic obstructive pulmonary disease." *Thorax* 54.8 (1999): 737-41.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-28
(cont.)

being unable to work, having educational attainment less than high school, having a history of smoking, or having a history of asthma.¹¹⁷

The estimated “potential emissions” in tons per year of criteria pollutants is not an appropriate measure to determine health risks from the operation of this industrial facility. Health risks increase during episodes of high exposures, and cannot be determined by estimated averages or total tons per year. Nevertheless, the potential increase emissions reported in the DEIS raise concerns about harmful environmental health impacts on the surrounding community. Before the Commission can evaluate the potential impacts of this increased pollution, it should collect information on the local, baseline health conditions that will be degraded by exposure to this additional pollution.

CO012-29

D. The Compressor Station

The Compressor Station would be powered by two Solar Titan 130 Turbines, 40 catalytic heaters, and a process heater.¹¹⁸ This machinery would run nearly continuously throughout the year to maintain pressure in the pipeline.¹¹⁹¹²⁰¹²¹ Even short-term exposure can cause health problems, particularly in sensitive populations like those with respiratory problems or heart disease—like many of those who live near the proposed compressor station.¹²²

CO012-29: See response to comment CO012-27.

¹¹⁷ Centers for Disease Control. “COPD among Adults in Tennessee.” Chronic Obstructive Pulmonary Disease. 2013. Accessed at: https://www.cdc.gov/copd/maps/docs/pdf/TN_COPDFactSheet.pdf.

¹¹⁸ DEIS at 4-288.

¹¹⁹ DEIS at 4-291.

¹²⁰ World Health Organization, Fact sheet: Ambient (outdoor) air quality and health (Sept. 2016), <http://www.who.int/mediacentre/factsheets/fs313/en/> (“WHO Fact Sheet”) (“There is a close, quantitative relationship between exposure to high concentrations of small particulates (PM₁₀ and PM_{2.5}) and increased mortality or morbidity, both daily and over time”).

¹²¹ Frank J. Kelly and Julia C. Fussell, *Air Pollution and Public Health: Emerging Hazards and Improved Understanding of Risk*, *Environ Geochem Health*, Vol. 37(4) 631–649 (2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516868/>.

¹²² *Id.*

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-29
(cont.)

The Compressor Station could also dramatically increase nitrogen dioxide (NO₂) pollution, both a harmful pollutant in its own right and a key precursor to particulate pollution and ozone (or smog). The likely resulting increase in ozone pollution on sunny warm days will be particularly hard on those residents who already suffer from respiratory diseases.

As previously set forth, the Commission has not considered information about preexisting health conditions of the many people who live close to the proposed compressor station and thus has no basis for its conclusion that the reported increased pollution will not impact the health of those who live nearby. It is well known that ozone and fine particulate matter contribute to over 200,000 premature deaths in the United States each year.¹²³ These effects are felt most severely by children, the elderly, people with pre-existing conditions including asthma, and otherwise healthy adults engaged in strenuous or frequent outdoor activity or work.¹²⁴ In other words, this increased pollution will be felt severely by many of the surrounding residents.

There is no evidence of a safe level of exposure for either of these pollutants, and both are associated with health effects even at levels below the current National Ambient Air Quality Standards (NAAQS).¹²⁵ In response to evidence of health problems caused

¹²³ See Steven R.H. Barrett et al., *Air Pollution and Early Deaths in the United States Part I: Quantifying the Impact of Major Sectors in 2005*, Atmospheric Environment Vol. 79, p. 198 (Nov. 2013) (modeling particulate matter and ozone emissions from combustion sectors and concluding that these pollutants result in approximately 200,000 premature deaths in the United States annually).

¹²⁴ See EPA, *Health Effects of Ozone Pollution*, <https://www.epa.gov/ozone-pollution/health-effects-ozone-pollution>.

¹²⁵ See *Am. Trucking Ass'n, Inc. v. EPA*, 283 F.3d 355, 360 (D.C. Cir. 2002) (internal quotation marks and alterations omitted) (recognizing the “lack of a threshold concentration below which [particulate matter and ozone] are known to be harmless.”); EPA, *NAAQS for Particulate Matter*, 78 Fed. Reg. 3086, 3098 (Jan. 15, 2013) (explaining that there is “no population threshold, below which it can be concluded with confidence that PM_{2.5} related effects do not occur”).

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-29
(cont.) by these pollutants at lower and lower levels, EPA has repeatedly strengthened both the fine-particle and ozone NAAQS in recent years.¹²⁶

CO012-30 **F. New Reports.**

A recent report from Physicians for Social Responsibility reviews new scientific studies focused on additional potential pollution from natural gas infrastructure, including compressor stations, and the health outcomes associated with natural gas-related activities.¹²⁷ A recently published analysis of methane emissions from compressor stations in New York and Pennsylvania found highly elevated levels of methane coming from those facilities.¹²⁸ The study concluded that communities that are downwind and downhill from compressor stations likely suffer from elevated exposure to methane and related pollutants from the operation of those stations at higher levels than is permitted. Given this recent evidence of additional pollution from natural gas transmission pipeline compressor stations, the Commission should conduct further study on the potential health impacts from the Compressor Station.

¹²⁶ See National Ambient Air Quality Standards for Particulate Matter, 78 Fed. Reg. 3086, 3088 (Jan. 15, 2013); National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65,291, 65,292 (Oct. 26, 2015) <https://www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf>; Environmental Protection Agency, *NAAQS Table*, <https://www.epa.gov/criteria-air-pollutants/naaqs-table#3>.

¹²⁷ A recent report from Physicians for Social Responsibility reviews new scientific studies focused on additional potential pollution from natural gas infrastructure, including compressor stations, and the health outcomes associated with natural gas-related activities. *Too Dirty Too Dangerous: Why Health Professionals Reject Natural Gas*, Physicians for Social Responsibility (Feb. 2017), <http://www.psr.org/assets/pdfs/too-dirty-too-dangerous.pdf>.

¹²⁸ Bryce Payne, Jr., et al, *Characterization of methane plumes downwind of natural gas compressor stations in Pennsylvania and New York*, Science of the Total Environment, Vol. 580, pp. 1214–1221 (Feb. 2017).

CO012-30: See response to comment CO003-2.

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CO012-31

VI. THE DEIS DID NOT ADEQUATELY CONSIDER NOISE

TransCanada concludes that the estimated sound level from construction activities at the nearest NSA (a residence 690 feet south of the station) will be 54 dBA.¹²⁹ Ambient noise levels are expected to increase up to 8.9 dBA at nearby NSAs, increasing the estimated total Ldn to up to 52.5 dBA at the nearest NSA. Columbia notes that a blowdown silencer will be installed to maintain sound levels of below 60 dBA, and estimates that the additional noise produced during blowdowns will be about 53 to 54 dBA at the nearest NSA.¹³⁰

Nashville's ordinance requires that a person seeking to perform construction activities that would be in violation of the ordinance must "make an application to the director of the department of codes administration and obtain and permit to perform such activities." The permit will not be granted unless the noise will not "be of such magnitude as to interfere with normal activities conducted within the residential zone district during the hours of the proposed construction activities," the applicant has obtained all other approvals and permits for the construction activities, or the "overriding public interest" would be served by permitting the construction.¹³¹ Additional information should be included to confirm methods of compliance with applicable standards.

CO012-31: Noise levels attributable to operation of the Cane Ridge Compressor Station at the closest NSA would be below our noise criterion and the Metropolitan Government of Nashville & Davidson County daytime and nighttime limits.

CO012-32

VII. THE DEIS DID NOT ADEQUATELY CONSIDER GEOLOGY AND KARST

The DEIS acknowledges the existence of karst terrain underlying the Compressor Station site.¹³² However, the Commission's review was superficial and ends with the

CO012-32: See response to comment SA001-3. See also section 4.3.1.6.2 for anticipated groundwater impacts from construction and operation of the GXP.

¹²⁹ Columbia Gulf Transmission. "Noise Quality." Resource Report 9 – Air and Noise Quality, Application for Certificate of Convenience and Necessity. FERC Docket No. CP 16. Pg. 2521.

¹³⁰ Ibid., Pg. 2531.

¹³¹ Nashville & Davidson County, Tenn., Code §16.44.050.

¹³² DEIS at 4-13.

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-32
(cont.)

conclusory assumption that TransCanada will construct foundations to “mitigation the risk of foundation disturbance due to . . . sinkhole activity.”¹³³ In fact, the conclusions in Section 4.1.4.7.2 of the DEIS is virtually identical to TransCanada’s application Section 1.5.2.5.¹³⁴ Resource Report 6, which TransCanada provided along with its application, contains the geotechnical report for the Cane Ridge Compressor Station.¹³⁵ The report begins inauspiciously by incorrectly stating that the project is in Nolensville, Tennessee (a town within Williamson County) rather than Cane Ridge, a community within Nashville, Tennessee.¹³⁶

The report indicates that its purpose was to study conditions to recommend structural foundation design, not to evaluate the impact of the proposal on the environment based on the geology or hydrogeology underlying the site.¹³⁷ The DEIS recognizes that karst terrain is present at the Cane Ridge site.¹³⁸ The application establishes that “karst is a landscape type or terrain characterized by the presence of sinkholes, caverns, and in some cases a highly irregular, pinnacled bedrock surface. Karst is developed from the dissolution of soluble bedrock, such as limestone, dolomite, marble or gypsum, but surface water or ground water. Karst terrain often has unique hydrology and highly productive aquifers, however, these aquifers are *highly susceptible to contamination*.”¹³⁹ The report states that the site geology is underlain by the Hermitage

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¹³³ DEIS at 4-14.

¹³⁴ Application at 1-17 (Apr. 2016).

¹³⁵ Application at 6D-1 *et seq.* (Report, Mar. 2, 2016).

¹³⁶ Application at 6D-2.

¹³⁷ See Application at 6D-5.

¹³⁸ DEIS at 4-13

¹³⁹ Application at 6-32, *Resources Report 6 – Geological Resources (April, 2016)* (emphasis added)

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-32
(cont.)

and Carters Limestone Formations, both of which “are susceptible to solution activity and may contain underground caverns and sinkholes.”¹⁴⁰

Additional investigation is needed to understand the relationship between the karst features on the site and Mill Creek, the home of the endangered Nashville Crayfish. For example, the report concludes that it is limited because “[t]he scope of the exploration was intended to evaluate soil conditions within the influence of the proposed structure foundations and does not include an evaluation of potential deep soil problems, such as sinkholes.”¹⁴¹ The limited scope of review is evident from the scale of the maps attached to the geotechnical reports:



¹⁴⁰ Application at 6D-6.

¹⁴¹ Application at 6D-26.

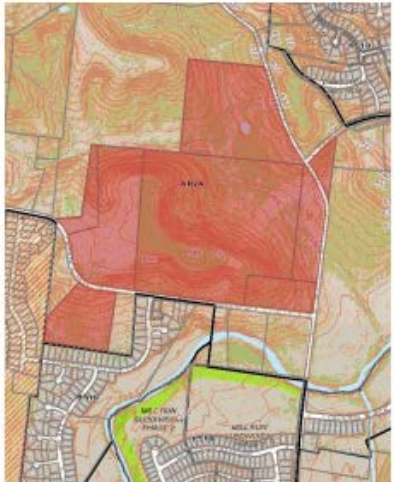
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CO012-32
(cont.)

This map does not—nor could the resulting analysis—provide sufficient information to understand whether there is a hydrologic connection between the site and Mill Creek. The parcels purchased by TransCanada show both water features and terrain graded toward Mill Creek – two features that may indicate a hydrologic connection:¹⁴²



¹⁴² <http://maps.nashville.gov/ParcelViewer/>

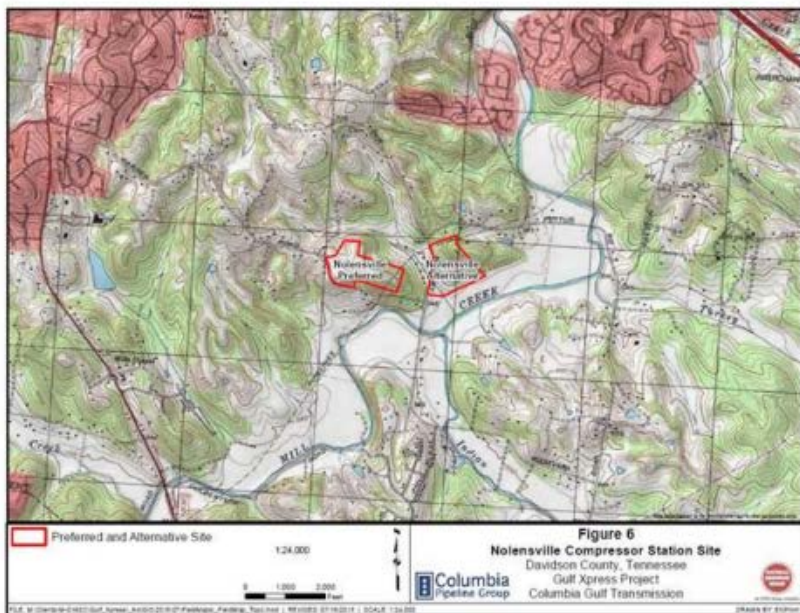
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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-32
(cont.)

Other topographical maps provided by TransCanada raise questions about the implications of the presence of karst. Based on these maps, at minimum, further investigation is warranted.



It does not appear that TransCanada also investigated the groundwater flow or connection to surface water. Therefore, a revised or supplemental DEIS should determine the relationship between groundwater on the parcel(s) and Mill Creek or other surface water features.

CO012-33

VIII. THE DEIS DOES NOT SUFFICIENTLY ADDRESS ENDANGERED AND THREATENED SPECIES

Under NEPA, federal agencies are obligated to take a “hard look” at the environmental implications of their actions—a look that demands, “[a]t the least ... a

CO012-33: The USFWS has concurred that the GXP would not affect federally listed bat species. As stated in section 4.7.11.2, we have determined that the GXP would have either *no effect* or would *not likely to adversely affect* any of the federally listed species that could occur in the project vicinity. Consultation with the USFWS under section 7 of the Endangered Species Act is complete for these species. See response to comment FA001-2.

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CO012-33 (cont.)	<p>thorough investigation into the environmental impacts of ... [proposed] action[s] and a candid acknowledgment of the risks that those impacts entail.”¹⁴³ In order to satisfy these requirements, an agency must “gather” all relevant information and ultimately “provide the data on which it bases its environmental analysis.”¹⁴⁴ The DEIS does not focus on the fact that anthropogenic noise (e.g., from operation of the Compressor Station) alters bat activity levels, instead addressing the appropriate time to avoid construction. The Commission has also failed to provide any analysis of the potential for take from increased turbidity or entrainment and impingement.</p>
CO012-34	<p>IX. THE DEIS DOES NOT SUFFICIENTLY ADDRESS WATERS AND WETLANDS</p> <p>A. Water quality issues</p> <p>The DEIS notes that the Compressor Station overlies the Ordovician limestone aquifer.¹⁴⁵ The DEIS concludes, without any supporting data, that site monitoring by TransCanada is sufficient mitigation to ensure that there will be no significant impacts on groundwater quality.¹⁴⁶ Likewise, the Commission does not adequately address impacts to the designated uses of the surface waters which will be impacted by the Compressor Station. The terrain around the Compressor Station is heavily sloped, with significant</p> <hr/> <p>¹⁴³ <i>Nat'l Audubon Soc'y v. Dep't of the Navy</i>, 422 F.3d 174, 185 (4th Cir. 2005).</p> <p>¹⁴⁴ <i>N. Plains Res. Council, Inc. v. Surface Transp. Bd.</i>, 668 F.3d 1067, 1083, 1085 (9th Cir. 2011) (holding that the defendant agency “did not take a sufficiently ‘hard look’ to fulfill its NEPA-imposed obligations” where the challenged impact statement “d[id] not provide baseline data for many ... species, and instead plan[ne]d to conduct surveys and studies as part of its post-approval mitigation measures”). <i>See also, e.g., Half Moon Bay Fishermans’ Mktg. Ass’n v. Carlucci</i>, 857 F.2d 505, 510 (9th Cir. 1988) (“Without establishing the baseline conditions which exist in the vicinity of ... [the proposed action], there is simply no way to determine what effect the ... [action] will have on the environment and, consequently, no way to comply with NEPA.”).</p> <p>¹⁴⁵ DEIS at 4-39.</p> <p>¹⁴⁶ DEIS at 4-51 (“The greatest threat posed to groundwater resources would be a hazardous material spill or leak into groundwater supplies. We have reviewed Columbia Gulf’s ECS and SPCC Plans and conclude that they adequately address strategies and methods to prevent or limit such contamination should a spill occur.”).</p>

CO012-34: Section 4.3.1 discusses potential groundwater impacts related to the proposed projects. As stated in section 4.3.1.6.2, we do not anticipate any significant or long-term impact on aquifers or groundwater supplies from construction and operation of the GXP.

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-34
(cont.)

karst topography. The DEIS incorrectly states that there are no waterbody features on the proposed Cane Ridge site.¹⁴⁷ This is the parcel TransCanada’s consultant used, this is different than the parcels purchased by TransCanada:



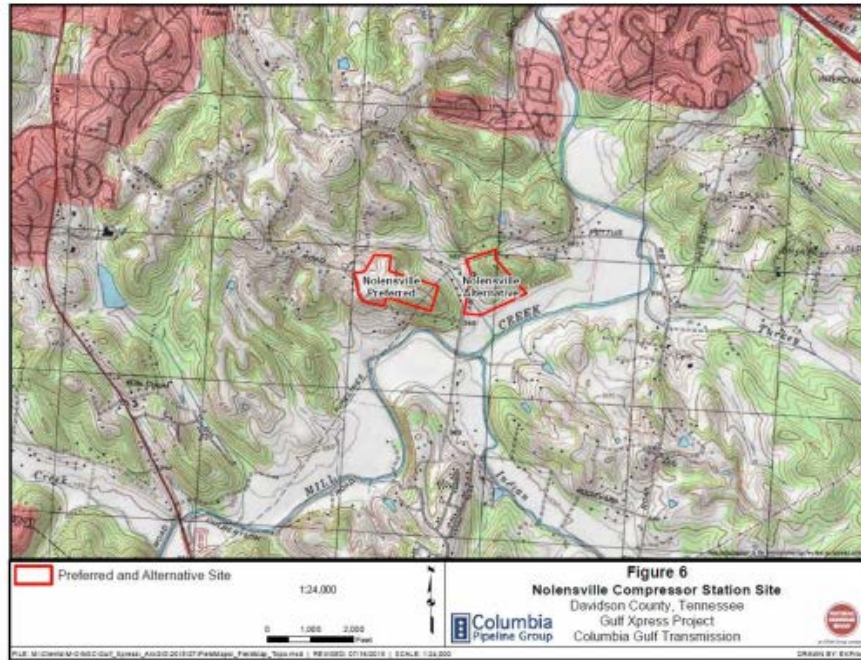
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¹⁴⁷ DEIS at 4-53. See also Application at 2B-6 (“Cane Ridge Preferred: This site is approximately 32.6 acres. The western portion of the site is hayed while the eastern side includes the existing Columbia Pipeline right-of-way and a degraded mesic hardwood system that is actively grazed by cattle. There are no wetland or waterbody features within the survey limits as identified in the NWI and NHD datasets. Additionally, all of the soils within the surveys as identified in the Davidson County Soil Survey (Rock outcrop-Talbott complex (RtC) and Stiversville loam (StD)) are considered well-drained. No wetland, waterbody, or invasive features were observed. Furthermore, habitat for federal and state endangered and threatened species was not observed. Field results are illustrated in Map Set 2, Figure 8.”).

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(cont.)



Based on the grading of the site, additional review is needed in a revised DEIS.

CO012-35

X. THE DEIS DOES NOT SUFFICIENTLY ADDRESS RELIABILITY AND SAFETY

For the twenty year period between 1997-2016, Pipeline and Hazardous Materials Safety Administration recorded 1,719 incidents (averaging 114 incidents a year for the last ten years) at onshore gas transmission pipelines, with 48 fatalities and 179 injuries.¹⁴⁸ The below list reflects just a few examples of gas transmission pipeline accidents. We are including these because of concerns raised that increased pressure resulting from the Compressor Station may strain aging infrastructure, creating a safety issue.

¹⁴⁸ U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA), Serious Incidents, <http://www.phmsa.dot.gov/pipeline>.

CO012-35: See response to comments CO003-3 and CO006-20.

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-35
(cont.)

Examples of recent natural gas-related incidents:

- EL Paso Natural Gas Pipeline explosion kills twelve: “A 30-inch natural gas pipeline owned by El Paso Natural Gas (EPNG) exploded around 5:30 a.m. on Saturday August 19, 2000, leaving a crater about 86 feet long, 46 feet wide and 20 feet deep. The released gas ignited and burned for 55 minutes. It reportedly was visible about 20 miles to the north in Carlsbad, New Mexico. Twelve persons who were camping under a concrete-decked steel bridge that supported the pipeline across the river were [killed in] the inferno when the gas ignited, producing a 1,200-degree fireball. Their three vehicles were destroyed.”¹⁴⁹
- “On September 9, 2010...a 30-inch-diameter segment of an intrastate natural gas transmission pipeline known as Line 132, owned and operated by the Pacific Gas and Electric Company (PG&E), ruptured in a residential area in San Bruno, California...The rupture produced a crater about 72 feet long by 26 feet wide. The section of pipe that ruptured, which was about 28 feet long and weighed about 3,000 pounds, was found 100 feet south of the crater...The released natural gas ignited, resulting in a fire that destroyed 38 homes and damaged 70. Eight people were killed, many were injured, and many more were evacuated from the area.”¹⁵⁰
- 11/3/2011 – Fire at Columbia compressor station in Bedford County, PA. \$1000 worth of damage (non-owner); no injuries or fatalities. 40-50 homes evacuated.¹⁵¹
- “On December 11, 2012...a buried 20-inch-diameter interstate natural gas transmission pipeline, owned and operated by TransCanada Gas Transmission Corporation, ruptured in a sparsely populated area, about 106 feet west of Interstate 77 near Route 21 and Derricks Creek Road, in Sissonville, West Virginia. About 20 feet of pipe was separated and ejected from the underground pipeline and landed more than 40 feet from its original location. The escaping high-pressure natural gas ignited immediately. An area of fire damage about 820 feet wide extended nearly 1,100 feet along the pipeline right-of-way. Three houses were destroyed by the fire, and several other houses were damaged. There were no fatalities or serious injuries.”¹⁵²

¹⁴⁹ National Association of Corrosion Engineers, *CORROSION FAILURES: El Paso Natural Gas Pipeline Explosion*, <http://www.nace.org/CORROSION-FAILURES-El-Paso-Natural-Gas-Pipeline-Explosion.aspx>.

¹⁵⁰ National Transportation Safety Board, Pacific Gas and Electric Company Natural Gas Transmission Pipeline Rupture and Fire, <https://www.ntsb.gov/investigations/AccidentReports/Pages/PAR1101.aspx>.

¹⁵¹ http://www.times-news.com/news/local_news/gas-explosion-fire-forces-evacuations/article_d6d3b5fa-12d7-57d2-aab4-670b8e514444.html.

¹⁵² National Transportation Safety Board, TransCanada Gas Transmission Corporation Pipeline Rupture, <https://www.ntsb.gov/investigations/AccidentReports/Pages/PAR1401.aspx>.

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COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy (continued)

CO012-35
(cont.)

- 11/26/2014 – East Bernard, TX – Gas line adjacent to KM compressor station exploded, destroying a roadway and catching a nearby truck on fire. One person injured.¹⁵³
- Accidents involving fires and explosions have also occurred at gas compressor stations in Texas: in Godley, a fire destroyed the compressor station where the fire started and also the compressor station next to it; a fire at a Madison County compressor station required volunteer firefighters from four towns to control the blaze and evacuate nearby homes; and in Corpus Christi, a fire spread to local brush before being extinguished.¹⁵⁴

CO012-36

Though TransCanada has said that it will comply with Department of Transportation safety requirements,¹⁵⁵ those safeguards have proven insufficient to prevent catastrophic accidents in gas transmission pipelines historically. The Cane Ridge Compressor Station will be unmanned:¹⁵⁶

- Columbia Gas Transmission, L.L.C., a subsidiary of Columbia Gas Pipeline, was responsible for 56 incidents between 2006 and 2016, resulting in 47 federal enforcement actions.¹⁵⁷

The DEIS's summary assumption that Tennessee Gas will comply with regulations and therefore, that these impacts will not occur is simply non-responsive. Moreover, the DEIS's conclusions do not reflect the evidence in the record which shows that TransCanada *is not* compliant with safety regulations. BGiven the DEIS's inadequate assessment of safety issues, the Commission cannot conclude that the project will be in the public necessity and convenience.

¹⁵³ <http://abc13.com/news/gas-line-explosion-sends-150-foot-flames-up-in-air/142620/>.

¹⁵⁴ New York State Madison County Health Department, Comments to the Federal Energy Regulatory Committee concerning docket no. CP14-497-000, Dominion Transmission, Inc. 14 (2014), https://www.madisoncounty.ny.gov/sites/default/files/publicinformation/madison_county_doh_comments_-_docket_no_cp14-497-000.pdf.

¹⁵⁵ DEIS at 4-249.

¹⁵⁶ DEIS at 4-234.

¹⁵⁷ US Department of Transportation. "Incident and Mileage Data: Columbia Gas Transmission, LLC." Operator Information. 2016. https://primis.phmsa.dot.gov/comm/reports/operator/OperatorReport_opid_2616.html

CO012-36: Section 157.14(a)(9)(vi) of the Commission's regulations require that an applicant certify that it would design, install, inspect, test, construct, operate, replace, and maintain the facility for which a Certificate is requested in accordance with federal safety standards and plans for maintenance and inspection, or certify that it has been granted a waiver of the requirements of the safety standards by the USDOT in accordance with section 3(e) of the Natural Gas Pipeline Safety Act. The Commission accepts this certification and does not impose additional safety standards other than USDOT standards.

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CO012 – Keep Southeast Nashville Healthy (continued)

XI. THE DEIS DOES NOT SUFFICIENTLY ADDRESS INDIRECT EFFECTS

CO012-37

The DEIS fails to consider the indirect impacts of the reasonably foreseeable shale gas drilling that would be induced by the increased capacity enabled by the Compressor Station. In analyzing the potential impacts of its approval of the Project and Compressor Station, the Commission must consider the indirect effects of shale gas development. Indirect effects are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”¹⁵⁸ “Indirect effects are defined broadly, to ‘include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.’”¹⁵⁹

In 2016, environmental groups filed a lawsuit challenging the Commission’s decision to issue certificates for the Southeast Market Pipelines Project, which includes the Florida Southeast, Hillabee Expansion and Sabal Trail projects.¹⁶⁰ On April 19, 2017, a panel of judges on the U.S. Court of Appeals questioned the Commission’s approach to studying climate impacts from natural gas pipelines and distinguished the issue from situations in which the Commission does not have the obligation to conduct in-depth analyses due to other agencies’ approvals.¹⁶¹ The judges’ questions align with the

¹⁵⁸ 40 C.F.R. § 1508.8(b).

¹⁵⁹ *Natural Res. Def. Council v. U.S. Army Corps of Eng’rs*, 339 F. Supp. 2d 386, 404 (S.D.N.Y. 2005) (quoting 40 C.F.R. § 1508.8(b)).

¹⁶⁰ See Elin M. Gilmer, *Judge slams FERC’s climate review* (Apr. 18, 2017), <https://www.ecnews.net/arsenwire/stories/1060053227>.

¹⁶¹ *Id.*

CO012-37: See response to comment CO006-4.

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-37 (cont.)	admonition from Chairman Bay that the Commission analyze the impacts of increased regional gas production. ¹⁶²
CO012-38	<p>A. The Commission fails to fully analyze the lifecycle greenhouse gas emissions of the Compressor Station.</p> <p>In the DEIS, the Commission fails to adequately evaluate the potential impacts of the Compressor Station, alternatives to the Compressor Station, or the mitigation of the resulting increases in Greenhouse Gas (GHG) emissions. Recent case law has held that agencies evaluating energy infrastructure projects must analyze the indirect effects of their construction and operation under NEPA,¹⁶³ and that the reviewing agency does not take the requisite “hard look” under NEPA when it fails to consider downstream emissions.¹⁶⁴</p>
<p>¹⁶² No. 20170203-3051; 158 FERC ¶ 61,145 at 94 (Feb. 3, 2017) (“Even if not required by NEPA, in light of the heightened public interest and in the interests of good government, I believe the Commission should analyze the environmental effects of increased regional gas production from the Marcellus and Utica. The Department of Energy has conducted a similar study in connection with the exercise of their obligations under Section 3(a) of the Natural Gas Act.”) (citing U.S. Department of Energy, <i>Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States</i> 19 (Aug. 2014), http://energy.gov/sites/nrod/files/2014/08/f18/Addendum.pdf).</p> <p>¹⁶³ <i>Mid States Coal. for Progress v. Surface Transp. Bd.</i>, 345 F.3d 520, 549-50 (8th Cir. 2003) (finding that NEPA required consideration of the adverse air quality effects of burning coal as an indirect effect of building a railroad that provided a more direct route for coal transport to coal-burning electricity generating units); <i>Border Power Plant Working Grp. v. Dep’t of Energy</i>, 260 F. Supp. 2d 997, 1017, 1028-30 (S.D. Cal. 2003) (requiring consideration of the emissions from a power plant in Mexico, which would export electricity to the U.S., in the NEPA review of the transmission line).</p> <p>¹⁶⁴ Michael Burger, et al., TransCanada Law School Sabin Center for Climate Change Law, <i>Working Paper – Downstream and Upstream Greenhouse Gas Emissions: The Proper Scope of NEPA Review</i>, 1-33 (2016), https://web.law.TransCanada.edu/sites/default/files/microsites/climate-change/downstream_and_upstream_ghg_emissions_-_proper_scope_of_nepa_review.pdf (citing <i>High Country Conservation Advocates v. United States Forest Service</i>, 52 F.Supp.3d 1174 (D.Colo. 2014); <i>Diné Citizens Against Ruining Our Environment v. U.S. Office of Surface Mining Reclamation & Enforcement</i>, 82 F. Supp. 3d 1201 (D. Colo. 2015) (order vacated in part; appeal dismissed in part, 643 Fed.Appx. 799 (10th Cir. 2016)); <i>WildEarth Guardians v. OSM</i>, 104 F. Supp. 3d 1208, 1230 (D. Colo 2015)(order vacated in part, appeal dismissed in part, 643 Fed.Appx. 799 (10th Cir. 2016), but see <i>WildEarth Guardians v. OSM</i>, No. 12-CV-85-ABJ (D. Wyo. 2015) (holding that the agency’s analysis of downstream emissions was adequate, in part because the agency had already disclosed emissions from coal combustion)).</p>	
60	

CO012-38: The draft EIS discusses direct, indirect, and cumulative GHG emissions of the project and performs the required level of analysis, including an attempt to quantify the GHG emissions associated with the end use of the natural gas transported on the project. In addition, we present the downstream GHG emissions associated with the natural gas volumes proposed by the project in section 4.13.2.11.

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-39

B. Recently issued CEQ final guidance supports the need for the Commission to evaluate the lifecycle GHG emissions resulting from its approvals and the impacts on climate change.

CEQ recently issued its guidance explaining how federal agencies' NEPA analyses and related documentation should evaluate the GHG emissions resulting from agency action and the impacts on climate change.¹⁶⁵ While President Trump recently issued an Executive Order rescinding the CEQ final guidance, this does not preclude the Commission from utilizing the tools contained therein to consider the impacts of its actions on climate change in order to mitigate litigation risk when conducting environmental reviews). The CEQ final guidance acknowledges that "...climate change is a fundamental environmental issue, and its effects fall squarely within NEPA's purview."¹⁶⁶ The CEQ explains that "when an agency determines that quantifying GHG emissions would not be warranted because tools, methodologies, or data inputs are not reasonably available, the agency should provide a qualitative analysis and its rationale for determining that the quantitative analysis is not warranted."¹⁶⁷ Thus, if the Commission asserts that it is unable to quantify the GHG emissions resulting from its certificate approvals, it should, at a minimum, provide a qualitative analysis of the climate change implications of its certificate approvals.¹⁶⁸

CO012-40

XII. THE DEIS DOES NOT SUFFICIENTLY ADDRESS CUMULATIVE IMPACTS

Under NEPA, the Commission must address the impacts of all past, present, and reasonably foreseeable future actions. 40 C.F.R. § 1508.7. Kinder Morgan's Broad Run

¹⁶⁵ *Id.* at 6.

¹⁶⁶ *Id.* at 2.

¹⁶⁷ CEQ Final Guidance, at 12-13.

¹⁶⁸ *Id.* at 13.

CO012-39: See response to comment CO012-38.

CO012-40: The draft EIS considered all direct, indirect, and cumulative impacts associated with the projects, consistent with NEPA, and concludes that although the projects would result in some adverse environmental impacts, if the projects are constructed and operated in accordance with applicable laws, the successful implementation of mitigation measures identified in the EIS, and the Commission's regulations, the impacts would be reduced to acceptable levels. See section 4.13.2.9.2.

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CO012 – Keep Southeast Nashville Healthy (continued)

CO012-40
(cont.)

Expansion Project is a past, present, or reasonably foreseeable future action that, like the Gulf XPress Project, will site a compressor station in Nashville, Tennessee. The DEIS does not adequately discuss these cumulative impacts. In *Delaware Riverkeeper, supra*, the D.C. Circuit stated:

We have explained that "a meaningful cumulative impact analysis must identify (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate. *Grand Canyon Trust v. FAA*, 290 F.3d 339, 345 (D.C.Cir.2002).

The Commission's analysis of cumulative impacts falls short of what was required by *Delaware Riverkeeper*. Nashville is the only major city in the Southeast known to have proposals pending for two compressor stations of this size within its city limits (the Joelton Compressor Station would be a 60,000 horsepower station, while the Cane Ridge Compressor Station would be 41,000 horsepower).

The Joelton Compressor Station will add a significant quantity of additional NO_x and VOC emissions from point sources of fuel combustion in Davidson County when the compressor station becomes operational. NO_x emissions from point sources of fuel combustion will increase 22 percent, from 760 tpy to 927 tpy.¹⁶⁹ VOC emissions from point sources of fuel combustion will also increase 22 percent, from 52.6 tpy to 64.1 tpy.¹⁷⁰

Both this and other emissions should more clearly be included in the analysis.

¹⁶⁹ Metro Nashville/Davidson County Health Department Pollution Control Division, *Air Pollution Control – 2013 Annual Report* (publication pending), Table 1 – 2013 Davidson County Annual Emission Inventory, p. 5. 167.4 tpy/759.6 tpy = 0.22 (22 percent).

¹⁷⁰ *Ibid.* 11.5 tpy/52.6 tpy = 0.22 (22 percent).

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Respectfully submitted,

/s/ Anne Passino

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On behalf of KSNH

April 24, 2017

CERTIFICATE OF SERVICE

I hereby certify that I have on April 24, 2017, caused the foregoing document to be served upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ Anne Passino

Anne Passino

On behalf of KSNH

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CO012 – Keep Southeast Nashville Healthy (continued)

LIST OF ATTACHMENTS

CO012-41

Attachment A: Howard Gebhart, *The Siting of New Proposed Nitrogen Oxide (NOx) Emission Sources in the Greater Nashville Region and Implications for Ozone NAAQS Compliance* (Jan. 17, 2017).

Attachment B: Bill Powers, P.E., *Electric Motor Drive Is Viable RACT Alternative to Two Titan Turbines at Proposed Joelton, Tennessee Compressor Station* (Nov. 18, 2016)

Attachment C: Letter from TDEC Commissioner Martineau to EPA Regional Administrator McTeer Toney (Sept. 29, 2016).

CO012-41: Attachments noted. We will not be commenting on the attachments.

Attachment A

The Siting of New Proposed Nitrogen Oxide (NOx) Emission Sources in the Greater Nashville Region and Implications for Ozone NAAQS Compliance

by: D. Howard Gebhart
Air Resource Specialists, Inc.
Fort Collins, CO

Introduction and Background

The Nashville/Davidson County Metro Public Health Department, Division of Air Pollution Control (Metro) is currently considering permit applications for two large natural gas pipeline compressor stations to operate in Davidson County, Tennessee. One station, proposed by Tennessee Gas Pipeline (Joelton Compressor Station), would utilize new combustion turbines totaling 60,000 horsepower and a second station, proposed by Columbia Gulf Transmission (Cane Ridge Compressor Station), would utilize new combustion turbines totaling 41,000 horsepower. Combustion turbines are significant emitters of nitrogen oxides (NOx), a precursor to formation of ozone in the atmosphere.

The greater Nashville area is currently in compliance with the National Ambient Air Quality Standards (NAAQS) for ozone, although the margin of compliance is small. The NAAQS as defined by the U.S. Environmental Protection Agency (EPA) is 0.070 parts per million (ppm), defined as the annual fourth highest daily maximum 8-hour average concentration averaged over three years.¹ Using the Hendersonville, Tennessee monitor as the representative ozone monitoring site, the design value for Nashville as determined for monitored data over the 2013-2015 time period is 0.067 ppm. However, more than one ozone monitor in the greater Nashville area has measured an ozone design value above 0.070 ppm in the recent past. In fact, the Hendersonville monitor had an ozone design value in excess of the 0.070 ppm NAAQS in all four of the prior three year time periods, *i.e.*, 2009-2011, 2010-2012, 2011-2013, and 2012-2014.

Because of the small margin of compliance with the current 0.070 ppm NAAQS and the historical ozone measurements collected in the greater Nashville area that exceed 0.070 ppm, there is a reasonable basis for concern that the additional NOx emissions created by the proposed compressor stations could lead to increased ozone levels and threaten future attainment with the ozone NAAQS in Davidson County and the greater Nashville area.

Ozone Monitoring in Greater Nashville

There are five monitoring stations for ozone located in the Nashville-Davidson-Murfreesboro-Franklin Metropolitan Statistical Area (MSA). Two stations are operated by Metro and three stations are operated by the Tennessee Department of Environmental Conservation (TDEC).

¹ The new NAAQS became effective on December 28, 2015. National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 206 (Oct. 26, 2015), *Federal Register: The Daily Journal of the United States*. Web. 17 January 2017. However, final designations, classifications, and nonattainment area SIP rules and guidance will not be released until October 2017. USEPA. Ozone NAAQS Timelines: Key Dates for Existing and Future Nonattainment Areas. Web. 17 January 2017. Available at: <https://www.epa.gov/ozone-pollution/ozone-naaqs-timelines>.

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Ozone monitoring at all stations is conducted only during the “ozone season” (the Middle Tennessee ozone season is March 1 – October 31). No ozone measurements are collected during November, December, January, or February. Because the ozone NAAQS compliance is based on the fourth-highest daily 8-hour ozone measurement over the calendar year, the implicit assumption in the Nashville monitoring approach is that no high ozone values occur during the winter time period when ozone measurements are discontinued. In the author’s view, if ozone monitoring continued throughout the year without interruption, then the monitoring data would provide for a more robust determination of NAAQS compliance. It is noted that some locations in the western United States measure their highest ozone levels during the winter months (*References 1 and 2*). Without a continuous 12-months measurement program for at least some Nashville MSA monitoring stations, the assumption that peak ozone does not occur in the fall/winter time period cannot be validated. The historical assumptions about seasonal variability in peak ozone could also be compromised as the ozone NAAQS becomes increasingly more stringent.

The Metro-operated stations are all located within Davidson County. One station is the East Health Site, located at 1015 Trinity Lane, northeast of downtown Nashville, but still within the urbanized region. This station has been in operation since 1972 and also supports monitoring for other pollutants besides ozone, *i.e.*, sulfur dioxide (SO₂) and nitrogen dioxide (NO₂). The second Metro station is located at the US Army Corps of Engineers J. Percy Priest Dam Campus east of the Nashville urban area (3711 Bell Road) and has operated since 1978. The J. Percy Priest Dam Station lies at the transition from the Nashville urbanized area to a more rural environment.

The TDEC ozone monitoring sites are located in areas surrounding the urbanized Nashville region, including Sumner County (the Hendersonville site), Williamson County (the Fairview site), and Wilson County (the Cedars site). **Figure 1** shows the location of the five greater Nashville area ozone monitors and also shows the location for the Tennessee Gas Pipeline (Joelton) and Columbia Gas Transmission (Cane Ridge) compressor stations.

Attachment A

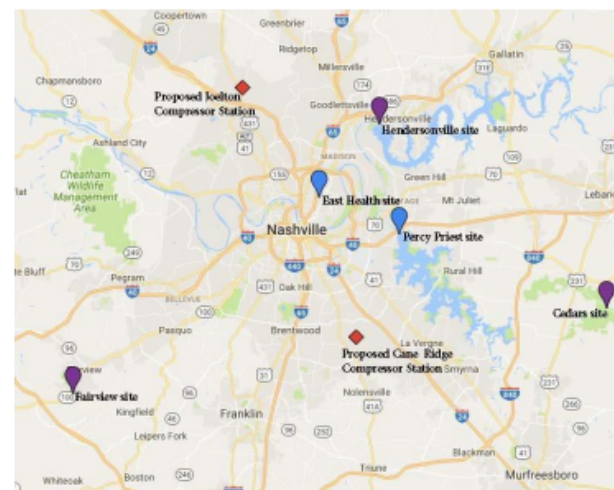


Figure 1: Network of ozone monitors for the Nashville MSA and compressor stations proposed in Davidson County. Proposed compressor stations are pictured as red diamonds, while the location of ozone monitors operated by Metro are blue pins and those operated by TDEC are purple pins

The current design values for each station in the Nashville ozone monitoring network are listed in **Table 1**. The ozone design values, which provide the ozone concentration compared to the NAAQS for determination of compliance, were calculated based on the fourth highest daily maximum 8-hour average ozone concentration averaged over the most recent three year monitoring period.

All data in **Table 1** are based on the three-year 2013-2015 monitoring period, except for the data at East Health. During a 2013 Technical Systems Audit conducted by EPA, it was determined that the inline filters had been relocated from the back of the continuous analyzers to the inlet of the sampling probe lines at this site. However, the new sampling configuration was not employed during the quality control checks for the analyzers and, as such, the data did not meet the specifications under 40 CFR Part 58, Appendix A, Sections 3.2.1.1 and 3.2.2.4. Based on the EPA audit, all data collected at East Health starting with September 2012 were invalidated. Given this audit finding, the 2010-2012 period is the most recent three year period with complete and valid data at the East Health ozone monitoring site.

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Table 1 – Current Ozone Design Values for Nashville Ozone Monitoring Stations

Ozone NAAQS = 0.070 ppm

Ozone Monitor	Monitoring Period	Ozone Design Value (ppm)
East Health	2010-2012	0.069
Percy Priest Dam	2013-2015	0.065
Hendersonville	2013-2015	0.067
Fairview	2013-2015	0.062
Cedars	2013-2015	0.062

Even though the design value shows compliance with the NAAQS, there are occasional days in the Nashville region where one or more monitors may measure peak ozone levels above the NAAQS concentration of 0.070 ppm. In fact, the five Nashville area ozone monitors combined recorded 2,057 one-hour ozone concentrations at or above 0.070 ppm between 2010 and 2015 inclusive. At the Hendersonville monitor, there were 740 instances where the one-hour ozone concentration was at or above 0.070 ppm, comprising about 40% of the total occurrences for the greater Nashville area (*Reference 3*).

Of all of the Nashville area ozone monitors, the Hendersonville monitor is probably the most critical location. The Hendersonville monitoring site lies to the northeast of Nashville, and is generally “downwind” based on the prevailing southwesterly winds that dominate during the summertime ozone season. Emissions generated in the Nashville urban plume are simply more likely to be transported toward Hendersonville as opposed to the other ozone monitors. Excluding East Health where data quality problems bias the ozone design value, the Hendersonville monitor also has the highest design value of any monitor in the Nashville MSA.

The last five ozone design values at Hendersonville are shown in **Figure 2**. Note that in all time periods prior to the current 2013-2015 time period, the three year average ozone design value exceeded the NAAQS (0.070 ppm). In the 2010-2012 time period, the design value even approached 0.080 ppm. The historical ozone data at Hendersonville (and other Nashville monitoring sites) were influenced by a high ozone event that occurred over several clear, dry, calm days in 2012 (*Reference 4*). However, the apparent downward trend in the ozone design value is likely influenced to a greater degree by the lack of similar “worst-case” meteorology occurring since 2012 as opposed to emission reductions of ozone precursors. In fact, there is a reasonable expectation that the “worst-case” meteorology that was present in 2012 would likely recur at some time in the future.

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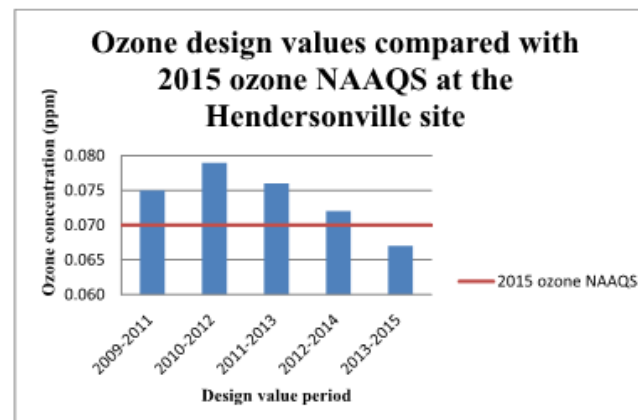


Figure 2 – Historical Ozone Design Values at the Hendersonville, TN Monitor.

Implications of Increased NOx Emissions from Stationary Sources In and Around Nashville

Metro is considering permits that would allow for the construction and operation of two new NOx emission sources in Davidson County. The proposed increased NOx emissions at the Joelton Compressor Station total 167.4 tons per year (allowable emissions) and the proposed increased NOx emissions at the Cane Ridge compressor Station total 80.29 tons per year (allowable emissions). As proposed, both new sources would add about 248 tons per year to the NOx emissions budget in greater Nashville, an emissions increase almost equal to the 250 tpy “major source” threshold under the Prevention of Significant Deterioration (PSD) regulations.

NOx is one of the precursors to ozone formation. In fact, most areas with elevated ozone levels are believed to be “NOx-limited”, meaning that the availability of NOx is the limiting factor in the ozone photochemistry. For NOx-limited locations, increases in regional NOx emissions would be expected to lead to increases in the ambient ozone levels.

Although elevated ozone readings tend to occur during the warmer summer months, temperature by itself does not directly influence the ozone chemistry in any meaningful way. In other words, assuming that all other parameters are the same, an increase or decrease in the ambient temperature, will not significantly influence the amount of ozone formation. The key meteorological parameter needed to promote ozone formation is the incoming solar radiation.

In a NOx-limited environment, new NOx emission sources (such as the new compressor stations proposed in the region) would also add to the NOx emissions budget and thus add to the potential to create ozone. In Nashville, all of the other ozone precursors are present in a surplus - the missing ingredient is sufficient NOx. On that basis, if additional NOx emissions are added, a reasonable expectation is that all of the additional NOx emissions can lead to more ozone. I have postulated that a 1% increase in NOx emissions would lead to a proportional 1% increase in

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ozone levels (this is called the 1-to-1 relationship). USEPA has also modeled hypothetical sources for ozone precursor emissions to assess the potential impact on ozone levels and these findings are consistent with the increases projected in greater Nashville when using the simple 1-to-1 relationship assumption (*Reference 5*). These new EPA modeling findings are discussed in more detail later in this report.

It is the increased NOx drives that ozone formation and not temperature. Changes in ambient temperature would not alter the 1-to-1 relationship between NOx emissions and ozone. Although temperature is not a direct variable that affects ozone formation, ozone formation is driven by the same atmospheric conditions that lead to warmer temperatures, *i.e.*, incoming radiation present in sunlight. Clear sunny days have more solar radiation compared to other days and it is the levels of solar radiation that effect ozone formation. Sunny days do occur year-round; for example, Nashville's percent of possible sun² in winter months ranges from 42% in December to 52% in March (*Reference 6*).³ However, the summer also promotes higher levels of incoming solar radiation as the sun angle is more directly overhead. Also, on those days with higher incoming solar radiation (and greater ozone formation potential), the increased solar radiation acts to warm the atmosphere. So, high ozone days may be correlated with warmer temperatures, but temperature is not the main driver for the higher ozone levels. Instead, the same atmospheric conditions that promote ozone formation (clear sunny skies) are also the same conditions that would be expected to cause warmer temperatures.

Table 2 shows the current NOx emissions budget for Davidson County and the relative increase in NOx that would be generated by the proposed new compressor station emissions (248 tpy NOx). The new compressor station emissions would generate a substantial increase (13%) in NOx emissions compared to other stationary fuel combustion sources in Davidson County. To put these emission increases in perspective, using EPA data where the NOx emissions from a passenger car driven 12,000 miles per year is 18.32 lb/year (*Reference 7*), the proposed NOx emissions increase from the Joelton facility (167 tpy) is equal to the NOx emissions generated by 18,231 automobiles. Likewise, the proposed NOx emissions increase from the Cane Ridge facility (80 tpy) would be the yearly equivalent of 8,734 automobiles. If both compressor stations were constructed, the resulting burden on Davidson County would equate to an increase in NOx emissions equal to approximately 27,000 automobiles.

² The total time sunshine reaches Nashville expressed as a percentage of the maximum amount possible if clear-sky conditions were prevalent from sunrise to sundown.

³ NOAA National Centers for Environmental Information. Comparative Climatic Data. Datasets. Web. 17 January 2017. <https://www.ncdc.noaa.gov/gchen/comparative-climatic-data>.

Attachment A

Table 2 – Impact of New Compressor Station NOx Emissions on Davidson County NOx Budget

Source Category	NOx Budget (ton/yr)	Percentage Increase
Fuel Combustion Stationary Sources	1629	13%
All Stationary Sources	2448	9.2%
All NOx Sources (Stationary & Mobile)	22653	1.1%

If it is assumed that NOx increases lead to a proportional increase in ambient ozone levels (based on the presumption that ozone formation is NOx-limited), then the increase in ambient ozone levels associated with any increase in NOx emissions can be projected. A proportional 1.1% increase in ambient ozone at the Hendersonville monitor would increase the design value from 0.067 to 0.068 ppm. While the estimated ozone concentration remains under the NAAQS, the available compliance margin based on the Henderson design value is reduced by about one-third.

Also, the assumption that changes in ozone levels are proportional to the NOx emissions increase is based on an assumption that the new NOx emissions are well-mixed within the Nashville urban plume. However, this may not be the case. Because the increased NOx emissions would occur from concentrated point sources, there would likely be a NOx emissions plume transported downwind where the relative NOx concentrations may be significantly higher, compared to other sections of the Nashville urban plume. Thus, in a NOx-limited environment, there are likely pockets where a disproportional increase in ozone may occur that exceeds 1.1%. If one of these pockets should affect the Hendersonville monitor, the measured ozone increases may even be higher than the above projection and NAAQS compliance could be threatened.

The potential impact of higher ozone precursor emissions in multiple areas of the United States has also been modeled by EPA (*Reference 5*). EPA modeled hypothetical sources of ozone precursor emissions (NOx and VOC) at various locations in the United States and determined what effect such emissions might have on future ozone level as part of an effort to develop formal protocols for addressing new sources of ozone precursors in the new source review process. Based on these EPA modeling results, a new hypothetical source in Tennessee or Kentucky releasing an additional 500 tpy of ozone precursors was modeled to result in an increase in ambient ozone levels of approximately 3 parts per billion (ppb) or 0.03 ppm. In fact, EPA's conclusions were that new sources of ozone precursor emissions in and around Nashville would generate a larger response on ambient ozone levels compared to most other areas of the United States. Given that the NAAQS compliance margin based on current data from the Hendersonville monitor is only 3 ppb, the EPA modeling data suggest that proposed emissions increase associated with the new compressor stations (almost 250 tpy) would consume about 50% of the current ozone NAAQS compliance margin.

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Lastly, the various design values for Nashville area ozone monitors are based on the measurements over the 2013-2015 period, which does not appear to represent the “worst-case” meteorology. It is known that meteorological conditions conducive to the very high ozone reading can and do occur in Nashville, with the most recent episode occurring over several days in 2012 (*Reference 4*). A repeat of the meteorological conditions that led to the 2012 ozone episode would most likely result in new ozone measurements above the 0.070 ppm NAAQS and the new NOx emission sources resulting from the recent compressor station permits would only exacerbate the problem.

Conclusions and Recommendations

Although the available data on ozone in the greater Nashville area indicate that the region complies with the 0.070 ppm NAAQS, the margin of compliance is small. However, there is no long-term historical record showing that Nashville can consistently meet the 0.070 ppm ozone NAAQS. All recent periods prior to the 2013-15 three-year data period have design values above the 0.070 ppm NAAQS at one or more ozone monitors. Given that almost no compliance margin exists, any repeat of the meteorological conditions that led to elevated ozone readings in 2012 would likely push Nashville into non-compliance with the ozone NAAQS.

Newly released EPA ozone modeling data also show that future ozone levels around Nashville are very sensitive to changes in levels for ozone precursor emissions. Compared to other areas of the United States, relatively small changes in ozone precursor emissions from new/modified sources around Nashville can elicit a much larger response in the ambient ozone levels. Extrapolating from new EPA modeling studies suggest that the two proposed compressor stations would generate sufficient NOx precursor emissions to reduce the ozone NAAQS compliance margin in Nashville by 50%, assuming no change in meteorological conditions from the 2013-2015 baseline period.

Given these findings, a more proactive approach to managing ozone precursor emissions of NOx and volatile organic compounds (VOCs) is appropriate. Given that Nashville appears to be “NOx-limited” like most other ozone regions, an emphasis on strategies that reduce NOx emissions is especially warranted.

Attachment A

Specific Recommendations

- Ozone monitoring in the Nashville MSA should be extended to a continuous 12-month program in order to be confident that the fourth-highest daily maximum concentrations are in fact being measured for comparison to the NAAQS. The ozone season monitoring currently performed in Nashville relies on an assumption that higher ozone levels do not occur during the fall and winter months, and this assumption has in fact been disproved in other regions of the United States.
- Permitting of new/modified emission sources that increase NOx should be more carefully managed as such sources would very likely lead to higher ozone levels in the urban plume downwind of Nashville and threaten NAAQS compliance. New source permitting in Davidson County and surrounding areas should include proactive strategies such as adopting selected provisions of non-attainment new source review (NNSR), *i.e.*, offsets for major new NOx emission sources. Other approaches would include more stringent NOx/VOC emission control requirements such as Best Available Control Technology (BACT) for even for non-PSD sources. Avoiding a future non-attainment designation in Nashville should be the preferred alternative rather than allowing for unmanaged increases in NOx precursor emissions that continue to threaten ozone compliance.

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Attachment A

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2. Utah Department of Environmental Quality, Undated. Uinta Basin Ozone Studies. Available at <http://deq.utah.gov/locations/U/uintahbasin/ozone/strategies/ubos.htm>.
3. US Environmental Protection Agency, Undated. AIRNOW - Ambient Air Quality Data. www.airnow.gov.
4. Bolton R. and J. Shipp, 2013. Update on Past, Present, and Future Ozone Levels in Tennessee. PowerPoint Presentation.
5. US Environmental Protection Agency, 2016. Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier I Demonstration Tool for Ozone and PM2.5 under the PSD Permitting Program. US Environmental Protection Agency, Office of Air Quality Planning and Standards, December 2016 (DRAFT), EPA-454/R-16-006.
6. NOAA National Centers for Environmental Information. Comparative Climatic Data. Datasets. Web. 17 January 2017. <https://www.ncdc.noaa.gov/ghcn/comparative-climatic-data>.
7. US Environmental Protection Agency, 2008. Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks. US Environmental Protection Agency, Office of Transportation and Air Quality, EPA 420-F-08-024.

Attachment B

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Attachment B

Electric Motor Drive Is Viable RACT Alternative to Two Titan Turbines at Proposed Joelton, Tennessee Compressor Station

Bill Powers, P.E., Powers Engineering, San Diego, California

November 18, 2016

This letter addressing the EMD alternative supplements the August 1, 2016 Southern Environmental Law Center comment letter on RACT-level controls for the Titan 250 compressor drive gas turbines at the proposed Joelton Compressor Station. Electric motor drive (EMD) is a technically and economically feasible alternative to the Titan 250 gas turbines currently proposed by the Tennessee Gas Pipeline Company, L.L.C. (TGP) to drive the two compressors at the Joelton Compressor Station. EMD would eliminate air emissions and lower noise levels at the Joelton Compressor Station.¹ This is a viable alternative to the proposed Titan 250 gas turbines and should have been presented by Kinder Morgan as an alternative in its application to the Metro Nashville/Davidson County Air Pollution Control Division.

Electric motor drive (EMD) is in common use in pipeline compressor applications. See Attachment A. EMD is also in use to drive compressors on the Tennessee Gas Pipeline (a Kinder Morgan company).²

Emissions regulations addressed with electric motor driver . . . When El Paso Pipeline Partners (now Kinder Morgan) required additional compression at its Coudersport, PA Station 313 on the Tennessee Gas Pipeline in December 2009, they considered the tradeoffs associated with each of the potential technologies. . . Permitting was avoided by selecting an electric motor driver instead of a natural gas fired engine or turbine.

Selection of EMD to drive the compressors at the Joelton Compressor Station would eliminate combustion air emissions at the site. EMD has the following air permitting advantages over gas turbine drive for pipeline compressor applications:³

- Electric motors reduce the time for a project often by many months considering air permits may not be required compared to gas turbine or engine drive.
- The electric motor drive selection will be a way to avoid having to do a Best Available Control Technology (or Reasonably Available Control Technology) review or air dispersion modeling.

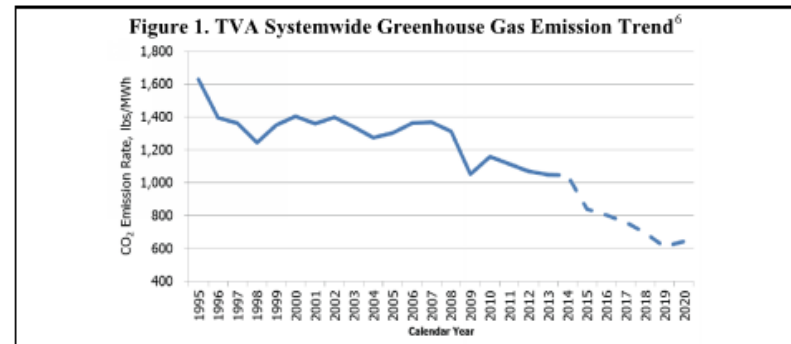
¹ Siemens Industry, Inc., *Application Notes - Compression in the Oil and Gas Industry*, 2013: <https://www.industry.usa.siemens.com/verticals/us/en/oil-gas/Documents/Application%20Note%20-%20Compression%20for%20OG.pdf>.

² Dresser-Rand News, *Unique Compressor Design Allows Efficient Operation Over Wide Range*, Autumn/Winter 2013. See: <http://www.dresser-rand.com/news-insights/unique-compressor-design-allows-efficient-operation-over-wide-range/>.

³ Gas Electric Partnership Research Consortium, *Reliability Review of Electric Motor Drives for Pipeline Centrifugal Compressor Stations*, presented at Gas Electric Partnership Conference, Southwest Research Institute, February 9, 2012, p. 11.

Attachment B

Selection of EMD for the compressors at the Joelton Compressor Station would also result in substantially less greenhouse gas emissions than would otherwise be emitted by the Titan 250 gas turbines. The project site is in TVA service territory. TVA forecasts that its average systemwide greenhouse gas emission rate will be approximately 600 pounds per megawatt-hour (lb/MWh) by 2019.⁴ The TVA greenhouse gas emission trend is shown in Figure 1. In contrast, the Titan 250 emits over 1,100 lb/MWh of greenhouse gas emissions, almost double the TVA systemwide average projected for 2019.⁵ If EMD was selected for the compressors at Joelton, the TVA electric power serving the compressor EMDs would have a substantially lower greenhouse gas footprint than the proposed Titan 250 gas turbines.



Electric motors and natural gas-fired combustion turbines have approximately the same installed cost.⁷ The cost of electricity drives the operating cost of EMD compressors. Wholesale electricity prices have declined substantially in recent years. The average wholesale electricity price in TVA service territory in 2015 was about \$38 per megawatt-hour (3.8 cents per kilowatt-hour).⁸ Wholesale electricity prices were even lower in

⁴ TVA, *Key Facts about TVA and Carbon Emissions*, September 2015:

https://www.tva.com/file_source/TVA/Site%20Content/News/Features/2016%20Features/Fact%20Sheet%20-%20TVA%20and%20Carbon.pdf.

⁵ Gas Turbine World, *2016 Performance Specifications – 32nd Edition*, January-February 2016, Volume 46, No. 1, p. 6 and p. 18. Titan 250 lower heating value (LHV) heat rate = 8,775 Btu per kilowatt-hour (Btu/kWh). Assume natural gas LHV to higher heating value (HHV) ratio is 0.90. Therefore Titan 250 heat rate (HHV) = 8,775 Btu/kWh ÷ 0.9 = 9,750 Btu/kWh. The CO₂ emission rate per million Btu (MMBtu) = 117 lb/MMBtu. The Titan 250, in electrical generation applications, has a rated output of 21,745 MW (21,745 kW). Therefore the hourly CO₂ emission rate of the Titan 250 at rated capacity = 21,745 kW x 9,750 Btu/kWh = 212 MMBtu/hr. Pounds of CO₂ emitted per hour = 117 lb/MMBtu x 212 MMBtu/hr = 24,804 lb/hr. Titan 250 CO₂ emission factor = (24,804 lb/hr) ÷ 21,745 MW = 1,141 lb/MWh.

⁶ TVA, *Key Facts about TVA and Carbon Emissions*, September 2015.

⁷ Interstate Natural Gas Association of America, *Interstate Natural Gas Pipeline Efficiency*, October 2010, p. 35.

⁸ TVA, *Refining the Wholesale Pricing Structure, Products, Incentives and Adjustments for Providing Electricity to TVA Customers - Final Environmental Assessment: Appendix A - Wholesale Power Rates and Charges for Standard Service Customers*, July 2015, p. 31. Average of summer, winter, and transition on-peak and off-peak wholesale rates is approximately \$38 per megawatt-hour.

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Attachment B

neighboring service territories. For example, the average wholesale electricity price in Midwest in 2015 was \$28.91 per megawatt-hour (less than 3 cents per kilowatt-hour).⁹ Low electricity prices increase the competitiveness of EMD compared to gas turbine drive.

EMD is a technically and economically feasible alternative for the compressors at the Joelton Compressor Station, and should therefore be thoroughly evaluated by the Metro Nashville/Davidson County Air Pollution Control Division as a RACT alternative for the Joelton Compressor Station.

⁹ Midcontinent Independent System Operator, *2015 State of the Market Report for the MISO Electricity Markets*, June 2016, p. 2.

Attachment B

Attachment A. Representative EMD Compressors in Pipeline Service

From EN Engineering website, accessed October 28, 2016: <http://www.enengineering.com/projects/>

Compressor Replacement at Station 104

Found In / Posted On / 07.9.2013



Client: Kinder Morgan / NGPL

Project Description: Mainline Electric Drive Compressor Unit Replacement

Project Title: Compressor Replacement at Station 104

Location: Kansas USA

Responsible for detailed engineering and design, preparation of construction documents and procurement for the installation of a 13,000 HP Siemens motor driven Dresser Rand 50 PDI-HS compressor to replace an existing compressor unit. **CSP-5**

East End Expansion Project

Found In / Posted On / 07.9.2013



Client: Ozark Gas Transmission (Spectra Energy)

Project Description: Preliminary Design of Two Mainline Electric Drive Compressor Stations

Project Title: East End Expansion Project

Location: Arkansas, Missouri, Illinois USA

Provided project management, FERC resource reports, detailed design, construction documents and procurement for three new compressor stations. Each compressor station consists of 2-10,000 hp electric motor driven centrifugal compressor units and the associated ancillary systems. **CSP-16**

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy - Attachments

Attachment B

Compressor Station Expansion Project

Found In / Posted On / 07.9.2013



Client: Northern Border Pipeline

Project Description: Greenfield Electric Drive Compressor Station

Project Title: Compressor Station Expansion Project

Location: Iowa USA

Detailed design, project management, and preparation of material lists and construction documents were provided for a new mainline compressor station. The unit was a 16,000 hp electric motor VFD centrifugal compressor package. **CSP-10**

Ozark Gas Transmission (Spectra Energy) – Preliminary Design of Two Mainline Electric Drive Compressor Stations

Found In / Posted On / 05.31.2013



Client: Ozark Gas Transmission (Spectra Energy)

Project Description: Preliminary Design of Two Mainline Electric Drive Compressor Stations

Project Title: East End Expansion Project

Location: Arkansas, Missouri, Illinois USA

Provided project management, FERC resource reports, detailed design, construction documents and procurement for three new compressor stations. Each compressor station consists of 2-10,000 hp electric motor driven centrifugal compressor units and the associated ancillary systems.

Attachment C

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy - Attachments

Attachment C



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

ROBERT J. MARTINEAU, JR.
COMMISSIONER

BILL HASLAM
GOVERNOR

September 29, 2016

Heather McTeer Toney, Regional Administrator
U.S. EPA, Region 4 Office
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

RE: State of Tennessee Designation Recommendations for the 2015 Ozone National Ambient Air Quality Standards (NAAQS)

Dear Ms. Toney:

The United States Environmental Protection Agency (EPA) revised the primary and secondary eight-hour NAAQS for ozone to 0.070 parts per million on October 1, 2015. Section 107(d) of the Federal Clean Air Act requires the governor or a designee of each state to submit to the EPA a list of all areas with a designation recommendation of attainment, nonattainment, or unclassifiable, within one year of promulgation of a new or revised NAAQS. This letter details the designation recommendation for the State of Tennessee and provides supporting documentation for the recommendations.

Certified air monitoring data from monitors in the State of Tennessee, as well as monitors outside of Tennessee but in CBAs or CBSAs that include portions of Tennessee, were evaluated to determine the 3-year design value from 2013-2015. Based on this data, all areas in the State of Tennessee are meeting the revised ozone standard. As such, the Tennessee Department of Environment & Conservation recommends that all counties in Tennessee be designated "unclassifiable/attainment" consistent with historical EPA designation practices for areas attaining an ambient air quality standard. This recommendation is based on the three most recent years of certified, quality-assured air data from the current regulatory monitoring network for the years 2013 through 2015 (see Attachments A and B).

Attachment C

Heather McTeer Toney
September 29, 2016
Page two

Sincerely,

A handwritten signature in blue ink that reads "Robert J. Martineau, Jr." with a stylized flourish at the end.

Robert J. Martineau, Jr.
Commissioner
Tennessee Department of Environment and Conservation

attachments

- c: Jeneanne Gettle, EPA Region 4
- Scott Davis, EPA Region 4
- Lynorae Benjamin, EPA Region 4
- Jane Spann, EPA Region 4
- Brad Akers, EPA Region 4
- Michelle Owenby, Division of Air Pollution Control
- Jimmy Johnston, Division of Air Pollution Control
- Tennessee Air Pollution Control Board
- Tennessee Local Air Programs

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy - Attachments

Attachment C

ATTACHMENT A

STATE OF TENNESSEE 2015 EIGHT-HOUR OZONE NAAQS DESIGNATION RECOMMENDATION

The following table identifies the Tennessee counties and the designation that the State of Tennessee is recommending for the 2015 eight-hour ozone NAAQS.

Area	Recommended Designation
Anderson County	Unclassifiable/Attainment
Bedford County	Unclassifiable/Attainment
Benton County	Unclassifiable/Attainment
Bledsoe County	Unclassifiable/Attainment
Blount County	Unclassifiable/Attainment
Bradley County	Unclassifiable/Attainment
Campbell County	Unclassifiable/Attainment
Cannon County	Unclassifiable/Attainment
Carroll County	Unclassifiable/Attainment
Carter County	Unclassifiable/Attainment
Cheatham County	Unclassifiable/Attainment
Chester County	Unclassifiable/Attainment
Claiborne County	Unclassifiable/Attainment
Clay County	Unclassifiable/Attainment
Cocke County	Unclassifiable/Attainment
Coffee County	Unclassifiable/Attainment
Crockett County	Unclassifiable/Attainment
Cumberland County	Unclassifiable/Attainment
Davidson County	Unclassifiable/Attainment
Decatur County	Unclassifiable/Attainment
DeKalb County	Unclassifiable/Attainment
Dickson County	Unclassifiable/Attainment
Dyer County	Unclassifiable/Attainment
Fayette County	Unclassifiable/Attainment
Fentress County	Unclassifiable/Attainment
Franklin County	Unclassifiable/Attainment
Gibson County	Unclassifiable/Attainment
Giles County	Unclassifiable/Attainment
Grainger County	Unclassifiable/Attainment
Greene County	Unclassifiable/Attainment

Attachment C

Grundy County	Unclassifiable/Attainment
Hamblen County	Unclassifiable/Attainment
Hamilton County	Unclassifiable/Attainment
Hancock County	Unclassifiable/Attainment
Hardeman County	Unclassifiable/Attainment
Hardin County	Unclassifiable/Attainment
Hawkins County	Unclassifiable/Attainment
Haywood County	Unclassifiable/Attainment
Henderson County	Unclassifiable/Attainment
Henry County	Unclassifiable/Attainment
Hickman County	Unclassifiable/Attainment
Houston County	Unclassifiable/Attainment
Humphreys County	Unclassifiable/Attainment
Jackson County	Unclassifiable/Attainment
Jefferson County	Unclassifiable/Attainment
Johnson County	Unclassifiable/Attainment
Knox County	Unclassifiable/Attainment
Lake County	Unclassifiable/Attainment
Lauderdale County	Unclassifiable/Attainment
Lawrence County	Unclassifiable/Attainment
Lewis County	Unclassifiable/Attainment
Lincoln County	Unclassifiable/Attainment
Loudon County	Unclassifiable/Attainment
McMinn County	Unclassifiable/Attainment
McNairy County	Unclassifiable/Attainment
Macon County	Unclassifiable/Attainment
Madison County	Unclassifiable/Attainment
Marion County	Unclassifiable/Attainment
Marshall County	Unclassifiable/Attainment
Maury County	Unclassifiable/Attainment
Meigs County	Unclassifiable/Attainment
Monroe County	Unclassifiable/Attainment
Montgomery County	Unclassifiable/Attainment
Moore County	Unclassifiable/Attainment
Morgan County	Unclassifiable/Attainment
Obion County	Unclassifiable/Attainment
Overton County	Unclassifiable/Attainment
Perry County	Unclassifiable/Attainment
Picket County	Unclassifiable/Attainment
Polk County	Unclassifiable/Attainment

COMPANIES AND ORGANIZATIONS

CO012 – Keep Southeast Nashville Healthy - Attachments

Attachment C

Putnam County	Unclassifiable/Attainment
Rhea County	Unclassifiable/Attainment
Roane County	Unclassifiable/Attainment
Robertson County	Unclassifiable/Attainment
Rutherford County	Unclassifiable/Attainment
Scott County	Unclassifiable/Attainment
Sequatchie County	Unclassifiable/Attainment
Sevier County	Unclassifiable/Attainment
Shelby County	Unclassifiable/Attainment
Smith County	Unclassifiable/Attainment
Stewart County	Unclassifiable/Attainment
Sullivan County	Unclassifiable/Attainment
Sumner County	Unclassifiable/Attainment
Tipton County	Unclassifiable/Attainment
Trousdale County	Unclassifiable/Attainment
Unicoi County	Unclassifiable/Attainment
Union County	Unclassifiable/Attainment
Van Buren County	Unclassifiable/Attainment
Warren County	Unclassifiable/Attainment
Washington County	Unclassifiable/Attainment
Wayne County	Unclassifiable/Attainment
Weakley County	Unclassifiable/Attainment
White County	Unclassifiable/Attainment
Williamson County	Unclassifiable/Attainment
Wilson County	Unclassifiable/Attainment

Attachment B

ATTACHMENT B

CERTIFIED 2013 THROUGH 2015 EIGHT-HOUR OZONE DESIGN VALUES

The Tennessee Department of Environment and Conservation has calculated the eight-hour ozone design values for Tennessee counties with regulatory monitors and monitors in neighboring states that are part of Tennessee CSAs or CSBAs in support of the State's designation recommendation for the 2015 Ozone National Ambient Air Quality Standards

County	Site Name	Monitor ID	2103 4th Max	2014 4th Max	2015 4th Max	2013-2015 Design Value (ppm)
Anderson	Freels Bend Study Area Melton Lake	470010101 - 1	0.060	0.060	0.065	0.061
Blount	Great Smokey Mountains NP – Look Rock	470090101 - 1	0.064	0.064	0.068	0.065
Blount	Great Smokey Mountains NP – Cades Cove	470090102 - 1	0.059	0.058	0.060	0.059
Davidson	1015 Trinity Lane	470370011 - 1	0.055	0.065	0.067	0.062*
Davidson	Percy Priest	470370026 - 1	0.060	0.71	0.064	0.065
Hamilton	Volunteer Army Ammunition Plant	470654003 - 1	0.064	0.067	0.068	0.066
Hamilton	Ridgetrail Road	470651011 - 1	0.061	0.064	0.068	0.064
Jefferson	1188 Lost Creek Road	470890002 - 1	0.065	0.067	0.070	0.067
Knox	9315 Rutledge Pike Mascot TN	470930021 - 1	0.057	0.060	0.066	0.061
Knox	3625 Mildred Lane	470931020 - 1	0.061	0.063	0.066	0.063
Louden	1703 Roberts Road	471050109 - 1	0.061	0.067	0.069	0.066
Sevier	Great Smokey Mountains NP – Cove Mountain	471550101 - 1	0.065	0.068	0.067	0.066
Sevier	Great Smokey Mountains NP – Clingmans Dome	471550102 - 1	0.062	0.065	0.065	0.064*
Shelby	1330 Frayser Blvd	471570021 - 1	0.069	0.067	0.065	0.067
Shelby	6855 Mudville Road – Edmond Orgill Park	471571004 - 1	0.063	0.065	0.066	0.064
Shelby	Shelby Farms	471570075 - 1	0.069	0.066	0.066	0.067
Sullivan	Hill Road	471632002 - 1	0.063	0.065	0.065	0.064
Sullivan	Ketron Middle School – Bloomingdale Road	471632003 - 1	0.063	0.061	0.066	0.063
Sumner	Rockland Recreation Area – Old Hickory Dam	471650007 - 1	0.068	0.066	0.067	0.067
Williamson	Fairview Middle School – Crow Cut Road	471870106 - 1	0.062	0.063	0.061	0.062
Wilson	Cedars of Lebanon State Park	471890103 - 1	0.062	0.064	0.061	0.062
Claiborne	SPD 718 Russell Hill Road, Speedwell TN	470259991 - 1	0.061	0.065	0.061	0.062
DeKalb	ESP Edgar Evans State Park – Smithville TN	470419991 - 1	0.062	0.062	0.061	0.061
Christian	Hopkinsville, Kentucky	470419991 - 1	0.062	0.065	0.062	0.063
DeSoto	5 East South Mississippi	280330002 - 1	0.065	0.067	0.061	0.064
Crittenden	Marion, Arkansas	050350005 - 1	0.067	0.067	0.066	0.066

*The 2013-2015 design value is not valid due to data incompleteness

Data Source: EPA Design Value Reports 2013-12015 – <https://www.epa.gov/air-quality-design-values>

COMPANIES AND ORGANIZATIONS

CO013 – American Petroleum Institute

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Robin Rorick
Group Director
Midstream and Industry Operations

1220 L Street, NW
Washington, DC 20005-4070
USA
Telephone 202-582-8083
Fax 202-582-8093
Email rorickr@api.org
www.api.org

April 24, 2017

Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Subject: Docket No. CP16-357 and CP16-361
Mountaineer XPress and Gulf XPress Projects
Columbia Gas Transmission, LLC (Columbia Gas)

Dear Secretary Bose:

The American Petroleum Institute (API) represents all aspects of America's oil and natural gas industry. Our more than 625 corporate members come from all segments of the industry and include producers, refiners, suppliers, marine transporters, as well as service and supply companies that support all segments of the industry. Our membership also includes a number of companies that develop, construct and operate natural gas pipelines as well as marketers and shippers that subscribe to these pipelines in order to move product to market. Therefore, API is greatly interested in the continued development of natural gas infrastructure to improve public access to this important resource.

As the Commission is well aware, America is in the midst of an energy revolution. The benefits derived from America's oil and natural gas industry are vast and undeniable. Since 2011, the U.S. has been the world's top producer of natural gas¹ – currently producing over 73 Bcf/d in 2016.² Our nation's supply of this resource is enormous and readily available for decades to come thanks to continuing technological advances in accessing and extracting these resources.³ The abundance of this resource, as well as its affordability, reliability and flexibility has allowed the country's consumers to reap tremendous benefits:

CO013 - 1

- Power generators are increasingly turning to natural gas a low-cost fuel source – providing on average 34% of the power consumed in the U.S. in 2016, more than coal,

¹ EIA, Today in Energy, "United States remains largest producer of petroleum and natural gas hydrocarbons," May 23, 2016.

² EIA Short-Term Energy and Summer Fuels Outlook, April 11, 2017.

³ According to a recent study by IHS, utilizing today's technology, approximately 1,400 Tcf of natural gas is recoverable at a Henry Hub price of \$4/MMBtu or less. IHS, "Shale Gas Reloaded: The Evolving View of North American Natural Gas Resources and Costs," February 2016, <http://press.ihs.com/pressrelease/north-americas-unconventional-natural-gas-resource-base-continues-expand-volume-and-de>.

An equal opportunity employer

CO013-1: Comment noted.

COMPANIES AND ORGANIZATIONS

CO013 – American Petroleum Institute (continued)

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CO013 - 1 (cont.) nuclear or renewable sources.⁴ Gas demand growth in the sector is expected to increase by 44% from 2015 to 2040.⁵ Greater utilization of natural gas for power generation has helped greatly reduce air pollution and greenhouse gas emissions.⁶ Further, the flexibility of natural gas-fired generation – for instance, its ability to quickly respond to fluctuation in electricity demand – is helping enable increased use of intermittent energy sources like wind and solar.

CO013 - 2 • Industrial demand for natural gas is also growing – over 20% since 2009.⁷ The manufacturing sector is making significant investments in the U.S. to expand operations in order to take advantage of the U.S.'s supply leading to increased job growth and tax revenue.⁸

CO013 - 3 • A number of pipeline projects are being developed to enable natural gas exports. Multiple studies have shown that increasing LNG exports will have significant benefits including creating more than 450,000 new American jobs and adding up to \$73.6 billion in economic activity.⁹ Besides, economic benefits, increased exports will also help reduce global air emissions¹⁰ and enhance national security.

CO013 - 4 Pipeline projects themselves also provide significant economic benefits. The latest forecasts show that over the next 20-years approximately 23,000 miles of new transmission infrastructure will be required to meet demand in North America.¹¹ This development (including other oil and gas infrastructure projects) will create over 300,000 jobs per year. The resulting addition to GDP (including employment wages and benefits, state and local taxes, and federal taxes, etc.) derived from these investments is more than \$758.1 billion.¹²

CO013 - 5 Regarding the Mountaineer Xpress (MXP) and Gulf Xpress projects, these projects are designed to support growing production from the Marcellus and Utica production regions by transporting

⁴ EIA Today in Energy, *EIA expects natural gas to be largest source of U.S. electricity generation this summer*, April 18, 2017. <https://www.eia.gov/todayinenergy/detail.php?id=30832>

⁵ EIA, AEO 2016

⁶ Researchers at the National Oceanic and Atmospheric Administration (NOAA) found that the increased use of natural gas in power generation has led to 40 percent fewer NOx emissions and 44 percent fewer SO2 emissions since 1997. J.A. de Gouw, et al. 2014. "Reduced emissions of CO2, NOx, SO2 from U.S. power plants owing to switch from coal to natural gas with combined cycle technology," Feb 21, 2014.

⁷ EIA, https://www.eia.gov/dnav/ng/NG_CONS_SUM_DCUSUS_A.htm

⁸ According to the American Chemistry Council, "more than \$130 billion dollars of new investment in chemical manufacturing capacity has been announced (since 2010) to be put in place over the next decade." American Chemistry Council, "The Rising Competitive Advantage of U.S. Plastics," May 2015.

⁹ ICF, U.S. LNG Exports: Impacts on Energy Markets and the Economy, May 15, 2013

¹⁰ DOE, Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States, May 29, 2014.

¹¹ ICF, North American Midstream Infrastructure Through 2035: Leaning into the Headwinds, April 12, 2016.

¹² *Id.*

CO013-2: Comment noted.

CO013-3: Comment noted.

CO013-4: Comment noted.

CO013-5: Comment noted.

COMPANIES AND ORGANIZATIONS

CO013 – American Petroleum Institute (continued)

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CO013 - 6

produced natural gas to markets in West Virginia and other points south. According to an economic impact study conducted on behalf of the MXP project, 9,000 jobs will be created during the construction of the project. The completed projects will also create permanent jobs and generate significant local property tax revenue.¹³

CO013-6: Comment noted.

CO013 - 7

Enhancing our nation's natural gas delivery system is the key to ensuring that the benefits of this tremendous resource are maximized and available to all.

It is for these reasons that API supports this and other projects before the Commission and encourages the timely consideration and approval of the Mountaineer Xpress and Gulf Xpress applications.

CO013-7: Comment noted.

Sincerely,

Robin Rorick
Group Director
Midstream and Industry Operations
American Petroleum Institute

¹³ <https://www.cpg.com/current-projects/mxp>

COMPANIES AND ORGANIZATIONS

CO014 – Ohio Valley Environmental Coalition, William Hughes

	<p>William J Hughes, New Martinsville, WV. NOTE: I thought I had sent these in the morning of April 24, 2017. A FREC rep just told me that they were not received. These are one day beyond the deadline.</p> <p>Comments submitted by myself and on behalf of OVEC by: William J Hughes 862 Scheidler Run Rd New Martinsville, WV 26185 DEIS for Columbia Gas Transmission FERC Docket Number CP16-357; and CP16-361</p> <p>Additional Comments to FERC on MVP DEIS for Columbia Gas Transmission, filed by William J Hughes, on behalf of Ohio Valley Environmental Coalition.</p>
CO014-1	<p>25. These comments are a continuation of my comments submitted to FERC representatives at the public meeting in New Martinsville, WV which was held on March 23, 2017 and are to be added to the original 24 comments.</p>
CO014-2	<p>26. Due to the inadequate and incomplete information provided by Columbia Gas in this DEIS we request that a comprehensive and completely new, revised, updated DEIS be developed by the applicant and again sent out to all commenters and interested parties.</p>
CO014-3	<p>27. Page 4-245 properly identifies the area around the Mount Olive Compressor station as being in an environmental justice community, and discusses some impacts but then proceeds to say that none of the impacts matter (to Columbia Gas) and that they will put the compressor there anyway. It states that residential development is within 100 feet of the compressor site. That distance is absolutely too close to any residence. The statement about visual screening is a total canard given the listed air pollution from the station being at minimum, 120 TPY of NOx and 25 TPY of VOC. We have never known that "visual screening" will stop air pollution. Visual impacts do not cause health impacts. The ambient air surrounding the site at this point in time is not currently monitored and nowhere in the DEIS is there any plan to start monitoring air quality at any of the proposed compressor stations. Lacking base line data, and independent future measurements, it is absolutely impossible to state that: "...air emissions would be below applicable thresholds and would not have significant impacts on local or regional air quality..." The DEIS continues saying that: "...although construction and operation of the MXP compressor stations would result in a noticeable increase in noise levels, the noise levels would remain below our noise criterion..." The proper reference point or criteria is not what Columbia Gas likes. They will not be living there. The residents near any of these compressor stations DO NOT NOW have a compressor in their backyard or nearby. Any increase in air pollution is more than they have now. They do not now have the air pollution and they do not have the noise. Only the residents have the right to determine if the pollution and noise are acceptable to them. Columbia Gas does not live there.</p>
CO014-4	
CO014-5	
CO014-6	
CO014-7	<p>28. On page 4-246, there is another discussion of the environmental justice community around the White Oak compressor station in Calhoun County, WV. The same irrational and non-sequitur statements are made as for the Mount Olive station. The same type of unsubstantiated claims of</p>

CO014-1: See response to comment CO009-1. FERC, not the applicant, is the lead federal agency for the preparation of this EIS in compliance with the requirements of NEPA. See section 1.2 for additional information on the NEPA process.

CO014-2: The purpose in identifying environmental justice communities is to address the potential for the projects to disproportionately affect low-income or minority populations (see section 4.9.9). We have determined that construction and operation of MXP facilities would not cause disproportionately high and adverse environmental or socioeconomic effects to any minority or low-income populations.

CO014-3: Visual screening of project compressor stations is intended to address aesthetic issues. The Mount Olive Compressor Station site is large enough that the proposed 9.2-acre station could be constructed with sufficient forested buffers between the proposed facility and nearby residences.

The statement in section 4.11.1, "models of air quality impacts indicate potential air emissions would be below applicable thresholds and would not have significant impacts on local or regional air quality" is based on EPA standards and emissions modeling based on vendor data.

CO014-4: Potential emissions were estimated from each combustion turbine accounting for normal operation for 8,760 hours per year (i.e., continuous operation) plus additional emissions to account for non-SoLoNOX operation during planned startups and shutdowns. The Mount Olive Compressor Station would be a "minor source" with respect to New Source Review and would not be subject to Prevention of Significant Deterioration permitting. It would require a Title V air permit, issued by the West Virginia Department of Environmental Protection, for operations. See section 4.11.1.2.4 for more information on operational air emissions.

CO014-5: Noise studies conducted at the Mount Olive Compressor Station site estimate that noise from construction of the Mount Olive Compressor Station would peak at 50 dBA at the nearest NSA, the equivalent of the noise in a private office (table 4.11-26). Noise from operation of the compressor station also is estimated at 50 dBA at the nearest NSA (table 4.11-27). These levels are below our criterion of 55 dBA at the nearest NSA.

CO014-6: Our review identified no significant issues resulting from construction and operation of the proposed Mount Olive Compressor Station site, and we did not receive comments requesting that we evaluate any alternative sites.

COMPANIES AND ORGANIZATIONS

CO014 – Ohio Valley Environmental Coalition, William Hughes (continued)

CO014-7 (cont)	"...potential air emissions would be below applicable thresholds and would not have significant impacts on local or regional air quality..." and ...that projected noise levels for White Oak would remain below our noise criterion but would nevertheless be equivalent to almost a doubling of the perceived noise in this quiet rural environment... The main conclusion seems to be that if poorer residents happen to live nearby, that compressor stations will be located there anyway, and the pipeline companies and gas companies, who do not live there, will determine if air pollution and noise are acceptable to the corporations that own and operate and control them. The White Oak compressor station, with residential structures 500-700 feet away, is listed as emitting 89 TPY of NOx and 18 TPY of VOCs.
CO014-8	29. The two sections of the DEIS dealing with the Mount Olive and White Oak compressor stations are emblematic of the general and fundamental problem with allowing eminent domain to be used for non-public purposes. The legal taking of private property for a corporation's profit seems morally questionable. This pipeline applicant is essentially saying that these poor residents live in a clean quiet, rural, private location but because we have the right of eminent domain we can, and will, steal their clean air, take their dark, quiet, peaceful nights and forever destroy their homestead. But we will leave some "mature vegetation" so you do not see what is harming you.
CO014-9	30. Access roads are not numbered or otherwise identified on the maps.
CO014-10	31. In Volume Two of the DEIS, the detailed maps, if correct, show that the intended pipeline will be very close to very many homes. The standard formula for the Potential Impact Radius should be the starting minimum measurement for how close the pipeline should be allowed to be located to any residential structure. Specifically refer to the maps on pages: B-1-58; B-1-59; B-1-60; B-1-62; B-1-63; B-1-64; B-1-66; B-1-67; B-1-68; B-1-76. All these maps, if correct, show that the proposed pipeline is extremely close to the residence.

CO014-7: See responses to comments CO014-2 through CO014-5. Air and noise impacts from construction and operation of the White Oak Compressor Station would be within acceptable limits. The White Oak Compressor Station would be constructed on about 17 acres within a larger 84-acre parcel that includes both forest and open land. No prime farmland or sensitive environmental features were identified on the property, and the site would require minimal clearing and grading for construction. Additionally, the MXP-100 corridor traverses this parcel, and it is available for purchase.

CO014-8: MXP compressor station parcels would be purchased in-fee by Columbia Gas. Eminent domain would not be used to acquire any of the properties. See also the response to comment CO003-5.

CO014-9: Access road identification and information is provided by milepost in appendix F.

CO014-10: The USDOT is mandated to provide pipeline safety under 49 U.S.C. 601. All MXP facilities would be constructed in compliance with USDOT regulations at 49 CFR 192. See section 4.12.1 for a discussion of pipeline safety.

Columbia Gas has developed site-specific construction plans for residences within 50 feet of the new pipeline and associated workspace areas for the MXP. Appendix B-1 includes site-specific construction plans for residences within 25 feet or less of MXP workspaces. These plans identify the mitigation measures to be implemented by Columbia Gas to further reduce impacts on residents during the construction period.

INDIVIDUALS

IND001 - Wayne L. Goddard

ORIGINAL

Wayne L. Goddard

877 Middle Fork Road
New Martinsville, WV 26155

March 15, 2017

FILED
SECRETARY OF THE
COMMISSION
2017 MAR 22 P 10:01
FEDERAL ENERGY REGULATORY COMMISSION

TO:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE:

Draft Environmental Impact Statement
Columbia Gas Transmission, LLC – Mountaineer Xpress Project
Docket Numbers CP16-357-000 and CP16-357-000

Within Vol II of this DEIS, on Map number **9 of 54**; Page number **B-1-10**; at the top, center of the map there is shown a 5.06-acre parcel of ground color coded in RED indicating a contractor yard or staging area. That parcel of land belongs to me. This area has been discussed in detail with the land agent (Dave Wise) from Percheron, representing Columbia Gas Transmission, and the Mountaineer Xpress. They know that I have not given anyone any permission to use that land for any purpose. I would like the DEIS to be corrected to remove that designation of my land.

IND001-1

I hereby wish to restate:

My property and privacy are important. **NO ONE** from any pipeline or natural gas company is to be anywhere on my property for any reason until you receive my written permission.

Wayne L. Goddard
Wayne L. Goddard,

IND001-1: Columbia Gas resolved Mr. Goddard’s concern after this letter was filed with the Commission and is no longer proposing a contractor yard/staging area on his property. The referenced map in the EIS has been revised.

INDIVIDUALS

IND002 - Larry B. Dadisman

Larry B Dadisman, Charleston, WV.

Re: my comments for the two proposed pipeline dockets CP16-361-000 and CP16-357-000.

It is my belief the proposals from the gas industry for new transmission lines are not needed in the sites they request. They have many existing lines that extend into the areas requested that could be enlarged and used for their so called needs. The further destruction, confiscation, and expropriation of public and private lands would be a waste and travesty of justice to the greatest extent.

IND002-1

The existing means of states receiving this abundance of gas at the cost of others needs to be examined. Questions as to why they are exempt from paying their fair share of drilling, exploring, and recovery of existing supplies in their states are not sufficient to void this extravagant proposal of more lines to fulfill their needs at extraordinary expense of others. A question about exporting this gas to enhance dollar bottom lines support the answer, their proposal is not really a need at all and the project should be denied in full.

Please deny these projects and save America from destruction.

IND002-1: The purpose and need for the projects is discussed in section 1.1. Alternatives to construction of the proposed projects are discussed in section 3.0. Natural gas production wells, including “drilling, exploring, and recovery of existing supplies” are not regulated by FERC and are outside the scope of this EIS.

INDIVIDUALS

IND003 - Mary Wildfire

Mary Wildfire, Spencer, WV.
TO: FERC
FROM: Mary Wildfire
1069 Steel Hollow Rd
Spencer, WV 25276
wildfire@spectrumz.com

Comments on Draft Environmental Impact Statement for Mountaineer Xpress Pipeline

IND003-1

Firstly, I don't understand why you rolled this project up with the DEIS on the Gulf Xpress Pipeline. I expect the two connect; but I think most people who are concerned, are concerned about one of these projects, not both, and it looked to me like there was little or no efficiency gained by putting them together. For each section of each item, first the MXP was evaluated and then GXP. This made it harder for us to sort through, and meant FERC had to mail two volumes rather than one to each of a long list of interested parties.

IND003-2

Secondly, I wonder why your list of concerns raised at scoping meetings for MXP did not include climate change. I was at the one in Ripley, WV, and ranted on this subject quite passionately.

IND003-3

More importantly and moving into substance: it seems to me that the intent of this document was to analyze all the required elements relating to the project in such a way as to justify and legitimize it. The proposed solution for each "minor, insignificant" harm was to apply acronyms like BMP and ECS. But who is going to enforce all that, given the slashing of funding for anything environmental? And how effective are the acronyms at actual mitigation anyway?

IND003-4

On alternatives, you state that you weigh three questions: would the alternative do what MXP was designed to, that is deliver X amount of dekatherms to a certain point on the Gulf; would it be feasible; and would it do less or more environmental harm than MXP and GXP. So the No Action alternative was dismissed because it doesn't deliver natural gas to the Gulf—building renewable energy wasn't considered. I say, this is the wrong parameter: you should consider whether there alternatives for energy production, not specifically delivering a specific amount of a specific fuel, natural gas, to a certain location. Citing that as the benchmark makes the No Action alternative—or more precisely, a serious build-out of renewable energy instead—easy to reject.

IND003-5

Similarly, your section on cumulative impacts appears designed to justify the project by using an extremely narrow focus. You list other projects that would come within a certain distance of MXP and then weigh each item (soil, air, water, etc) for each place within that distance. This is not like a view from a satellite at the whole region and all the projects; of which a great many are proposed, enough to turn a quiet rural area into an industrial zone and in fact an Energy Sacrifice Zone. Your analysis is more like a birds'eye view--of THIS compressor station being within two miles of THAT pipeline connector. Again, wrong parameter; and like the

IND003-1: See response to comment CO009-2.

IND003-2: Climate change has been added to table 1.3-1 and is discussed in sections 4.11 and 4.13.

IND003-3: Section 5.2 presents our recommended mitigation measures for the MXP and GXP. Condition 1 would make construction measures and mitigations proposed by the project proponents part of any Commission authorizations issued. In other words, deviation from the proposed measures (BMPs, the ECS, etc.) without specific subsequent authorization would be a violation of the respective Certificate. FERC staff and others would inspect construction and restoration activities to ensure that all proposed measures and other Certificate requirements are implemented.

IND003-4: Our discussion of the No-Action Alternative is presented for the Commission's consideration in section 3.1. In deciding how to process an application, the Commission has only three courses of action. It may (1) deny the proposal, (2) postpone action pending further study, or (3) authorize the proposal, either with or without conditions. The Commission has no authority to deny a proposal in favor of "building renewable energy." The Commission responds to proposals for construction of interstate natural gas transportation facilities; it has no authority to design energy projects (renewable or otherwise) and impose them on the industry.

As described in section 1.1, the applicants developed the projects in response to customers' demands and then filed applications with the FERC for authorization to construct and operate the proposed facilities. The EIS is limited to assessing the potential environmental impacts of the proposed projects and an appropriate range of alternatives. While the EIS does acknowledge that alternative actions (e.g., a future natural gas pipeline project or an alternate form of energy) may be able to meet the customers' demands at some point, such factors are speculative. As such the EIS focuses on alternatives that could meet the projects' specific objectives. Further, the EIS does not consider or reach a conclusion on whether there is a need for the proposed projects. Council on Environmental Quality regulations implementing the National Environmental Policy Act (40 CFR 1502.13) require that an EIS "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the

INDIVIDUALS

IND003 - Mary Wildfire (continued)

<p>IND003-5 (cont.)</p>	<p>others, it seems designed to greenlight the project. If you look at each project piece by piece in isolation, you can justify just about anything. Each little impact, by itself, seems acceptable. Do you look at the jobs and revenue "benefits" from a half-mile section of pipe where it is within a certain distance of another?</p> <p>The most important omission, in my view, is in addressing climate change. Scientists are warning that if we don't get our emissions under control within a decade or so, we risk not severe climate change—that's already baked in the cake—but catastrophic climate change. Does this count as an environmental impact? Would the pipeline deliver huge amounts of a greenhouse gas to places where it will eventually be burned; and will some leak along the way, everywhere from the places of extraction before entering the pipeline all the way to the delivery pipelines? We know that it does leak, and that prior EPA estimates of leakage rates are far too low. And that the leaked methane is far more damaging to climate than the CO2 resulting from burning it.</p> <p>It isn't quite true that you ignore this issue completely; but when you finally get around to talking about climate change you spend a whole page on background information about climate change, and then waste more words on the minor matter of the greenhouse gas emissions from the construction process. One short paragraph actually addresses MXP and how its use would impact climate change. Here, you say that you can't quantify it because you don't know whether the pipeline would be used to capacity, or whether it would involve fuel switching—which I take to mean, if some of it goes into a power plant that replaces a coal-fired one, you can call this reduced GHG, as long as you ignore the fact that the studies NOT sponsored by the industry show that when you take the entire cycle into account, natural gas is no better in GHG terms than coal. But perhaps you just mean that some of the gas would replace some other fuel and so it doesn't count as additional but just replacement emissions. Then comes the absurdity-- "because we cannot determine the projects' incremental physical impacts on the environment caused by climate change, we cannot determine whether the projects' contribution to cumulative impacts on climate change would be significant." That completes your analysis of the climate issue, and the next section is when you sum up cumulative impacts and assert that the only significant one is intact forest habitat (and positive economic ones). THIS IS ILLEGITIMATE! You can't dismiss an enormous impact just because you can't quantify it! Doing this kind of essentially dishonest analysis of every proposed project leads to a situation in which we greenlight everything, keep all our coal plants smoking and build lots more polluting plants of every description, also put lots more gashog cars on the road (after all, if you assess each vehicle in isolation its emissions are insignificant, right?)...and then when our children call us to account for what we've done to their world, try to tell them we didn't realize it. We DO realize it, and they will know that, and they will not forgive us. Especially those of us who are on record, in black and white, for having kept the destruction going. This is in fact an environmental crime of enormous proportions. Most likely there will never be a Nuremburg on it—just the judgment of our own children, demanding to know why inertia and profits and not rocking the boat were reason enough to condemn them to living on a planet resembling Hades, a place where the issue is not salary and perks but getting enough</p>
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proposed action." In other words, the EIS states the purpose of and need for a proposed project in order to define the range of alternative actions that the agency can legitimately consider. The determination of whether there is a "need" for the proposed facilities for the purpose of issuing an authorization under section 7 of the Natural Gas Act will be made in the subsequent Commission Order granting or denying the applicants' requests for Certificate authorization and is based on a balancing of the benefits of the projects against any adverse impacts. See also response to comment CO002-10.

The purpose of the proposed projects is to transport natural gas in interstate commerce. Energy production from renewable resources or the gains realized from increased energy efficiency and conservation are not transportation alternatives and are considered beyond the scope of this EIS.

IND003-5

In the draft EIS, we quantified the anticipated direct GHG emissions from the MXP in section 4.11.1.2.4 and the anticipated downstream GHG emissions from use of the transported gas in section 4.13.2.11. Section 4.13.2.11 has been revised with further discussion on the methodology for determining a "significant impact" with regard to climate change.

INDIVIDUALS

IND003 - Mary Wildfire (continued)

IND003-5

(cont.)

to eat, avoiding contaminated water, and surviving diseases; a place where the refugees from places no longer fit for agriculture (because of droughts, floods, temperature extremes, and the wars stimulated by these things) number in the millions, and many places have gone beyond walls and "extreme vetting" to just shooting them all. An extreme view? Not if the temperature goes up by even three degrees Celsius, and business as usual puts us on a trajectory for considerably more than that. Business as usual includes people continuing, at this late date, to say Yes to more fossil fuel projects. This is highly irresponsible and you cannot wave away your responsibility by saying that you can't accurately quantify it, therefore it must not matter.

Mary Wildfire

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INDIVIDUALS

IND004 - Marianne Hughes

<p><u>Comments submitted by:</u> Marianne Hughes 862 Scheidler Run Rd New Martinsville, WV 26155</p>	<p>DEIS for Columbia Gas Transmission FERC Docket Number CP16-357; and CP16-361</p> <p>Public Hearing, New Martinsville, WV 3/23/17</p>
<p>March 23, 2017</p>	
<p>Comments to FERC on Environmental Impacts of the MXP</p>	
<p>Docket Number CP16-357 and CP16-361</p>	
<p>I live in rural Wetzell County, West Virginia. We came here from Pittsburgh 40 years ago to raise our children in the country, in clean and safe surroundings; with clean air, with clean water, with uncontaminated fertile soil to raise organic food. Growing up in the Pittsburgh area, we know what it is like to live in a polluted environment. We are some of the fortunate grandparents whose children have stayed here to raise their children here. Unfortunately, they do not have the option of the clean environment for their children that they were raised in. Everything is now contaminated beyond belief. This country learned this lesson 50 years ago. We seem to be reverting to the 1960s when we were not as aware of the damage caused by pollutants – damage to air, water, land, health.</p>	
IND004-1	<p>We are now surrounded by shale gas drilling. The ironic fact is that many local residents are not able to get that gas piped to their homes and businesses. It lies beneath us, and the pipelines are taking it elsewhere. If a pipeline is necessary, build local distribution lines so that the gas that originates here is used here. Instead, huge pipelines are being proposed for gas to be shipped away from here. Yet local residents suffer the consequences without reaping any of the benefits. Land values decreased, farm land usurped, air quality deteriorated, water contaminated, life generally disrupted, health disintegrating.</p>
IND004-2	<p>Serious health issues have increased among our local residents since this started. We can't prove it. We can't fight the corporate lawyers. All</p>

IND004-1: The FERC regulates the transmission of natural gas in interstate commerce. Distribution at the local level is regulated by individual states. As such, the issue of local distribution is outside the scope of this EIS.

Land Values and Farmland - The effects of natural gas pipelines on property values are discussed in section 4.9.7. Several studies conducted to assess the potential effects on property values when encumbered by natural gas pipelines have determined that there was no significant impact on property values from the presence of natural gas pipelines on residential properties. Most agricultural activities can resume on the rights-of-way following pipeline construction.

Air and Water Quality – See sections 4.3 and 4.11. Our analysis concludes that construction and operation of the proposed projects would not significantly impact air and water quality in the project areas.

INDIVIDUALS

IND004 - Marianne Hughes (continued)

IND004-2 (cont.)	<p>respiratory illnesses have been aggravated. We are being exposed to an exceptional level of a wide variety of toxins causing all sorts of neurological issues. If we stop the pipelines, maybe we can stop the rest of the degradation of the land, the air, and the water. The pipelines are only needed for the gas corporations to continue their money-making. They are sending it elsewhere in the country, and out of the country. The only benefit here is to the restaurants and motels, and that is short-term. The effects on our health, on our land, air, and water are not short term. We will be living with these losses for the rest of our lives, and probably the lives of our children and grandchildren.</p> <p>Why are we returning to the dark ages? Why are we causing our citizens these hardships, these diseases, intentionally, so that some others may have their creature comforts, their power, without bearing the burden of the creation of that power? So that some others can make a lot of money, while we lose all that is most dear to us?</p>
IND004-3	<p>We are surrounded by pipelines. Multitudes of pipelines have been constructed in this area since shale gas drilling began. Giant swaths of deforested hillside appear every few miles, some very close to each other. A FERC-approved 30-inch pipeline was recently completed near my home. And there definitely are "significant cumulative impacts" to the environment and public health and safety caused by pipeline construction. Throughout the DEIS we find the statement ". . . would not result in significant cumulative impact . . ." This is nothing short of preposterous! It seems most unlikely that any member of FERC who had input into this document has lived anywhere near or even visited any area where a pipeline of this magnitude was being constructed. It would be wise to get your feet on the ground, and not just rely on what the industry tells you, before you write an environmental impact statement.</p> <p>Let me tell you what it is really like here.</p>
IND004-4	<ol style="list-style-type: none">1. Major impact of truck traffic belching diesel fumes, significantly increasing air pollution for an extended period of time, and interfering with local traffic with no consideration for the people who live here. And who, by the way, will not benefit from the existence

IND004-2: As stated in section 4.11.3.1.1, we have concluded that neither the project's construction-related impacts nor the operational impacts from the proposed compressor stations would result in a significant impact on local or regional air quality. These conclusions are based on a comparison of quantifiable emissions with theNAAQS. Construction and operation of the MXP and GXP would not cause impacts that are expected to adversely affect the health or welfare of the population living in the project area, or significantly degrade land or water quality.

IND004-3: As stated in section 4.5.6.1, we have determined that MXP impacts on forested lands would be significant, and have recommended that Columbia Gas work with the WVDNR to identify specific construction, restoration, and/or operational mitigation measures that would be implemented to promote compatibility with the restoration and management of upland forest areas.

IND004-4: A "worst-case" assessment of MXP construction air emission impacts is addressed in section 4.11.1.2.3. These emissions are expected to be temporary and localized. Transportation and traffic impacts are discussed in section 4.9.5.1. Before construction begins, Columbia Gas would work with local transportation officials to limit the effect of the project's construction to local roadways.

INDIVIDUALS

IND004 - Marianne Hughes (continued)

IND004-4 (cont.)	of this pipeline. And it is well know that diesel is a cancer-causing agent.
IND004-5	2. Extensive cutting of trees, then burning trees and brush, significantly increasing air pollution for an extended period of time. And the loss of these trees in and of itself has a significant impact on the environment. Great swaths of once forested extremely steep hillsides are now just grass. This is in a very geologically unstable area. Trees hold soil in place. Slips are common. Slips cause ruptures in pipelines. We are now living in a very dangerous place. Trees also help to clean the air. So the net effect is increasing the air pollution and at the same time reducing nature’s ability to clean that polluted air.
IND004-6	3. This is happening in an area where an intense concentration of shale gas well sites is already adding a significant air pollution factor. This has not been taken into consideration in the DEIS. Even the huge Mark West plant, which has already had a significant air pollution impact, is not given the serious consideration which it requires. Environmental impact factors of the thousands of shale gas drilling well sites have not even been considered to be factored into the impacts of this pipeline project. We had clean air here a few years ago. It’s gone now. And we do not need any more pollution added to what we are already subjected to. Any additional air polluting factors are significant at this time!
IND004-7	4. Pipelines only encourage more shale gas drilling. This is extremely counterproductive to protecting the environment, as well as public health and safety. The resources to construct pipelines would be put to better use in constructing clean energy systems which would decrease fossil fuel production and consumption. The Federal Energy Regulatory Commission should certainly be taking these things into consideration and regulating for much more clean energy and decreasing dirty energy. Let’s turn this thing around, folks!
IND004-8	5. I am sure you are much more aware of the number of pipeline accidents/ruptures/explosions than I am. I cannot give you figures, but I am sure you have them. This is not a safe endeavor, either in the construction or in the maintenance and long-term use.

IND004-5: As stated in section 4.11.1.2.3, no open burning is currently planned for the project. As noted in section 4.1.4.4.1, on April 21, 2017, Columbia Gas filed with the Secretary its Phase I Geohazard Assessment Report, which was prepared using publicly available information. The report preliminarily determined that about 68 percent of the proposed MXP pipeline route has a “moderate to high” or “high” landslide hazard index rating. Based on the results of the Phase I Geohazard Assessment, Columbia Gas has initiated a Phase II Landslide Hazard Assessment. Part of the Phase II assessment includes field verification of the areas of interest that were identified in the Phase I assessment. Section 4.1.4.4.1 contains our recommendation that prior to construction, Columbia Gas should file with the Secretary for review and approval from the Director of OEP, the results of its Phase II Landslide Hazard Assessment. Both the Phase II Landslide Hazard Assessment and the Landslide Mitigation Plan would be developed in consultation with the WVDEP and WVDNR.

IND004-6: See response to CO002-1 for further discussion of cumulative impacts. See response to comment CO002-7 for a discussion of current air quality and air dispersion modeling impacts. Potential environmental impacts associated with drilling, exploration, and recovery of natural gas is regulated at the state level and is not part of the proposed project.

IND004-7: As stated in section 1.1.1, the Commission’s role in reviewing the details of any project is to make a determination of public convenience and necessity. If such a determination is made in the affirmative, then “need” for the project is affirmed. Energy production from renewable resources or the gains realized from increased energy efficiency and conservation are not transportation alternatives and are considered beyond the scope of this EIS. See also response to comment IND003-4.

IND004-8: See response to comments CO003-3 and CO006-20. Both Columbia Gas and Columbia Gulf employ qualified and licensed personnel who could be immediately dispatched to the scene of an emergency should the need arise.

INDIVIDUALS

IND004 - Marianne Hughes (continued)

IND004-9

To summarize, here in Wetzel and our surrounding counties where we are encircled by dozens of compressor stations, hundreds of new large well pads, and many hundreds of new, big gas wells and a constant diet of dirty diesel fumes from the thousands of trucks daily, we are now faced with the proposed MXP to add another large pipeline and massive compressor stations to continually add to our ever growing stew of unhealthy air pollutants. And to add insult to injury, FERC casually refers to all this as an insignificant issue. It appears that no one working for FERC actually has lived here in the sacrifice zone and daily experienced the fumes from all this activity. Otherwise, there is no way that they could conclude, as they repeat over and over, that this pipeline and its related gas production will only result in insignificant and unimportant impacts to our neighborhood.

Please seriously consider refusing the permit for the construction of the MXP!

Marianne Hughes

862 Scheidler Run Road

New Martinsville, WV 26155

IND004-9: Comment noted.

INDIVIDUALS

IND005 - Alex Cole

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

MOUNTAINEER XPRESS PROJECT (DOCKET NO. CP16-357-000)

Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically filed¹.

Please send one copy referenced to Docket No. CP16-357-000 to the address below.

For Official Filing:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

I am concerned about the historical significance of several sites that will be impacted both by the pipeline and staging areas. Specifically: 1. A 19th century cabin within 300 feet of the pipeline at Trace Creek Putnam County. 2. The Alexander Plantation in Fraziers Bottom pre civil war house. There will be a staging area on the property. 3. The Fraziers Bottom United Methodist Church and cemetery (1847) part of the original Plantation

Commenter's Name and Mailing Address (Please Print)

Alex Cole
6230 Dunaway Rd.
Pliny WV
25082

¹ The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

IND005-1: Potential impacts on cultural resources are discussed in section 4.10. Columbia Gas has completed cultural resources surveys for all accessible project areas and would avoid all identified sites that are eligible or recommended as potentially eligible for the National Register of Historic Places. Once cultural resources surveys and evaluations are complete, a treatment plan would be prepared if any historic properties would be adversely affected by the MXP. Columbia Gas also has an Unanticipated Discovery Plan for the MXP that it would implement if additional resources are discovered during construction.

INDIVIDUALS

IND005 - Alex Cole (continued)

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

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Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

4. Potential archeological sites including
indian mounds at this same location
The environmental impacts of this project
are to numerous and broad to
mention here but the local impacts
are horrendous and this project is
counter to progress in general. The
people participating in these projects
are perpetrating an evil their children
and grand-children will have to pay for

IND005-2

Committer's Name and Mailing Address (Please Print)

Alex Cole
6230 Dunbar Rd
Pliny WV
25082

IND005-2: Comment noted.

¹ The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

INDIVIDUALS

IND006 - Barbara Jividen

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM MOUNTAINEER XPRESS PROJECT (DOCKET NO. CP16-357-000)

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For Official Filing:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

- IND006-1
1. I do NOT want this pipeline, that will pass 50ft from my home. I live in the blast zone where it passes under a railway crossing then proceeds through a field by my home then goes under the Kanawha River in my back yard.
- IND006-2
2. I am concerned about lower property values.
- IND006-3
3. I am concerned about the gauge pipe gain under the railroad and under the river.
- IND006-4
4. I am concerned about an evacuation plan.

Commenter's Name and Mailing Address (Please Print)

Barbara Jividen
405 River Ln
Red House, WV
25168

To back →

¹ The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

IND006-1: Comment noted.

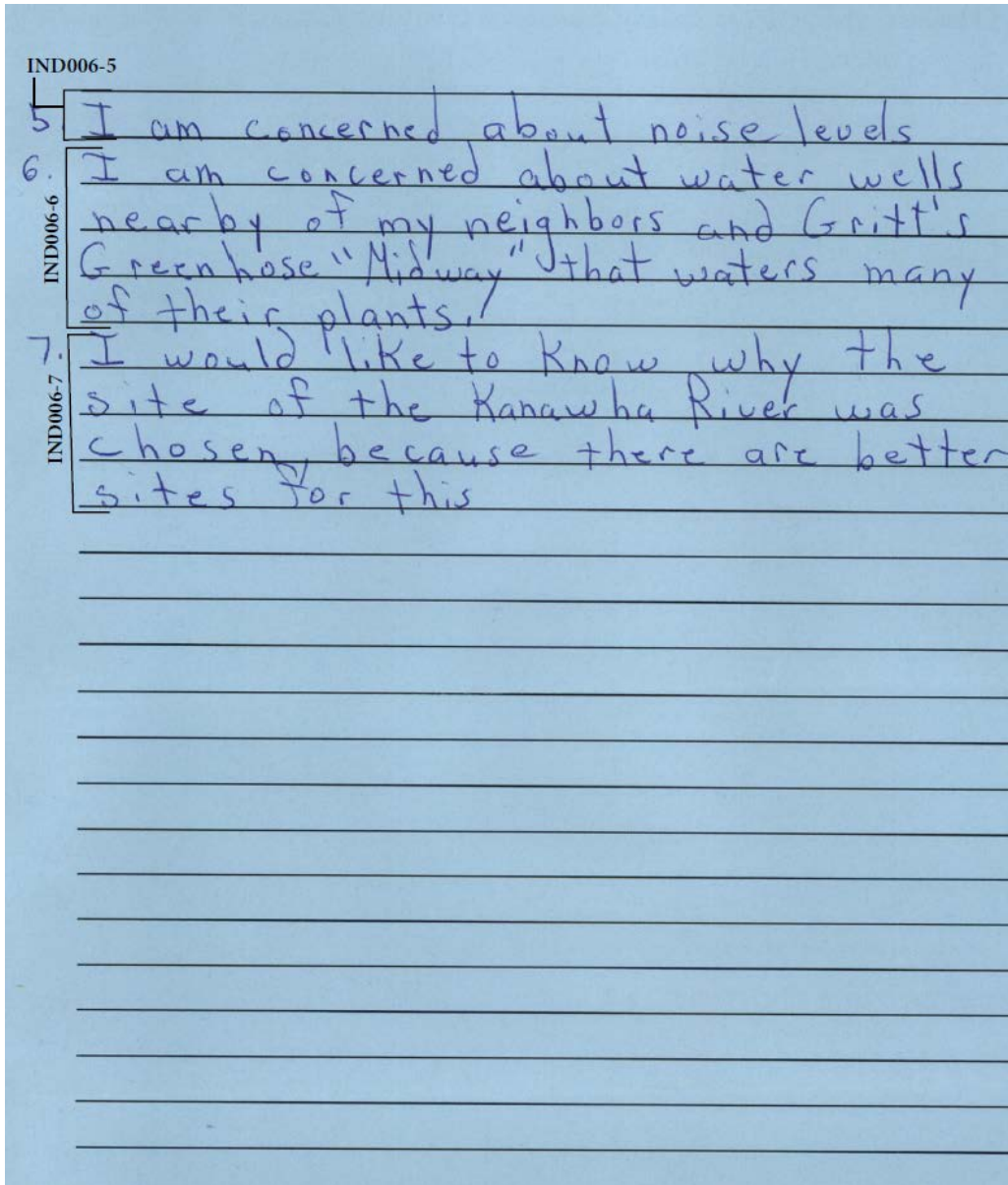
IND006-2: See response to comment IND004-1, Land Values and Farmland.

IND006-3: As stated in section 2.4.1, the MXP pipelines and MXP and GXP aboveground facilities would be designed, constructed, operated, and maintained to meet the USDOT's *Minimum Federal Safety Standards* in 49 CFR 192 and other applicable federal and state regulations. These regulations are intended to ensure adequate protection for the public and to prevent natural gas facility accidents and failures. They include specifications for material selection and qualification; minimum design requirements; and protection from internal, external, and atmospheric corrosion. Pipeline safety and reliability is discussed in detail in section 4.12.

IND006-4: Emergency response procedures are discussed in section 4.12.

INDIVIDUALS

IND006 - Barbara Jividen (continued)



IND006-5: Noise impacts are discussed in section 4.11.2. NSAs near MXP construction areas may experience an increase in perceptible noise, but the effect would be temporary and local. Noise mitigation measures that would be employed during construction include the use of sound-muffling devices on engines and the installation of barriers between construction activity and NSAs. Generally, nighttime noise would not increase during construction (except for HDD/Direct Pipe activity on the MXP). Proposed mitigation would reduce noise levels from this activity to below 55 dBA L_{dn}. Based on modeled noise levels, our recommendation (for Columbia Gas to develop a noise mitigation plan for the HDD/Direct Pipe construction), and the temporary nature of construction, we conclude that neither the MXP nor the GXP would result in significant noise impacts on residents or the surrounding communities during construction.

IND006-6: Water supply wells are addressed in section 4.3.1.3.1. Columbia Gas would offer to perform pre- and post-construction monitoring for well yield and water quality for private wells within 150 feet of construction workspaces. If testing results indicate the integrity of any water supply well has been impacted during construction, Columbia Gas would provide a temporary water supply source and compensate the landowner for repairs, installation of a new well, or other options as agreed upon with the landowner.

IND006-7: The pipeline route was selected based on desktop analyses, field surveys, and landowner/land managing agency requests, and involved an assessment and comparison of a number of factors, including ability to meet the purpose and need of the project, technical and economic feasibility, constructability, and potential environmental impacts. Borings conducted as part of the HDD geotechnical evaluation at the Kanawha River found conditions highly favorable for a successful HDD.

INDIVIDUALS

IND007 - Caroline Copenhaver

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM
MOUNTAINEER XPRESS PROJECT (DOCKET NO. CP16-357-000)

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For Official Filing:
Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

IND007-1a I am expressing my concern for the unnecessary construction of this pipeline. We do not need to build this. We have renewable sources of energy that are not being utilized.

IND007-1b My biggest concern is that the citizens of this state that are going to be most impacted have not been contacted.

IND007-2 The DEIS does not contain a mitigation process/plan for the wetlands.

Commenter's Name and Mailing Address (Please Print)
Caroline Copenhaver
2731 Main Street
Hurricane, WV
25526

¹ The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

IND007-1a: See response to comment IND003-4.

IND007-1b: Public outreach efforts for the MXP are discussed in section 1.3.1.

IND007-2
MXP wetland mitigation is discussed in section 4.4.3.1.

INDIVIDUALS

IND007 - Caroline Copenhaver (continued)

IND007-3

The DEIS states that MXP is in an area of elevated landslide risk due to steep slopes; however Columbia Gas has not completed the Landslide Hazard Assessments or the Landslide Mitigation Plan. Additional mitigation measures to address landslides must be identified and included in the DEIS.

IND007-4

There are many more reasons; including the farm land this is destroying, the lives (human, plant, and animal) that this is endangering, and the huge ~~sums~~ sums of money the tax payers of this state have paid for this project, not to build this pipeline, but the one that most angers me is that there will only be 14 permanent jobs as a result of all this in a state that suffers from hundreds of years of resource extraction with little return on investment.

IND007-3: See response to comment IND004-5.

IND007-4: Impacts on land use are discussed in section 4.8, wildlife and fisheries in section 4.6, and employment in section 4.9.

Most farming activities on the rights-of-way would continue following pipeline construction.

Natural gas drilling, exploration, and production activities are regulated by West Virginia and therefore beyond the scope of this EIS. See response to comments IND002-1 and IND004-6.

INDIVIDUALS

IND008 - Tamatha Cheke

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

MOUNTAINEER XPRESS PROJECT (DOCKET NO. CP16-357-000)

Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically filed¹.

Please send one copy referenced to Docket No. CP16-357-000 to the address below.

For Official Filing:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

IND008-1a
IND008-1b
IND008-2

I am concerned about effects of stationing will have near my mother-in-law property. I am worried about the rivers it is crossing under the Kanawha river and the mud river in my area if there is a spill. I am also concerned about property values going down in these places. Please know I am against these plans and do not want this to occur in my home town.

Commenter's Name and Mailing Address (Please Print)

~~Tamatha Cheke~~
Tamatha Cheke
9568 Left Fork Cooper Ridge Rd.
Milton, WV 25541

Tamatha Cheke

¹ The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

IND008-1a: The effects of natural gas pipelines on property values are discussed in section 4.9.7. See response to comment IND004-1, Land Values and Farmland.

IND008-1b: The potential for spills is discussed in section 4.6.1.1.5. Based on implementation of Columbia Gas' Environmental Construction Standards and its Spill Prevention Control Plan, we have concluded the risk of spills would be low.

IND008-2: Comment noted.

INDIVIDUALS

IND009 - Chris Tuley

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2017 APR -4 P 9:43

FEDERAL ENERGY
REGULATORY COMMISSION

Chris Tuley
912 Morning Rd.
Cane Ridge, TN 37013
615-293-3471
cmtuley99@gmail.com

March 28th, 2017

FERC
888 First St. NE, Room 1A
Washington, DC 20426

RE Docket Number: CP16-361-000

Dear FERC,

My name is Chris Tuley and my family and I reside in southeast Nashville (approximately 1 mile from the proposed Cane Ridge station). I've called Nashville home for over 12 years. In late 2015, my wife and I purchased our first home in the Cane Ridge area of Nashville. We chose this area for its proximity to local businesses, restaurants, and its beauty. Now this area is under threat by a natural gas compressor station proposed by Columbia Gulf Transmission (Docket Number: CP16-361-000).

I find the Draft Environmental Impact Statement to be deeply flawed in many ways, mostly in the fact that it leaves so many questions unanswered. The following questions still need to be answered by both FERC and Columbia Pipeline Group.

IND009 - 1	<ul style="list-style-type: none">• How often will noise levels be monitored?• Who monitors noise levels (local, state, federal)?• What are the repercussions if noise levels are exceeded?• Has a background sound level been set?
IND009 - 2	<ul style="list-style-type: none">• How often are air levels monitored and by whom?• What exactly is monitored?• How can citizens be sure that non-monitored particulates remain at safe levels?• What if air quality levels exceed government standards?
IND009 - 3	<ul style="list-style-type: none">• How often is water quality monitored?• Has there been or will there be any testing done prior to construction to set a base level?• What if water quality pollutants exceeds government standards?• How can we trust that the onsite retention pond is collecting all run off or that it won't be compromised?

IND009-1: Columbia Gulf would be required to conduct noise analyses at the start of operations to demonstrate that full-load noise levels do not exceed an L_{dn} of 55 dBA at the nearest noise receptor to the facility. (See our recommendation in section 4.11.2.3.2.) Ambient (background) noise levels at the proposed compressor station sites are presented in table 4.11-28.

IND009-2: Air quality is monitored by the EPA and other local and state agencies. Criteria pollutants and other pollutants of concern are monitored. Monitored air quality data can be accessed at <https://www.epa.gov/outdoor-air-quality-data>. The Metropolitan Government of Nashville & Davidson County has a federally delegated responsibility under the Clean Air Act to permit air emissions in its jurisdiction and attain regional air quality compliance to the air quality standards set for each region by the EPA and/or state administrators under the Clean Air Act. For more details on predicted air impacts from the Cane Ridge Compressor Station, see section 4.11.1.3.4.

IND009-3: As noted in section 4.3.2, Columbia Gulf would neither cross nor otherwise impact surface waters during construction and operation of the Cane Ridge Compressor Station, nor would it withdraw from or discharge to surface waterbodies.

Columbia Gulf would offer to test drinking water supply wells that are within 150 feet of construction areas pre- and post-construction.

Columbia Gulf would provide details of its erosion and sedimentation control plan to TDEC for review and approval prior to construction of the Cane Ridge facility. During construction, Environmental Inspectors (EI) and FERC onsite monitors would ensure that all erosion controls are properly placed and functioning according to the approved plans. EIs would have stop-work authority if environmental conditions of regulatory permits/approvals are violated. Additional details can be found in Columbia Gulf's Environmental Construction Standards, located in appendix D-2 of the EIS.

INDIVIDUALS

IND009 - Chris Tuley (continued)

	<ul style="list-style-type: none">• Can further testing be done to rule out any underground caves or water sources on the site?
IND009 - 4	<ul style="list-style-type: none">• Do current local zoning regulations matter at all?• Wouldn't a true industrial zoned location be a better place?• Does population play any role in the decision?
IND009 - 5	<ul style="list-style-type: none">• What happens in a catastrophic event?• Who is responsible for managing a catastrophic event (does the burden lie with the city? In March of 2017 a National Weather Service confirmed EF-1 tornado touched down within 2 miles of the proposed site.)
IND009 - 6	<ul style="list-style-type: none">• How can we be assured that standards will be kept with a decrease in enforcement agencies (EPA)?
IND009 - 7	<ul style="list-style-type: none">• Why can't the station be run by electric motors on Nashville power grid? (This would virtually eliminate all air pollution)
IND009 - 8	<ul style="list-style-type: none">• Why is it the burden of private citizens and not the burden of the company to spend money to relocate the site to a more appropriate location?
IND009 - 9	<ul style="list-style-type: none">• What are the combined effects if both the Joelton and Cane Ridge compressor stations are built (unprecedented that over 100,000 combined horsepower in one of the 25 largest cities in the United States)

Thank you so much for your time and your consideration.

Sincerely,

Chris Tuley
912 Morning Rd.
Cane Ridge, TN 37013
615-293-0384
cmtuley99@gmail.com

Columbia Gulf commissioned a geotechnical investigation of the Cane Ridge site by an independent contractor and provided the study results in its application. Based on the results of the fieldwork, laboratory evaluation, and engineering analyses, we have concluded that the site appears suitable for the proposed construction from a geotechnical perspective. Columbia Gulf has procedures in place to be followed in the event of discovery of previously undocumented karst features.

IND009-4: Comment noted. The Commission encourages project proponents to comply with state and local land use planning and zoning regulations in the design and siting of natural gas facilities.

Columbia Gulf reviewed alternative sites during its siting process, prior to the selection of the Cane Ridge site, as discussed in section 3.6.2. Since the draft EIS was issued, we have reviewed additional alternative sites for this facility. See the new material presented in section 3.6.2.

See response to comments LA001-4 CO003-5.

IND009-5: Safety data for natural gas facilities indicate that operation of the GXP would represent only a very slight increase in risk to the general public. Columbia Gulf's system would be equipped with an Emergency Shutdown System that would be activated in the event of a malfunction or emergency. In addition to manual shutdown points, the compressor station would be equipped with a full range of automatic emergency detection and shutdown systems, including hazardous gas and fire detection alarm systems. As described more fully in section 4.12.1, Columbia Gulf would follow procedures described in its Emergency Response Plan to minimize hazards in the event of an emergency.

The impact of natural gas facilities on public safety is discussed in section 4.12.3. The GXP facilities would be designed, constructed, operated, and maintained to meet USDOT Minimum Federal Safety Standards in title 49 of the Code of Federal Regulations, Part 192 (49 CFR 192) and other applicable federal and state regulations. Columbia Gulf is responsible for establishing and maintaining communications with local fire, law enforcement, and public officials, and coordinating emergency responses, and has facility construction crews available to respond in the event of an emergency. Columbia Gulf employs qualified and licensed personnel who could be immediately dispatched to the scene of an emergency should the need arise.

INDIVIDUALS

IND009-6: FERC is the federal agency responsible for authorizing proposals to construct and operate interstate natural gas pipeline facilities. As part of its responsibilities, FERC enforces regulatory requirements through the imposition of civil penalties and other means. See also response to comment IND006-3.

IND009-7: See response to comment CO012-13 and section 3.6 for a discussion on the use of electric-driven compressors for the GXP.

IND009-8: We reviewed Columbia Gulf's proposal for potential environmental impacts and, as necessary, considered reasonable and appropriate alternatives. As part of the public participation process outlined in the National Environmental Policy Act, we also consider alternatives when such are identified by the public. See section 3.6.2 for information on the alternatives review process for the Cane Ridge compressor site.

IND009-9: It is not unprecedented for metropolitan areas to incorporate natural gas infrastructure as part of their energy supply plans. All interstate natural gas facilities authorized by the Commission must meet air quality standards set by the Clean Air Act. These standards are set for each region by the EPA and/or state administrators.

INDIVIDUALS

IND010 - Kristen McCormack

Kristen McCormack, Cane Ridge, TN.

I want to voice my concerns for the proposed Cane Ridge Gas Compressor Station. I live less than a mile from the site and am worried for my family and my neighbors if this station were to come to fruition.

IND010-1 [The Cane Ridge Area is purely residential. It is no spot for something like this. Wouldn't a true industrial zoned location be better for this?

IND010-2 [What happens in a catastrophic event?

IND010-3 [What about the unnecessary noise and air pollution? Who monitors the noise levels? Who monitors air levels? How can we be sure it is safe to

IND010-4 [be outside in our own yards?

IND010-5 [Why is it the burden of private citizens and not the burden of the company to spend money to relocate the site to a more appropriate location?

IND010-1: See response to comment CO003-6.

IND010-2: See response to comment CO003-3.

IND010-3: See response to comments CO003-1 and CO003-2.

IND010-4: As stated in section 4.11.3.1.2, our analysis supports the conclusion that construction and operation of the GXP's compressor stations would not have significant impacts on local or regional air quality, nor are they expected to cause impacts that would adversely affect the health or welfare of the population living in the project areas.

IND010-5: See response to comment IND009-8.

INDIVIDUALS

IND011 - Suzanne D. Goodman

IND011 - 1	<p>suzanne D Goodman, cane ridge, TN. I understand that this compressor plant needs to be built.It is also understand this is the optimum position according to a computer program that doesn't consider the effect on people's lives. I just feel it shouldn't be built in this location.It needs to be in an industrial area. Barnes Road was kind of rural when they bought the property,but now there are even more houses that have been built.The population is growing fast.</p>
IND011 - 2	<p>We want to know how we will be protected if we are forced to live with this. - Noise pollution: -How often will noise levels be monitored? -Who monitors noise levels (local, state, federal)? -What is the result if noise levels are exceeded? -Has a background sound level been set?</p>
IND011 - 3	<p>- Air pollution: -How often are air levels monitored and by whom? -What exactly is monitored? -How can citizens be sure that non-monitored particulates remain at safe levels? -What if air quality levels exceed government standards?</p>
IND011 - 4	<p>- Water pollution: -How often is water quality monitored? -Has there been or will there be any testing done prior to construction to set a base level? -What if water quality pollutants exceeds government standards? -How can we trust that the onsite retention pond is collecting all run off or that it won't be compromised? -Can further testing be done to rule out any underground caves or water sources on the site?</p>
IND011 - 5	<p>- Compressor station location -Do current local zoning regulations matter? -Wouldn't a true industrial zoned location be a better place? -Concerns over population density -What happens in a catastrophic event? -Who is responsible for managing a catastrophic event (does the burden lie with the city?) an EF-1 tornado touched down within 2 miles of the proposed site in March.what happens if it gets hit?</p>
IND011 - 6	<p>-How can we be assured that standards will be kept with a decrease in enforcement agencies (EPA)?</p>
IND011 - 7	<p>-Why is it the burden of private citizens and not the burden of the company to spend money to relocate the site to a more appropriate location?</p>
IND011 - 8	<p>-Combined effects if both the Joelton and Cane Ridge compressor stations are built (unprecedented that over 100,000 combined horsepower in one of the 25 largest cities in the United States) Please consider moving this to an industrial area.I don't want to look at it from my window Sincerely, Suzanne Goodman Hidden Creek Subdivision</p>

IND011-1: See section 3.6.2 for analysis of additional sites proposed by commenters for relocation of the Cane Ridge Compressor Station.

IND011-2: See response to comment IND009-1.

IND011-3: See response to comment IND009-2.

IND011-4: See response to comment IND009-3.

IND011-5: See response to comments IND009-4 and IND009-5.

IND011-6: See response to comment IND009-6.

IND011-7: See response to comment IND009-8.

IND011-8: See response to comment IND009-9.

INDIVIDUALS

IND012 - Kurt Lydic

Kurt Lydic, Cane Ridge, TN.
To whom it may concern:

IND012 -1 Please consider the health and well-being of our neighborhoods and our children, and block the Columbia Gulf Transmission from adding a gas compressor station in Antioch. This is an urban area, with a rapidly growing population. There are dozens of nearby neighborhoods and schools, and protected wildlife in the adjacent Mill Creek. This gas compressor station is detrimental to our health and our environment, and it does not benefit the community in any way. It is not even going to create jobs or

IND012 -2 revenue for the local economy, but it is going to pollute our air and water. In addition, it will contribute significantly to noise pollution.

IND012 -3 One of the reasons this area has become a desirable residential area is because of how quiet and peaceful the neighborhoods are. There are still many other areas of Nashville that have not been heavily developed, and allowing a gas compression station to go in here could stifle the growth in this part of town. A decision permitting Columbia Gulf Transmission to install this compression station would be grossly negligent. There are plenty of rural and commercially zoned areas outside of Nashville, there

IND012 -4 is absolutely no reason the company can't re-route their pipelines other than profit motivation, which should not be condoned or encouraged by a federal regulatory committee!! Thank you kindly for you time and consideration.

Kurt Lydic and Jamie Jones-Lydic
Concerned citizens of Cane Ridge, TN

IND012-1: See response to comments CO003-6, CO003-4, IND010-4, and CO003-2. All metropolitan communities in the United States are serviced by a network of natural gas, petroleum, rail, road, and electrical infrastructure, and all benefit from the national system, even though there may be negative local aspects associated with any part of the system.

IND012-2: See response to comments CO005-3 (economic benefit), IND004-1, Air and Water Quality, and CO005-1 (noise).

IND012-3: Columbia Gulf provided us with hydraulic details demonstrating the necessity of siting the compressor station within a 1-mile radius (upstream and downstream on the pipeline system) of the proposed location. Alternative sites were reviewed during the siting process, prior to the selection of the Cane Ridge site, as discussed in section 3.6.2. During the draft EIS comment period, additional sites were submitted for our review by commentors. Our evaluation of these sites is included in section 3.6.2. See also response to comment CO003-5.

IND012-4: Comment noted. Columbia Gas' system was first constructed through the Cane Ridge area in 1952, with the third of the three parallel pipelines installed in 1968. Abandoning these operating pipelines in order to construct a re-routed pipeline system is well beyond the scope of this EIS.

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM
GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically filed¹.

Please send one copy referenced to Docket No. CP16-361-000 to the address below.

For Official Filing:
Kinberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

COMMENTS: (PLEASE PRINT) (attach an additional sheet if necessary)

Members of FERC:

Thank you for your time in addressing questions related to this project. My concerns surround the emissions that will be generated by this facility. I read the EIS and the bi-products of this facility could potentially have an adverse effect on my health. I suffer from asthma and my concern is that though emissions are ~~being~~ somewhat mitigated by Columbia Gas, it may not be enough for someone with a compromised and sensitive breathing issue. Will FERC tighten the guidelines on air quality? My attending physician has serious concerns for me with regards to this project.

Thank you for your consideration.

Commenter's Name and Mailing Address (Please Print)

Anna Ortiz
1232 Bending Creek Drive
Antioch, TN 37013

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IND013-1: As discussed in section 4.11.1, models of air quality impacts indicate potential air emissions would be below applicable standards and would not have significant impacts on local or regional air quality. For a station that is compressing processed, transmission-quality natural gas using gas-fired turbines, the principal emissions of concern to public health are nitrous oxides (NO_x). Potential exposures to NO_x and all other criteria air pollutants were evaluated by modeling the proposed station's potential-to-emit and comparing the modeled concentrations to the NAAQS primary standards, which are set by the EPA to protect the health of the general population, including sensitive subgroups. All compressor stations associated with the GXP would require Title V permits for operation. All compressor stations associated with the GXP would be minor sources with respect to New Source Review permitting and would not be subject to Prevention of Significant Deterioration permitting. All combustion turbines would use SoLoNO_x technology to reduce NO_x emissions.

¹ The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

INDIVIDUALS
IND014 - Betty Guffey

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM
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 Federal Energy Regulatory Commission
 888 First Street, NE, Room 1A
 Washington, DC 20426

COMMENTS: (PLEASE PRINT) *[attach an additional sheet if necessary]*

1) Please start sending notifications of these impact meetings to neighboring county citizens who can/will be impacted by this type project. Metro Nashville is a regional area which includes surrounding counties. I live in Rutherford Co. but am less than 8 miles from proposed site. Definitely the air quality will impact my family in Rutherford Co.

2) Why did your notification say community meeting/discussion, when no group meeting conducted?

Commenter's Name and Mailing Address *(Please Print)*
Betty Guffey
101 Hunterwood Ct.
Smyrna, TN 37167

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IND014-1: Notifications were sent to all affected landowners; towns and communities; and local, state, and federal governments affected by the project, as well as applicable agencies. Notifications were also sent to local libraries and newspapers. All affected landowners (as defined in section 157.6(d)(2) of the Commission's regulations) include owners of property interests, as noted in the most recent county/city tax records as receiving the tax notice, whose property:

- is directly affected (i.e., crossed or used) by the proposed activity, including all facility sites, rights-of-way, access roads, pipe and contractor yards, and temporary workspaces;
- abuts either side of an existing right-of-way or facility site owned in fee by any utility company, or abuts the edge of a proposed facility site or right-of-way that runs along a property line in the area in which the facilities would be constructed, or contains a residence within 50 feet of the proposed construction work area;
- is within 0.5 mile of proposed compressors, their enclosures, or liquefied natural gas facilities; or
- is within the area of proposed new storage fields or proposed expansions of storage fields, including any applicable buffer zone.

Other stakeholders who express an interest in the project can also request information and notifications.

IND014-2: As discussed in section 4.11.1, models of air quality impacts indicate potential air emissions would be below applicable standards and would not have significant impacts on local or regional air quality. See response to comment IND013-1.

IND014-3: The Notice of Availability of the draft EIS for the MXP and the GXP included an invitation to attend public comment sessions hosted by FERC staff at various locations in the vicinity of the projects. As stated in the Notice, the primary goal of these comment sessions was to provide the public with another method for identifying specific environmental issues and concerns with the draft EIS. The format is designed to receive the maximum amount of verbal comments in a convenient way during the timeframe allotted.

INDIVIDUALS

IND015 - Carolyn Kennedy

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

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Washington, DC 20426

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

IND015-1

DOES ADDING COMPRESSION TO THE
EXISTING PIPELINE INCREASE
THE PRESSURE ON THAT LINE?
IF IT DOES WHAT ARE THE STEPS
THE COMPANY MUST TAKE TO GUARANTEE
THAT PRESSURE IS NOT EXCEEDED?

IND015-2

CONCERNING NOISE - WHY CAN'T THIS
STATION BE CONFINED INSIDE A BUILDING
TO REDUCE NOISE TO SURROUNDING HOMES?

Commenter's Name and Mailing Address (Please Print)

CAROLYN KENNEDY
1141 BARNES RD
ANTIOCH TN 37013

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IND015-1: The USDOT, which is responsible for pipeline safety, has established regulations that require operators to develop and follow a written Integrity Management Program that contains all the elements described in 49 CFR 192.911 and addresses the risks on each transmission pipeline segment. All of Columbia Gulf's proposed pipeline and related facilities would be designed, constructed, and operated in compliance with regulations at 49 CFR 192. See response to comment CO010-2.

IND015-2: Compressors at the proposed Cane Ridge Compressor Station would be housed within an insulated building to mitigate offsite sound disturbances. The predicted noise level attributable to operation of the Cane Ridge Station at the closest noise sensitive area is 50.8 dBA L_{eq}, which is below the Metropolitan Government of Nashville & Davidson County daytime and nighttime limits.

INDIVIDUALS

IND016 - Carolyn Kennedy

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

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Washington, DC 20426

FEDERAL ENERGY
REGULATORY COMMISSION

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

THIS GAS COMPRESSION STATION AT CATN RIDGE
IMPACTS MORE RESIDENTS THAN ALL THE
OTHER STATIONS COMBINED. I AM CONCERNED
FOR THE AIR POLLUTION, NOISE POLLUTION AND
SAFETY OF THIS STATION. NASHVILLE IS A
GROWING CITY AND HAS DONE A LOT OF
WORK TO BE A HEALTHY PLACE TO LIVE,
WE DESERVE TO BE ABLE TO ENJOY OUR
OUTDOOR LIFE.

Commenter's Name and Mailing Address (Please Print)

CAROLYN KENNEDY
1141 BARNES RD
ANTIOCH TN 37013

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IND016-1: See response to comments CO003-2, CO005-1, and CO003-3.

IND016-2: See response to comments IND010-4 (air pollution), IND015-2 (noise), and IND004-8 (safety).

INDIVIDUALS

IND017 - Charles Whiting

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM
GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

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REGULATION COMMISSION

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

Dear FERC Commissioners:

Imagine building a new home in one of Nashville's fastest-growing communities only to learn that a large industrial complex is proposed to be built across the street from your subdivision.

A Canadian company plans to build a gas processing plant that will have a huge impact on the lives of thousands of people. How could you let that happen?

Commenter's Name and Mailing Address (Please Print)

Charles Whiting
709 Kelsey Coble
Antioch TN
37013

→
(continued on next page.)

chucwhit@usit.net 615-423-9857

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IND017-1: See response to comment LA001-4.

IND017-1

INDIVIDUALS

IND017 - Charles Whiting (continued)

Page 2

IND017-2 The plant is not proposed for a rural area or an industrial park. It would be built on a high hill overlooking

* Thousands of new homes.
* The Mill Creek Greenway Park used by hundreds daily.

IND017-3 * Mill Creek with the endangered snail darter. A new subdivisions and apartments breaking ground.

IND017-4 * Several schools with children.
How would this plant change our lives? It would

IND017-5 * Pump pollutants into the air near our homes.

IND017-6 * Produce 40,000 horsepower of noise (equal to 80,000 dishwashers).
* Create an industrial eyesore on the highest hill in the area.

IND017-7 * Produce construction/operational run-off into Mill Creek.

IND017-8 * Negatively impact our home values.

IND017-9 Commissioners: Please step into our shoes. What would you do in the same situation?

You are the only voice we have. All local efforts have failed, even with the Metro Council's support and vote.

* Please vote "no."

Sincerely,
Charles Whiting

IND017-2: See response to comment CO003-1.

IND017-3: See response to comment CO003-4.

IND017-4: See response to comment CO003-3.

IND017-5: See response to comment CO003-2.

IND017-6: See response to comment CO005-1.

IND017-7: See response to comment CO003-1.

IND017-8: See response to comment IND009-3.

IND017-9: As discussed in section 4.9.7, we do not anticipate any measurable impact from the project on the value of residential properties in the vicinity of the Cane Ridge site. See response to comment IND004-1, Land Values and Farmland.

INDIVIDUALS
IND018 - Dan Lekich

20170405-0144 FERC PDF (Unofficial) 04/04/2017

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM
GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

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Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

COMMENTS: (PLEASE PRINT) (attach an additional sheet if necessary)

IND018-1
AS A VIETNAM VETERAN WHO HAS FOUGHT
CHEMICAL POSIONING AGENT ORANGE WAS
ONE OF THOSE AGENTS THAT DIDN'T
SEEM TO HURT THEN, BUT LATER IN
LIFE CAUSED HEALTH PROBLEMS LATER
IN LIFE AND POSSIBLY DEATH
THIS PROJECT WILL MAKE THE AIR
IN OUR AREA HAVE MANY AGENTS THAT
HAVE NOT BEEN FULLY STUDIES DONE
ON WHAT EFFECT IT HAS ON HUMANS

Commenter's Name and Mailing Address (Please Print)

DAN LEKICH
104 VICKY CT
NASH, TN
37211

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IND018-1: As discussed in section 4.11.1, models of air quality impacts indicate potential air emissions would be below applicable standards and would not have significant impacts on local or regional air quality. See response to comment IND013-1.

INDIVIDUALS

IND019 - David Beresford

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

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COMMENTS: (PLEASE PRINT) (attach an additional sheet if necessary)

We've still not received a "Response" for the concern of the densely populated area that the Cane Ridge, TN Gas Compressor station will be affecting. Even in your Environmental Impact Statement, the "concern" is expressed, and a "response" is mentioned but I have not been able to hear ~~the~~ The FERC's response.

You also claim that your first reason for choosing the Cane Ridge site is for the buffer from the population, but now you are building it directly next to Barnes Road.

I live a 1/2 mile from this station, and I plead a heartfelt response. My fiancé has several respiratory issues and since we live together we are concerned that we'll have to sell our dream house.

David Beresford
3021 Barnes Bend Dr.
Antioch, TN 37013

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IND019-1: See response to comments CO003-6 and IND009-4.

The Cane Ridge Compressor Station is proposed for construction on an approximately 31-acre site, of which approximately 10.6 acres would be permanently affected for operation of the facility. The remainder of the site would remain undeveloped to provide a visual and noise buffer to the surrounding community. Columbia Gulf purchased the residential land located within the temporary work space for the Cane Ridge station and would convert it to open land following construction. Additionally, Columbia Gulf has developed a visual screening plan for the station. The compressor station footprint within the site has been designed to minimize additional tree clearing. The station office and auxiliary building would be sited closest to Barnes Road.

IND019-2: See response to comments IND010-4 and IND013-1.

INDIVIDUALS

IND020 - Don Wimpelberg

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

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COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

IND020-1

Why can't it ~~the~~ pipeline be run
thru existing business zoned areas
that are just north of the Cane
Ridge area? These two areas are
within 2 miles of the planned line.

Commenter's Name and Mailing Address (Please Print)

Don Wimpelberg
3168 Hidden Creek Dr
Antioch TN 37013

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IND020-1: See response to comments IND012-3 and IND012-4.

INDIVIDUALS

IND021 - Elizabeth Garber

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM
GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

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COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

IND021-1
IND021-2
IND021-3

I respectfully request that FERC not allow this or any gas compressor to be built in Davidson County (where I live). Nashville has been working for years to develop in a way to maintain green spaces, and to insure that residential areas are not intruded by industrial entities.

Additionally, we have been working for years to decrease our air pollution, and to locate this so close to schools & houses seems unfair - of course the air pollution concentration will be higher closer to the station.

This is just another loss of farmland - even made worse by the threat that a gas compressor station will replace it.

Commenter's Name and Mailing Address (Please Print)
Elizabeth C. Garber
1329 Otter Creek Rd.
Nashville, TN 37215

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IND021-1: Siting criteria used by Columbia Gulf in selection of the Cane Ridge site are discussed in section 3.6. The majority of the site selected by Columbia Gulf would remain as greenspace following construction.

IND021-2: As discussed in section 4.11.1, models of air quality impacts indicate potential air emissions would be below applicable standards and would not have significant impacts on local or regional air quality. See response to comment IND013-1.

IND021-3: Comment noted.

INDIVIDUALS

IND022 - Lauren Spires

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

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COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

I am very concerned by this proposed gas compressor station. I live within one mile of the site, which is located in a densely populated area with a park and school nearby as well. My main concerns are as follows:

- ① Safety - if an emergency occurs as a result of the gas compressor station malfunctioning, I fear for my family's and neighbor's safety.
- ② Noise - I worry that this will affect my quality of life. I truly value the quiet

Commenter's Name and Mailing Address (Please Print)

Lauren Spires
128 Claybrook Lane
Antioch, TN 37013

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IND022-1: See response to comments IND009-5 and IND006-4.

IND022-2: With the incorporation of our noise recommendations and the mitigation measures proposed by Columbia Gulf, our analysis indicates that construction and operation of the station would not result in a significant noise impact on residents and the surrounding community. See section 4.11.2.3.2.

IND022-2 IND022-1

INDIVIDUALS

IND022 - Lauren Spires (continued)

IND022-2 cont
neighborhood and surrounding community within which I live. The noise produced by the station will be constant, 24/7, and disruptive.

IND022-3
③ Environment - Nashville is becoming a crowded metropolitan area with a lot of pollution due to traffic and industry. I am concerned that the compressor station will add to this and create unnecessary pollution.

IND022-4
④ Decreased property value - my husband and I purchased our home in 2013 and had no idea this station was soon to be proposed. We love our home and neighborhood, and really don't want to move. However, if this station provides to be too much of a hazard, we may have no choice but to move. If the station is built, my home's value will certainly decline -- who wants to live by a gas compressor station?

IND022-5
⑤ No value add for Nashville -- There will be no benefit to Nashville if this station is built. No long-term jobs created, no revenue generated, no improved access to natural gas. My neighborhood will bear the brunt of the negativity brought by this project with literally NO benefit. That is simply wrong by any stretch of the imagination. There is no benefit or public good that would result from our sacrifice. Please, do not approve this project.

IND022-3: As discussed in section 4.11.1, models of air quality impacts indicate potential air emissions would be below applicable standards and would not have significant impacts on local or regional air quality. See response to comment IND013-1. Water quality in Mill Creek would not be affected by construction and operation of the Cane Ridge station at the proposed site, as noted in section 4.3.2.4.2.

IND022-4: See response to comment IND017-9. Additionally, Columbia Gulf has developed a visual screening plan for the Cane Ridge station. Given the ability to screen the facility from the adjacent residential development, the station would not have a significant visual impact on nearby residences (see section 4.8.3.2).

IND022-5: As detailed further in section 4.9.8, construction of the Cane Ridge Compressor Station would result in minor beneficial socioeconomic impacts. See response to comment CO005-3.

INDIVIDUALS

IND023 - Lillian Hawkins

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

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COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

IND023-1

Will TransCanada pay for base line lab tests for all the people that want it, that live within a 2 mile radius of the proposed compressor station?

IND023-2

We strongly encourage that Brant's alternative site, in an industrial zone, be seriously considered.

Commenter's Name and Mailing Address (Please Print)

Lillian Hawkins
5729 Senema Trace
Cane Ridge TN 37013

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IND023-1: While Columbia Gulf would offer to test drinking water supply wells that are within 150 feet of construction areas pre- and post-construction, we are unaware of any type of "base line lab tests" being proposed by Columbia Gulf in the vicinity of the Cane Ridge Compressor Station.

IND023-2: Siting criteria used by Columbia Gulf in selection of the Cane Ridge site are discussed in section 3.6. All suitable sites identified have been reviewed for consideration. See new material presented in section 3.6.2.

INDIVIDUALS

IND024 - Margaret Cortozzo

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

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COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

My husband and I have been South Nashville residents for the last 7 years. This past summer we moved out of our small condo in search of a bigger home to raise our family. We looked all over the metro area but ultimately decided to stay in South Nashville. We purchased a home along Mill Creek in Pine Ridge. We are expecting our first child in September. We now worry about our decision to stay in South Nashville. We worry about raising our

child near this gas compressor station. We worry about pollution to our air, our water and the noise this station will produce. Why must this be built in our residential area? This area is home to hundreds of families and lots of wildlife. We are distressed thinking of what could happen to our home and family if a catastrophic event were to happen. Will the proper steps be taken to

Commenter's Name and Mailing Address (Please Print)

Margaret Cortozzo
341 Upper Mill Drive
Franklin, TN 37063

insure our safety? Will our air be safe to breathe? Will our water be safe to drink? We live here. We don't want this

IND024-1

IND024-1: See response to comment CO003-1 for information about noise and aesthetics. Jobs are addressed in section 4.9.8. See response to comment CO003-2 for information on air issues, and the response to CO003-4 for information on water quality. See response to CO003-3 for information on safety. For information on zoning and alternatives see updated section 3.6.2.

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INDIVIDUALS

IND025 - Micah Hargrove

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

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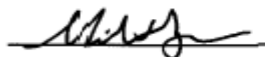
COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

AS A CITIZEN OF DAVIDSON COUNTY AND PART OF THE MILL CREEK WATERSHED ASSOCIATION, I OBJECT TO THE PROPOSED CANE CREEK GAS COMPRESSOR STATION.

THE PROPOSED SITE POSSES SEVERE ENVIRONMENTAL AND SOCIAL IMPACTS. THE ENVIRONMENTAL IMPACTS INCLUDE DIMINISHED AIR QUALITY, HIGH POTENTIAL FOR DAMAGING ^{THE} WATER QUALITY OF MILL CREEK, AND INCREASED NOISE LEVELS. ~~THE SOCIAL IMPACTS ARE INCREASED DEPENDENCY~~ ~~VARIOUS ARE CONCERNED BY THE FACT THAT THE SITE IS NOT ZONED~~ FOR INDUSTRIAL USE. ~~FOR USE~~ THE ADJACENT PROPERTIES ARE ALL ZONED RESIDENTIAL. THIS PROPOSED SITE IS THE WRONG LOCATION FOR THIS GAS COMPRESSOR. FURTHER STUDY AND CONSIDERATION IS REQUIRED FOR THIS PROJECT.

Commenter's Name and Mailing Address (Please Print)

MICAH HARGROVE
2929 SOLONDA DRIVE
APT. E-75
NASHVILLE, TN 37211



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IND025-1: See response to comment CO003-1 for information about noise and aesthetics. Jobs are addressed in section 4.9.8. See response to comment CO003-2 for information on air issues, and the response to CO003-4 for information on water quality. See response to CO003-3 for information on safety. For information on zoning and alternatives see updated section 3.6.2.

INDIVIDUALS

IND026 - Mike Younger

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

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COMMENTS: (PLEASE PRINT) *[attach an additional sheet if necessary]*

The community of Cane Ridge has been granted ~~the~~ the courtesy of a FERC hearing which my community (Joelton TN) has been denied. I, therefore, felt that the Davidson County Community as a whole deserves to know why FERC has moved to authorize Oil & Gas infrastructure expansion (compressor station in Joelton) even though the pipelines continue to constitute a very real public safety threat to our community. Cane Ridge deserves to know that public safety is not a consideration and that PHMSA also defers any responsibility for pipeline maintenance.

Commenter's Name and Mailing Address *(Please Print)*

Mike Younger
Author, 2015 Field Study of Gas Pipeline Safety in Tennessee
2015.pipelinefieldstudy@gmail.com

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IND026-1: The purpose of the public comment session was to provide the public with another method for identifying specific environmental issues and concerns with the draft EIS prepared for the MXP and GXP. Other projects, which have been approved or have applications pending before the Commission, are outside the scope of this review.

Public Safety: The impacts of natural gas facilities on public safety are discussed in detail in section 4.12.3. See response to comment IND009-5. As described more fully in section 4.12.1, Columbia Gulf would follow procedures described in its Emergency Response Plan to minimize hazards in the event of an emergency.

INDIVIDUALS

IND027 - Rob Spires

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

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COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

THIS project arises a number of concerns... primarily over the potential damages that all area residents could incur... not only physically, but also to our homes, property values, quality of life, etc.

After doing some research, I have found that, while uncommon, such compression stations can suffer mechanical breakdowns or catastrophic failures that can put area residents at risk. The close proximity of this site to an elementary school is especially troubling in this regard. Furthermore, it is widely reported online

Commenter's Name and Mailing Address (Please Print)

Rob SPIRES
128 CLAYBROOK LN
ANTHONY, TN 37013

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IND027-1: See response to comment IND026-1, Public Safety. See response to comments IND021-2 and IND013-1. No odors are expected to result from operation of the Cane Ridge Compressor Station because the natural gas being compressed at the station will not be odorized (in general, natural gas transported in interstate commerce is not odorized).

INDIVIDUALS

IND027 - Rob Spires (continued)

IND027-1 cont.

that such compressor stations can leave a pungent aroma in the surrounding area. While this may not put people at immediate risk, I have serious concern for the long-term health of everyone exposed.

IND027-2

Beyond those points, Nolensville Road is one of the areas in town where property values are rising the quickest. As a Mill Run neighborhood resident, I feel as though I have quite a bit to lose in terms of home value for a project which brings little-to-no revenue back to the city/state. Other than convenience for Columbia Pipeline, I see little reason for this project to go into such a densely populated area.

IND027-3

Finally, in terms of quality of life... my wife and I frequently use the greenway that is adjacent to our subdivision (and which would literally run in the shadows of this station). If fumes or noise are severe enough to impact our routine, I would consider it a serious violation of my right to enjoy the neighborhood where I have purchased my home.

Thank you for taking the time to consider (and hopefully address these concerns).

IND027-2: See response to comment IND017-9.

See also section 4.9 for information on the economic benefits from construction and operation of the GXP. See also response to comment CO005-3.

IND027-3: See response to comment IND022-2 and IND027-1.

INDIVIDUALS

IND028 - Sam Cartozzo

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

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COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

As a resident of the Mill Run Community I strongly encourage consideration for an Alternate Location. This is a residential zoned area and does not have the roads and infrastructure to handle this project. Also it is located very close to Mill Creek and the Mill Creek Park System. This project will in no way benefit our community and will only increase noise in the area, pollute the air and water. It seems like

Committer's Name and Mailing Address (Please Print)
SAM CARTOZZO
341 UPPER MILL DR
ANTIOCH TN 37013
this project is only the most profitable easy option for the gas company

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IND028-1: Siting criteria used for selection of the Cane Ridge site are discussed in detail in section 3.6. Traffic issues for this area are discussed in section 4.9.5.2.

IND028-2: As noted in section 4.3.2, Columbia Gulf would not cross or otherwise impact surface waters during construction and operation of the Cane Ridge Compressor Station, nor would they withdraw from or discharge to surface waterbodies.

The facility would comply with all applicable noise and air emissions regulations. A detailed discussion of air quality and noise is presented in section 4.11. See also responses to IND015-2 and IND022-2 regarding noise impact.

INDIVIDUALS
IND029 - Timmey Orr

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COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

IND029-1
My Comment is that the Gas Compression station will impact the lives of so many people due to noise and pollution, there are hundreds of thousand children and elderly in this area that will be affected, please choose a less populated area for this industrial project.

Committer's Name and Mailing Address (Please Print)

Timmey Orr
2032 Stanford Village Dr
Antioch TN, 37013

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IND029-1: If approved, the Cane Ridge Compressor Station would comply with all applicable requirements for noise and air emissions. A detailed discussion of air quality and noise is presented in section 4.11.

INDIVIDUALS

IND030 - Unknown

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM
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COMMENTS: (PLEASE PRINT) *[attach an additional sheet if necessary]*

Why Cane Ridge and not Belle Meade, Green Hills, Forest Hills, Warner Park area -- because the certain areas and the people who live there are deemed valuable, untraversable, worth protecting, and therefore not to be inconvenienced by having something like this put in their area. This is not okay. It continues a long regional and national tradition of devaluing certain lives. We should be moving forward as a nation, toward valuing all life, not toward continuing these hierarchies of value. Corporations do have a right to exist and

Commenter's Name and Mailing Address *(Please Print)*

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¹ The Commission strongly encourages electronic filing of any comments or interventions in this proceeding. See 18 CFR 385.2001(e)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

IND030-1

Siting criteria used by Columbia Gulf in selection of the Cane Ridge site are discussed in section 3.6. Socioeconomic bias was not a factor in site selection.

INDIVIDUALS

IND030 Unknown (continued)

to make a profit, yet but it shouldn't be at the expense of actual human beings.

I accepted a job offer in TN and chose to live in Cane Ridge, even though folks recommended that I stay/go somewhere more conventionally wealthy and liberal. Many folks have done that, and now this is how the State of TN and Meho Governor are allowing us to be "rewarded"? By the flood in 2010 flooded this whole area, so how and why are the State and Meho thinking it's a good idea to allow a compressor to be built in this area? We now know it's even wider flood plain than ~~let's~~ officials thought before the flood, so why put something like this in a location where it can be flooded and can, if flooded, have an impact on so many lives and livelihoods? Why? All because a corporation needs to make an increased profit?

This is not a poor area. It is populated by middle upper class professionals who are not ignorant and who can read, research, and analyze what is happening and who vote.

IND030-2: As stated in section 4.3.2.3.2, no portion of the proposed site for the Cane Ridge Compressor Station is within a FEMA-designated 100-year floodplain.

IND030-2

INDIVIDUALS

IND031 - Beth Crowder

1

P R O C E E D I N G S

2

BETH CROWDER: My name is Margo Beth Crowder. I

3

go by my middle name, Beth.

4

I bought this property in 1975. We were aware of

5

the fact that we were surface owners. We were shown a gas

6

well, we were shown several gas wells, and we understood

7

about the well tender having access to the surface. We made

8

some decisions based on what we were told.

9

That was in the Seventies. In the Nineties, a

10

firm called Eastern American came in and drilled a well.

11

The existing wells were shallow; Benson sand is about 1,200

12

feet. The new wells that came in in the Nineties were to

13

5,000 feet. We were told things; we did get representation

14

and we did try to influence the siting of these wells, and

15

they ended up using some bottom land that we didn't really

16

want them to use. Even though we had representation, we got

17

a very average settlement. When they put in the third one

18

we had the same lawyer to resist the third well.

19

We were told that we were then spaced out. That

20

the wells were, that on that property there could be no

21

additional wells without violating the rules about how close

22

they could be. Our 1901 lease also had some references to

23

how close to residences, or actually it says buildings, it

24

doesn't specify residences. So in the Nineties, we were

25

told that we had nothing further to fear from additional

IND031-1

IND031-1: Comment noted. Natural gas production wells, including drilling, exploring, and recovery of existing supplies are not regulated by FERC, not proposed as part of the MXP or GXP, and are outside the scope of this EIS.

INDIVIDUALS

IND031 - Beth Crowder (continued)

1 ground being taken up by additional wells. Apparently what
2 we naively thought was a law, was an industry courtesy and
3 it did not foresee or include Marcellus shale drilling.

4 The well site on the property has taken up about
5 20 acres and it pursues minerals that are in excess of the
6 surface tract. And the surface lease. They pursue minerals
7 through my property, and one of the bottom holes is 8,990
8 feet from the wellhead. I don't believe that the 1901 lease
9 gave the gas company the right to use vast quantities of
10 this surface to pursue minerals elsewhere under other leases
11 and under the properties.

12 We did understand that things could change, you
13 know, when we purchased the place in '75 and I don't think
14 the legal term consideration of parties could really foresee
15 anything like Marcellus shale. But we were told that we
16 were maxed out, spaced out they called it, and then it
17 turned out we weren't that at all; and they're using a large
18 amount of surface to pursue minerals that are not underneath
19 our surface.

20 And we are part of a court case. We're going to
21 court next week. It's Crowder and Wenst versus EQT. And
22 we're specifically questioning something called horizontal
23 trespass, which hasn't really been adjudicated in the courts
24 because when people take the settlement they accept the gag
25 order. We have not accepted any settlement, we haven't

IND031-1 cont.

This area left blank intentionally.

INDIVIDUALS

IND031 - Beth Crowder (continued)

IND031-1 cont.

1 agreed to anything, and we would like to pursue this for the
2 purpose of precedent affecting other surface owners.
3 Thank you very much.
4 (Pause)
5 (Whereupon at 8 o'clock p.m., the verbal comment
6 session concluded.)
7

This area left blank intentionally.

INDIVIDUALS
IND032 - Chip Westfall

1 P R O C E E D I N G S

2 (5:00 p.m.)

3 MR. WESTFALL: My name is Chip Westfall,
4 W-e-s-t-f-a-l-l. I'm a County Commissioner representing
5 Calhoun County. There's to be a compressor and about 10
6 miles of pipeline built in our county and I am here to speak
7 in favor of how much that the compressor and pipeline are
8 going to increase the tax base in our county.

9 It will actually increase our property taxes
10 income by about 45% or a little better than that even. And
11 for a poor county like us it will make the difference
12 between surviving and going under for the next ten years.

13 I know that there is the location that the
14 compressor is where we are going to get most of our money
15 from is a very isolated area. There's no problem with it
16 being close to houses and making noises or being as far as a
17 danger to anyone because it's 2 -3 miles to anything and
18 couldn't be in a better location.

19 And to encourage Columbia or Trans-Canada whoever
20 is doing it now to get started as soon as possible because
21 we are close to being in dire straits right now our county.
22 The Columbia -- the company itself has also been very
23 helpful.

24 They tried to work ways that they could help our
25 school system as much as possible. Our school system is

IND032-1

IND032-1: Comment noted.

INDIVIDUALS

IND032 - Chip Westfall (continued)

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9

1 actually in deficit by about 2 million dollars of a 10
2 million dollar budget but Columbia has done -- bent over
3 backwards to try and figure out ways that they can get as
4 much money -- the tax revenue money for the school system as
5 possible.

6 And we truly do appreciate that and the school
7 system appreciates it. But as far as the complaints from
8 the public if anyone was going to get complained to it would
9 be me because I have been right out front with this, pushing
10 this since we first got called about it.

11 And if anybody is going to bitch about it they
12 would be bitching to me and there has not been one complaint
13 since this has started, that's really all I have to say.

IND032-1 cont.

This area left blank intentionally.

INDIVIDUALS

IND033 - Jim Pritt

21 MR. PRITT: My name is Jim Pritt, I'm with
22 Intervest Operating LLC. P-r-i-t-t. And I'm currently
23 serving in the capacity of the regulatory manager for the
24 company. We operate about 42,000 wells all over the United

1 We are the largest operator of shallow wells
2 across the country. I have been working -- I work out of
3 Charleston, West Virginia office and I have been actively --
4 the reason I am here today is to show -- is to show our
5 support for these two projects the Mountaineer Xpress
6 Project as well as the Gulf Xpress Project.

7 The Mountaineer Xpress Project carrying 2.7 B of
8 gas out of the basin is very critical to the development and
9 infrastructure development of the region. We currently have
10 a negative basis in the region until the pipelines are built
11 out we are going to be faced with that negative base until
12 the rest of the pipelines are built out.

13 Priority we have the 18th Rover has been
14 approved, Trans-Canada, Leach, Sunoco's Mariner East Line
15 which is very important to the liquids market. Waiting of
16 FERC approved orders the ACP line, Mountain Valley Pipeline,
17 Atlantic Sunrise in the pecking order of which we would like
18 to have.

19 Our wish list is the Mountaineer Xpress Pipeline
20 is 7th on our list followed by last but not least is the
21 Nexus Pipeline. All of these pipelines together will carry
22 a lot of gas out of the basin and improve our pricing.

23 Of course we would like to allow this gas to stay
24 in the basin but that is another matter for another day for
25 when we get the downstream infrastructure built out. So

IND033-1: Comment noted.

IND033-1

INDIVIDUALS

IND033 - Jim Pritt (continued)

IND033-2

1 with that I just re-emphasize the need for the pipelines to
2 be built out at the Appalachian Basin to create jobs for all
3 of our folks, to improve our quality of life and to make
4 this region basically the NGL natural gas capital of the
5 world.

6 Once that is done I might live to see it. I'm 62
7 years old, I might not live to see it all develop but it is
8 nice to know that it has started. So 20 to 25 years from
9 now the quality of life for all the folks in the Appalachian
10 Region will be much better and that's all I have.

11 (Whereupon the meeting was adjourned at 8:00
12 p.m.)

IND033-2: Comment noted.

INDIVIDUALS

IND034 - Richard Given

25 RICHARD GIVEN: My name is Richard Given, G I V E

1 N. And the concern I have is a reroute; and I just talked
2 to the Columbia guy and showed him where it was. It's
3 located along, or it crosses what's on the map as Givens Oak
4 Road. It's locally known as Wolf Creek Road. And they
5 basically have the pipeline going through part of my
6 property on one side of a ridge and I want it moved to the
7 other side of the ridge.

8 And I discussed it with a land man named Anthony
9 Capp and he was supposed to set up a meeting and get back
10 with me, and we would see if that was feasible to move the
11 pipeline. The concern I have was one thing, it's going
12 through a slip, an old slip where they have it right now.
13 And where I would like for the pipeline to go, it would
14 actually straighten it out -- it would be better for them, I
15 think. And better for me because it would take up less
16 usable pasture field or less land.

17 That's my concern. So, what else do you need to
18 know? That it? So, that will be part of the record and
19 then -- well, I mean, this guy told me he would get back to
20 me. So, I'm sure he will.

21 (Pause)

22 (Whereupon at 8 o'clock p.m., the verbal comment
23 session concluded.)

24
25

IND034-1

IND034-1: Comment noted. Any changes in the proposed route, which Columbia Gas negotiates with landowners, would be filed with the Commission for its review and approval.

INDIVIDUALS

IND035 - Steve McDiffitt

1 P R O C E E D I N G S

2 STEVE McDIFFITT: Steve McDiffitt. S T E V E, M c

3 D I F F I T T. I'm just here to show my support of the
4 project, and actually to thank FERC and everybody for
5 helping to support an environmentally friendly and safe
6 project. It means a lot to the members here of West
7 Virginia to get this project in, and it will create a lot of
8 jobs that are still well needed here locally.

IND035-1

9 Not a whole lot to it. I do live here local and
10 live in Marshall County which is right here close. That's
11 really all I've got. Appreciate it.

12 (Pause)

13 (Whereupon at 8 p.m., the verbal comment session
14 concluded.)

IND035-1: Comment noted.

INDIVIDUALS

IND036 - Susan Cleaver

14 MS. CLEAVER: My name is Susan Cleaver. I'm not
15 happy about this pipeline. It is coming probably within
16 12,000 feet of my house and there is going to be another
17 pipeline on the other side of my house approximately the
18 same distance.

19 They are breaking up our countryside they are
20 -----IND036-1a----- ----IND036-1b----- ---IND036-1c----
clear-cutting our trees, impacting streams, animals, birds,
21 -----IND036-1d----- IND036-1e
our property values, our health. I don't think that we need
22 this infrastructure because we have to stop burning fossil
23 fuels anyway which natural gas is one. Methane is a very
24 dangerous greenhouse gas.

25 Yeah mostly I look at the danger with all the

IND036-1a: (Clear cutting) See response to comment IND004-3.

IND036-1b: (Stream impacts) As noted in section 4.3.2.5.1, no long-term impacts on surface water quality or quantity are anticipated to result from construction of the MXP. Columbia Gas would not significantly or permanently affect any designated water uses; it would bury the pipeline beneath the bed of all waterbodies, implement erosion controls, and restore the streambanks and streambed contours as close as practical to pre-construction conditions.

IND036-1c: (Wildlife) MXP impacts on wildlife are discussed in section 4.6.5.1. The majority of impacts on wildlife resources would generally be temporary in nature, occurring mostly during construction activities. Larger, more mobile generalist fauna would be displaced during construction because of vegetation loss, increased noise, and ground disturbance. Despite a considerable amount of linear clearing of upland forested habitat (which we have concluded would be a significant impact), we expect that the remaining amount of forested habitat in the surrounding areas would be sufficient to incorporate displaced wildlife.

IND036-1d: (Property values) See response to comment IND004-1, Land Values and Farmland.

IND036-1e: (Health) As stated in section 4.11.3.1.1, we conclude that the project's construction-related impacts would not result in a significant impact on local or regional air quality, nor would emissions from operation of the MXP's compressor stations have significant impacts on local or regional air quality. Construction and operation of the MXP would not cause impacts that are expected to adversely affect the health or welfare of the population living in the project area.

IND036-1

INDIVIDUALS

IND036 - Susan Cleaver (continued)

IND036-2
1 clear-cutting. The trees are the lungs of the world. We
2 are promoting global warming in that way as well. The loss
3 of our county and the communities that this can help to
4 promote by fracking and clear-cutting and pipelines through
5 our county just lowers all the value of our whole county
6 both beauty and health.

IND036-3
7 I don't think that we -- I think that we should
8 just forget about using natural gas as a bridge fuel and
9 promote clean energy because we are going to have to do that
10 anyway. I can't see spending all of this money and doing
11 all of this infrastructure for something that we won't be
12 able to use in the near future.

IND036-4
13 I am concerned especially about some birds who
14 need large habitat, animals that need large habitats,
15 mussels that need certain habitats. Our hillsides are so
16 steep in West Virginia it is terrible to think about
17 clear-cutting them and putting a pipeline there.

18 And you can see all of the other pipelines on the
19 steep hillsides that are just failing and eroding. And I
20 guess I'll send in -- hopefully I'll send in more comments
21 later but I just wanted to start out making some tonight
22 since I was here.

23 (Whereupon the meeting was adjourned at 8:00
24 p.m.)

25

IND036-2: See response to comment IND004-3.

IND036-3: The purpose of the projects is to transport natural gas. Energy production from renewable resources or the gains realized from increased energy efficiency and conservation are not transportation alternatives and are considered beyond the scope of this EIS.

IND036-4: See response to comment SA004-2.

INDIVIDUALS

IND037 - William Douglass

1 PROCEEDINGS

2 (5:00 p.m.)

3 MR. DOUGLASS: My name is William Douglass that's
4 W-i-l-l-i-a-m and D-o-u-g-l-a-s-s and I'm with Reserve Oil
5 and Gas. So I work for an independent oil and gas producer
6 based in Roane County and I want to speak to the pipeline
7 project today.

8 And that West Virginia has been blessed with
9 abundant natural resources and the Marcellus shale was a big
10 boom for the state. It led to basically the discovery of
11 oil and gas reserves that equal Russia or Saudi Arabia now
12 so it is a great asset for the state of West Virginia.

13 But what has happened as a result of that boom is
14 now there has been a slight bust in prices for oil and gas
15 in West Virginia and it has affected small producers like us
16 in that we have had bankruptcies -- there has been layoffs
17 of many producers and the service companies that work in the
18 industry also.

19 So it has hurt the economy of West Virginia due
20 to the price decrease and that was mainly because the boom
21 led to the oversupply of gas. Marcellus gas become -- there
22 was an oversupply in West Virginia, a bottleneck of being
23 able to get that gas out because of the aging infrastructure
24 of the pipelines.

25 So there are only two things that can help with

IND037-1: Comment noted.

IND037-1

INDIVIDUALS

IND037 - William Douglass (continued)

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10

1 that to get the price back up. That would be to create
2 demand in West Virginia which is being worked on whether
3 there be a cracker plant or a natural gas fired power plants
4 and some of those are in the studies or in the discussions.

5 But the other way would be to create new pipeline
6 infrastructure to get rid of that bottleneck and get the gas
7 out to market where there is a demand for it and the prices
8 would therefore increase.

9 And drilling activity and employment would result
10 for West Virginia producers. So that's why we support the
11 pipeline projects of this nature because it will help the
12 producers get back to drilling. It will help employment
13 prospects in West Virginia and as a result it will help
14 affect the budget crisis we are facing in West Virginia
15 which as a result of lower drilling, lower revenues from oil
16 and gas that's why we are having such a budget deficit now
17 in West Virginia.

18 So projects like this are just one means to help
19 the overall economy and get us back on track. So we fully
20 support such pipeline projects including this one.

IND037-1.00 ml.

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INDIVIDUALS

IND038 - Dan Thomas

IND038-1
Dan Thomas, Brentwood, TN.
As a homeowner nearby, my family and I are very disturbed by the proposed Cane Ridge gas compression station. The FERC report does not mention that the nearest Davidson County fire station is located many miles away. Though the compression station may be new, the pipelines are not. They are quite old and were not originally designed for the amount of pressure that this new station will enforce. If there ever is an accident, which many compression station/pipeline accidents across this country have demonstrated to be a very real possibility, it will occur at an unmanned station with the nearest emergency response at minimum 20 minutes away (and that's assuming perfect conditions with absolutely no traffic to navigate through). It's not uncommon for ambulances to take 40 or more minutes to reach this area, even in life threatening situations. That's enough time to cause catastrophic damage in a heavily populated area. All of the roads leading out are only one lane, ensuring a bottle neck of traffic in the event of an evacuation.

IND038-2
The report mentions a large "buffer" that exists between the station and the residents (it's even listed as a reason for this to be the ideal site on 3-28). This is misleading and should be removed from the text. While it is true that 90 acres were purchased, the station is now slated to be built on the edge of the property closest to where a large amount of residents are located. There is no buffer.

IND038-3
We share the same concerns that I'm sure many have already expressed: health risks, plummeting home values (which will also decrease the tax revenue for our local government), excessive noise during blowdowns and absolutely no benefit to our local community. We are not the recipients of this gas, this station creates no local jobs long term, and the only one benefiting is a company that isn't even American owned. Most importantly, if there ever is an accident, it will endanger many lives. Why are a foreign company's finances being given a priority over that?

IND038-1: See response to comments IND015-1, IND006-3, and IND006-4. Additionally, Columbia Gulf's operations staff would develop and maintain a liaison program with emergency response, government, and public safety officials in the Cane Ridge area. These officials include local fire and law enforcement officials, emergency management services, ambulance services, HAZMAT groups, state police officials, local emergency planning coordinators, and town/city government representatives.

IND038-2: See response to comment CO003-1. The compressor station footprint within the site has been designed to minimize additional tree clearing. The station office and auxiliary building would be sited closest to Barnes Road.

IND38-3
Health Risks: See response to comment IND013-1.

Property Values: See response to comment IND017-9.

Noise: See response to comments IND015-2 and IND022-2.

Community Benefits: As detailed further in section 4.9.8, construction of the Cane Ridge Compressor Station would result in minor beneficial socioeconomic impacts. See response to comment CO005-3.

INDIVIDUALS

IND039 - Susan Couch

Susan L Couch, Cane Ridge, TN.

I am submitting my comment and request that FERC deny the permit for the natural gas compressor station for the Gulf Xpress Project (Docket No. CP16-361-000) in Cane Ridge TN, a part of Metropolitan Nashville. The land that is proposed for the compressor station is in an area that when the pipeline was placed 40 or 50 years ago was rural farmland. Since that time, and especially in the last 10 years, Nashville and Davidson County have grown tremendously. Nashville is one of this country's fastest growing cities with an average of 100 new residents moving to the area daily. Thousands of homes have been built within a 3 mile radius of the proposed site and will be affected by this facility. In addition, the land near the proposed site is some of the last remaining land within the county. With the exploding population of our city and the need to provide affordable housing to the new residents, the construction of the station can affect the health of current and future residents.

Nashville/Davidson County is in a geographic "bowl". Our topography tends to trap pollutants in the air, especially during the summer months. There are already problems with our air quality multiple days during the summer. The carcinogenic pollutants emitted by a natural gas compressor station will only add to the problem.

I am also concerned about water quality and the pollutants emitted by the proposed compressor station that can affect a federally protected species, the Nashville crayfish, which is found only in Mill Creek. The creek is downhill from the site and there is a tributary that flows through the compressor site and into Mill Creek. Any pollutants from the facility can easily contaminate the creeks and possibly affect the protected crayfish.

Finally, I am concerned about the close proximity of the proposed compressor station to thousands of Nashville residents. There are 3 public schools within a 3 mile radius of the facility. There are thousands more citizens within the area of the Cane Ridge station than there are within the proposed compressor sites along the entire length of the Gulf Xpress project combined. Placing an industrial type facility within the middle of a residential area places an undue safety and health burden on the citizens of Cane Ridge, Nashville and Middle Tennessee.

I implore you to please deny the permit for this site in Cane Ridge and require that Columbia Pipeline Group place the facility in an industrial or rural site.

Thank you-
Susan L Couch

IND039-1: See response to comment IND013-1.

IND039-2: Section 4.11.1.3.5 discusses concerns with exposure to chemicals from operation of gas compressor stations and the impacts on human health.

IND039-3: See response to comment IND017-3.

IND039-4: See response to comment IND010-4.

INDIVIDUALS

IND040 - Elenor Dyer

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

GULF XPRESS PROJECT (DOCKET NO. CP16-361-000)

Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically filed¹.

Please send one copy referenced to Docket No. CP16-361-000 to the address below.

For Official Filing:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

This is a quiet peaceful community. We do not want an industrial site built in our community. I do not believe the estimates of noise and light and pollution.

Commenter's Name and Mailing Address (Please Print)

Eleanor Dyer
6357 Nolensville Pike
Nashville TN 37211

FILED
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COMMISSION
2017 APR -4 P 9 43
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REGULATORY COMMISSION

¹ The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

IND040-1: Comment noted.

INDIVIDUALS

IND041 – Calvin Burchett

April 10, 2017

Subject: The Cat Has Left The Barn

To Whom It May Concern:

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Just a few more additional thoughts concerning my letter dated March 24, 2017 about Putnam County maybe to wealthy in order to receive anymore Grant money from the Federal Government and dispersed by West Virginia Economic Development Jobs Council. Was the cat let out of the bag when the coordinator indicated to Putnam County Commission additional monies for Phase 11 and Phase 111 of the Manila Ridge Water Project which could be in jeopardy. I laid out my view why some areas of the county justify this rating and some areas don't.

IND041-1: Comment noted.

IND041-1

But lets get to the point. In my opinion improvements should be about economic growth potential. Putnam County and Mason are two counties that could be industrially developed based on several factors such as available flat land along the Kanawha River plus the railroad and will soon have a express highway in place. These are some of the essential needs that industries look for when considering potential sights along with corporate tax structures.

IND041-2: Comment noted.

IND041-2

These counties in the near future will have the Mountaineer XPress Gas Line passing through that could provide natural gas if needed. Gas companies are already interested in drilling in these two counties for the Marcellus Shale Gas.

So lets assume Putnam County dosen't receive any Grant money to provide a public water system to residents on these ridges. What message does this send a corporation like Toyota in Buffalo about trying to lure other companies that could help them provide materials to expand their operations. When Japan Officials realize within a few miles of the Buffalo Plant the lack of infrastructure, I wonder what their reactions are.

INDIVIDUALS

IND041 – Calvin Burchett (continued)

IND041-2
(continued)

Are they going to be excited about these conditions? Are they going to recommend other foreign companies and in the United States to locate in or around Buffalo or Route 35.

Another thing I'm not clear on is the hope of coal coming back to regenerate our economy. In my opinion coal is at a stalemate on production. Also it is my opinion natural gas is going to be the energy source of the future. I give the President Of The United States Donald Trump credit for trying to help the coal miners but I got my doubts if new power plants will use coal to produce electricity along with steel mills and etc.

If coal is doomed like a chicken (hen) that has been tied by its feet to a clothesline with its head cut off and is designated for the pot, I don't see why West Virginia Economic Development Jobs Council would consider dumping revenue into areas of Southern West Virginia and other counties if this is the case. Some of these residents of West Virginia southern counties are leaving the coal fields like rats jumping off a ship when its doomed to go down.

Even if some of these counties have areas of qualifications and meet the criteria more so than counties like Putnam and Mason, my view it is like throwing good money after bad when the population is declining. A lot of these residents in the past few years have packed their bags and headed down Hillbilly Highway to find work, leaving just the old folks and disables behind to keep the flames burning. After they croak, the ghosts appear.

I saw in the newspaper that Putnam and Mason counties are growing some in population. Just another reason to spend Federal grant money in areas where people want to find work and build new homes.

I think the power^{brokers} of West Virginia need to rethink about all these regulations and explain to Federal Officials it needs

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INDIVIDUALS

IND041 – Calvin Burchett (continued)

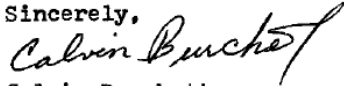
IND041-2
(continued)

flexibility in selection of needs and to put monies in areas that have potential of growth. I have been told by several farm property owners that their children would build new homes on their land if a public water system were made available. That would bring in more tax revenue from residents for these counties. Also, that means more money will be spent in local communities.

I encourage Putnam and Mason Counties Official to step up and provide a plan to bring a basic need to the residents in these areas. The ball is in your court. Will you try to score or take easy way out and punt.

So you be the judge if changes are needed to move our state forward so our residents can prosper or continue with the same old policies.

Sincerely,



Calvin Burchett

5258 Locust Ridge Road (Rt 66)

Leon, WV 25123

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INDIVIDUALS

IND041 – Calvin Burchett (continued)

cc:

Donald Trump - President
Joseph Manchin US Senator
Shelley Moore Capito, US Senator
Jim Justice - WV Governor - elect
Mike Hall, WV Senator (State)
Mitch Carmichael, WV State Senator
Christ Walters, WV State Senator
Geoff Foster, WV House of Delegates
Scott Cadle, House of Delegates
Jim Butler, House of Delegates
Rick Handley, Mason County Commissioner
Sam Nibert, Mason County Commissioner
Casey Doolittle, Mason County Commissioner
John Gerlach, Administrator Mason County Commission
Andy Skidmore, Putnam County Commissioner
Steve Andes, Putnam County Commissioner
Mr. Foster, Putnam County Commissioner
Brian Donat, Putnam County Administrator
Randy Grinstead, Director of Mason County Public Service
Michael A. Albert, Chairman of WV PSC
Jerry Bird, Director of Government Relations WV PSC
Susan Small, Director of Federal Affairs, WV PSC
Kelley Workman, Economic Development of WV
Mark Julian:
WV Development Office
Terry Martin, Regional Intergovernment Affairs Council
Director Infrastructure and Jobs Development
Mason County Development Authority
Putnam County Chamber of Commerce
Jeffrey L. McIntyre President of WV American Water Co.
David Carovilaro, Senior Project Manager, WV American Water Co.
Dan Bickercon, Director of Development, WV American Water Co.
Mr. Brewer, House Of Delegates WV
Mr. Jeffries, WV State Senate

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INDIVIDUALS

IND041 – Calvin Burchett (continued)

cc: Continued

Millie Marshall, President Of Toyota West Virginia

Osamu Nagata, Executive Vice President Toyota North America

Dr. Shuhei, Toyota President Toyota Boshoku Corp.

Yoji Suzuki, President Of Toyota Motor MFG West Virginia

Jim Nagy, Terradon Communications

Kimberly D. Bose, Secretary Federal Energy Regulatory Commission

Brittnie Carnes, Columbia Gas Pipeline Transmission Group
Mountaineer Xpress Project

Residents of the Ridges

Others

David L. Acord, II, Director Water and Wastewater Division

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INDIVIDUALS

IND042 - Anthony Bonitatibus

anthony bonitatibus, Mcmechen, WV.
NO MORE PIPELINES --- NO FURTHER INVESTMENT IN FOSSIL FUELS OF ANY KIND

here are a number of reason why this pipeline is a bad idea

IND042-1

Section 4.3.1.3.1 Water Resources: Columbia Gas has not identified all private water wells and potable springs in proximity to project work areas, nor identified any specific protection measures that would be implemented for wells located inside the construction work areas. This information must be included in the DEIS.

IND042-2

Section 4.3.2.4.1 Stream Crossings: The DEIS does not contain site-specific waterbody crossing restoration plans or a contingency plan for drilling under the Kanawha River. This information is vital when assessing the impacts of stream crossings on water quality and aquatic life and must be included in the DEIS.

IND042-3

Section 4.3.2.4.1 Water Withdrawals: Water sources and quantity for dust control have not been identified. Out-of-basin transfers of hydrostatic test water have not been addressed. Specific measures to protect aquatic life and downstream uses from water withdrawals have not been submitted. These issues must be addressed in the DEIS.

IND042-4

Section 4.4.1.1 Wetland Impacts: The DEIS does not contain a mitigation plan for wetlands. This is essential for ensuring that the impacts to wetlands will be properly mitigated. Without this information, FERC cannot conclude that impacts to wetlands will not be significant.

IND042-5

Section 4.7 Endangered Species: Construction of MXP will negatively affect endangered bat and mussel species. Consultations with the US Fish and Wildlife Service have not been completed. Consultations could result in additional mitigation, conservation measures, or reroutes. This lack of sufficient information must be corrected in the DEIS.

IND042-6

Section 4.1.4.4.1 Landslides: The DEIS states that MXP is in an area of elevated landslide risk due to steep slopes; however, Columbia Gas has not completed the Landslide Hazard Assessments or the Landslide Mitigation Plan. Additional mitigation measures to address landslides must be identified and included in the DEIS.

IND042-1: In section 4.3.1.3.1, we have recommended that Columbia Gas identify the location of all water wells and potable springs within 150 feet of all areas of disturbance prior to beginning construction. Columbia Gas proposes to perform pre- and post-construction monitoring for well yield and water quality for private wells within 150 feet of construction workspaces if requested by the landowner. Our recommendation in section 4.3.1.3.1 would require Columbia Gas to offer this option to all such landowners. If testing results indicate the integrity of any water supply well has been impacted during construction, Columbia Gas would provide a temporary water supply source and compensate the landowner for repairs, installation of a new well, or other options as agreed upon with the landowner. Additionally, section 4.8.1.3 notes that Columbia Gas would implement a landowner complaint resolution process to document and track landowner problems and their resolution.

IND042-2: Waterbody crossings would be permitted through the USACE and WVDEP, and in consultation with the USFWS and WVDNR, as necessary. See response to comment CO009-15

As stated in section 2.4, Columbia Gas has adopted and incorporated the requirements of our *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures) into its project-specific ECS. Our Procedures require specific streambank restoration measures to be implemented at all stream crossings (see Procedures, section V.C, at: <https://www.ferc.gov/industries/gas/enviro/procedures.pdf>).

Additionally, this section of the draft EIS also presented a recommendation that Columbia Gas file a revised HDD contingency plan for the Kanawha River crossing prior to the end of the draft EIS comment period. This revised plan is discussed in the final EIS and is provided in appendix G.

IND042-3: As stated in section 4.3.2.4.1, water for dust control would be obtained from municipal sources, local wells, and/or surface water sources. All appropriate permits and authorizations required would be obtained prior to conducting dust control activities. Additionally, we are recommending that Columbia Gas submit flow regime information and specific measures to protect instream habitat and downstream uses for each stream to be used for hydrostatic test water withdrawals. Hydrostatic test water for MXP is discussed in section 4.6.4.1.3, which states, "Test waters would be discharged back into the waterbody of origin, within waterbodies of the same watershed, or within upland areas, which would eliminate the

INDIVIDUALS

IND042 - Anthony Bonitatibus (continued)

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translocation of invasive aquatic species that may be present. Discharges would be conducted in accordance with the applicable project permits.”

IND042-4: Wetland impacts would be mitigated by Columbia Gas as a condition of its USACE section 404 permit. See response to comment CO009-15.

IND042-5: The USFWS offers the following comment in its review of the draft EIS, “The Service West Virginia Field Office has been working with Columbia Gas since 2015 to identify survey and project information needed, including surveys for federally listed bats and mussels in West Virginia. Once additional information becomes available the Service will work with the applicant to address any species-specific issues, and to develop avoidance and mitigation measures for Service trust resources.” (USFWS correspondence dated April 24, 2017).

IND042-6: See response to comment IND067-7.

INDIVIDUALS

IND043 – Lou Rife

1 P R O C E E D I N G S
2 MR. RIFE: Lou Rife, R-i-f-e. I live at 7121
3 Sunny Wood Drive in Nashville. I'm at 615-788-3623. They
4 already have my information because they sent me that 100
5 pound package of paper. This is short and simple. I want a
6 big no registered for this compression station.
7 That we are even having this meeting is insane.
8 These people bought the property and things started
9 happening we didn't even know it. As usual things go on
10 with our government and we are not aware of it. There isn't
11 anything the government does that's really helpful to us
12 citizens except here we are fighting this issue.
13 So I wish somebody would ride in on a white horse
14 and give us some help but it is no. Do not, do not bring
15 this compression -- both of these compression stations in to
16 the Davidson County area or the Nashville area, it needs to
17 stop.
18 If anybody is listening to this, if you have got
19 children remember children -- kids need to grow up where the
20 environment is clean and fresh and they are not going to be
21 harmed by somebody who has got a gas pipeline that's going
22 to run past them and is going to have problems.
23 I just beg you -- we are human beings here. We
24 are still human beings. We all have children this needs to
25 be stopped. No to the compression station -- I appreciate

IND043-1: Comment noted.

IND043-1

1 your time. Maybe things will get better. And I don't see
2 the justification for putting that on the local community
3 when there is practically no benefit.

IND043-1

INDIVIDUALS

IND044 – Aren Sulfridge

4 MR. SULFRIDGE: Aren Sulfridge, A-r-e-n
5 S-u-l-f-r-i-d-g-e. I live on Bending Creek Drive, 1208
6 Bending Creek Drive right around the corner from where the
7 station is going. I have definitely concerns about the
8 station. First off I would like to make a comment about why
9 this is even happening.

10 The company has, I understand has been bought by
11 a Canadian company which means this will benefit Canada.
12 The pipeline goes straight to the Gulf of Mexico. There is
13 -- and it will be exported there so there is really no
14 benefit for the local area. Some people say there will be
15 jobs created but the station only needs two people to
16 monitor it at a time which at most is 6 jobs.

17 You can give me a plot of land for the same --
18 you know area I will put more than 6 people to work on a
19 community garden. So there is really no benefit there that
20 I see. I have real concerns about the -- anyway the point
21 there is that it is benefitting a Canadian company and I
22 think that the local community is being disregarded not to
23 mention that the Metro National government has passed
24 resolutions about the compressor stations going here.

25 The company is going to have to override zoning

IND044-1

IND044-1: See response to comments CO005-3. The Commission encourages project proponents to comply with state and local land use planning and zoning regulations in the design and siting of natural gas facilities.

INDIVIDUALS

IND044 – Aren Sulfridge (continued)

IND044-1

1 regulations also in order to put it there which is kind of
2 funny that we are using eminent domain for a foreign company
3 to override the local government of Nashville.

IND044-2

4 Anyway that's the main point there. My
5 environmental concerns are for water, air and noise. Water
6 because there is Mill Creek which is right there. And I was
7 going to mention this too -- on the plot of land where they
8 are they said that they were going to put it away from the
9 road and hide it but actually what I heard is when they got
10 there they discovered that the land was rocky back on the
11 property and so they have actually moved it right up to the
12 road which will be visible.

IND044-3

13 It will be more easily heard to all the neighbors
14 around but that goes with the noise pollution part. Back to
15 the water pollution there's Mill Creek. I know there is an
16 endangered species of fish there. I'm not confident that
17 they will be able to prevent any run-off from this plant or
18 the pollutants from getting into the creek. It is very
19 beautiful back there, there's a green way, all the neighbors
20 enjoy it.

21 I got back there pretty often it's a great
22 getaway. You know you have the stresses of work, daily
23 life, you just want somewhere quiet to go walk. So it is
24 really beautiful back there with the creek and everything
25 and I guess I should go ahead and talk about the noise

IND044-2: See response to comment CO003-1.

IND044-3: As noted in section 4.3.2, Columbia Gulf would not cross or otherwise impact surface waters during construction and operation of the Cane Ridge Compressor Station, nor would it withdraw from or discharge to surface waterbodies. Also, see response to comment IND017-3.

INDIVIDUALS

IND044 – Aren Sulfridge (continued)

1 pollution since I mentioned that.

2 Anyway I know these stations produce noise like I
3 said they are going to have it near the road now instead of
4 back on the property like what they said in the beginning.

5 And the noise is a concern -- they say it is supposed to be
6 like a washing machine in the background but if I go outside
7 I don't want to hear a washing machine. It kind of ruins
8 the quiet nature being back there.

IND044-4

9 And I would like to know who is going to monitor
10 that and what happens if they pass those levels? I know
11 it's a very big engine it is over 100,000 horsepower between
12 this station and the other station combined in Nashville
13 which is the first time that that is happening in a city in
14 the United States of one of the top 25 largest cities. So
15 that's noise pollution.

16 Air pollution -- I mentioned the other station.
17 There's a crossover between those stations that puts the gap
18 of Nashville right in the middle which intensifies the issue
19 because there is nowhere for this air to flow so there is
20 more concentration of air pollution.

IND044-5

21 Again I would dare say that's unprecedented in
22 American cities right now. There are concerns -- I know we
23 have a neighbor that's asthmatic and she is concerned that
24 you know, she won't be able to go out and do her walks like
25 she does now, really practical concerns.

IND044-4: See response to comment CO003-1. See section 4.11.2.3.2 for a discussion of noise impacts attributable to operation of the Cane Ridge Compressor Station. To confirm that actual noise levels attributable to the GXP compressor and meter stations are not significant, we have recommended a condition to require Columbia Gulf to file full-load noise surveys of the proposed facilities. If noise attributable to operation of all the equipment at any facility exceeds 55 dBA L_{dn} at any nearby NSA, Columbia Gulf would be required to report on what changes are needed and install the additional noise controls to meet the 55 dBA L_{dn} requirement.

IND044-5: See response to comment IND013-1.

INDIVIDUALS

IND044 – Aren Sulfridge (continued)

IND044-5

1 Also, who would monitor that and what are the
2 consequences if those are passed over? Water, air, noise --
3 final concern is emergency management. These stations have
4 been known to explode and I would like to know what happens
5 if that happens.

IND044-6

6 As far as I know the local emergency management
7 teams will have to manage that which puts another burden on
8 the community again not justified by where the value is and
9 where the benefit is going for these stations.

10 Again it's a Nashville issue -- Nashville is a
11 growing city. We are in one of the areas that has the
12 fastest growing human population right now in the city and
13 it would be a shame to see that stop. I didn't know I was
14 going to speak for 5 minutes.

IND044-6: See response to comments IND006-4 and IND009-5.

INDIVIDUALS

IND045 – Barry Vincent

15 MR. VINCENT: My name is Barry Vincent.
16 B-a-r-r-y V-i-n-c-e-n-t and I live at 371 Dade Drive, 37211
17 which is approximately 2, 2 and one-half miles as the crow
18 flies from the subject site.
19 I am a 37 year now real estate agent in southeast
20 Nashville so I have worked this area extensively with
21 Coldwell Banker and ReMax. I am concerned about several
22 aspects of this -- one I am concerned that we are not
23 getting enough community input because our population is
24 more transitional and it is younger.
25 It is in large numbers of ethnic population and

IND045-1

IND045-1: See response to comments IND008-1 and IND009-5.

INDIVIDUALS

IND045 – Barry Vincent (continued)

1 they are struggling to just meet the demands of day-to-day
2 life compared to say our neighbors up in Joelton and the
3 large united community opposition they have up there.

4 We just don't have that kind of long-term
5 population here. But we do have a significant portion of
6 our population that is older. They are people who bought
7 their homes in southeast Nashville when the homes were built
8 in the late '50's, the '60's, the '70's.

9 They have planned for the value of their home to
10 provide much of their retirement money and now with this
11 project I'm aware as a real estate agent that under the Code
12 of Ethics of the National Association of Realtors I have to
13 tell every person thinking about buying a house in southeast
14 Nashville that this facility is going to likely be built.

15 That will immediately mean that those people lose
16 large chunks of their home equity. Because I don't think
17 there is anybody that is going to say, "Oh I would buy a
18 home by a compressor station just as quick as I would buy
19 one anywhere else," that just doesn't stand to reason.

20 And I suspect that most of them will do exactly
21 what I did. When I heard about this I just got online and
22 Googled gas compressor station -- it was just a few weeks or
23 months after the Porter Ranch explosion in California.

24 And there with one Google search was page after
25 page after page of different examples of various kinds of

This area left blank intentionally.

IND045-1

INDIVIDUALS

IND045 – Barry Vincent (continued)

1 petroleum facilities in communities blowing up and in some
2 cases completely destroying neighborhoods.

3 I cannot fathom the reason why this should be put
4 in the middle of densely populated Antioch when there are
5 miles and miles and miles of undeveloped rural land in every
6 direction out of Nashville.

7 So I am opposed to it. I am opposed to it on
8 behalf of my neighbors. I'm opposed to it on behalf of -- I
9 live in what we refer to as Little Kurdistan and Little
10 Burma because of the two large ethnic groups that are there.

11

12 And they don't even know this -- they have come
13 in and they bought homes, invested and they don't even know
14 this is happening to them and that is just tremendously
15 unfortunate.

IND045-1

This area left blank intentionally.

INDIVIDUALS

IND046 – Suzanne Goodman

IND046-1 23 MS. GOODMAN: Okay my name is Suzanne Goodman,
24 S-u-z-a-n-n-e G-o-o-d-m-a-n. I live at 3833 Grant Ridge
25 Lane which is in view of the compression site and as we were
IND046-1 1 having a discussion about the compression station -- if it
(cont.) 2 ends up being here I think the main concern is that people
3 feel that they do not have a way to contact someone.
4 In other words my idea is for the gas compression
5 people to make an App like the Next Door App where people
6 can post their concerns. I saw this. I smelled this. I
7 heard this. And have it monitored so that they get an
8 answer back quickly. Not only that but they could do like
9 an alert system like they have for tornadoes and emergencies
10 which would say -- at 9:58 a blow back is going to occur.
11 Do not be concerned.
12 I would be a simple way to let everyone who lives
13 in the area know what is going on and feel like they have
14 more control over what is happening. There can be a give
15 and a take between people so that I can say tonight it was
16 really loud, the wind was blowing from this direction, it
17 sounded like I had a truck in my back yard.
18 At least I can have someone reply and say yes the
19 winds were blowing in that direction. We have tested it and
20 it was above or below where it should be. Some kind of give
21 and take between people with some kind of an App some kind
22 of a warning system if it has to be in this place.

IND046-1: Section 4.12.1 states, “Safety standards specified in Part 192 require that each operator establish and maintain liaison with appropriate fire, law enforcement, and public officials to learn the resources and responsibilities of each organization that may respond to a natural gas pipeline emergency, and to coordinate mutual assistance in responding to emergencies. The operator must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and report it to appropriate public officials.”

INDIVIDUALS

IND046 – Suzanne Goodman (continued)

IND046-2 23 There are industrial areas where I would prefer
24 it to be. I hope that they look at those industrial areas
25 that are not too far away from where the plant position is

IND046-2 1 now. But if we have to have it I would love to have some
(cont.) 2 kind of App or some kind of communication between the
3 neighbors that everyone is on, everyone can see, everyone
4 can access and get an answer. That's it.

IND046-2: See response to comments IND023-2 and CO008-9.

INDIVIDUALS

IND047 – Susan Couch

5 MS. COUCH: Okay my name is Susan Couch,
6 S-u-s-a-n C-o-u-c-h. I live at 4984 Alexis Drive in Cane
7 Ridge and I am speaking to voice my concerns about the
8 compression station that is being proposed probably less
9 than a mile as the crow flies from my house.

10 I am not you know, well versed in terms of
11 environmental law or I don't have a bunch of statistics but
12 I just know common sense -- if you live in that area or have
13 even driven through it you can see that there are hundreds
14 and hundreds of homes within a 2 to 3 mile radius.

15 There are three public schools and to have
16 someone to me that's a dangerous thing to have that so close
17 to people's homes and school. It's just a bad decision. I
18 know the pipeline has been there I know before the
19 communities came along and that buried pipeline is probably
20 I've heard up to 50 years old, which that is a little
21 alarming anyway.

22 But to add new construction with a new means of
23 adding force to the line to pump the gas further miles down
24 the line just seems like a recipe for disaster. I mean if
25 something were to happen, if there were to be an accident

IND047-1: See response to comment IND009-5.

IND047-1

INDIVIDUALS

IND047 – Susan Couch (continued)

IND047-1

1 you know -- an explosion, you know it could just be
2 devastating for people in that community.

3 And you don't have much time to react with an
4 explosion. You know, maybe nothing would never happen like
5 that but our neighbors to the south in Alabama have had two
6 episodes in the last year with gas pipeline explosions and
7 gasoline fuel explosions.

8 And thank God those were in rural areas, it
9 didn't really affect anybody close by but if something were
10 to happen in this area it could be devastating to the
11 community and to the environment as well.

12 I'm worried about run-off and air pollution from
13 this station. It's very close to a small creek but it is a
14 protected waterway that has a species of crawfish -- believe
15 it or not, that are known here, but in that creek which
16 doesn't sound like much but in the large scheme of things
17 who knows?

IND047-2

18 These crayfish could hold the cure to cancer you
19 know, I mean probably not but never the less there have been
20 other species in this country that have been protected from
21 environmental or things that could be detrimental to their
22 environment and I think that needs to be considered as well.
23 I appreciate your listening to me pontificate for a few
24 minutes but I want my voice and my opinion to be heard about
25 something that affects me greatly, it really does thank you.

ND047-2: See response to comments IND017-3 and IND021-2.

INDIVIDUALS

IND048 – Chris Strong

IND048-1

1 MS. STRONG: My name is Chris Strong, C-h-r-i-s
2 S-t-r-o-n-g. I'm Strong. And I live at 6323 Peddis Road at
3 Cane Ridge, 37013. It is about 2 miles from the proposed
4 site. I have a number of concerns regarding the site. I
5 have first -- first I have asthma and I have a hard time
6 sometimes on days when the air quality is bad in Nashville.
7 And because of the topography that you know it
8 makes it hard to breathe and you know we have days where we
9 can't go out. I don't see how adding this station is going
10 to improve that with the emissions.

IND048-1: See response to comment IND013-1.

IND048-2

11 Also, the location of this site not just even the
12 proximity to my home, the proximity to the elementary school
13 where my daughter goes -- I took a drive and it is less than
14 a mile by road and as the crow flies I think it is probably
15 about .6 of a mile and that's Maxwell Elementary on Blue
16 Hole Road.

IND048-2: See response to comment IND010-4.

17 So having -- you know the children are going to
18 be outside playing and having these emissions in the air and
19 my other concern is where I live and it is because the
20 topography -- and I don't know if it has been researched but
21 I am 2 miles away so I'm you know, fairly a good ways away.

IND048-3

22 But if someone is having a party I am on top of
23 the hill. If someone is having a party on the other side of
24 the hill -- like every year there is this big festival on
25 Old Hickory Boulevard -- it sounds like it is in my backyard

IND048-3: See section 4.11.2.3.2 for a discussion of noise impacts attributable to operation of the Cane Ridge Compressor Station. Also, see response to comment IND015-2.

INDIVIDUALS

IND048 – Chris Strong (continued)

IND048-3

1 because it bounces off the hills. It is really funny how
2 the sound moves in that area so I think with you know, all
3 of that bouncing.

4 I am also just you know -- okay so my
5 understanding is that the gas is for transmission. It is
6 not to be used locally. It is the convenience for the
7 company that is going to you know, speed up and get more
8 through the pipeline and it is going to the export market
9 and it is you know, not to service the American market. It
10 is not adding jobs.

IND048-4

11 It is not adding a lot of value. It is actually
12 just taking away. I mean it is actually going to ruin the
13 area. And it is going to -- people I mean this is like a
14 very vibrant and growing area. It is like the area that is
15 most growing in metro Nashville or Davidson County and this
16 is absolutely going to kill this entire area.

17 So if people you know, like myself -- my biggest
18 investment is my home. Nobody is going to want to buy my
19 home and I am not going to be able to live there because I
20 won't be able to breathe and I won't be able to go inside
21 because it is going to be so loud outside that I am just
22 going to be hearing noise.

IND048-5

23 So I have heard that it is akin to 500 -- the
24 horsepower is akin to 500 cars revving their engines 24/7 so
25 you have that noise and the air emissions. So I don't know

IND048-4: Comment noted. See section 4.9 for information on the economic benefits from construction and operation of the GXP. See also response to comment CO005-3. See response to comment IND017-9 regarding property values.

IND048-5: See response to comment IND044-4.

INDIVIDUALS

IND048 – Chris Strong (continued)

IND048-5

1 if that is correct or not but I think it is a pretty
2 powerful motor. 37,000 horsepower motor -- I don't see how
3 you can silence that. So I am concerned that they are not
4 -- okay so if they built it who is going to regulate it?

IND048-6

5 You know we are going to be if we have studies to
6 say oh by the way people -- I mean it'll just be too bad.
7 You know, we won't get -- so we are obviously very emotional
8 about this and we just feel like this is just getting pushed
9 down our throats and it is going to impact all of our
10 families and it is going to ruin our health and ruin our
11 economics.

12 Economically and for the benefit of who -- for
13 the benefit of a company so why are we allowing this? I
14 mean normally these installations there's no precedent to
15 these installations being in such populated areas. There is
16 no precedent for that and they are all placed in areas where
17 it is very remote.

18 There are very few people that it is impacting.
19 If it is a 50 mile radius you are impacting one million
20 people, one million people. So that's all thank you.

IND048-6: See response to comment LA001-4

INDIVIDUALS

IND049 – Matthew Guest

IND049-1

21 MR. GUEST: Okay my name is Matthew the last name
22 is Guest, G-u-e-s-t. I live in a neighborhood directly
23 across from the proposed site for the compressor station and
24 our big concern is that it is an area completely surrounded
25 by neighborhoods on all sides.

1 And this may have been stated before but it is a
2 concern that I have heard over and over and over again in
3 the neighborhood with our neighbors and with the community
4 at large is that it is very odd it seems to build something
5 like this industrial project in the middle of a community
6 that is just all neighborhoods all the way around it.

7 I know they purchased additional land to create a
8 buffer but at the same time it sits on the side of a hill
9 that looks down into all neighborhoods with neighborhoods
10 all the way around it on all sides and then the city
11 immediately north of it.

IND049-2

12 So the buffer will only do so much. In fact
13 there's a valley just below it and sound from it travels
14 down into the valley. There are cows up on the hill or
15 there have been that you can hear mooing down in the
16 neighborhoods below. So our big concern is that it seems
17 out of place for this.

18 This might be a good solution for them as a
19 business or maybe as a utility but it doesn't make sense for
20 the placement and so we are opposed to it for that reason.
21 That's it.
22 Thank you.

IND049-1: Columbia Gulf reviewed alternate sites during its siting process, prior to the selection of the Cane Ridge site, as discussed in section 3.6.2. Since the draft EIS was issued, we have reviewed additional alternative sites for this facility. See the new material presented in section 3.6.2. See also response to comments CO008-9 and LA001-4.

IND049-2: See response to comment CO003-1.

INDIVIDUALS

IND050 – Michael Younger

IND050-1	23	MR. YOUNGER: My name is Michael Younger. Okay
	24	as a member of the Joelton community which was not given the
	25	courtesy of a FERC hearing regarding our compressor station
IND050-1 (cont.)	1	I felt it important to come down and share this field study
	2	which documents advanced corrosion and poorly maintained
	3	pipeline infrastructure in our neighborhood which this
	4	company deems safe.
IND050-2	5	And which FERC authorized the expansion of fossil
	6	fuel infrastructures to exert additional pressures on this
	7	pipeline that you see in the bottom of this creek. FERC has
	8	authorized an expansion of this at an elevation of internal
	9	pressures and a reversal of flow all of which further
	10	compromises the integrity of the pipe.
IND050-3	11	And inside this is documented advanced corrosion.
	12	FERC has deferred from considering any of this public safety
	13	threat in my community. They have deferred responsibility
	14	to the PHMSA. PHMSA has witnesses first-hand this corrosion
	15	which constitutes a public safety threat in my community and
	16	refused to issue an enforcement action even though the
	17	company in their own words has ignored -- has failed to
	18	remediate a public safety situation as in the Appendix
	19	section -- the very last few pages in here.
	20	There is a section where the company itself
	21	acknowledges that the half mile diameter -- that the
	22	potential is for a significant explosion involving multiple
	23	human fatalities in the adjacent community. That's all in
	24	here. FERC says that's safe and so I felt compelled to
	25	share this study with as many people as were down here.

IND050-1: The USDOT, which is responsible for pipeline safety, has established regulations that require operators to develop and follow a written Integrity Management Program that contains all the elements described in 49 CFR 192.911 and addresses the risks on each transmission pipeline segment. All of Columbia Gulf's proposed pipeline and related facilities would be designed, constructed, and operated in compliance with the USDOT's regulations at 49 CFR 192. See also response to comment IND009-5.

IND050-2: While adding compression increases the pipeline pressure on the downstream side of the compressor station, no portion of Columbia Gulf's system may operate at a MAOP higher than that established during its design by the USDOT regulations. Columbia Gulf has not proposed to increase its MAOP.

IND050-3: See response to comments IND050-1 and IND050-2.

INDIVIDUALS

IND050 – Michael Younger (continued)

IND050-4

1 I would like to know from you know, what other
2 major cities have been expected to shoulder this kind of
3 public safety threat and compressor stations of this scale
4 60,000 horsepower in our case in Joelton and 40,000
5 horsepower here in the case of Cane Ridge.

6 What other major metropolitan communities in the
7 United States are being asked to shoulder that kind of
8 public safety threat? And in addition I would like to know

IND050-5

9 why my community of Joelton was not given the courtesy of a
10 FERC hearing as Cane Ridge is benefitting from today, thank
11 you.

IND050-4: Please see response to comment LA001-4.

IND050-5: Other projects that have been approved or have applications pending before the Commission are outside the scope of this review.

INDIVIDUALS

IND051 – Robert Argo

12 MR. ARGO: My name is Robert Argo, A-r-g-o. My
13 concern with this project is its location. I live in Lenox
14 Village which is just to the kind of southwest of where this
15 project is being proposed. There are neighborhoods that are
16 even closer than mine.

IND051-1

17 What I don't understand is why what is clearly an
18 industrial project is going towards a -- going to be put
19 into a rural area. Specifically a rural area where
20 Nashville is a growing community continues to grow outward.
21 And my fear is that number one that this project will stifle
22 growth within the community. That it will stifle the
23 property values of everyone who lives close to it and any
24 kind of impacts, maybe a little bit less and less as you
25 move away.

IND051-2a

1 Number three -- environmental impact. I am in
2 relatively good health but I have a mother who is an
3 asthmatic and I have a brother who is an asthmatic and I
4 have a niece who is an asthmatic and I am concerned about
5 what the changes in air quality will mean to people who are
6 like them who have a harder time.

IND051-2b

7 And then also I am concerned about any impact
8 that there might be to ground water and also the impact of
9 noise that it may have on the surrounding communities.

IND051-2c

10 Right now I can go out on my deck and I can sit and I can
11 enjoy a relatively peaceful evening but am I going to go out
12 onto my deck and hear a steady hum or the blow-outs of this
13 project if it is placed so close to where I live?

IND051-1: Comments noted. See response to comment IND017-9.

IND051-2a: See response to comment IND013-1.

IND051-2b: Section 4.3 discusses potential groundwater impacts related to the proposed projects. As stated in section 4.3.1.6.2, we do not anticipate any significant, long-term impact on aquifers or groundwater supplies from construction and operation of the GXP.

IND051-2c: See section 4.11.2. Table 4.11-30 presents the results of our noise analysis of the GXP facilities. See also response to comment IND015-2.

INDIVIDUALS

IND051 – Robert Argo (continued)

IND051-3

14 So what I would encourage is that this site be
15 moved to someplace that is far more rural. I understand
16 that they may need to have compression stations but they do
17 not need to have compression stations smack dab in the
18 middle of growing neighborhoods. That concludes my comment,
19 thank you very much for the opportunity to speak.

IND051-3: See response to comments IND012-3 and IND049-1.

INDIVIDUALS
IND052 – Lori Burkett

IND052-1

20 MS. BURKETT: My name is Lori Burkett I live in
21 Davidson County and one comment I have is that this forum is
22 very ineffective. That the people -- there are 7900 hundred
23 people that live within a mile of this proposed compressor
24 station. They are afraid.
25 You know they have been told that an

IND052-1: Comment noted. See response to comments IND014-1 (stakeholder notifications) and IND014-3 (format for FERC public comment sessions).

INDIVIDUALS

IND052 – Lori Burkett (continued)

IND052-1 (cont.)	<p>1 Environmental Impact Study has been done the recommendation 2 is this isn't going to hurt anybody. Well if that's the 3 case then if you are going to have a public meeting, have 4 one that gives information. That you have someone standing 5 up that gives the 600 page Environmental Impact Study -- it 6 is something that most people cannot read and could not 7 understand so there should be someone to summarize that.</p> <p>8 There is a summary in the study but take that and 9 be able to get up and give some sort of summary to you know, 10 give the people some information rather than just bring them 11 in here and they are walking around like sheep, like I don't 12 know -- this doesn't sound good. I'm afraid for my child 13 that has asthma, my husband that has lung cancer. I don't 14 even know what questions to ask.</p> <p>15 This forum should have been one that that 16 information was given out. And then if you want to have 17 individual breakouts where someone can talk one on one with 18 someone that's fine. But it should have been more 19 informative to begin with and people should be able to ask 20 questions to the group so that other people hear.</p> <p>21 And even if you didn't give answers -- I know the 22 last one I was here for the scoping meeting and I think that 23 some of the responders from FERC felt a little intimidated 24 because they get questions they couldn't answer, you know.</p> <p>25 And they didn't want to go through that probably</p>
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This area left blank intentionally.

INDIVIDUALS

IND052-1
(cont.)

1 but too bad. This is too big of an impact on these people's
2 lives. That if it was uncomfortable to not know the
3 answers, someone needs to be there to at least give the
4 summary you know.

5 And then let people verbalize so that everyone
6 could hear, neighbors could here. So this was very
7 ineffective and very wrong. You know we -- there are two of

IND052-2

8 these massive compressor stations and my second comment
9 would have to do with the air quality and what's happening
10 to Nashville.

11 Nashville is one of the fastest growing cities in
12 the United States right now we get 90 new people every
13 single day. We are growing by leaps and bounds. The
14 terrain of Nashville is that we sit basically in a bowl. We
15 are very impacted by asthma, upper respiratory disease
16 because of the terrain of Nashville but yet we are being
17 bombarded with 101,000 horsepower compressor station -- one
18 on the north, one on the south right within the city.

19 That is unprecedented and I can't believe that
20 there is no other option for either one of these. I know
21 that the one in Joelton we gave other options and what it
22 boiled down to was money. This is most convenient and we
23 are too far in it and we bought the land and too bad, so sad
24 for the people that live around it or for the impact of the
25 air quality.

IND052-2: Air quality is addressed in section 4.11.1. As discussed, models of air quality impacts indicate potential air emissions would be below applicable standards and would not have significant impacts on local or regional air quality. See response to comment IND013-1. Potential cumulative air quality impacts relative to the Cane Ridge Compressor Station are discussed in section 4.13.2.9.2.

INDIVIDUALS

IND052 – Lori Burkett (continued)

IND052-2
(cont.)

1 There's a park sitting right next to that
2 compressor station where these children go every single day
3 because it has after school care. They play sports there,
4 they live there. Those kids will grow up there and those
5 children that grow up there that could potentially be
6 impacted by the formaldehyde or the toxins -- you get those
7 kids 10 years from now end up with leukemia which I know the
8 formaldehyde is linked to.

9 It is awful that there is not more care and
10 concern for the health of the people. For what it's worth
11 those are my comments and there is a report that will be --
12 that does show more evidence from an air expert as to the
13 cumulative impact of these two compressor stations and that
14 that should be taken into consideration.

This area left blank intentionally.

INDIVIDUALS

IND053 – Andrew Peterson

15 MR. PETERSON: My name is Andrew Peterson,
16 A-n-d-r-e-w P-e-t-e-r-s-o-n. Address is 3338 Stevens Hill
17 Lane and I'm just going to read what I have written.

IND053-1

18 As a 10 year resident of the Cane Ridge community
19 I strongly oppose the presence of a gas compressor station
20 in our neighborhood. Not only will its presence hurt the

IND053-2

21 value of hundreds of homes in the area but it will create

IND053-3

22 both a health hazard from the carcinogens in the air and

IND053-4

23 leaking into the ground but in light of the regular

IND053-5

24 tornadoes in our area -- one touched down within two miles
25 of the site of the proposed station.

IND053-1: Comment noted.

IND053-2: See response to comment IND017-9.

IND053-3: See response to comment IND013-1. Potential exposure to chemicals from construction and operation of natural gas compressor stations is addressed in section 4.11.1.3.5.

IND053-4: See response to comment IND051-2.

IND053-5: See response to comment IND009-5. Reliability and Safety are addressed in section 4.12, which includes emergency response procedures.

INDIVIDUALS

IND053 – Andrew Peterson (continued)

IND053-5 (cont.)	1 I am deeply concerned about what might happen if 2 a compressor station were damaged by one of these storms. 3 Thousands of people who live nearby would be at risk. The 4 station will create noise pollution, air pollution, ground 5 pollution and might cause physical harm to the residents.	
IND053-6	6 The station should be placed in an industrial 7 zone not near elementary schools, parks, multiple 8 sub-divisions, natural springs and Mill Creek where an 9 endangered and protected species of crayfish lives.	IND053-6: See response to comment IND017-3.
IND053-7	10 How will the noise levels be monitored? What 11 will change if the noise levels are exceeded? How will the 12 air and ground and water pollution be monitored and what 13 happens if those levels are exceeded? Why don't the zoning	IND053-7: See response to comment IND044-4.
IND053-8	14 regulations for our precious wooded residential part of the 15 county apply here?	IND053-8: The Commission encourages project proponents to comply with state and local land use planning and zoning regulations in the design and siting of facilities. See response to comment LA001-4.
IND053-9	16 Why is the station being placed in a growing area 17 that's already densely populated with homes? What will 18 happen in the case of catastrophic events such as a tornado 19 or a fire? The construction of this station puts money in 20 the pocket of the gas company and has absolutely zero 21 benefits to our community. It only hurts us.	IND053-9: As detailed further in section 4.9.8, construction of the Cane Ridge Compressor Station would result in minor beneficial socioeconomic impacts. See response to comment CO005-3.
IND053-10	22 I urge you to keep our part of the city safe by 23 moving the plant to an appropriate area far from so many 24 homes, parks, schools and natural areas. Thank you.	IND053-10: See response to comments IND012-3 and CO008-9.

INDIVIDUALS

IND054 – Jamie Peterson

25 MS. PETERSON: Jamie Peterson. I have lived here
1 in the beautiful Cane Ridge -- oh sorry J-a-m-i-e Peterson.
2 I have lived here in the beautiful Cane Ridge community for
3 about 10 years. My family and I live on 10 acres near the
4 proposed gas compressor station. This is a beautiful
5 residential area full of neighborhoods, schools, creeks and
6 a greenway.

IND054-1 7 I'm concerned about many things. Most important
8 to me is the health and safety of my family and my
9 neighbors. I don't feel safe with the idea of the gas
10 compressor station moving in. I am concerned about the air
11 pollution, the soil pollution and the noise, not to mention
IND054-2 IND054-3
12 the population of an explosion.

IND054-4 13 This station needs to be placed in an industrial
14 area, not a residential area. It will also hurt our home

IND054-5 15 value. No one will want to move next to a gas compressor
16 station. We have a cave that runs under our neighborhood.

IND054-6 17 Has anyone tested whether or not this will affect the
18 natural habitat and ground water?

IND054-7 19 There is also an endangered crawfish that should
20 be protected from any hazardous possibilities. This station
21 definitely needs to be put on a more appropriate location.
22 I certainly disapprove of the station entering our beautiful
23 community. Thank you.

IND054-1: See response to comment IND013-1. Potential exposure to chemicals from construction and operation of natural gas compressor stations is addressed in section 4.11.1.3.5.

IND054-2: As discussed section 2.3 (for the MXP) and 4.2.4, both projects would segregate topsoil from subsoils as a routine practice (although topsoil segregation is less an issue with compressor station construction). Both projects have adopted and incorporated relevant portions of our *Upland Erosion Control, Revegetation, and Maintenance Plan* into their project-specific ECSs. Our Plan requires segregation in croplands, hayfields, pastures, and residential areas (see Plan, section IV.B, at <https://www.ferc.gov/industries/gas/enviro/plan.pdf>). The ECSs are presented in EIS volume II, appendix D.

IND054-3: See response to comment IND044-4.

IND054-4: See response to comments IND012-3 and CO008-9.

IND054-5: See response to comment IND017-9.

IND054-6: Columbia Gulf commissioned a geotechnical investigation of the Cane Ridge site by an independent contractor and provided the study results to us in its application. Based on the results of the fieldwork, laboratory evaluation, and engineering analyses, they have concluded that the site appears suitable for the proposed construction from a geotechnical perspective. Columbia Gulf has procedures in place to be followed in the event of discovery of previously undocumented karst features. We have reviewed the information and agree.

IND054-7: See response to comment IND017-3.

INDIVIDUALS

IND055 – Michelle (last name unknown)

IND055-1 24 MICHELLE: This is Michelle and I feel that this
25 project has incorrect zoning. It needs to be in an
1 industrial zone. This area is too populated. There are too
2 many sub-divisions, too many houses. There are five schools
3 right nearby, there's a greenway where people are walking
4 and there are parks and this is just not an appropriate
5 selection of site.
6 I think Nashville is the first metropolitan area
7 to have two of these compressor stations in the same county
8 and I think we are just too big of a metropolitan area to
9 have either of these because there are too many people in
10 this area.
11 We think it is bad for our tourism industry. I'm
IND055-2 12 also very concerned because these are unmanned stations and
13 I think those are more dangerous -- that they need 24 hour
14 manning they need 24 hours, 365 days a year to have
15 surveillance at these stations so that there are eyes on the
16 scene that can see problems, they can call repair people and
17 they can prevent calamities.
IND055-3 18 The roads here -- Barn's Road are terribly
19 inadequate they are little country roads. There is nowhere
20 to exit in case of a problem like a fire, an explosion or
21 any dangerous event. Perhaps this should be near an
22 interstate or somewhere where it is more industrial and
23 there are better roads.
24 We have had pipeline accidents in Alabama just a
25 few months ago with the break in the line and it caused

IND055-1: Comment noted. See response to comments CO008-9 (information on our review of alternative sites) and LA001-4 (placement of compressor stations within populated areas).

IND055-2: The proposed compressor stations will employ at least 2 full-time workers per station. Information regarding Columbia Gulf's Integrity Management Program (IMP) for High Consequence Areas (HCAs) can be found in section 4.12.1. See also response to comment IND009-5.

IND055-3: Transportation and traffic are addressed in section 4.9.5.

INDIVIDUALS

IND055 – Michelle (last name unknown) (continued)

IND055-4

1 severe problems. We don't want any more of those. There
2 were 92 significant incidents between 2006 and 2014 in
3 pipelines in our nation that caused critical damage to
4 people and property. We would like to see that approved.
5 There are too many fires, explosions caused by
6 these pipelines. And I was wondering if FERC is going to
7 come and test the air, water and the soil every month or
8 every six months and who is responsible for this besides the
9 Trans Canada people?

IND055-5

10 Who is going to monitor the site? Someone
11 suggested putting a dome cover over the stations several
12 stories high with air filters inside that could clean some
13 of these gasses and filter them out before it is emitted to
14 the atmosphere that perhaps would be a possibility.

15 And also I have many in my family that have
16 served in the military. Several members served in Vietnam
17 and 47 years later they are still suffering ill effects.
18 They are both ill all of them are ill from the chemical
19 agents and gasses that were used there. They are not
20 getting adequate help from the VA and these are some of the

IND055-6

21 same kinds of chemicals that can be -- these chemicals can
22 cause the same kind of illnesses that are being emitted from
23 these stations.

IND055-7

24 The blow-downs make a lot of toxic chemicals
25 available to the atmosphere that can make folks sick. And

IND055-4: See response to comment IND009-5. Reliability and safety are addressed in section 4.12, which includes a discussion of emergency response procedures.

IND055-5: During construction, EIs and FERC onsite monitors would ensure compliance with all permit conditions (see section 2.6.2). EIs have stop-work authority if environmental conditions of regulatory permits/approvals are violated. FERC is the federal agency responsible for authorizing applications to construct and operate interstate natural gas pipeline facilities. As part of its responsibilities, FERC enforces regulatory requirements through imposition of civil penalties and other means.

IND055-6: Air quality is addressed in section 4.11.1. Potential cumulative air quality impacts relative to the Cane Ridge Compressor Station are discussed in section 4.13.2.9.2.

IND055-7: Section 4.11.1.3.5 discusses concerns with exposure to chemicals from operation of gas compressor stations and the impacts on human health.

INDIVIDUALS

IND055 – Michelle (last name unknown) (continued)

IND055-7 (cont.) 1 we think this is contrary to our right to life, liberty and
2 the pursuit of happiness. We are so glad you are here to
3 hear our comments. We really appreciate it and we think we
4 should have the same comment time in Joelton at the other
IND055-8 5 unmanned station in Davidson County because both of these
6 together are going to create huge, huge problems as the
7 circles overlap in these potentially dangerous and toxic
8 substances are released into the air and for people to
9 breath and with all the particulates and things that go with
10 it.
11 So again we thank you for having this, it's
12 wonderful. It's good to ask questions and learn more about
13 it and we hope that we can have a safer way to have energy
14 and they are not even getting any benefits here in Tennessee
15 you are just coming through here.
IND055-9 16 And perhaps we can do better and have some other
17 energy's that don't provide so many toxic substances, thank
18 you.
IND055-10 19 We would like to invite FERC to have a hearing on
20 the Joelton Project which is on the north part of Davidson
21 County because that was an oil pipeline that they are now
22 using for gas so we think that FERC would have some
23 responsibility over that line and we would invite them to
24 come and have several hearings in the north part of the
25 county in the Joelton area, White's Creek area. That would
1 be swell, thank you.

IND055-8

See response to comment IND013-1. As stated in section 4.11.3.1.2, we have concluded that construction and operation of GXP's compressor stations would not have significant impacts on local or regional air quality, nor would they cause impacts that are expected to adversely affect the health or welfare of the population living in the project areas.

IND055-9: See response to comment IND036-3.

IND055-10: See response to comment IND050-5.

INDIVIDUALS

IND056 – Lillian Hawkins

1 VERBAL COMMENT SESSION

2 LILLIAN HAWKINS: My name is Lillian Hawkins.
3 It's L I L L I A N . H A W K I N S . I live at 5729 Sonoma
4 Trace in Cane Ridge, Tennessee. I have several concerns.
5 For example, how often will noise levels be monitored? Who
6 will be monitoring these noise levels? Will it be local,
7 state, or federal? What will be the result if the noise
8 levels are exceeded? Has the background sound level been
9 set? Because currently, we already experience a loud volume
10 from airplanes, traffic, the train, and just trying to
11 figure out how much louder it's going to be if you add a
12 compressor station 400 yards from our house.

IND056-1

13 Air pollution. How often are the air levels
14 monitored, and by whom? What exactly is going to be
15 monitored? How can citizens be sure that non-monitored
16 particulates remain at safe levels? And what if the air
17 quality levels exceeds government standards? For example,
18 I'm very concerned that right now Nashville does not always
19 meet the clean air standards on some days. We're growing at
20 an average of 85 people per day here in Nashville.

IND056-2

21 There is another one of the largest compressor
22 stations up in Joelton that is likely to go in, and once you
23 add that one in, are they even going to be able to put this
24 compressor station in? because I'm pretty sure -within a
25 years time we're no longer going to meet the air quality

IND056-1: See response to comments IND009-1 and IND015-2.

IND056-2: Air quality is discussed in section 4.11.1. See response to comments IND013-1 and IND010-4.

INDIVIDUALS

IND056 – Lillian Hawkins

IND056-2 (cont.) 1 standards at all. So how are you going to be able to put a
2 second compressor station into Davidson County? And what
3 happens when you constantly exceed the clean air levels? Do
4 you suddenly tell people they can't move here any more? Do
5 you shut down one of the compressor stations? Do you shut
6 down both of them? How do you control those levels once
7 they've already exceeded acceptable safety air quality
8 levels?

IND056-3 9 I'm very concerned. When I read the draft
10 environmental impact statement, there was really no mention
11 to speak of regarding Mill Creek. Mill Creek is a
12 federally-protected waterway. The Cane Ridge compressor
13 station is set on top of a hill. Last time I checked, water
14 rolls down hill. That being the case, logic would stand to
15 reason that at any point if there are any leaks or any of
16 the particulates that settle into the surrounding area, the
17 rainwater would wash them downhill into Mill Creek.

18 It was my understanding, checking through the
19 Tennessee Fish and Wildlife Game that mitigation measures
20 had been taken to alleviate that problem. I want to know
21 what specific mitigation measures were taken and how is it
22 supposed to alleviate the potential for any pollution going
23 into Mill Creek?

IND056-4 24 Now, how often is the water quality going to be
25 monitored? Who will be monitoring the water quality? Has

IND056-3: See response to comments IND017-3 and IND009-3.

IND056-4: Water quality in Tennessee is regulated by TDEC. Given the distance between the Cane Ridge Compressor Station site and Mill Creek, there is little potential for construction or operation of the compressor station to impact Mill Creek. This includes impacts from spills or equipment leaks, which, due to the nature of the equipment involved, would be minor and addressed by use of Columbia Gulf's SPCC Plan. During construction, Columbia Gulf would implement

INDIVIDUALS

IND056 – Lillian Hawkins

IND056-4 (cont.) 1 there or will there be any testing to the water and the air
2 done prior to construction to set a base level? What if the
3 water quality pollutants exceed government standards? What
4 happens then? How can we trust that the on site retention
5 pond is collecting all the runoff or what if that's
6 compromised?

IND056-5 7 In addition to that, it was my understanding
8 based on metro property maps that there is, in fact, a
9 stream that is on the property or a very close adjacent
10 property of which Trans Canada and Columbia Pipeline own
11 that runs from that property where the compressor station
12 will be located into Mill Creek? Has any testing been done

IND056-6 13 to see if there is, in fact, any underground caves or water
14 sources? Also, there are other industrial zones within a

IND056-7 15 two mile radius that are suitable for this type of
16 development. Have those been considered? They need to be
17 considered seriously. That's it. Thank you.

BMPs, as specified in its Environmental Construction Manual, to minimize runoff from the construction area.

Potential cumulative air quality impacts relative to the Cane Ridge Compressor Station are discussed in section 4.13.2.9.2. The Metropolitan Government of Nashville & Davidson County has local permitting authority over stationary sources located in Davidson County. Air dispersion modeling was completed using the EPA-preferred AERMOD dispersion model for each compressor station to show compliance with NAAQS. Appropriate pound-per-hour emission rates were determined for each pollutant and averaging period. See table 4.11.19. See responses to comments CO003-2, IND010-4, and IND013-1.

During construction, sediment from earth-disturbing activities would be contained within the site. Disturbed areas would be surrounded by temporary erosion controls. While runoff is expected, implementation of measures in Columbia Gulf's ECS would prevent heavily silt-laden water from leaving the site. Runoff leaving the site would also be naturally filtered by the lands between the site and Mill Creek. Once site restoration is complete, runoff would be directed to an on-site pond for infiltration into the ground. Water quality in Tennessee is regulated by TDEC.

IND056-5: Section 4.3.2 provides a list of surface water resources within proximity of proposed project facilities.

IND056-6: See response to comment IND054-6.

IND056-7: See response to comments IND012-3 and CO008-9.

INDIVIDUALS

IND057 – Holly Greene

18 HOLLY GREENE: My name is Holly Greene. Greene
19 is with an E on the end. I'm a Davidson County resident for
20 47 years now. My family is native Nashvillians and started
21 businesses here in Nashville and that's why I'm still here.

IND057-1

22 I am very concerned about another compressor
23 going underground here. I know one is going in Joelton and
24 then there's the one here. I don't know what the final
25 result of both are going to be but my concern is raising
1 children. Mainly, not even necessarily my children. My
2 niece, my nephew. Your children. You know, anybody who
3 lives near. Just the danger of that being underground here
4 is very frightening to me.

IND057-1: Comment noted.

IND057-2

5 I am an environmentalist. I fight to help
6 protect the earth. My concerns are who are going to watch
7 for the leaks when our EPA is being ripped apart right now
8 and dismantled and losing funding. That concerns me. My
9 huge fight is for animals in this lifetime. I work with
10 zoologists; we save snails. We save frogs. We work with
11 Walden's Puddle. You know, so I am very much worried about

IND057-2: See response to comment IND009-5. Reliability and safety are addressed in section 4.12, which includes a discussion of Columbia Gas/Columbia Gulf's 24-hr/day leak detection capabilities and response procedures. The USDOT, not the EPA, is responsible for pipeline safety. The USDOT has established regulations that require operators to develop and follow a written Integrity Management Program that contains all the elements described in 49 CFR 192.911 and addresses the risks on each transmission pipeline segment. All of Columbia Gulf's proposed pipeline and related facilities would be designed, constructed, and operated in compliance with regulations at 49 CFR 192.

IND057-3

12 the environment and what animals may be affected or ran off
13 from their areas. We're already moving in on them as it is.

IND057-3: Potential temporary and permanent impacts from the projects on wildlife and wildlife habitats are discussed in section 4.6.

IND057-4

14 So, my concerns is the danger of leaks. The
15 dangers of an explosion. And how much land would it take
16 out if it exploded? How many people have to die for us to
17 have oil or gas in our homes. I get very concerned over

IND057-4: See response to comments IND004-8 and IND006-3. Section 2.7 discusses operational and maintenance practices for interstate natural gas transmission pipelines. This section presents information on the frequency of right-of-way patrols, which is an effective means of detecting pipeline leaks. Additional information relevant to this topic is presented in section 4.12.

INDIVIDUALS

IND057 – Holly Greene (continued)

IND057-5 18 these things because there's so many other green ways of
19 energy that we could do life that are less costly, safer for
20 the environment. I just wish there was another source
21 besides natural gas or oil always being the new way to go or
22 something else to do to our poor mother earth who we
23 disrupt so much, so, so, so, much on a daily basis.

24 I haven't used plastic in like 30 years. I've
25 grown my own food. I've, you know, I live off the earth as
1 much as possible. We even have bees. We eat our own
2 honey. We grow everything from asparagus to rhubarb. I
3 don't want my earth to be disturbed like that. I want to
4 give to her, not take from her. I don't even believe in
5 taking stones from the earth. You know, like with people
6 with diamonds, or amethyst, I don't even like that. I don't

IND057-6 7 think we should strip the earth anymore and dig holes put
8 very dangerous compression gas under our ground like that.

9 That's my concerns. That's what I wanted to say.
10 My heart is broken and I hope that somebody helps stand up
11 for Tennessee and protect our grounds. And that's why I'm
12 here.

IND057-5: See response to comment IND036-3.

IND057-6: Comment noted.

INDIVIDUALS

IND058 – Margaret Cartozzo

13 MARGARET CARTOZZO: My name is Margaret, M A R G
14 A R E T. Cartozzo, C A R T O Z Z O. My husband and I have
15 been South Nashville residents for the last seven years.
16 This past summer we moved out of our small condo in search
17 of a bigger home to raise our family. We looked all over
18 the metro Nashville area but ultimately we decided to stay
19 in South Nashville.

20 We purchased a home along Mill Creek in Cane
21 Ridge. We are now expecting our first child in September.
22 We now worry about our decision to stay in South Nashville.
23 We worry about raising our child near this gas compressor
24 station. We worry about pollution to our air, to our water,
IND058-1 IND058-2
25 and the noise the station will produce. Why must this
IND058-3

IND058-4 1 station be built in a residential area? This area is home
2 to hundreds of families and lots of wildlife.

IND058-5 3 We are distressed thinking of what could happen
4 to our home, to our family if a catastrophic event were to
5 happen. Will the proper steps be taken to ensure our
6 safety? Will our air be safe to breathe? Will our water be
7 safe to drink? We live here and we worry about this gas
8 compressor station. We don't want this to happen in our
9 local Nashville area.

IND058-1: See response to comment IND052-2.

IND058-2: As discussed in section 4.3.2.4.2, construction of the Cane Ridge Compressor Station would not cross or otherwise impact surface waters during construction and operation, nor would it withdraw from or discharge to surface waterbodies. See section 4.3.1.5.2 regarding potential groundwater impact.

IND058-3: See response to comment IND022-2.

IND058-4: See response to comment IND012-3.

IND058-5: See response to comments IND006-3 and IND009-5. Additionally, Columbia Gulf's operations staff would develop and maintain a liaison program with emergency response, government, and public safety officials in the Cane Ridge area. These officials include local fire and law enforcement officials, emergency management services, ambulance services, HAZMAT groups, state police officials, local emergency planning coordinators, and town/city government representatives.

INDIVIDUALS

IND059 – Heather Hixon-McGovern

10 HEATHER HIXSON-MCGOVERN: My name is Heather
11 Hixon and my husband and I reside in the Stanford Village
12 Subdivision directly across Barnes Road in Southeast
13 Nashville, along with the other over 100 homes in our
14 subdivision alone, just a few yards from the proposed Cane
15 Ridge Gas Compressor station site. I've called Nashville
16 home for over six years.

17 In mid-2015 my husband and I purchased our first
18 home in the Cane Ridge area of Nashville. We chose this
19 area for its proximity to local businesses, restaurants, its
20 beauty, and its potential for increased property values.
21 Now this area is under threat by a natural gas compressor
22 station proposed by Columbia Gulf Transmission, Docket No.
23 CP16-361-000.

24 As I have gone over the draft environmental
25 impact statement, I along with many other fellow community

Comments begin on the following page.

INDIVIDUALS

IND059 – Heather Hixon-McGovern (continued)

1 members, find it to be deeply flawed in a myriad of ways
2 mostly in the fact that it leaves so many questions
3 unanswered.
4 You will see the following questions submitted by
5 several other area citizens as we all feel united in the
6 fact that we strongly feel they still need to be answered by
IND059-1 7 both FERC and Columbia Pipeline Group. How often will noise
8 levels be monitored? Who monitors noise levels? Local,
9 state, or federal? What are the repercussions if noise
10 levels are exceeded? Has a background sound level been set?
IND059-2 11 How often are air levels monitored and by whom? What
12 exactly is monitored?
13 How can citizens be sure that non-monitored
14 particulates remain at safe levels? What if air quality
15 levels exceed government standards? How often is water
IND059-3 16 quality monitored? Has there been or will there be any
17 testing done prior to construction to set a base level?
18 What if water quality pollutants exceeds government
19 standards? How can we trust that the on site retention pond
20 is collecting all runoff or that it won't be compromised?
IND059-4 21 Can further testing be done to rule out any underground
22 caves or water sources on the site?
IND059-5 23 Do current local zoning regulations matter?
IND059-6 24 Wouldn't a true industrial zone location be a better place?
25 Does population play any role in the decision? How can we

IND059-1: Compressors at the proposed Cane Ridge Compressor Station would be housed within an insulated building to mitigate offsite sound disturbances. See response to comment IND044-4. Additionally, ambient (background) noise levels at the proposed compressor station sites are presented in EIS table 4.11-30.

IND059-2: See response to comment IND052-2. See also section 4.11.1.

IND059-3: See response to comments IND009-3 and IND056-3, Underground Caves.

IND059-4: See response to comment IND054-6.

IND059-5: The Commission encourages project proponents to comply with state and local land use planning and zoning regulations in the design and siting of facilities. See response to comment LA001-4.

IND059-6: See response to comment IND023-2.

INDIVIDUALS

IND059 – Heather Hixon-McGovern (continued)

1 be assured that standards will be kept with a decrease in
IND059-7 2 enforcement agencies or the EPA? Why can't the station be
3 run by electric motors on the Nashville power grid, which
4 would virtually eliminate all air pollution?
IND059-8 5 Why is it the burden of private citizens and not
6 the burden of the company to spend money to relocate the
7 site to a more appropriate location? What are the combined
IND059-9 8 effects if both the Joelton and Cane Ridge stations are
9 built? Thank you so much for your time. Sincerely, Heather
10 Hixson-McGovern.

IND059-7: See response to comment IND009-7.

IND059-8: See response to comment IND009-8.

IND059-9: Air quality is addressed in section 4.11.1. Potential cumulative air quality impacts relative to the Cane Ridge Compressor Station are discussed in section 4.13.2.9.2.

INDIVIDUALS

IND060 – Roger Rotoni

11 ROGER ROTONI: My name is Roger Rotoni. R O T O
12 N I. I live right down the street within a third of a mile
IND060-1 13 of this thing and I mean, obviously, this is going to
14 pollute the whole air from what I'm hearing about it. My
15 wife has asthma and so, I mean, the property values are
IND060-2 16 going to be destroyed from everything I'm hearing about it.
IND060-3 17 I lived over near the airport for a while, and I mean, that
18 noise was pretty bad but this is going to be horrible from
19 what I understand.
20 We're kind of out in the country right now and
21 this is going to turn it into like, you living next to an
22 interstate right next to your house. I think, well
23 personally, I think it's traitorous, I think if our country
24 lets something like this happen right in the middle of a
25 city like this, and we know what pollution is doing

IND060-1: See response to comments IND010-4 and IND013-1 regarding air quality and pollution.

IND060-2: See response to comment IND017-9 regarding property values.

IND060-3: See response to comments IND022-2 and IND038-2 regarding impacts from noise.

INDIVIDUALS

IND060 – Roger Rotoni (continued)

IND060-4

1 nowadays. For what? For the, to let a Canadian company
2 just come in here and make a lot of extra money? Right next
3 door to our property, not providing any extra jobs. If
4 they're saying it's going to create extra taxes, extra taxes
5 for what? I mean, you're going to drop our property values
6 over there. The growth of the area is tremendous. You're
7 going to drop our property values over there, their going to
8 lose all that taxes. Like I say, for what? For a little
9 bit more gas in the area? That's supposedly going to be
10 going over out of this country, is my understanding of it.

IND060-5

11 So, I mean, you know, it's not the whole thing
12 of, I understand there has to be progress, that there's such
13 a thing as progress, but we're going backwards at this
14 point, to where we're going to sit there and just have a gas
15 plant come in just to pollute the whole area. We're just
16 going backwards. We know what pollution is doing to the
17 whole country anyway. Of course, I mean, that's another
18 whole side of a whole half of the country, I get that.

19 But, I mean, I couldn't be happy about it. Who
20 could be happy about being right next door to it?
21 Literally, I'm going to be right next door to it. I don't
22 know much else to say except that I think that any
23 politician, it's just obvious in my mind that any politician
24 would agree to it who is supposed to be on our side, would
25 be taking bribes. That's all I can see about it. I mean,

IND060-4: As detailed further in section 4.9.8, construction of the Cane Ridge Compressor Station would result in minor beneficial socioeconomic impacts. See response to comment CO005-3.

IND060-5: Comments are noted.

INDIVIDUALS

IND060 – Roger Rotoni (continued)

IND060-5
(cont.)

1 it's just that simple to me. Which I know that's what a lot
2 of them do all the time anyway, but that's not, that doesn't
3 mean I'm going to be happy about it, or anybody else is
4 going to be happy about it. And, you know, I just think,
5 you know, you pushing a lot of people around is all you'll
6 be doing if they did something like, I'm saying you, because
7 I don't even know who these people are. Who do you people
8 represent? Who do you all represent?

9 FERC: I'm not answering questions at this time.

10 ROGER ROTONI: You're not answering questions,
11 Okay. I mean, answering questions on behalf of who?

12 FERC: No, I'm not able to answer questions while
13 you're submitting in your comment.

14 ROGER ROTONI: Oh, I'm sorry. I guess that's
15 about the end of my comment. I mean, I would like to say
16 more, if I have five minutes, I guess I'd like to be able to
17 say more but I don't know what else to say except I think
18 you just, dirty rotten plan.

19 You know, I felt sorry for the Indians that they
20 were going to sit there, out there, and they were going to
21 push the pipeline through their water and if it leaked it
22 was going to destroy their water sources. I thought it was
23 just horrible, but I know that they pretend that they're
24 going to create all these jobs. The jobs that the gas
25 companies and the oil companies are creating will not be,

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INDIVIDUALS

IND060 – Roger Rotoni (continued)

IND060-5
(cont.)

1 these are jobs of the past. I mean, people have to realize
2 it's jobs of the past.
3 They think they're going to -- the jobs of the
4 future are the clean sources and we have to be able to, and
5 how everybody thinks that they can pollute everything there
6 is and then they're not going to have to drink that water
7 and they're not going to breathe that air and they're going
8 to move to where? I don't get it, personally. I don't get
9 what they think of. They think they got so much money, some
10 of them that they can go to the doctor and get themselves
11 healed? I don't know what they think but I guess that's, I
12 guess that is all I have to say about it.

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INDIVIDUALS
IND061 – Carl Harris

IND061-1 13 CARL HARRIS: My name is Carl Andrew Harris. I
14 am a resident of the Cane Ridge Community. My house is
15 approximately three miles away from where the site is
16 planned, and I'd like to state that I'm absolutely opposed
17 to the gas compression plant in the middle of Cane Ridge.
18 I've looked at the plans. I understand from an engineering
19 standpoint why the compressors have to be put in those kinds
20 of locations. I'm still opposed to the whole idea of
21 putting it in the middle of Cane Ridge.

IND061-2 22 However, I looked at the alternate sites and it
23 appears that there is one site that is much better, even
24 though it's still in Cane Ridge, but it's right next to I-24
25 in the Hickory Hollow Parkway. It's on the plan, I guess

IND061-1: Comment noted.

IND061-2: Sites along the I-24 corridor have been investigated for suitability as potential alternatives to the proposed Cane Ridge site; however, we determined that none of the proposed alternatives have significant environmental advantages to the proposed location for the Cane Ridge Compressor Station (see section 3.6.2).

INDIVIDUALS

IND061 – Carl Harris (continued)

IND061-2
(cont.)

1 the site has been considered and the lady who I was talking
2 to didn't know why that site was not chosen. It makes so
3 much sense, because it's not an area where housing would be
4 built. It would be right next to a highway so the noise is
5 going to be almost inconsequential.

6 So, I don't understand why that site is not being
7 considered more seriously, rather than putting it right in
8 the middle of a residential area. I drive by that place at
9 least once or twice a day and there are a lot of houses, a
10 lot of kids. And the growth in this area of Cane Ridge is
11 just staggering right now. Thousands of houses and
12 apartments are being built. It just doesn't make sense to
13 plop a gas compression plant right in the middle of it.

14 So I listed the pollution, the noise; all these
15 different kinds of things. The fact that I don't see being
16 considered is the fact that there are human beings in the
17 middle of all this and it's just not a good site. I don't
18 think I really have much more to say, but the bottom line is
19 do not build the gas compression plant in the middle of our
20 neighborhood, is my bottom line. Thank you.

21 7:09 p.m. [Pause]

22 [Whereupon at 9 p.m., the verbal comment session
23 concluded.]

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INDIVIDUALS

IND062 – Cynthia D. Ellis

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426
Docket Number CP16-357-000
April 21, 2017

The opportunity to comment on the Mountaineer XPress Pipeline, while helpful, is hindered somewhat.

One hindrance was the receipt of the DEIS. There was not sufficient time to review the document. Citizen review should weigh equally with industrial time constraints, or more so. Citizens and communities need more time to review possible impacts.

IND062-1

There was little public notice of the DEIS comment hearings. The hearings were not located close to project line locations. For example, in Putnam County most of the line is planned for the northern portion of the county. No scoping hearings nor DEIS comment hearings took place there, nor at a convenient driving distance to that area.

The combination of environmental impact statements for the MXP and the Gulf Xpress was distracting and confusing. Separate DEIS volumes should be released, with additional time for review.

The DEIS fails to completely address traffic concerns for construction of the MXP. A road which will be heavily used in Putnam County is not listed: Route 34. This is a somewhat busy highway, with much local and school bus traffic. It is currently in poor condition, with “slip” portions in need of repair. Columbia Gas/ Trans-Canada pledges to work with local highway officials to plan for impacts, and to make improvements. Residents are left to wonder whether a commitment to repair can occur when infrastructure is presently in an impaired state.

IND062-2

One lane roads, such as the county routes that serve as spurs of Route 34 are worrisome. The DEIS forecasts disruptions to traffic on smaller roads, but fails to state what “appropriate measures and notifications would be implemented...”

IND062-1: Public notification of the draft EIS comment sessions was issued on February 27, 2017. A public comment session was held in Hurricane (Putnam County), West Virginia (at the Sleepy Hollow Gulf and Country Club), three weeks later on March 20. Bear in mind that facilities able to accommodate the needs of our public comment sessions are frequently limited in rural areas. See response to comment CO002-13.

IND062-2: Transportation and traffic impacts are presented in section 4.9.5.1. This section includes a discussion of the West Virginia Department of Transportation’s (WVDOT) Oil and Gas Road Policy and the agreement between Columbia Gas and the WVDOT to undertake public road improvements pursuant to the Policy.

INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)

IND062-3

Property value impacts have not been sufficiently addressed. Studies referenced were conducted in Oregon, Arizona, and Pennsylvania. Only the latter may be analogous to the properties along the route of the MXP, but it is limited to a subdivision, not farmland and small rural land holdings such as those here.

Because a pipeline of such dimension is new to this area, and memories of the explosion of a somewhat smaller one [under an interstate highway at Sissonville, WV] are still fresh, it may be that property values will be very much lessened than the DEIS predicts. Attempts should be made to discover value estimations regarding large lines in locations like those in the affected 13 counties.

Of special concern are omissions regarding impacts to birds. Birds are an integral part of communities everywhere, including along the proposed route of the MXP. Birds provide pollination and insect control. Their beauty and song are immeasurably valuable to life. Their presence presents an economic opportunity for eco-tourism, which is recognized in West Virginia by the growth and popularity of birding and nature festivals. And, due to their sensitive systems, they serve truly as “canaries in the coal mine” for all of us.

Awareness for these concerns arises from my 35 years of experience in studies of wild birds in West Virginia. Research and activities include contribution to the West Virginia Breeding Bird Atlas [both editions], seasonal surveys submitted to Audubon and Cornell University, and coordination of a Breeding Bird Survey route [in the MXP area] for the USGS.

IND062-4

The DEIS notes the route of the MXP through Lewis Wetzel Wildlife Management Area. It acknowledges that the WMA is part of an IBA [Important Bird Area]. The IBA coordinating agency, Bird Life International, stresses their crucial importance this way:

“Since birds have been shown to be effective indicators of wider biodiversity, the protection of these sites would help ensure the survival of a correspondingly large number of other animal and plant species.”

Furthermore, that WMA supports a West Virginia State Wildlife Plan Priority 1 species--- the Cerulean Warbler--- a “Species of Greatest Conservation Concern.” Yet the DEIS estimates a 4.3 decrease in suitable habitat in that area alone for this species. How can this be remedied? The DEIS only says Columbia “should,” rather

IND062-3: Comment noted. The effects of natural gas pipelines on property values is discussed in section 4.9.7. See also response to comment IND004-1, Land Values and Farmland.

IND062-4: In section 4.6.3.1, we have included a recommendation that Columbia Gas file an update regarding the status of MBTA consultations with the USFWS and WVDNR regarding the development of its Columbia Gas’ Tree Clearing Strategy (and provide a copy of the final plan, if available); and identify special measures, if any, that Columbia Gas would implement to reduce impacts on cerulean warbler habitat.

Our recommendation in section 4.5.4.1 specifically states that “Columbia Gas should identify any specific construction, restoration, replacement, and/or operation mitigation measures identified through its discussions with the WVDNR that it would implement to promote compatibility with the restoration and management of upland forest areas.”

We also are recommending that Columbia Gas continue to consult with the WVDNR and USFWS to further reduce impacts, particularly on the large Core Forest Areas preferred by the cerulean warbler. As stated in section 4.6.5.1, Columbia Gas would continue to consult with authorizing agencies to address location-specific impact minimization and mitigation measures regarding wildlife, wetlands, and other regulated sensitive environmental features.

Additional comments regarding the FERC process and recommendations noted.

INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)

than “must” file a Migratory Bird Plan to address this lapse and others. But, alarmingly, the DEIS does state, “We concluded in section 4.5 that impacts on upland forest habitat would be significant. Likewise, the reduction to the cerulean warbler habitat and the existing CFA within 10 miles of the MXP-100 corridor, as a direct result of the MXP construction, would be considered significant.” Until a detailed plan is ready to be reviewed, with specifics regarding the integrity of the IBA, the DEIS cannot be said to be complete. It is difficult to envision a plan that can offer an alternative to the destruction of vital habitat.

There are several resources and studies pertaining to Cerulean Warblers in West Virginia which could have been consulted. One was prepared by WVU post grad students who have researched effects on avian populations. Their results are noted in “Shale Gas Development Effects on the Songbird Community in a Central Appalachian Forest” by Laura S. Farwell, Petra B. Wood, James Sheehan, and Gregory A. George. The abstract for the paper concludes with, “**Our results suggest that shale gas development has the potential to fragment regional forests and alter avian communities, and that efforts to minimize new development in core forests will reduce negative impacts to forest dependent species.**” In fact, the research for the paper was completed at Lewis Wetzel WMA and includes much more detailed information on habitat and species found there than the DEIS references. One instance: “Cerulean Warbler, a forest interior species of high conservation priority...showed an overall **34.8%** decline in abundance over the eight-year study, dropping from an average annual relative abundance of 0.90 in 2008 to 0.59 in 2015.”

Another resource is Katie Fallon’s “Cerulean Blues: A Personal Search for a Vanishing Songbird,” published in 2011. It features the West Virginia native’s work in the Lewis Wetzel WMA [and in the bird’s wintering grounds in South America as well] and points out territorial requirements of Ceruleans. She further points out that the United States Fish and Wildlife Service has acknowledged in the Federal Register that “large scale habitat loss is occurring in the core of the species’ range, Kentucky and West Virginia...”

The resources consulted by the DEIS team for avian concerns in general are largely appropriate, but hardly sufficient. The team should also consult the West Virginia Breeding Bird Atlas, WV DNR Ornithologist Richard Bailey, and should

IND062-4

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INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)

explore the data presented by the Cornell University “eBird” program--- particularly for its bar graphs for selected species and local maps of species occurrence.



IND062-4

Methodology used for determining presence of birds is not recorded, other than the table listing “Individuals Observed in Project Area.” Dates and hours of observation must be listed, as well as qualifications of observers. The DEIS should define “project area” for points of observation. The DEIS does not note that some species are normally difficult to observe in daylight hours and presence of the bird may be confirmed, by trained observers, by song or call. Contrary to Columbia’s observations, many more birds have been seen by other observers and are recorded in easily researched resources.

At my residence, two miles from the proposed route, Whip-poor-will has been recorded for more than 15 years. But, due to the crepuscular habits of these birds, Columbia observers are not likely to encounter that species nor did they record it. This is a bird of declining numbers and of special significance to West Virginians, although it is not the nature of regulations to make others aware of its

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INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)

value. It is associated with the farm areas such as those along the MXP and remains for many in our state a singular attribute of quiet country twilights and dawns. Many mourn that, due to human development and intrusion, they no longer hear the call of the Whip-poor-will.

So, it is concerning that the DEIS is dismissive of impacts to Whip-poor-wills. The document says, "...Forest acreage requirement information **"was not found..."** but concludes that the habitat impairment due to the pipeline is **"...unlikely to result in significant impact..."** The conclusion seems weak and more research is needed.

Also, Columbia's observers listed Black-capped Chickadee among observations. The "WV Breeding Bird Atlas" [Buckelew & Hall, 1994] shows none here in the western counties; all notations are for eastern counties in high elevations. Black-capped Chickadees can be confused with Carolina Chickadees, which are common in the MXP area. Additionally, the DEIS fails to note that some of the birds discussed have historically only rarely seen in the 14 affected counties.

According to the DEIS there were no Bald Eagle, Fox Sparrow, Golden-winged Warbler, Henslow's Sparrow, Least Bittern, Northern Saw-whet Owl, Peregrine Falcon, Pied-billed Grebe, Red Crossbill, Red-headed Woodpecker, Short-eared Owl, Swainson's Warbler, Upland Sandpiper, Whippoorwill nor Yellow-bellied Sapsucker seen.

But, reviewing West Virginia data in the Cornell University "eBird" program finds a different picture of possible birds. These were found, in the affected counties, in recent years:

- Marshall County; Yellow-bellied Sapsucker, Red-headed Woodpecker
- Wetzel County; Bald Eagle, Peregrine Falcon, Red-headed Woodpecker, Whippoorwill, Golden-winged Warbler, Least Bittern
- Doddridge County; Bald Eagle, Whippoorwill, Red-headed Woodpecker
- Ritchie County; Red-headed Woodpecker, Whippoorwill, Golden-winged Warbler, Bald Eagle, Peregrine Falcon
- Wirt; Golden-winged Warbler
- Jackson; Peregrine Falcon, Red-headed Woodpecker, Yellow-bellied Sapsucker, Bald Eagle, Whippoorwill, Fox Sparrow, Upland Sandpiper, [Bachman's Sparrow 1949]

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IND062-4

INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)

- Putnam; Yellow-bellied Sapsucker, Pied-billed Grebe, Bald Eagle, Fox Sparrow, Whippoorwill, Peregrine Falcon, Golden-winged Warbler, Least Bittern, Henslow’s Sparrow
- Cabell; Pied-billed Grebe, Fox Sparrow, Red-headed Woodpecker, Bald Eagle, Yellow-bellied Sapsucker, Whippoorwill, Peregrine Falcon, Henslow’s Sparrow, Short-eared Owl, Red Crossbill, Upland Sandpiper
- Mason; Bald Eagle, Peregrine Falcon, Golden-winged Warbler, Red-headed Woodpecker, Fox Sparrow, Least Bittern, Whippoorwill, Upland Sandpiper, Short-eared Owl, Henslow’s Sparrow
- Wayne; Whippoorwill, Red-headed Woodpecker, Yellow-bellied Sapsucker, Bald Eagle, Fox Sparrow, Golden-winged Warbler, Peregrine Falcon, Red Crossbill, Upland Sandpiper

IND062-4

The DEIS focuses on “migratory” birds. Although FERC, as a regulatory agency, looks much at regulation, it is to be hoped that official regulation does not conduct an overly narrow environmental review. Surely all birds, and wildlife, residential as well as seasonal, should be considered.

The DEIS makes prominent mention of the Migratory Bird Treaty Act but has not thoroughly researched eagle activity. The DEIS quotes state nest numbers from 2005; a simple search of more current information finds that the Center for Biologic Diversity shows a much higher number of breeding pairs. It states that there are no Bald Eagle nests recorded in the proposed route area. This is true. However, there has been a great deal of eagle activity in many of the affected counties, particularly in Putnam County, and especially in the area at the Winfield Locks and Dam at Eleanor, WV and its downstream environs. The Locks and Dam are 2.6 miles from the proposed HDD drilling site at Midway.

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INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)



Bald Eagle nest attempt [photo by Wendell Argabrite, member WV Bird Records Committee]

IND062-4

Local birders and others have noted several nesting attempts. At least one was monitored and findings were shared with the WV DNR. From February to April 2011, this observer checked routinely on the nesting efforts of a pair of Bald Eagles. This site was at a nest appropriated by the eagles at an established heron rookery at Buffalo, WV. This is seven miles northwest of the site of the proposed HDD at Midway. That nest was abandoned after a storm. There had been previous citizen report of a nest at Hurricane Creek, near the proposed MXP route on the south side of the Kanawha River. Bald Eagles continue to be regularly noted along the river near the drilling site. The Cornell eBird seasonal abundance map reveals that there are only two months---not successional---for which few Bald Eagles are seen in Putnam County. That would make disruption of possible breeding activities problematical. A DEIS that is ready for review should explain how activities likely to interfere with potential breeding of eagles can be mitigated, given the multiple reports of presence of birds and breeding efforts.

In the days preceding the submission of this letter, nesting behavior by a pair of Osprey was recorded by this observer. This occurred on a communication tower

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INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)

at the junction of County Route 19 [Hurricane Creek Road] and State Route 817 [Old Route 35]. This location is less than a quarter of a mile from the pipeline route. Successful nesting would result in Putnam County's first recorded Osprey nest.

IND062-4

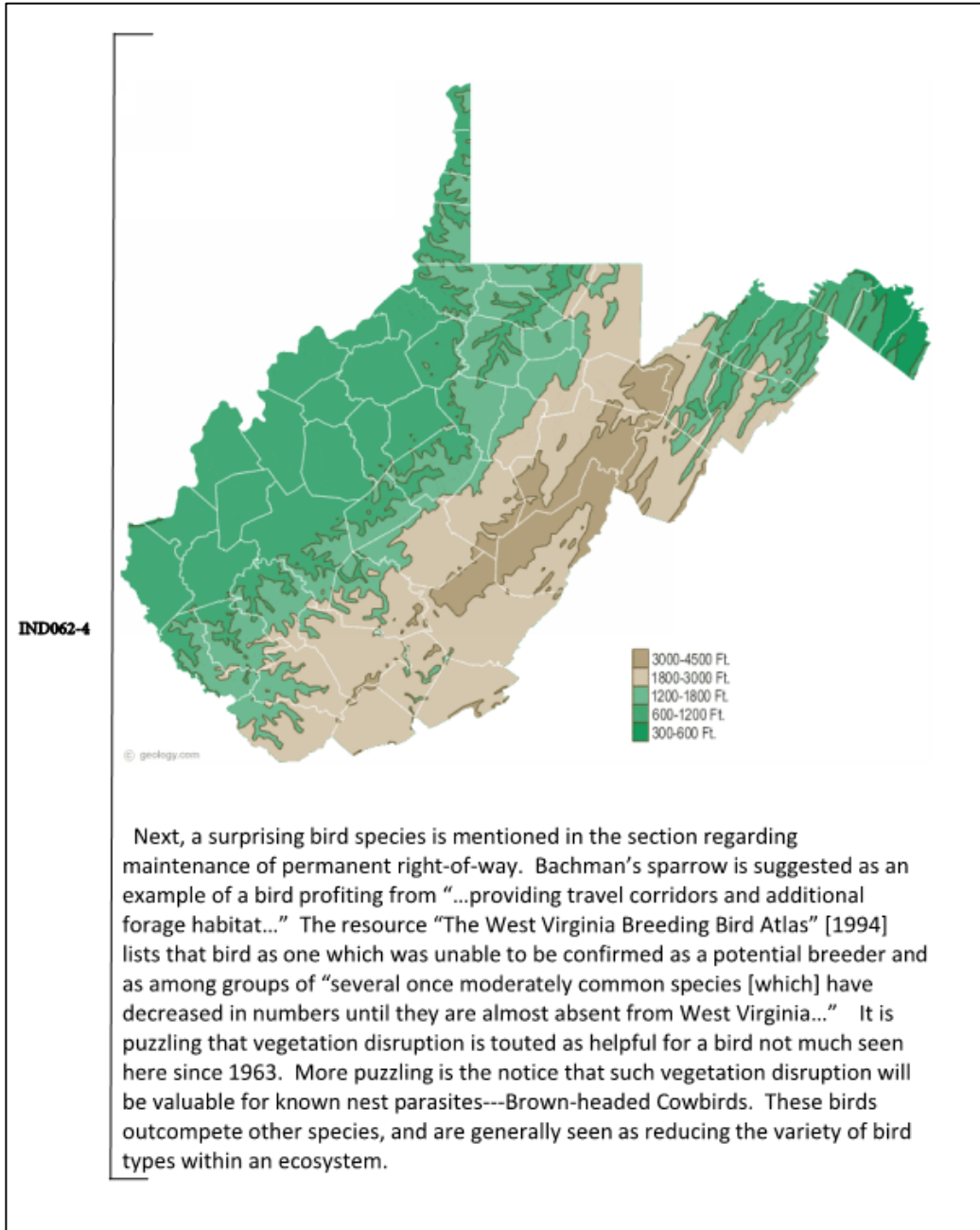
For all area birds, the vegetation clearing processes as described seem insufficient in causing harm. It is nominally positive to see that clearing attempts will be made before April. But this DEIS statement is unsupported, "Vegetation clearing activities that occur in May are not as likely to affect active nests containing eggs or unfledged young, as many nesting pairs are expected not to have reached this stage in the nesting process." The breeding pairs, as well as eggs and young, should not be disturbed.

Confoundingly, the DEIS says, "...the MXP is in higher-elevation mountainous areas, where the start of the nesting season is sometimes delayed compared to lower-elevation regions in the state..." The MXP does not cross high elevation areas of West Virginia. [see elevation map, below]

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INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)



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INDIVIDUALS

IND062 – Cynthia D. Ellis (continued)

These inaccuracies add up. They do not provide assurance that birds will be adequately protected. A copy of a completed **Migratory Bird Plan** is essential and must be presented for review.

In conclusion, to address the inadequacy of time to review the DEIS, a one month extension of the comment period is requested.

Moreover, I request that the FERC issue a new DEIS for the MXP only, without inclusion of the Gulf Xpress. This should include detailed action and mitigation plans with complete and accurate information.

FERC is requested to choose the No Build or No Action Alternative if a new DEIS is not issued.

Thank you.

Cynthia D. Ellis
3114 Steel Ridge Road
Red House, WV
25168
cdellis@wildblue.net
304 586-4135

IND062-4

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INDIVIDUALS

IND063 – Christy Gibson

IND063-1	<p>Christy Gibson, Huntington, WV. I am very concerned for the building of this pipeline. I think there is significant damage to communities as pipelines are built including but not limited to dirty roads, muddy streams, muddy roads, pipeline trash. Our communities do not need to clean up after the pipeline corporations. Pipelines and fracking have been banned in Maryland and I strongly feel we should ban it here as well. Pennsylvania has had numerous health hazards and detriment to their local water after fracking was initiated in these areas. Documentation of these mishappenings in communities can be found at ohvec.org. Is there really a need for this pipeline? I feel this is corporate greed. There is no documented reason for this pipeline except to benefit corporations. This will wreak havoc on our city and community. Who will pay for any of the side effects or detrimental effects that occur as part of the installation of the pipeline.</p>
IND063-2	<p>The location of the pipeline's proposed traverse to the Kanawha River banks is problematic. This is very close to populated areas including family homes, Gritt's greenhouse which provides food and plants to many of our community, and to churches.</p>
IND063-3	<p>The DEIS fails to adequately consider impact to the Ohio river. This is the tap water source for 3-5 million people! This should not be taken lightly! No pipeline is worth our health or worth losing clean water!!!</p>
IND063-4	<p>The DEIS should examine the legal and constitutional ramifications of allowing a for profit corporation to use eminent domain to seize land. This is especially concerning when that seizure is conducted under the false banner of "national energy security". This is our own land and we should not have to forfeit our land to a corporation!!!!</p>
IND063-5	<p>The jobs provided by the pipeline will only be temporary. This is often jobs fulfilled by out of state contractors.</p>
IND063-6	<p>Are there any adequate evacuation and or crisis plans in order? This is so important to our safety of our WV people!</p>
IND063-7	<p>The terminal compressor station for the proposed MXP route is very close to Tristate Huntington WV airport. These will probably take our natural resources to export terminals along coastal areas of the country. The potential cost in terms of environmental destruction and endangerment of human health and life is greater than any potential economic benefit to this state or region.</p>
IND063-8	<p>The DEIS fails to evaluate all of the ecosystem services and their dollar value that will be eliminated and impacted by the construction, maintenance and operation of this pipeline. We deserve to have intact forests, flood control, erosion control, water purification, and atmospheric purification. Who guarantees our safety???</p>
IND063-9	<p>The DEIS fails to examine the capacity and ability for our first responders who are often volunteers and nearby hospitals to respond if/when there is an explosion in the pipeline.</p>

IND063-1: Regarding dirty/muddy roads and muddy streams, our analysis concludes that no long-term impacts on surface water quality or quantity are anticipated to result from construction of the proposed project. See sections 4.3.2.4.1 and 4.3.2.5.1. Potential environmental impacts associated with drilling, exploration, and recovery of natural gas, including the use of hydraulic fracturing, is regulated at the state level and is not part of the proposed project.

The determination of whether there is a "need" for the proposed facilities (for the purpose of issuing an authorization under section 7 of the Natural Gas Act) will be made in the subsequent Commission Order granting or denying the applicants' requests for Certificate authorization and is based on a balancing of the benefits of the projects against any adverse impacts. Economic benefits resulting from construction and operation of the MXP are discussed in section 4.9.8.1. See response to CO006-6.

IND063-2: Sections 2.4.4.2.3 and 4.3.2.4.1 discuss the proposed crossing of the Kanawha River.

IND063-3: As we conclude in section 4.3.2.5.1, no long-term impact on surface water quality or quantity are anticipated to result from construction of the MXP. Project operation would not impact surface waters unless maintenance activities involve pipeline excavation or repair in or near streams. Although the MXP is located within the Ohio River watershed, the pipeline corridor does not traverse the Ohio River, nor are any of the proposed compressor or metering facilities located on the Ohio River.

IND063-4: The legal and constitutional ramifications of the use of eminent domain is beyond the scope of this EIS.

IND063-5: Section 4.9 includes a discussion of employment opportunities provided by the MXP.

IND063-6: Public services available in the MXP area, including a discussion of fire stations, police, and hospitals, are addressed in section 4.9.3.1. Pipeline reliability and safety is addressed in section 4.12. See specifically section 4.12.1.

IND063-7: Comment noted.

IND063-8: Comment noted. Impacts on forests are addressed in section 4.5, information on flooding can be found in section 4.1.4.8, erosion is addressed in section 4.2, water resources are addressed in section 4.3, air information can be found in section 4.11, and safety is addressed in section 4.12.

IND063-9: See response to comments IND004-8 and IND063-6. See section 4.12.1 for information on emergency response capabilities.

INDIVIDUALS

IND064 – William Robertson

IND064-1	<p>William Robertson, Goodlettsville, TN. Please find a series of comments concerning the GulfXpress project and specifically over the location of the gas compressor station in Cane Ridge suburb of Nashville, Tennessee.</p> <p>1. My first concern is with the need for the project. According to FERC's own analysis there is ample natural gas transmission capacity to supply the US market. The use of corporate agreements as evidence of need is not good regulatory practice. Natural gas corporations have a vested financial interest in securing short-term access to markets without regard for the true long-term transmission capacity needs that are truly in the national interest. It is FERC's responsibility to properly ascertain transmission capacity independent of industry. There is strong evidence that current capacity is more than adequate and this project should therefore not be approved on that basis.</p>
IND064-2	<p>2. In the EIS the issue of audio frequency noise was addressed using a dBA day-night estimate. Clearly for the Cane Ridge site the projected noise increases at nearby noise sensitive areas (NSA's) will be strongly elevated and extra studies will be done post construction to attempt to mitigate this problem.</p> <p>This comment addresses my concern over low-frequency vibration which will be primarily transmitted through the ground via Rayleigh and body waves and couple directly to structures and human subjects. Low frequency vibration has not been addressed. For this low frequency transmission mechanism the strictly aural concept of equal loudness scales (dBA) is not applicable. Because of the close impedance match between the turbine mounting and the earth, a larger fraction of vibrational energy will be funneled into the ground than transmitted through the air. Have ground vibration studies (seismographic or geophone) been performed at other compressor stations of similar size and proximity of residences to the site proposed for Cane Ridge compressor station? What results were obtained? Are they published or can they be provided for review? What specific engineering methods are in the design of the turbine and compressor mounts to mitigate vibration coupling to the ground? If simple pad mounting is envisaged, provide the pad dimensions and material (specify if these dimensions are for one turbine/compressor or for both) or provide engineering drawings and supplementary material for this part of the project. Is active vibration control being implemented because of the unprecedented proximity of nearby residences to the Cane Ridge station? Is a passive filter structure being implemented?</p>
IND064-3	<p>3. A recent study of Nashville's air quality relative to EPA standards shows that the city is close to non-attainment particularly for ground level ozone. Specifically, if the EPA's new ozone standard had been introduced one year earlier then Nashville would not have been in attainment. Current levels are in the 65 to 69 part per billion (ppb) at the 5 measurement stations in the Metro Nashville area. These values are close to the current EPA standard of 70 ppb. The new compressor station proposed for Cane Ridge (and a second proposed in the northwest part of Nashville in the Joelton community) will jointly increase the NOx emission due to all stationary fuel burning sources in the county by over 30 percent. Because NOx is a precursor to ground level ozone, this increase has the strong potential to push the city into non-attainment. For that reason the Cane Ridge station should be required to implement</p>

IND064-1: Section 1.1.1 addresses the purpose and need for the GXP. See also response to comment CO006-6.

IND064-2: We do not consider either the size of the compressor station nor the proximity of the residences atypical, as many compressor stations are so sited throughout the United States. FERC guidelines require that new compressor engines not result in a perceptible increase in vibration at any nearby receptor. Vibrations from compressor stations are associated with older reciprocal engines, none of which are proposed at the Cane Ridge Compressor Station. In the unlikely case that perceptible vibration is created by a rare resonance from the turbine exhaust noise, FERC would investigate any reports of vibrations and work with Columbia to resolve the situation.

IND064-3: See response to comments IND010-4 and IND013-1.

INDIVIDUALS

IND064 – William Robertson (continued)

IND064-3

electrically powered compressors. Suitable high voltage is reasonably readily available in the proximity of the Cane Ridge site. The rationale given in the EIS for not going with electric compressors at this site is that it merely shifts the pollution burden to the location of the electrical generation facility. However, this argument is flawed on two counts. First, a majority of Tennessee power is generated via nuclear power with no significant emission. Second, electrical generation facilities that do emit are located in relatively unpopulated areas where the effects on people are less significant. In contrast, the location of the Cane Ridge station in the urban core of a heavily populated city means that its pollution has a proportionally much greater impact. In summary, the use of electric generation shifts the air pollution impact for the Cane Ridge station away from a highly populated, urban core area on the brink of non-attainment. FERC should require the Cane Ridge compressor to be electrically powered because it offers a significant environmental advantage.

IND064-4

4. The project will need to invoke federal preemption of local laws the Cane Ridge compressor station in Nashville the proposed site of which is improperly zoned in violation of a pair of city ordinances. The increase in capacity added by this project is designed primarily to provide natural gas to the gas liquefaction facilities on the Gulf coast for ultimate export. The use of federal preemption is in essence a direct subsidy for the corporations seeking to export gas. The federal subsidization of natural gas exports likely runs contrary to World Trade Organization (WTO) rules concerning government support of natural gas exports. This circumstance threatens the viability of the entire export process and should be clarified before a certificate is issued.

IND064-4: Comments noted. The Commission encourages project proponents to comply with state and local land use planning and zoning regulations in the design and siting of natural gas facilities.

INDIVIDUALS

IND065 – Elizabeth Forester

Elizabeth Forester, S. Charleston, WV.

IND065-1

Columbia Gas has not identified all private water wells and potable springs in proximity to project work areas, nor identified any specific protection measures that would be implemented for wells located inside the construction work areas. This information must be included in the DEIS.

IND065-2

Further more we the people of WV DO NOT want this pipeline running thru our state or our nation!

Please consider alternative renewable energy!

Thank you

Elizabeth Forester

IND065-1: See response to comment IND042-1.

IND065-2: See response to comment IND036-3.

INDIVIDUALS

IND066 – Terry Flesher

Comments
to
Draft Environmental Impact Statement
for
Columbia Gas Transmission, LLC – Mountaineer XPress Project
Columbia Gas Transmission, LLC – Gulf Xpress Project
Docket Nos. CP16-357-000 & CP16-361-000

Commenter:

My name is Terry Flesher. I reside at 432 Huckleberry Trail, St. Johns, Florida 32259.

Personal Background:

I worked for a major U.S. pipeline operator for a number of years before my retirement in the late 1990's. Our company operated approximately 6,000 miles of large diameter high-pressure petroleum pipelines in the United States. Our company transported crude oil into seven refineries, and finished petroleum products, including gasoline, diesel fuel, kerosene and jet fuel from our refineries to market via those pipelines.

I worked in various operational capacities relating to pipeline operations. During my last 13 years of employment with my company, I managed our real estate operations, and settlement of damage claims resulting from our operations. That responsibility included the acquisition of pipeline easements necessary to lay pipelines ranging from 2 inches to 24 inches in diameter across several states; the purchase and disposition of real estate related to our operations; and, as previously noted, oversight of the settlement of damage claims related to our facilities. Our company was part owner of pipelines up to 48 inches in diameter.

Purpose of Commenting:

I wish to make it clear that I do not oppose all pipelines. But I do oppose the natural gas pipelines the subject of this EIS. I am not here going to attempt to play the role of environmental scientist, as I am not a scientist. Rather, I am going to appeal to the common sense of those within your organization that will decide whether to approve the permits desired by Columbia Gas under the referenced filing. I hope to accomplish that by sharing a little of my experience with pipelines, as someone who has witnessed firsthand the effects of pipelines to the environment and people.

IND066-1

IND066-1: Comment noted.

INDIVIDUALS

IND066 – Terry Flesher (continued)

Observations from Experience:

Being deeply involved in the process of acquiring land rights necessary to install and operate large diameter underground pipelines, and overseeing the settlement of damage claims resulting from the failure of certain of those pipelines, I came to appreciate both the benefits and negative aspects of pipelines. That is, pipelines no doubt benefit most consumers, as well as the companies who own and operate them in revenue to their organizations. That's the good news.

The bad news is all pipelines present possible damage to the environment and humans, and some, due to their physical condition and siting present the likelihood of probable damage. Certain of such damage may be temporary and some may become permanent.

I believe the question in reviews such as your agency will undertake becomes whether such damage is acceptable.

Overview of EIS Process:

I fully support the process of this, and all, environmental impact analysis relating to proposed pipeline projects. The installation of pipelines, regardless of the products to be transported through them, presents, or should present, numerous concerns. Those include, but are not limited to:

- Possible damage to land.
- Possible damage to water.
- Possible damage to wildlife.
- Possible damage to air quality.
- Possible damage to the overall ecosystem.
- Possible damage to property values of lands crossed.
- Possible encroachment of protected lands.
- Possible use restrictions upon the surface of lands crossed.
- Possible infringement upon the peace and quiet of many of those who live near such pipelines.
- Possible harm to the personal safety of those who live near such pipelines.
- A high likelihood of additional utilities (other pipelines and power lines) being installed in the same corridor, which will multiply the affects of the preceding factors.

I realize that some of the preceding factors are outside the reviews to be undertaken under this EIS. But those relating to land, water, air and wildlife are applicable. I will not attempt to define the affects to those areas, as your reviews will hopefully accurately do that, but let me provide what I believe are some "practical" thoughts relating to those factors.

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INDIVIDUALS

IND066 – Terry Flesher (continued)

IND066-2

- Damage to Land - Pipeline companies will not – unless required by landowners – separate the topsoil from the subsoil and properly return it after installation of the pipeline. In lands under cultivation, that affects crop yield. The excavation of soil to allow the burying of a pipeline does not allow the return of that soil, and disturbed animal habitat, to its original state.

IND066-3

- Damage to Water - While excavation for pipeline installations are typically not deep enough to affect water tables in the area of the proposed pipelines, it does sometimes happen. More commonly, it affects underground springs, which could resultantly affect the underlying water table or drinking water if collected by nearby residents. While crossings of large bodies of water are bored, the crossings of small streams are typically excavated. Streams cannot be disturbed to that level without negative affects resulting to wildlife, water flow, structure stability and sediment disposition.

IND066-4

- Damage to Wildlife – The excavation of soil along the pipeline route, the frequent fencing installed to protect the pipeline right of way, the affect to streams and stream water flow, the release of foreign substances into the air from compressor stations and the possibility (some would suggest certainty) of future failures of the pipeline, can and likely will in certain respects affect the health and habitat, and therefore the future proliferation of wildlife that lives along or travels across the pipeline right of way.

IND066-5

- Damage to Air - I am unable to comment on this issue with any knowledge, but any reasonable person would likely conclude that the compressor stations that will be a part of these pipelines will emit substances that currently do not exist at the proposed source points. I assume your agency will, through some sort of model or other criteria, decide whether those substances, at the levels provided by the company, are acceptable for release into the environment.

IND066-6

I believe it is important to not forget in this discussion that anything that negatively affects the land, water, wildlife and air in the vicinity of a pipeline may also negatively affect those humans who live within close proximity of that pipeline.

Primary Concerns: While I have many concerns about these pipelines, my primary concerns are as follows:

IND066-7

- The negative affects, whether insignificant or significant, of these pipelines to the environment and nature.

IND066-8

- Construction of pipelines in mountainous areas is not impossible. But it presents construction problems much different than laying them in flat terrain. The routes of these pipelines will no doubt present persistent rock.

IND066-2: See response to comment IND054-2.

IND066-3: Comment noted. Much attention has been devoted in the EIS to potential impacts on ground and surface waters and their quality, as well as mitigation to avoid or reduce impacts to less-than-significant levels. See section 4.3.

IND066-4: See section 4.2 (Soils) and response to comment IND066-3 (streams). The primary use of fencing would be to provide security at aboveground facilities (compressor stations, valves, meters, etc.). As discussed in section 4.1.1.1, models of air quality impacts indicate potential air emissions would be below applicable standards and would not have significant impacts on local or regional air quality. The USDOT, which is responsible for pipeline safety, has established regulations that require operators to develop and follow a written Integrity Management Program that contains all the elements described in 49 CFR 192.911 and addresses the risks on each transmission pipeline segment. All MXP and GXP pipeline facilities would be designed, constructed, and operated in compliance with regulations at 49 CFR 192. See also section 4.12. Additionally, see sections 4.6 (Wildlife and Fisheries) and 4.7 (Threatened and Endangered, and Other Special Status Species) for our analysis of potential impacts on wildlife.

IND066-5: See section 4.11.1.

IND066-6: See response to comments IND066-2, IND066-3, IND066-4, and IND066-5.

IND066-7: Comment noted.

IND066-8: See sections 2.4.1 (including Shallow Bedrock and Blasting) and 2.4.4.6 (Rugged Topography). Additionally, see section 4.1 as it discusses shallow bedrock, blasting, and landslide hazards (section 4.1.4.4), including our recommendation to conduct a Landslide Hazard Assessment.

INDIVIDUALS

IND066 – Terry Flesher (continued)

IND066-8

Excavation of rock to prepare the ditch and the disturbance of the rock not removed, can cause unstable conditions that can result in future loss of integrity of the right of way, and subsequently the loss of integrity of the pipeline.

IND066-9

- The potential harm to humans who will live near these pipelines. As you know, most failures of pipelines are caused by third party activities. There is absolutely no reason to believe that these pipelines, if constructed, won't be subject to these same third party influences. Additionally, while the Department of Transportation regulates the inspection and safety of interstate pipelines in the U.S., and imposes restrictions that are intended to maintain the integrity of those pipelines, such as corrosion protection, some pipelines still fail as a result of pipe corrosion. Why that happens should be of serious concern to those who regulate pipelines under their jurisdiction.

IND066-10

- The proposed crossing of protected lands, both those affected by protective easements on private lands, and those lands owned by or under the jurisdiction of governmental bodies, should not be allowed. Those lands were originally protected for a reason, and should not be disturbed – even for use by a company holding the right of eminent domain.

Recommendations:

I urge your agency to stringently apply the testing and evaluation criteria of the various environmental aspects of these pipelines. Please strongly consider:

IND066-11

- As is clearly known, many areas of West Virginia, and it appears certain areas of the proposed routes of these pipelines, have been extensively mined using underground mining techniques. One can assume that some or many of those areas were “over-mined”, resulting in certain areas where the stability of the surface might be in question. I urge a thorough examination of the proposed routes of these pipelines to determine if such conditions exist.

IND066-12

- I urge a close examination of whether the coatings applied to the line pipe to be used in these projects could result in contamination of soil, and if the cathodic protection systems used to prevent or reduce corrosion to the pipe present any negative affects to animals that live below the surface.

IND066-13

- I urge your agency, or other agencies that may impose such restrictions, to require that the right of way along the pipeline route be at least 200 feet in width, and that human habitation not be allowed within at least 100 feet of the pipeline. Further, that the pipeline owner stringently protect its right of way from encroachment.

IND066-9: See section 4.12. Additionally, all below-grade pipeline facilities would be epoxy-coated, and the MXP system would be protected from corrosion by an impressed current, as well as ground-bed sacrificial anodes.

IND066-10: Comment noted. See sections 4.8.2.2 and 4.8.2.3.

IND066-11: This topic is addressed in sections 4.1.2.1 and 4.1.4.1.

IND066-12: The fusion-bonded epoxy coating on line pipe is inert.

IND066-13: Section 4.12 discusses pipeline reliability and safety. Our analysis concludes that operation of the proposed projects would represent only a very slight increase in risk to the nearby public. Additionally, the USDOT is responsible for pipeline safety.

INDIVIDUALS

IND066 – Terry Flesher (continued)

IND066-14

- I urge your agency, or other agencies that may impose such restrictions, to require that pipeline line markers be installed at twice the minimum distance required by applicable regulations in areas along the routes of dense human habitation.

IND066-15

- These pipelines will at some point in the future likely become obsolete and be abandoned in place, without regard to any negative effect to the environment.

IND066-16

- The pipeline operators cannot ensure these pipelines will not at some point in the future suffer a loss of integrity. Affects to the environment from such an event may be minimal, but it may be significant.

IND066-17

- No one can absolutely guarantee that these pipelines will not negatively affect the environment and the humans who live near them.

IND066-18

- Finally, at some point in the future, these pipelines, if constructed, may be owned and operated by a company that does not have the financial resources of Columbia Gas. I urge your agency, or other agencies that may impose such restrictions, to require, as a condition of approval, that Columbia Gas, and any other future owner of these pipelines, maintain in full force and effect a bond in a substantial amount that is payable to an appropriate U.S. governmental body for the use and benefit of those people who may suffer damages from the future existence of these pipelines.

Preferred Decision

IND066-19

- Conclude the findings of the evaluation criteria should prevent construction of these pipelines.

Secondary Decision – If FERC concludes denial cannot be substantiated.

IND066-20

- Issue an advisory opinion that these proposed pipelines, while not resulting in violations of applicable rules, regulations and law to a degree that required a recommendation of denial, do pose potential or real harm to the environment and those humans who live or may in the future live near the pipelines.

IND066-14: The placement of pipeline line markers is addressed in the USDOT's regulations at 49 CFR 192.

IND066-15: Abandonment of the proposed facilities would require specific authorization(s) from FERC, including additional environmental review and an opportunity for public review/comment. See section 2.8.

IND066-16: See response to comment IND057-2.

IND066-17: This EIS discusses numerous potential environmental impacts related to construction and operation of the proposed projects.

IND066-18: See response to comment IND066-15.

IND066-19: Please bear in mind that the EIS is not a decision document. The Commission will ultimately decide, after reviewing all aspects of the proposals, whether the proposed projects are in the public convenience and necessity.

IND066-20: Comment noted.

INDIVIDUALS

IND066 – Terry Flesher (continued)

Conclusion:

Thank you for the opportunity to comment on this Draft Environmental Impact Statement. While I ask that your agency consider my herein comments in light of my experience in the pipeline industry, I more strongly urge you to consider my comments and concerns as a citizen who understands the burdens the existence of such pipelines can sometimes place on our environment and the people who live near them.

(End)

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INDIVIDUALS

IND067 – Nathan Bumgarner

IND067-1	<p>Nathan Bumgarner, Elizabeth, WV.</p> <p>This project is not a public serving project nor is it a necessity for the people of WV. In fact, it will negatively impact our future and economy as the state attempts to transition to a tourism focus. There are several important issues with the application made by Columbia Transmission:</p>	IND067-1: Comment noted.
IND067-2	<p>□ Section 4.3.1.3.1 Water Resources: Columbia Gas has not identified all private water wells and potable springs in proximity to project work areas, nor identified any specific protection measures that would be implemented for wells located inside the construction work areas. This information must be included in the DEIS.</p>	IND067-2: See response to comment IND042-1.
IND067-3	<p>□ Section 4.3.2.4.1 Stream Crossings: The DEIS does not contain site-specific waterbody crossing restoration plans or a contingency plan for drilling under the Kanawha River. This information is vital when assessing the impacts of stream crossings on water quality and aquatic life and must be included in the DEIS.</p>	IND067-3: See response to comment IND042-2.
IND067-4	<p>□ Section 4.3.2.4.1 Water Withdrawals: Water sources and quantity for dust control have not been identified. Out-of-basin transfers of hydrostatic test water have not been addressed. Specific measures to protect aquatic life and downstream uses from water withdrawals have not been submitted. These issues must be addressed in the DEIS.</p>	IND067-4: See response to comment IND042-3.
IND067-5	<p>□ Section 4.4.1.1 Wetland Impacts: The DEIS does not contain a mitigation plan for wetlands. This is essential for ensuring that the impacts to wetlands will be properly mitigated. Without this information, FERC cannot conclude that impacts to wetlands will not be significant.</p>	IND067-5: See response to comment IND042-4.
IND067-6	<p>□ Section 4.7 Endangered Species: Construction of MXP will negatively affect endangered bat and mussel species. Consultations with the US Fish and Wildlife Service have not been completed. Consultations could result in additional mitigation, conservation measures, or reroutes. This lack of sufficient information must be corrected in the DEIS.</p>	IND067-6: See response to comment IND042-5.
IND067-7	<p>□ Section 4.1.4.4.1 Landslides: The DEIS states that MXP is in an area of elevated landslide risk due to steep slopes; however, Columbia Gas has not completed the Landslide Hazard Assessments or the Landslide Mitigation Plan. Additional mitigation measures to address landslides must be identified and included in the DEIS.</p>	IND067-7: See response to comment IND004-5.

INDIVIDUALS

IND068 – Patrice Nelson

Patrice Nelson, Cane Ridge, TN.
To whom it may concern:

As a homeowner and resident in the Cane Ridge community, I am writing to share my concerns and questions regarding the proposed Gas Pipeline Compressor Station in Cane Ridge.

IND068-1

First and foremost, why is the proposed location of this facility in such a densely populated residential area as opposed to an area that is zoned solely for industrial use, or an area that is further from a major city? If a catastrophic event occurred (such as a tornado hitting the station, earthquake, or gas explosion) the potential for death, injury, property loss, or evacuation is much larger than for similar facilities located away from population centers. If an explosion occurs, who is responsible for acting immediately to mitigate damage and casualties?

IND068-2

Second, with the current presidential administration's moves to reduce resources spent on environmental monitoring, how will air emissions from this facility be monitored and, if necessary, reduced? How often will the monitoring take place and how can residents be sure that the gas company is complying with set air quality limits? What will happen if the facility reduces local air quality to levels below government standards? If residents begin to experience increases in asthma and other medical ailments after the facility goes online, who will verify the tie to the facility, and if a tie is confirmed, what is the next course of action?

IND068-3

Third, is there a maximum noise level set for this facility? If so, who will monitor levels, how often, and what will happen if noise levels are exceeded? If not, can this facility operate to any noise level?

IND068-4

Finally, who assesses the overall long-term potential environmental and health risks (including combined effects of this facility with those of the proposed Joelton compressor station) on the city of Nashville and surrounding communities? If FERC ensures the safe operation and reliability of LNG facilities, how will it ensure that construction, operation, and any potential malfunctions or catastrophic events related to the Cane Ridge Gas Pipeline Compressor Station pose absolutely zero risk to the local population? If it poses more than zero risk, how can it work to reduce risk to as close to zero as possible, including for those who reside within 1-2 miles of the facility. Is moving the facility site to a less densely populated area the best course of action to mitigate health and safety risks?

Thank you for your consideration.
Patrice Nelson

IND068-1: See response to comments IND012-3 and IND019-1. The Commission encourages project proponents to comply with state and local land use planning and zoning regulations in the design and siting of facilities. See response to comment LA001-4. See response to comments IND009-5 and IND006-4. Columbia Gulf's operations staff would develop and maintain a liaison program with emergency response, government, and public safety officials in the Cane Ridge area. These officials include local fire and law enforcement officials, emergency management services, ambulance services, HAZMAT groups, state police officials, local emergency planning coordinators, and town/city government representatives.

IND068-2: See response to comments IND010-4 and IND009-2.

IND068-3: See response to comments IND015-2, IND009-1, and IND044-4.

IND068-4: The FERC is the lead federal agency for processing authorizations involving interstate natural gas facilities. As such, the Commission is responsible for conducting a review of potential environmental impacts resulting from its actions, as required by NEPA. Air quality is addressed in section 4.11.1. Potential cumulative air quality impacts relative to the Cane Ridge Compressor Station are discussed in section 4.13.2.9.2. "Health and safety risks" are addressed in the EIS. See especially sections 4.3 (Water Resources), 4.11.1 (Air Quality), and 4.12 (Reliability and Safety).

INDIVIDUALS

IND069 – Betsy Scott

IND069-1	<p>Betsy Scott, Winfield, WV. I object to the approval of this project as I do not believe that enough has been done to discover the true impact of this pipeline on the area that it is proposed to go through. We live in the area of Putnam County to be affected and know very well how the mountainous area is subject to extreme slips. Just the blasting from the construction of Rt. 35 caused large rocks to fall on our driveway. Beyond that, the risk to the waters of the Kanawha and to the other streams as well as to the Ohio river and the wetlands are too much to have this pipeline approved. The value of the property affected will most certainly drop. I don't think West Virginia can take any more devaluation of its property. Beside the fact that I do not believe this pipeline serves the public interest, The following are a few of the other problems that I see with this pipeline:</p>	IND069-1: Comment noted. See response to comment IND067-7. See response to comment IND063-3. See response to comment IND004-1, Land Values and Farmland.
IND069-2	<p><input type="checkbox"/> Section 4.3.1.3.1 Water Resources: Columbia Gas has not identified all private water wells and potable springs in proximity to project work areas, nor identified any specific protection measures that would be implemented for wells located inside the construction work areas. This information must be included in the DEIS.</p>	IND069-2: See response to comment IND042-1.
IND069-3	<p><input type="checkbox"/> Section 4.3.2.4.1 Stream Crossings: The DEIS does not contain site-specific waterbody crossing restoration plans or a contingency plan for drilling under the Kanawha River. This information is vital when assessing the impacts of stream crossings on water quality and aquatic life and must be included in the DEIS.</p>	IND069-3: See response to comment IND042-2.
IND069-4	<p><input type="checkbox"/> Section 4.3.2.4.1 Water Withdrawals: Water sources and quantity for dust control have not been identified. Out-of-basin transfers of hydrostatic test water have not been addressed. Specific measures to protect aquatic life and downstream uses from water withdrawals have not been submitted. These issues must be addressed in the DEIS.</p>	IND069-4: See response to comment IND042-3.
IND069-5	<p><input type="checkbox"/> Section 4.4.1.1 Wetland Impacts: The DEIS does not contain a mitigation plan for wetlands. This is essential for ensuring that the impacts to wetlands will be properly mitigated. Without this information, FERC cannot conclude that impacts to wetlands will not be significant.</p>	IND069-5: See response to comment IND042-4.
IND069-6	<p><input type="checkbox"/> Section 4.7 Endangered Species: Construction of MXP will negatively affect endangered bat and mussel species. Consultations with the US Fish and Wildlife Service have not been completed. Consultations could result in additional mitigation, conservation measures, or reroutes. This lack of sufficient information must be corrected in the DEIS.</p>	IND069-6: See response to comment IND042-5.
IND069-7	<p><input type="checkbox"/> Section 4.1.4.4.1 Landslides: The DEIS states that MXP is in an area of elevated landslide risk due to steep slopes; however, Columbia Gas has not completed the Landslide Hazard Assessments or the Landslide Mitigation Plan. Additional mitigation measures to address landslides must be identified and included in the DEIS.</p>	IND069-7: See response to comment IND067-7.

INDIVIDUALS

IND070 – Janet Keating

IND070-1	<p>Janet Keating, Huntington, WV. Thank you for accepting the following comments on the proposed Mountain Xpress Pipeline's draft EIS:</p> <p>Generally, I want to register an overall objection to this proposal and believe that the Mountain Xpress Pipeline should not be built. My greatest concern is impacts to our water resources from water withdrawal and pollution. Additionally,</p>
IND070-2	<ul style="list-style-type: none">• Section 4.3.1.3.1 Water Resources: Columbia Gas has not identified all private water wells and potable springs in proximity to project work areas, nor identified any specific protection measures that would be implemented for wells located inside the construction work areas. This information must be included in the DEIS.
IND070-3	<ul style="list-style-type: none">• Section 4.3.2.4.1 Stream Crossings: The DEIS does not contain site-specific waterbody crossing restoration plans or a contingency plan for drilling under the Kanawha River. This information is vital when assessing the impacts of stream crossings on water quality and aquatic life and must be included in the DEIS.
IND070-4	<ul style="list-style-type: none">• Section 4.3.2.4.1 Water Withdrawals: Water sources and quantity for dust control have not been identified. Out-of-basin transfers of hydrostatic test water have not been addressed. Specific measures to protect aquatic life and downstream uses from water withdrawals have not been submitted. These issues must be addressed in the DEIS.
IND070-5	<ul style="list-style-type: none">• Section 4.4.1.1 Wetland Impacts: The DEIS does not contain a mitigation plan for wetlands. This is essential for ensuring that the impacts to wetlands will be properly mitigated. Without this information, FERC cannot conclude that impacts to wetlands will not be significant.
IND070-6	<ul style="list-style-type: none">• Section 4.7 Endangered Species: Construction of MXP will negatively affect endangered bat and mussel species. Consultations with the US Fish and Wildlife Service have not been completed. Consultations could result in additional mitigation, conservation measures, or reroutes. This lack of sufficient information must be corrected in the DEIS.
IND070-7	<ul style="list-style-type: none">• Section 4.1.4.4.1 Landslides: The DEIS states that MXP is in an area of elevated landslide risk due to steep slopes; however, Columbia Gas has not completed the Landslide Hazard Assessments or the Landslide Mitigation Plan. Additional mitigation measures to address landslides must be identified and included in the DEIS.

IND070-1: Comment noted.

IND070-2: See response to comment IND042-1.

IND070-3: See response to comment IND042-2.

IND070-4: See response to comment IND042-3.

IND070-5: See response to comment IND042-4.

IND070-6: See response to comment IND042-5.

IND070-7: See response to comment IND004-5.

INDIVIDUALS

IND071 – Marilyn Howells

	<p>Marilyn Howells, Huntington, WV, WV. Southwest WV a Sacrifice Zone .</p>
IND071 - 1	<p>Please extend the comment period, so others will have more time to comment. This was not sufficiently publicized Why did they not put maps of the pipeline routes & required evacuation zones in the newspaper & then hold comment meeting in each of the counties & all cities heavily affected? Why were letters not sent to all in the evacuation zones? The MXP, Gulf Xpress, and Leach Xpress pipelines, apparently interconnect from northern points in West Virginia (Ohio and Penn), heading to the Ceredo compressor station to Marathon's Catlettsburg refinery and from</p>
IND071 - 2	<p>there southward to the Gulf Coast for export. As USA already exports gas products, this will this not just free up more for export? In all there</p>
IND071 - 3	<p>will be 9 high pressure pipelines in this area with two dangerously under the Ohio River. The 165 mile MXP affects many counties in our area &</p>
IND071 - 4	<p>ties into the much older, antiquated, more risky SM-80 in Cabell & Wayne counties. There are multiple compressor stations. Both these lines go too</p>
IND071 - 5	<p>near dwellings, through the historic cemeteries, ending at Big Sandy, & also toward Walker Branch & massively expanding compressor station. It can bring gas, & eventually hydrocarbons and fracked substances from a number of states to be processed in tristate. It serves as a Trojan horse that also will encourage fracking locally and nearby Ohio & Ky. Please see ohvec.org/renew-wv/ for other concerns, especially pgs 8-10 & 12.</p>
IND071 - 6	<p>Many countries, some states, & municipalities have banded fracking. New York, Vermont, France, Germany, Bulgaria, etc. Others have moratoriums. There are 1000s of groups formed against more pipelines and compressor stations, fracking, etc., & millions of articles. Farmers, Indians, homeowners, hunters, fishermen, environmentalists, taxpayers, gardeners, those with health issues caused/worsen the industry, those with ruined wells, and others all protest. catskillcitizens.org has links to many studies. The many risks, problems and dangers include spills, leaks, surface and groundwater, air & soil contamination, damage to air quality (up to 3 miles from pumping/compressors), declining property values, road damage, infrastructure expense to counties, required evacuation plans about 2 miles wide or more the entire length of the pipeline, landslides risk, dust and dirt, clogged roads, increases in homeowners insurance costs, many health problems including respiratory, contaminated wells & streams etc. due to spills, as well a fires (remember the highway and houses destroyed near Sissonville, WV just a few years ago), water withdrawals, earthquakes and pressure for forced pooling with regards to fracking. There are several reports online & YouTube by Dr. Wilma Subra. -PowerPoints ..." Impacts Associated with Minisink Compressor Station" or ..."Chemicals and Pathways of Exposure from Development of Shale Gas Plays". Problems with pipelines, compressors, & fracking, include toxic chemicals, carcinogens, highly volatile, hydrocarbons, toxic metals, all along processing & routes, and even radioactivity (with fracking), combustion products and dangerous ozone near compressor & other facilities, waste disposal, & flaring off of excess methane. Cumulative effects on health due to increased exposure to all these chemicals etc., due to the increased activities, and bio-cumulative effects on health over time. And don't forget the 1000s of earth quakes in OK, and now they've had a few in OH. Are those in WV more expendable than those in New York or Maryland? No new pipelines should be</p>

IND071-1: See response to comment CO002-13. Emergency response procedures are discussed in section 4.12.

IND071-2: See response to comment CO002-10. Additionally, see section 1.1.1 for a discussion of purpose and need for the MXP.

IND071-3: Although the MXP is located within the Ohio River watershed, the pipeline corridor does not traverse the Ohio River, nor are any of the proposed compressor or metering facilities located on the Ohio River. Other projects which have been approved or have applications pending before the Commission are outside the scope of this review.

IND071-4: Pipeline safety is addressed in section 4.12.

IND071-5: See responses to comments at CO002-1 through CO002-14.

IND071-6: See response to comment INDO31-1.

INDIVIDUALS

IND071 – Marilyn Howells (continued)

IND071-6
(cont.)

approved until the entire industry fixes all leaks, & also cleans up all messes, eliminates spills on all current lines and facilities, and goes 5 to 10 years without any spills. How many thousands of spills, fires, & explosions has industry had?? No one should have to be at risk explosion in their own home. People afraid to sleep at night with such risk. This industry has proved itself unsafe. WV keeps trying to pass more forced pooling bills, including one to steal mineral rights from people who have their mineral rights and have never signed a lease with anyone. They weakened the water laws, & dumping back flow, which gets into our water. All a nightmare. Met people all over WV all complain about air, water, wells, spills, health concerns, & the behavior of the oil and gas companies. People by the expanding compressor station in Wayne county are complaining about the noise & in fear of explosions.. There was gas explosion blew up the top of the hill across road years ago Walker Branch compressor station. MXP will encourage more compressing, pumping, fracking & processing. And fracked areas are panning our up north in 4 or 5 years. Will we not be ground zero and are our citizens just more human guinea pigs, 100s of thousands of human guinea pigs? Spills large & small are rampant along pipelines, 1000s of spills from Alaska, to Louisiana, the recent one in Ohio, April 2017. Messes. All with the chance of fire or explosion. Some people were incinerated out farther west while camping, and it included children It's murder if any more are killed like this, as industry is reckless. Fires are common. This industry has proved itself unsafe. What if a spill in the dry season starts a massive fire (a different cause but massive like the one in Tenn. last year)? Gas product resources are finite and are suppose to dwindle in the next couple of decades. Why export? Save them for scientific & medical plastics. This is about quick profits for gas & corporate executives at residents expense. The gas is not needed for the USA , which gets 34 to 37 % of it's electricity from non-fossil fuel. Most are temporary, filled mostly by out of staters, often with contracted companies (also temporary). Compare that for 2016 solar and wind employment exceeded 475, 000, but gas and oil, etc., 101,000 (of those temporary). Were not the chemicals spilled in Charleston from that Freedom's tank enough?

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INDIVIDUALS

IND072 – Mirijana Beram

	<p>mirijana beram, WEST UNION, WV. My concerns are listed below. Thank you for the opportunity given to me to voice them.</p>
IND072 - 1	<p>1. The possible use of eminent domain to be used by Trans Canada, a foreign owned company is disconcerting. This in conjunction with the fact that the gas transported in this line is slated for export. How exactly will this be for the greater good of the people in MY community? We will bear the burden of the disruption in our community.</p>
IND072 - 2	<p>2. The archeological site reviews have not been completed and the locations are NOT shown in documents submitted. The area around Sherwood Compressor & the mark West Plant are known sites of Indian mounds (pages 20-22 of 54). These mounds date back to Adena Indian era. I am not sure if any current Indian tribes can stake claim to these mounds. It is suspected that the WV maps are not accurate as to the location of the mounds.</p>
IND072 - 3	<p>3. The maps of the pipeline routes appear not to be current. I am especially concerned about map 18 of 54. This where my home is located.</p>
IND072 - 4	<p>4. The impacts on my life, should this line go in will include my health. The dust generated will affect my lungs, the noise will affect my sanity and the added traffic will steal my time just to name a few. Our roads are notslated for the weights that will be traveling over them.</p>
IND072 - 5	<p>5. My fear is that my well water will be impacted during the construction process. I do NOT have the option of municipal water. My water well is exceptional. It is plentiful and it tastes good.</p>
IND072 - 6	<p>Additional comments follow that I agree with. Section4.3.1.3.1 Water Resources Columbia Gas has not identified all private water wells and potable springs in proximity to project work areas, nor identified any specific protection measures that would be implemented for wells located inside the construction work areas. This information must Be included in the DEIS.</p>
IND072 - 7	<p>Section4.3.2.4.1 Stream Crossings:The DEIS does not contain site -specific waterbody crossing restoration plans or a contingency planfor drilling under the Kanawha River. This information is vital when assessing the impacts of stream crossings onwater quality and aquatic life and must be included in the DEIS. Section 4.3.2.4.1</p>
IND072 - 8	<p>Water Withdrawals Water sources and quantity for dust control have not been identified Out of basin transfers of hydrostatic test water have not been addressed. Specific measures to protect aquatic life and downstream uses from water withdrawals have not been submitted.These issues must be addressed in the DEIS.</p>

IND072-1: The Commission makes the determination for whether a project is in the public convenience and necessity. This evaluation and subsequent decision is based on many factors, including the final EIS and associated recommendations, market analysis, ensuring just and reasonable rates, and engineering analyses. The Commission considers the local, regional, and national benefits of each project against any adverse impacts. This determination has not been made at this time.

IND072-2: Columbia Gas performed Phase I archeological surveys within the Sherwood Compressor Station site. No Native American mounds were identified within the construction area.

IND072-3: To the best of our knowledge, all project mapping is current at the time of the EIS going to print.

IND072-4: Air and noise issues are discussed in section 4.11. Traffic related to construction and operation of the MXP is discussed in section 4.9.5.

IND072-5: See response to comment IND006-6.

IND072-6: See response to comment IND042-1.

IND072-7: See response to comment IND042-2.

IND072-8: See response to comment IND042-3.

INDIVIDUALS

IND072 – Mirijana Beram (continued)

IND072 - 9 Section 4.4.1.1
Wetland Impacts: The DEIS does not contain a mitigation plan for wetlands. This is essential for ensuring that the impacts to wetlands will be properly mitigated. Without this information, FERC cannot conclude that impacts to wetlands will not be significant.

IND072 - 10 Section 4.7 Endangered
Species: Construction of MXP will negatively affect endangered bat and mussel species. Consultations with the US Fish and Wildlife Service have not been completed. Consultations could result in additional mitigation, conservation measures, or reroute. This lack of sufficient information must be corrected in the DEIS.

IND072 - 11 Section 4.1.4.4.1
Landslides: The DEIS states that MXP is in an area of elevated landslide risk due to steep slopes; however, Columbia Gas has not completed the Landslide Hazard Assessments or the Landslide Mitigation Plan. Additional mitigation measures to address landslides must be identified and included in the DEIS.

IND072 - 12 In closing, I have invested my time, energy, money, sweat and hope that I would be able to finish out my life on my property. Thinking that the line will be going in close to my home is frightening. TransCanada's track record is less than stellar. They have numerous environmental disasters, appear to have little regard for locals.

Please have Trans Canada provide further documentation prior to considering granting them a permit.

Respectfully,
Mirijana Beram
615 Riggins Run Rd.
West Union, WV 26456

IND072-9: MXP wetland mitigation is discussed in section 4.4.3.1.

IND072-10: See response to comment IND042-5.

IND072-11: See response to comment IND004-5.

IND072-12: Comment noted.

INDIVIDUALS

IND073 – Lillian Hawkins

IND073 - 1	<p>Lillian L. Hawkins, Antioch, TN. The residents of Cane Ridge have stated verbally and in writing that we do not want a gas compressor station to be located in the middle of a heavily residential area, near a school, next to Mill Creek and the greenway walking trail. There are valid and legitimate concerns about the air, water and noise pollution that would be right in the middle of our neighborhoods.</p> <p>The city of Nashville, including a majority of our elected Council Members and Mayor Megan Berry have expressed verbally and in writing that compressor stations belong in industrially zoned areas, not in residential or agriculturally zoned areas. They are opposed to this project in its currently proposed location in Cane Ridge and in Joelton.</p> <p>Our Senators and Representatives have sent written opposition about the proposed Cane Ridge compressor station and the one proposed in Joelton. Nobel Prize winning physicians and numerous nurses and doctors have expressed their opposition to the proposed locations for both projects.</p> <p>There are undeniable, negative impacts the Cane Ridge compressor station will have if it is permitted in the currently proposed location.</p> <p>There are available Industrial Zones within two miles from pipeline in Davidson County. It is imperative the health and well being of the citizens of Nashville that these alternative locations be used.</p>
IND073 - 2	<p>There will be more noise pollution!</p> <ul style="list-style-type: none">-How often will noise levels be monitored?-Who monitors noise levels (local, state, federal)?-What is the result if noise levels are exceeded?-Has a background sound level been set?
IND073 - 3	<p>There will be more air pollution!</p> <ul style="list-style-type: none">-How often are air levels monitored and by whom?-What exactly is monitored?-How can citizens be sure that non-monitored particulates remain at safe levels?-What if air quality levels exceed government standards?
IND073 - 4	<p>There will be more water pollution!</p> <ul style="list-style-type: none">-How often is water quality monitored?-Has there been or will there be any testing done prior to construction to set a base level?-What if water quality pollutants exceeds government standards?-How can we trust that the onsite retention pond is collecting all run off or that it won't be compromised?-Can further testing be done to rule out any underground caves or water sources on the site?
IND073 - 5	<ul style="list-style-type: none">-The current site is simply surrounded by too many people!-What happens in a catastrophic event?

IND073-1: Comment noted. See response to comment CO003-5 and CO003-6. See also section 3.6.2 for information on the alternatives review process for the Cane Ridge compressor site.

IND073-2: See response to comment IND009-1.

IND073-3: See response to comment IND009-2.

IND073-4: See response to comment IND009-3.

IND073-5: See response to comment IND009-5.

INDIVIDUALS

IND073 – Lillian Hawkins (continued)

IND073-5 (cont.)	-Who is responsible for managing a catastrophic event (does the burden lie with the city?) -There was an EF-1 tornado that touched down within 2 miles of the proposed site in March!
IND073-6	-How can we be assured that standards will be kept with a decrease in enforcement agencies (EPA)?
IND073-7	-Why can't the station be run by electric motors and the Nashville power grid?
IND073-8	-Why is it the burden of private citizens and not the burden of the company to spend money to relocate the site to a more appropriate location?
IND073-9	-What will be the combined effects if both the Joelton and Cane Ridge compressor stations are built? -What will be the combined effects of both compressor stations and adding 100 more people per day moving to Nashville? -How many days, weeks, months or years will it take before Nashville will no longer be within clean air compliance? What happens when Nashville can no longer comply with the clean air standards because of the combined effects of these extremely large compressor stations and the rapid growth that is currently taking place?
IND073-10	Approval of the Cane Ridge compressor station in the currently proposed location simply is not a good idea for anyone...except Trans Canada, and those that benefit from Trans Canada's money.
IND073-11	The well-being and the ability to breath of our citizens must not be harmed for the sole purpose of benefiting Trans-Canada's profits. Approval of this project in the currently proposed location is simply illogical and unacceptable. The greater good for public health and safety must prevail and an alternative location be required and found immediately.

IND073-6: See response to comment IND009-6.

IND073-7: See response to comment IND009-7.

IND073-8: See response to comment IND009-8.

IND073-9: See response to comment IND009-9. Compressor Station 563, in Joelton, Tennessee is addressed in the Cumulative Impacts section 4.13.2.9.2. Given the modeling results showing concentrations below the NAAQS for both the Compressor Station 563 and the Cane Ridge Compressor Station as well as the distance between the two stations, we conclude that these proposed projects are unlikely to result in significant emission impacts on local air quality.

Air quality issues are addressed in section 4.11.1.

IND073-10: Comment noted.

IND073-11: Comment noted. We requested additional information from Columbia Gulf regarding several new sites. Section 3.6.2 has been revised to include this new information and our updated analysis of site alternatives.

INDIVIDUALS

IND074 – Geraldine and Richard Markus

Geraldine E. Markus, Antioch, TN.
RE: DOCKET #CP16-361-000

FROM: Geraldine and Richard Markus
1235 Barnes Road, Antioch, TN 37013
615-832-4366, ramarkus@earthlink.net

In addition to the concerns listed below and previously submitted, here are some additional questions/comments generated by the EIS Comment Session Overview on the Gulf Xpress Project:

IND074-1 *Why are the economic advantages that CPG Gas needs a problem to be solved by the surrounding homeowners? There is no local benefit of this project in terms of jobs or even energy. The truth of this project is this is just making it more efficient for CPG (no longer an American company) to export America's natural resources.

IND074-2 *Why do the surrounding 20,000 people have to rely on a private, profit-making company to ensure the protection of our air, water and other resources from the potential damages of their project?

IND074-3 *What about the possibility of a "catastrophic event?" Who will be held responsible for the damages and potential loss of life?

IND074-4 *And what about the subtle degradation of "quality of life" in terms of noise pollution, loss of property values? Is the proximity of the compressor station something that will have to be disclosed to potential buyers?

IND074-5 * Who will be monitoring CPG to see that they are meeting all the standards that they should? If they provide all the data, how can we be sure of the integrity of the data? And, if not, why should taxpayers be forced to assume the burden of providing acceptable data? This isn't about providing energy for our country; this is about corporate profits at public expense.

We are writing to express our strong disapproval of the proposed CPG Gas Compressor Station here in the Cane Ridge area for the following concerns:

IND074-6 1. Location - The station would be located in the midst of 6,000 homes with nearly 20,000 people within an affected radius. In addition, the station would be adjacent to an elementary school and near a recently established, community greenway and active creek.

a. Placing the compressor station in the middle of suburban development is unprecedented.

b. Barnes Road, the road for the proposed entry into the station still remains a two lane, no shoulder road, burdened by the ongoing local residential development with no plans for lane expansion.

IND074-7 2. Safety Concerns - Possibility of pipeline accidents, emission of radon into the atmosphere

IND074-1: The determination of whether there is a "need" for the proposed facilities (for the purpose of issuing an authorization under section 7 of the Natural Gas Act) will be made in the subsequent Commission Order granting or denying the applicant's request for Certificate authorization and is based on a balancing of the benefits of the project against any adverse impacts.

IND074-2: FERC is the federal agency responsible for authorizing proposals to construct and operate interstate natural gas pipeline facilities. As part of its responsibilities, FERC enforces regulatory requirements through the imposition of civil penalties and other means.

IND074-3: See response to comment IND009-5.

IND074-4: See response to IND004-1.

IND074-5: See response to comment IND074-2.

IND074-6: See response to comment IND073-11.

IND074-7: Pipeline safety is addressed in section 4.12. See response to comment CO003-2 regarding radon emissions.

INDIVIDUALS

IND074 – Geraldine and Richard Markus (continued)

IND074-7	a. Accidents from too much pressure on very a very old pipeline system that was not designed for the proposed pressures. b. Radon is densely present in natural gas from the local Marcellus and Utica shale in PA, from which this gas is extracted.
IND074-8	3. Air Quality - Gas compressor stations emit hazardous chemicals into the atmosphere at all times. Some of these chemicals are carcinogenic. a. We have been advised that there would be regular gas pressure releases into the (local) environment. There is a grave concern as to what is the chemical make-up of these gasses.
IND074-9	4. Excessive Noise Pollution of similar stations has been documented. This station is projected to run 40,000 horsepower turbines 24 hours a day creating noise equivalent to 500 cars running full speed all day. This noise would severely impact the quality of life in this area, and on Cane Ridge community in particular.
IND074-10	5. Property Values - disclosure of the existence of the Gas Compressor Station with its noise, pollution and safety issues would have a dramatic negative effect on the Southeast Nashville community's property values.
IND074-11	6. Community Impact - no positive impact on the community - no local job generation, no contribution to the tax base, does not function as a local utility since the gas just flows through for EXPORT purposes. The community bears the burden of all the negative impacts - safety, air pollution, truck traffic during construction, decreased property values, noise pollution - without gaining any positive impacts. It seems unreasonable for the community to bear such burdens for the benefit of a private enterprise.
IND074-12	Our final concern is for the many, young families who have moved into this area in the last 10 years, with the promise of clean air, a safe and healthy environment, in a quiet environment. All of their children would be subject to the hazards mentioned above. Their future health and safety should not be compromised.

IND074-8: Air quality is discussed in section 4.11.1.

IND074-9: See response to comment IND022-2.

IND074-10: See response to comment IND004-1.

IND074-11: See response to comment IND022-2.

IND074-12: Comment noted. See response to IND004-2.

INDIVIDUALS

IND075 – Mary Sansom

Mary Sansom, Cross Lanes, WV.

IND075-1 I oppose the construction of the Mountaineer Xpress Pipeline which will cut a swath that would span three-fourths the length of the state and have a blast-zone a mile wide should there be any kind of explosion. This gash will cut through forests vital to native plants and animals and will go where a pipeline has never before gone and should never go, up and down steep mountains with porous karst topography that could make it extremely likely for the water table to be contaminated if the pipeline leaks. It will run under bodies of water that provide drinking water to entire regions. This iron behemoth zigzagging over the mountains would not have the flexibility to withstand an earthquake and could result in landslides. The pipeline will degrade the air quality, the water quality and the quality of the view along its path. I especially fear what it will do to the bats, the bees, the birds, the butterflies, the turtles, the frogs and the small mammals along its path. Even in the suburbs where I live, a bee is a rare thing to see in the summer. When I was growing up, I remember seeing all sorts of pollinators, but now I hardly ever see them. I fear the pipeline will destroy the forests so vital to the roosting of bats. We're slowly killing our bees, and now we're recklessly destroying the habitat for the bats. Where will we be when we've killed off all our are bees and bats?

IND075-2

IND075-3

IND075-4

IND075-5

IND075-6

IND075-7 I also oppose the use of eminent domain for private gain. This isn't the kind of eminent domain that will be used to build a school or a highway that would benefit the residents of the area. The only people who will benefit are the oil and gas companies. They will make money every second that the pipeline is in operation. If the pipeline goes through, it should be made to pay a monthly rent - not a one-time payment or even an annual amount but a monthly rent-- to all landowners based on the amount of product being transported through their land. The oil and gas companies aren't spending billions of dollars so the rate payers will pay less for power. Ultimately, I believe the oil and gas are for export, giving lie to the public relations rhetoric about making the national energy-secure. In this new type of eminent domain, West Virginia residents don't benefit but the oil and gas companies say the entire nation will benefit. The same thing was true of slavery. The South benefited and the nation benefited at the expense of the slaves. The land owners are the new slaves. We are the land slaves of the energy companies. They have no need for labor, but they desperately need vast tracts of land and the cheaper they can obtain it the better. We are giving away our land to corporations who will leave us with the radioactive waste water and drillings and polluted air and water. FERC is complicit in this transfer of wealth from West Virginians to Columbia Oil and Gas and its new Canadian owner who found an ingenious way to weasel its way into the country to suck the life blood out of the land. The taxpayers pay for FERC to rubber stamp the certificate the oil and gas companies need to take private property for private gain, and then the oil and gas companies will get tax subsidies at the expense of the taxpayers, and the oil and gas companies will make the rate payers pay the billions of dollars to put the pipeline through our own land, and then the taxpayers' energy bills will go up once we're competing with overseas' markets to buy the product that the frackers and the oil and gas companies can get so cheaply because we are so eager to hand our land over to industry. West Virginians' lands will make the CEOs of the oil

IND075-1: Comment noted.

IND075-2: Vegetation resources are discussed in section 4.5, and wildlife is discussed in section 4.6.

IND075-3: Karst topography is discussed in section 4.1.4.7.

IND075-4: Water resources are discussed in section 4.3.

IND075-5: Earthquakes are discussed in section 4.1.4.1 and landslides are discussed in section 4.1.4.4.

IND075-6: Air quality is discussed in section 4.11.1.

IND075-7: See response to comments CO002-10 and CO006-6.

INDIVIDUALS

IND075 – Mary Sansom (continued)

IND075-7
(cont.)

and gas companies filthy rich, and FERC's vast cadre of attorneys and energy analysts will all continue to be well paid though they will continue to whine on Glassdoor that the perks of working for FERC are nice, but they don't really make up for the fact that there's nowhere to go in the agency for a person who's ambitious. Good for you, FERC employees. Enjoy your nice work atmosphere and your gym while you're being paid to take our land and give it to the oil and gas companies so they can get even richer and more powerful and pay their peons top dollar to ruin everything in sight all in the name of the energy grid. No one is paying me to write this, and there is no state or federal agency making sure the landowners' rights in the land are being protected. I oppose this transfer of wealth, this pipeline to riches that funnels land and profits from residents to the oil and gas companies and leaves our people in rags the way the energy industry always has.

This area left blank intentionally.

INDIVIDUALS

IND076 – David Howells

IND076-1

David Howells, Huntington, WV.
The MXP should not be approved. Pipelines leak, cause fires, explode, damage air quality, soil, water and streams. Installation cause landslides, crosses streams, impacts wetlands, hurts endangered species and stream crossing. There is a wide evacuation zone and all the people in it were not notified. The is primarily to have more gas products to export. Air quAlity is damaged within 3 miles. Fracking is a dosas aster and this line will eventually carry fracked products. The whole process release highly volitile hydrocarbons, toxic chemical, heavy metals and carcinogens. M will tie to the old old dangerous SM-80. Most of jobs are temporary construction jobs. Please extend the comment period so more people can comment. This was not well publicized. This is just so some executives can get rich, will hurting our health. They need to fix current leaks. There have been thousands of spill in the USA. Non fossils fuels are increasing. USA does not need this.

IND076-1: Comment noted. See response to comments CO002-10 and CO006-6 (purpose and need for the project). See response to comment CO002-13 (extension of the comment period).

INDIVIDUALS

IND077 – Karen Kurtz

IND077-1

Karen Kurtz, Antioch, TN.

My name is Karen Kurtz and I am a resident of Delvin Downs in Cane Ridge/Antioch, TN. I am writing to express my opposition to the gas compressor being considered for installation in an area extremely close to my home. This area is considered residential and I, as well as many others who live in this subdivision and community, am afraid of the unknown dangers of having a gas compressor located so close to our homes. I do not want the pollution risks, the danger risk, the emergency risk, the financial risks that all come with this type of station. This station is not welcome, not beneficial in anyway to our community. I vote NO to have it built here.

Thank you!

IND077-1: Comment noted.

INDIVIDUALS

IND078 – Aren Sulfridge

Aren Sulfridge

1208 Bending Creek Dr, Antioch, TN 37013
615-423-1061 a.sulfridge@outlook.com

23 April 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Dear Committee members,

I think it is good to remember that this is an application for a permit based on public convenience and necessity. It is therefore the burden of Columbia Pipeline Group, actually now TransCanada Pipelines Ltd. to show that the installation of the high-horsepower natural gas compressor station is both convenient and necessary for the public.

IND078-1 My first consideration of this station is, what “public” will be benefiting? If we consider the local community surrounding the intersection of Barnes Rd and Old Hickory Boulevard, the Nashville community as a whole, and even the United States as a whole, in no case is the public benefitting. In fact, the communities will be responsible for emergency management in case of any incident, and the surrounding homes will have to bear the burden of noise and traffic from construction and from the station itself, not to mention pollutants in the air, all without any meaningful profit from the station.

How can this be? In the first place, TransCanada, the company that is now owner of the pipelines and compressor stations, is a Canadian company. This means that the profit from this compressor station will not be going to the United States. From the core, this therefore cannot benefit our local communities financially. (These stations are primarily automated and would only hire a few people to monitor the station. This is not a significant benefit to the community.)

IND078-1: Comment noted. See response to comment IND074-1.

INDIVIDUALS

IND078 – Aren Sulfridge

IND078-1
(cont.)

My point is to call into question the initial motivation for this compressor in the first place. In the Environmental Impact Statement draft, section 3.6.2 when the company was asked about possible dangers in highly populated areas, their response completely avoids any answer to the main concern, the high population (which is above 80,000 people in the surrounding area, compared to a couple to a few thousand maximum surrounding all other stations in the plan). They instead point to what their system needs to maintain optimum flow. I'm attaching a screenshot below:

As part of its response to a July 29, 2016, data request, Columbia Gulf responded to comments received during scoping. Among other concerns raised, Columbia Gulf addressed comments regarding the siting of the Cane Ridge Compressor Station within a densely populated residential area. Specifically, Columbia Gulf stated that the siting of the Cane Ridge Compressor Station was based on the need to maximize the optimum hydraulic efficiency necessary to meet required shipper volume. To achieve maximum utilization at existing compressor stations, Columbia Gulf proposed each new compressor station to be sited equidistant along its pipeline system between the eight existing compressor stations. As a result of these hydraulic studies, Columbia Gulf determined that each new compressor station must be located within an approximate 1-mile radius of the optimal location. }

Translated, this means, "our first concern is our pipeline efficiency, not the local population." Dear commissioners, I would respectfully remind you that we as a community cannot and should not expect the pipeline company to have our best interest in mind; however, we depend on you as a regulatory arm to resolve the safety concerns to the public before issuing any certificate of approval.

At the most recent public meeting on Tuesday, March 23rd, I sat down with the main drafter of the EIS, who agreed with me that it was common sense to not have this station in such a highly populated area. She responded to me that there simply was no regulation in place against having such a station in a highly populated area. The truth is, these stations can explode. What is the plan in case this happens? The gas pipeline company claims they purchased a "buffer zone", yet they are wanting to place the station on the lower Southwest side of the property, closer to Barnes Road than anything else. There are more than 2 or 3 subdivisions in the immediate area (I can see the property from my house). There are only two two-lane roads leading out of the area. In addition to these concerns, Tennessee and the Nashville is part of "Tornado Alley". There was in March an EF-1 tornado that touched down not 2 miles from the proposed site.

This area left blank intentionally.

INDIVIDUALS

IND078 – Aren Sulfridge

IND078-2

Adding to the context, the city of Nashville and her Mayor Megan Barry have shown by legislation and declaration that they are against the station in the proposed area. The proposal violates Nashville zoning law, as it is an industrial construction in a residential area. There is an attitude at the meetings for the proposal that if the public doesn't like the location, we should find a suitable alternative. When did it become our burden to find a location that is suitable? Isn't Columbia Pipeline Group, now TransCanada the entity that is requesting a permit for public convenience and necessity? The burden is on them to prove that this is not only safe, but that it is convenient and necessary for the community. In my opinion, even the safety concerns and questions have not be answered, so how can this proposal possibly be convenient and necessary for the public?

I really do not want to be alarmist, but there not being any negative conclusions in the EIS (by the drafter's admission, this due to lack of regulations concerning population) concerning this station, when there are so many unanswered questions concerning public safety due to the highly populated nature of the area is cause for alarm.

Thank you for your time and attention.

Sincerely,

Aren Sulfridge

IND078-2: We have reviewed information provided by Columbia Gulf regarding siting of project facilities, and as necessary, considered reasonable and appropriate alternatives. As part of the public participation process outlined in NEPA, we also consider alternatives when such are identified by the public. We have received additional information from the public and Columbia Gulf regarding several new alternative sites that were identified during the comment period on the draft EIS. Section 3.6.2 has been revised to include this new information.

INDIVIDUALS

IND079 – Cynthia Brewer

IND079-1 16 MS. BREWER: Hi I'm Cynthia Elaine Brewer and my
17 address is 1824 Annalee that's one word, Drive that's Cane
18 Ridge, Tennessee 37013. And I am here today because I want
19 to voice my concern over this compressor -- excuse me,
20 compressor station.
21 From an environmental standpoint this is in a
22 residential area and it is going to affect a large
23 population here in this area and I think it is essential
24 that we look at it from the perspective affecting the lives
25 that live in this community.

IND079-1: We requested additional information from Columbia Gulf regarding several new sites. Section 3.6.2 has been revised to include this new information.

INDIVIDUALS

IND079 – Cynthia Brewer (continued)

1 I realize business is business and we all have a
2 vested interest and they want to do what's best for business
3 to make money, to distribute gas but at what cost? When we
4 look at 20 years down the road if we have this station will
5 we have disease?

IND079-2

6 What happens if there is an environmental issue
7 with this station? There's no one running it, it is remote.
8 They already purchased the property of two houses across the
9 street from each other and I am sure that's so that they are
10 somehow getting it into complying with the current law so
11 that they don't -- the noise level doesn't go up because of
12 the way the property -- the way they purchased it.

13 And you know I really believe in the power of the
14 people. While I think it is important to have industry and
15 business we need to keep it in an industrial area. And I am
16 so proud to be a Nashvillian and I'm proud to the community
17 that I live in and I want us to be safe. And even put aside

IND079-3

18 the property values going down because obviously we have
19 invested in that. I am looking at the health of kids -- for
20 example the Joelton area being close to school, the kids
21 matter.

22 And it is easy for people to make decisions in
23 Washington if they are not in the actual area. It is easy
24 to look at us like a piece of paper and you know we are
25 expendable maybe? Maybe that's what we think? I mean I am

IND079-2: There would be two full time employees working at the Cane Ridge Compressor Station. Please see section 4.12 to learn more about Columbia Gas and Columbia Gulf's system monitoring capabilities.

IND079-3: See response to comment IND004-1.

INDIVIDUALS

IND079 – Cynthia Brewer (continued)

1 just throwing that out there and again I am all

2 pro-businesses but at what cost?

IND079-4

3 And I will just say that I appreciate people
4 being here today and taking the time to hear people and I
5 have been spreading this on social media as far as getting
6 the word out. I was very grateful to come across this group
7 through my representative, my local representative and I
8 have been sharing the information via social media and again
9 you know just because it is a huge company and again it's
10 about the bottom line.

IND079-4: Comment noted.

IND079-5

11 And I understand that I mean we are all here to
12 make money but again you know, are we going to be like you
13 know the person that came to this is pretty hilarious --
14 Erin Brockovich. I mean you know these people have a
15 disease. You know 20 years down the road, "Oh we didn't
16 know anything about that." Yes we do.

IND079-5: Comment noted.

17 And the thing is is that all voices need to be
18 heard and we need to ask the right questions and we need to
19 answer the right questions. So I am going to go ahead and
20 end this statement and give someone else a chance. Usually
21 I'll go on forever but I appreciate your allowing me to
22 verbally speak to you today, thank you.

INDIVIDUALS

IND080 – Jason Partch

IND080-1	<p>Jason Partch, Antioch, TN.</p> <p>I have some concerns regarding the proposed location of the Compressor station in the Cane Ridge Community. It seems odd to me that a location of high growth, residential neighborhoods would be chosen for a compressor station of this kind when there are several more suitably zoned areas (i.e. industrial zoning less than a 2 miles away). The potential noise pollution, air pollution, water pollution that could rise out of this substation would negatively impact the entire surrounding areas which include several neighborhoods, schools, creeks that run extremely close to the proposed area. The current proposed location is not zoned for this, nor is there anything even close to it's usage in the general vicinity. In fact, there are several new neighborhoods already in works to add several thousand additional families whose homes and lives would be negatively impacted by the various pollutants caused by such an installation (i.e. noise, air, water, etc...).</p>	IND080-1: Comment noted. See response to comment IND079-1.
IND080-2	<p>Should this program continue to move forward, what safeguards are being added to ensure that the local population is not adversely effected by the compressor station? Additionally, what disaster recovery plans are being proposed to ensure that natural disasters, such as the EF-1 tornados that hit the Cane Ridge area in March 2017, will not trigger unintended consequences?</p>	IND080-2: See response to comment IND009-5.
IND080-3	<p>One final concern has to do with the potential for the spread of fire should the worst case scenario happen. Fall 2016 was extremely dry in this area.</p> <p>There were several multi-acre fires due to the drought within the Cane Ridge Community. The addition of a Compressor station into this mix could have catastrophic consequences if something like the Gas Compressor station explosions in Watford City in Dec. 23, 2015, the Spectra pipeline in Salem Township, PA in April 2016, or in Susquehanna County in July 2015 to name a few. The density of the population around the proposed site already includes several residential neighborhoods and the number is only going to exponentially grow over the next decade.</p>	IND080-3: See response to comment IND009-6.
IND080-4	<p>Nashville is in the Top 20 fastest growing cities in the nation. This growth is already affecting the Cane Ridge community with the addition of thousands of new homes. Over the next decade this trend is only going to continue. Adding a compressor station nestled in the middle of this growth is going to have an adverse effect on the quality of living as well as the potential for a catastrophic event effecting a large number of families. The proposed project should look for an alternative location where the land meets the zoning for a project of this scope that minimizes the adverse impact on a large, overwhelmingly residential (especially in the coming years) area of Davidson County.</p>	IND080-4: See response to comment IND080-1.

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM
MOUNTAINEER XPRESS PROJECT (DOCKET NO. CP16-357-000)

Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically filed¹.

Please send one copy referenced to Docket No. CP16-357-000 to the address below.

For Official Filing:
Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

FILED
SECRETARY OF THE
COMMISSION
2017 APR 28 P 2:18
FEDERAL ENERGY
REGULATORY COMMISSION

ORIGINAL

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

IND081-1
IND081-2

MY MAIN CONCERN WITH THE PIPELINE INSTALLATION IS TLOOD FOLD. #1- OUR HOUSE IS VERY CLOSE TO WHERE THE PIPELINE WILL PASS UNDER BOTH THE RAILROAD + THE RIVER. THERE ARE TRAINS + BARGES TRAVELING OVER THE PROPOSED LOCATION DAILY. IF THERE SHOULD BE ANY TYPE OF LEAK IN THE LINE, OUR HOUSE WILL BE THE FIRST AFFECTED. ALSO OUR LOCAL FIRE DEPT. + FIRST RESPONDERS ARE NOT TRAINED TO HANDLE ANY LARGE PROBLEMS SHOULD SOMETHING HAPPEN.

#2- THE NOISE ISSUE - WE ARE ABOUT 500 FT FROM THE PROPOSED LINE AND AS WITH ANY PROJECT OF THIS SIZE THERE IS GOING TO BE A LOT OF NOISE. ONE OF THE REASONS WE LIVE OUT HERE OVER ->

Commenter's Name and Mailing Address (Please Print)

Ed Jividen
405 RIVER LN
REBHOUSE, WV 25765

¹ The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at <http://www.ferc.gov> under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

IND081-1: The impact of natural gas facilities on public safety is discussed in section 4.12.3. Columbia Gas is responsible for establishing and maintaining communications with local fire, law enforcement, and public officials, and coordinating emergency responses, and has facility construction crews available to respond in the event of an emergency. Columbia Gas employs qualified and licensed personnel who could be immediately dispatched to the scene of an emergency should the need arise.

IND081-2: MXP construction noise impacts and mitigation are discussed in section 4.11.2.2.1.

INDIVIDUALS

IND081 - Ed Jividen (continued)

IND081-2

LOCATION IS THE FACT THAT WE ARE OFF THE MAIN DRAG AND IT IS VERY QUIET HERE. I DON'T KNOW HOW LONG IT WILL TAKE TO INSTALL THE LINE BUT BECAUSE OF OUR LOCATION WE ARE BOUND TO BE DISTURBED.

IND081-3

WHILE I AM NOT OPPOSED TO PROGRESS, I FEEL THAT BECAUSE THIS GAS IS NOT GOING TO THE PEOPLE OF WV IS DISTURBING. THIS NOT ONLY DOESN'T BENEFIT US, IT WILL DEFINITELY HURT OUR PROPERTY VALUE WILL DROP & IF WE EVER DECIDE TO SELL THIS LINE WILL DEFINITELY HURT US.

IND081-3: See response to comment IND004-1, Land Values and Farmland. See section 4.9 for information on the economic benefits from construction and operation of the MXP.

INDIVIDUALS

IND082 – Barbara Jividen

FEDERAL ENERGY REGULATORY COMMISSION COMMENT FORM

MOUNTAINEER XPRESS PROJECT (DOCKET NO. CP16-357-000)

Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically FILED SECRETARY OF THE COMMISSION

Please send one copy referenced to Docket No. CP16-357-000 to the address below. APR 28 P 2:17

ORIGINAL

For Official Filing: Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, NE, Room 1A Washington, DC 20426

FEDERAL ENERGY REGULATORY COMMISSION

COMMENTS: (PLEASE PRINT) [attach an additional sheet if necessary]

I live 500ft. from the proposed pipeline where it crosses the Kanawha River at Midway, WV, Putnam Co. I am able to see and hear it all!

- 1. I am concerned with noise from the drilling and equipment while going under the River.
2. I am in the blast zone, but we need an evacuation plan in place, police and fire departments need to be aware of this problem.

3. The river is shallow at this point, barges kick up mud as they pass my house. 4. The pipeline brings money to only the owners and transporters of this gas.

Commenter's Name and Mailing Address (Please Print)

Barbara Jividen
405 River Ln.
Red House, WV
25168

is a mining manufacturer that is 500ft. of pipeline an has loud blast emitting from it.

Barbara Jividen

back ->

1 The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at http://www.ferc.gov under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".

IND082-1: MXP construction noise impacts and mitigation are discussed in section 4.11.2.2.1.

IND082-2: The impact of natural gas facilities on public safety is discussed in section 4.12.3. Columbia Gas is responsible for establishing and maintaining communications with local fire, law enforcement, and public officials, and coordinating emergency responses, and has facility construction crews available to respond in the event of an emergency.

Columbia Gas employs qualified and licensed personnel who could be immediately dispatched to the scene of an emergency should the need arise.

IND082-3: See response to comment CO006-14.

IND082-4: Economic and tax benefits related to the project are addressed in section 4.9.8.

IND082-5: Noise issues related to construction and operation of the project are addressed in section 4.11.2.

INDIVIDUALS

IND082 – Barbara Jividen (continued)

⑥ There are people in the Midway area that use well water including Grift's Greenhouse.	IND082-6
⑦ The pipeline will make my house less valuable.	IND082-7
⑧ I need assurance there will be steps taken to mitigate the noise pollution.	IND082-8
⑨ I am concerned about the CXS crossing that is 50ft from me. Too much danger too near me!	IND082-9

IND082-6: See response to comment IND006-6.

IND082-7: See response to comment IND081-3.

IND082-8: See response to comment IND082-1. Additionally, we have recommended that Columbia Gas prepare a drilling noise mitigation plan to reduce the projected noise level at noise-sensitive areas in the vicinity of the Kanawha River HDD.

IND082-9: Pipeline safety is addressed in section 4.12. Other infrastructure facilities are outside the scope of this EIS.

INDIVIDUALS

IND083 – Kathryn M. Pyles

Kathryn M. Pyles, Humboldt, AZ.
Regarding Pleasant Ridge United Methodist Church and Cemetery, Marshall County, WV

I was recently informed that an environmental impact study was being completed by Environmental Resources Management (ERM) of Duluth, GA on behalf of Colombia Gas regarding the Mountaineer Xpress Project; specifically asking for comments about any impact to the United Methodist Church and Cemetery located on Pleasant Ridge, Marshall County, WV by the pending pipeline.

The church is a historic structure built in the 1890s. The church property was donated by the community and remains a part of the community although services are no longer held.

IND083-1

The cemetery surrounding the church is in active use. It is representative of the local families that settled the area, to include my ancestor David M. McDowell, who established the McDowell farm, adjacent to the church, in 1830. Five generations of the McDowell family are buried in this cemetery. Other local families have a similar number of generations buried at this church.

IND083-2

A review of provided maps and discussion with senior ERM archeologist Larry McKee indicates that the location of the pipeline itself is sufficiently removed from the church that it should have no impact.

However, access to the pipeline which to date has not been defined could affect the church and cemetery. The roads and driveways around the church are dirt. The trucks, equipment and other machinery that will be required to build the pipeline will need direct access to the pipeline route. This will include a 50 foot right of way that will have to be cleared of all trees and brush which means constant truck movements to remove the trees.

IND083-3

The church sits at a small crossroad between Pleasant Ridge road and the private driveway leading to the property of Bob Wade. This driveway might offer easy access to the pipeline but the use of this driveway could potentially damage the church and cemetery.

The size of the trucks and equipment that will be required to complete the pipeline have the potential to cause structural disturbances simply because the weight of trucks and equipment will cause small ground tremors.

In addition, the turn from the main road to a private driveway at the base of the hill where the church sits would have to be widened and expanded to accommodate large trucks and equipment. This expansion has the potential to damage the church and cemetery that sits on a steep hill. Many of the graves are just above the main road. The oldest grave in the cemetery sits below the church near the curve in to the private driveway.

IND083-1: Comment noted.

IND083-2: Comment noted.

IND083-3: In its May 16, 2017 response to our data request, Columbia Gas indicated it is in the process of evaluating the use of Public Road 21/10 and a private access road that is located near the Pleasant Ridge Church and cemetery. Additional improvements to 21/10 are unlikely as its current condition is sufficient for use during construction. Any improvements to the access road near the church and cemetery would be limited to the southwest side of the road (opposite of the church and cemetery). Further, Columbia Gas has stated that heavy machinery would either be unloaded prior to the church or at the construction right-of-way and any movement of machinery or heavy equipment would be done so at a minimum rate of speed.

INDIVIDUALS

IND083 – Kathryn M. Pyles (continued)

Again, the location of the pipeline is sufficiently removed from the church that there should be no impact.

IND083-4 [However, access roads to build the pipeline have not yet been defined. The widening or creation of access roads and the equipment and trucks that will use the access roads could potentially impact or damage the church and cemetery.

IND083-4: See response to comment IND084-3.

INDIVIDUALS

IND084 – April Keating

april keating, Buckhannon, WV.

IND084-1

Pipelines are dangerous, increase climate disruption, are not needed, and discourage the growth of green energy development. Most of the DEISs state vague assurances without concrete, site-specific mitigation measures. This pie-in-the-sky attitude is evidence that these companies really do not plan to care for our communities, as has been shown on numerous occasions with other projects they have done in our communities. Please hold on approval of all pipelines and gas infrastructure until an accurate assessment of the dangers and alternatives can be thoroughly evaluated in a scientific and socially responsible manner. Thank you.

IND084-1: Comment is noted.

APPLICANTS

CPG001 - Columbia Gas Transmission, LLC



Columbia Gas Transmission, LLC
700 Louisiana Street, Suite 700
Houston, TX 77002-2700

Robert D. Jackson
Manager, Certificates & Regulatory Administration

tel 832.320.5487
fax 832.320.6487
email robert_jackson@transcanada.com
web www.cpg.com

April 21, 2017

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Via Electronic Filing

Re: Columbia Gas Transmission, LLC
Docket No. CP16-357-000
Mountaineer XPress Project
Comments on the Commission's Draft Environmental Impact Statement

Dear Ms. Bose:

On April 29, 2016, Columbia Gas Transmission, LLC ("Columbia") filed the above-referenced application with the Federal Energy Regulatory Commission ("Commission") in Docket No. CP16-357-000. Columbia is seeking authorization to construct, replace, modify, and operate natural gas facilities in Marshall, Wetzel, Tyler, Doddridge, Ritchie, Calhoun, Wirt, Roane, Kanawha, Jackson, Mason, Putnam, Cabell, and Wayne Counties, West Virginia.

On February 27, 2017, the Commission issued a Draft Environmental Impact Statement ("DEIS") in the above-referenced proceeding. Attached for filing with the Commission are Columbia's comments on the DEIS. The following information is included in this filing:

- Attachment 1: Response to Draft Environmental Impact Statement Staff Recommendations
- Attachment 2: Comments on Draft Environmental Impact Statement

Columbia is e-filing this information in accordance with the Commission's Order No. 703, *Filing Via the Internet* guidelines, issued in Docket No. RM07-16-000 on November 15, 2007. Pursuant to § 385.2010 of the Commission's regulations, copies of this cover letter are being served to each person whose name appears on the official service list for this proceeding.

Pursuant to § 385.2005 of the Commission's regulations, the undersigned states that he has read or someone on his behalf has read this filing and knows its contents, and the contents are true as stated, to the best of his knowledge, information and belief based on representations by Columbia personnel.

Please direct any general questions with respect to this filing. Additionally, specific questions regarding this filing's contents may be directed to Erik Duncan at (304) 357-2435.

Comments and responses begin on the following page.

APPLICANTS

CPG001 - Columbia Gas Transmission, LLC (continued)

Federal Energy Regulatory Commission
April 21, 2017
Page 2

Respectfully submitted,

/s/ Robert D. Jackson

Robert D. Jackson
Manager, Certificates & Regulatory Administration

Attachments

Cc: Julia Yuan – FERC
All Parties of record (cover letter only)

CPG001-1

ATTACHMENT 1

RESPONSE TO

DRAFT ENVIRONMENTAL IMPACT STATEMENT

STAFF RECOMMENDATIONS

CPG001-1: Attachment 1 of Columbia Gas' comment letter included responses to our draft EIS recommendations. It also included the following reports/studies:

- Phase I Geohazard Assessment Report; and
- Environmental Construction Standards (April, 2017)

Columbia Gas' comment submission, including the above-listed attachments, are available for viewing in their entirety on the FERC's eLibrary at <http://www.ferc.gov>. Using the "eLibrary" link, select "Advanced Search" from the eLibrary menu and enter 20170421-5109 in the "Numbers: Accession Number" field.

CPG001-2: Attachment 2 of Columbia Gas' comment letter includes the Applicant's comments on the draft EIS. Our responses to Columbia Gas' comments are included below.

CPG001-2

ATTACHMENT 2

COMMENTS ON

DRAFT ENVIRONMENTAL IMPACT STATEMENT

APPLICANTS

OEP/DG2E/Gas Branch 4
Columbia Gas Transmission, LLC
Mountaineer XPress Project
Docket No. CP16-357-000
Comments on Draft EIS

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

Columbia Gas Transmission, LLC
Mountaineer XPress Project
Docket No. CP16-357-000

Introduction

CPG001-3

Columbia Gas Transmission, LLC (Columbia) filed an Abbreviated Application for Certificate of Public Convenience and Necessity (Application) with the Federal Energy Regulatory Commission (FERC) on April 29, 2016, requesting authorization to construct and operate the Mountaineer XPress Project (MXP or Project). On October 11, 2016, Columbia filed with FERC a supplement to the Application (Supplement 1) addressing modifications and refinements that Columbia incorporated into its proposed Project.

FERC issued a Draft Environmental Impact Statement (DEIS) on February 27, 2017, assessing the potential environmental effects of the construction and operation of MXP. Issuance of the DEIS began a public comment period that concludes on April 24, 2017. On March 2, 2017, Columbia filed with FERC an additional supplement (Supplement 2) which provided additional information regarding modifications that had become necessary after Columbia filed Supplement 1.

Columbia has completed a review of the DEIS issued for the Project. The table below refers to specific statements in the DEIS and provides Columbia's response.

CPG001-3: Our responses to Columbia Gas' comments are provided below.

APPLICANTS

CPG001 - Columbia Gas Transmission, LLC (continued)

OEP/DG2E/Gas Branch 4
 Columbia Gas Transmission, LLC
 Mountaineer XPress Project
 Docket No. CP16-357-000
 Comments on Draft EIS

Section (page #)	COMMENT
DEIS Letter (2)	<p><u>DEIS states:</u></p> <ul style="list-style-type: none"> “two new regulating stations in Ripley and Cabell Counties” “about 296 feet of new, 10-inch-diameter natural gas pipeline at the Ripley Regulator Station to tie Columbia Gas’ existing X59M1 pipeline into the MXP-100 pipeline in Jackson County” <p><u>Columbia Comment:</u> Columbia notes that the facilities as described in the DEIS are inconsistent with information previously provided in its Application and Supplement 1 and as in its recent Supplement 2. Updated tables 1.1.2-1 (Facilities Associated with the Project) and 1.2-1 (Land Requirements for Project Facilities) found in Supplement 2 provide current information about Project facilities. Additional information regarding MXP facilities in Supplement 2 include revised aerial photo-based and topographic maps, facility plot plans, and typical construction drawings.</p>
CPG001-4	
Executive Summary (ES-2)	<p><u>DEIS states:</u></p> <ul style="list-style-type: none"> “about 296 feet of new, 10-inch-diameter natural gas pipeline at an existing regulator station to connect Columbia’s existing system to MXP; Three new compressor stations and two new regulator stations” <p><u>Columbia Comment:</u> Columbia notes that the facilities as described in the DEIS are inconsistent with information previously provided in its Application and Supplement 1 and as in its recent Supplement 2. Updated tables 1.1.2-1 (Facilities Associated with the Project) and 1.2-1 (Land Requirements for Project Facilities) found in Supplement 2 provide current information about Project facilities. Additional information regarding MXP facilities in the Supplement 2 include revised aerial photo-based and topographic maps, facility plot plans, and typical construction drawings.</p>
CPG001-5	
Executive Summary (ES-7)	<p><u>DEIS states:</u> “Trees in forested wetlands would be removed from the permanent right-of-way, and revegetation could take years”.</p> <p><u>Columbia Comment:</u> As stated in Columbia’s Application (Resource Report 1, section 1.7), the permanent right-of-way will be maintained in accordance with FERC’s Plan and Procedures. Vegetation on the 50-foot-wide right-of-way in uplands will be maintained no more than every three years by mowing and trimming to prevent establishment of trees or deep-rooted shrubs. In accordance with FERC’s Plan and Procedures, Columbia intends to maintain a 10-foot-wide herbaceous corridor, centered over the pipeline centerline, through wetlands to facilitate periodic corrosion/leak surveys. Columbia will also selectively cut and remove trees within 15 feet of the pipeline that have a root system that could potentially compromise the integrity of pipeline coating. Columbia asserts that by implementing measures described in its West Virginia Erosion Control Standards (ECS) which adopts provisions of FERC’s Plan and Procedures, stabilization of disturbed areas through the reestablishment of grasses, forbs, and woody vegetation will take place in one to two growing seasons.</p>
CPG001-6	
Executive Summary (ES-8)	<p><u>DEIS states:</u> “Columbia would minimize forested impacts.... and by reducing the pipeline construction ROW width to 100 feet in interior forest areas, where possible”.</p> <p><u>Columbia Comment:</u> In its Application, Columbia has requested a construction right-of-way of 125 ft. in width due to the significantly variable topography of the majority of the project area. Reducing the construction right-of-way will limit the effective construction area necessary, create potential safety concerns for the construction personnel, require significantly more additional temporary work space and create issues to properly work around congested areas. Columbia affirms that its original request of a 125 ft. wide construction work area is necessary for safe installation of the pipeline, including in interior forested areas.</p>
CPG001-7	

CPG001-4: The facility details listed in the cover letter have been updated.

CPG001-5: The facility details listed in the Executive Summary have been updated.

CPG001-6: Clarifications regarding vegetation clearing and maintenance within wetlands has been updated in the Executive Summary.

CPG001-7: It has been noted that Columbia Gas proposes a 125-foot-wide construction corridor, including in forested areas. The Executive Summary has been corrected.

APPLICANTS

CPG001 - Columbia Gas Transmission, LLC (continued)

OEP/DG2E/Gas Branch 4
 Columbia Gas Transmission, LLC
 Mountaineer XPress Project
 Docket No. CP16-357-000
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Section (page #)	COMMENT
1.0 (1-2)	<u>DEIS states:</u> "GXP is interconnected with and dependent upon MXP"
CPG001-8	<u>Columbia Comment:</u> Columbia disagrees with this statement and requests it be revised to indicate that MXP and GXP could proceed independently of each other. The two projects are unique and distinct with different business cases and should be referred to as independent projects in the FERC documents relating to them, including the DEIS/FEIS.
2.1.2 (2-3)	<u>DEIS states:</u> Table 2.1-1, Proposed Aboveground Facilities for the MXP
CPG001-9	<u>Columbia Comment:</u> The proposed aboveground facilities for MXP as noted in table 2.1-1 (p. 2-3) of the DEIS have been updated as reflected in Columbia's Supplement 2, specifically table 1.1.2-1.
2.1.2.1 (2-4)	<u>DEIS states:</u> "MXP-200 tie in with Line 1983 would enable bi-directional flow and include a pressure regulator and pig launcher/ receiver to connect the proposed MXP-200 pipeline with Columbia Gas' existing Line 1983."
CPG001-10	<u>Columbia Comment:</u> Although noted in the Application and Supplement 1, a pressure regulator will not be installed at the interconnect of MXP-200 and Line 1983. These facilities are not needed as they are included in the Sherwood Compressor Station site, as described in the DEIS.
2.4.1.2 (2-19)	<u>DEIS states:</u> "cleared vegetation would not be disposed of by burning."
CPG001-11	<u>Columbia Comment:</u> As noted in section 1.5.1 of the Application, burning of cleared woody vegetation is not anticipated but it may still be utilized in some select areas and at the discretion of the contractor and under the direction of Columbia's Construction Team. If burning is necessary, Columbia will obtain the necessary burning permit from the West Virginia Division of Forestry.
2.4.4.1 (2-27)	<u>DEIS states:</u> "...restoration of contours would be accomplished during backfilling. Prior to backfilling, trench breakers would be installed where necessary to prevent the subsurface drainage of water from wetlands...Equipment mats, terra mats, and timber riprap used for equipment support would be removed from wetlands following backfilling"
CPG001-12	<u>Columbia Comment:</u> Generally equipment mats will be removed upon backfilling to allow for proper restoration of a wetland. In accordance with Columbia's ECS and the FERC Plan and Procedures, a travel lane may be left open temporarily to allow access by construction traffic if the temporary erosion control structures are installed, inspected, and maintained. When access is no longer required, the travel lane will be removed and the right-of-way restored to pre-construction contours.

CPG001-8: Given the information on the record, FERC staff determined that MXP and GXP have similar timelines and other interrelated aspects, and as such, the projects were considered in one EIS. Section 1.0 has been updated in response to this comment.

CPG001-9: Revisions based on updates contained in Supplement No. 2, filed March 3, 2017, have been made throughout the EIS.

CPG001-10: Section 2.1.2.1 has been updated to reflect this revision.

CPG001-11: Section 2.4.1.2 has been updated in response to this comment.

CPG001-12: Section 2.4.4.1 has been revised in response to this comment.

APPLICANTS

CPG001 - Columbia Gas Transmission, LLC (continued)

OEP/DG2E/Gas Branch 4
 Columbia Gas Transmission, LLC
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Section (page #)	COMMENT
2.4.4.2 (2-27)	<u>DEIS states:</u> "Where standing water is present within a channel, but flow is not discernible, a dry crossing method (e.g. flume crossing or dam-and-pump) would be used to allow for construction to cross the waterbody under dry conditions."
CPG001-13	<u>Columbia Comment:</u> Pursuant to FERC's Plan and Procedures, Columbia's ECS and allowed by applicable permits, if no discernible flow is present at the time of crossing and the waterbody is not considered significant by the state, Columbia would complete the crossing as a wet-ditch crossing.
2.4.4.2 (2-29)	<u>DEIS states:</u> Regarding Figure 2.4-3; typical stream crossing wet ditch.
CPG001-14	<u>Columbia Comment:</u> Figure 2.4-3 in the DEIS depicting a typical wet ditch stream crossing does not comport with Figure 16 of Columbia's ECS.
4.3.1.3.1 (4-45)	<u>DEIS states:</u> "identify measures that would be used to protect the water well at milepost 107.2".
CPG001-15	<u>Columbia Comment:</u> Columbia, in consultation with the landowner, is analyzing a potential variance for this tract that would avoid any potential impacts to the water well due to the additional temporary workspace proposed at that location. Columbia anticipates that the variance will be implemented and in agreement with the landowner.
4.3.2.4.1 (4-68)	<u>DEIS states:</u> "water from state-designated HQWs or exceptional value waters or streams utilized as public water supplies would not be used unless other water sources are not readily available and the appropriate federal, state, or local agency permits its use".
CPG001-16	<u>Columbia Comment:</u> Columbia intends to utilize those streams as presented in table 4.3-8 for hydrostatic testing and will acquire the necessary certification/permit approvals to complete that activity. Columbia is not aware of any regulation that would preclude HQWs from being utilized as test water. If a practicable alternative exists, Columbia will attempt to utilize that alternative should stream flow at the time of appropriation be insufficient to provide adequate volume and rate while protecting downstream water use and aquatic life. However, due to the rural nature of the majority of the project and lack of practicable alternatives, Columbia anticipates that the majority of the streams identified in table 4.3-8 will be used as source water for hydrostatic testing.
4.5.1.1.4 (4-92)	<u>DEIS states:</u> "During operations, only one access road would be required, permanently converting 1.4 acres to developed lands"
CPG001-17	<u>Columbia Comment:</u> This does not reflect the information set forth in Supplements 1 and 2. Specifically, the number of new permanent access roads has increased from 15 (converting 10.8 acres to developed lands) as noted in table 1.2-2 and appendix 8C of Columbia's Supplement 1 to 16 (converting 11.6 acres to developed lands) noted in the updated table 1.2-2 and appendix 8C included in Columbia's Supplement 2.

CPG001-13: This wording has been corrected.

CPG001-14: Figure 2.4-3 has been replaced with a revised diagram.

CPG001-15: This information has been noted in the text of section 4.3.1.3.1.

CPG001-16: Section 4.3.2.1 has been revised in response to this comment.

CPG001-17: Section 4.5.1.1.4 has been updated to reflect the accurate information.

APPLICANTS

CPG001 - Columbia Gas Transmission, LLC (continued)

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Section (page #)	COMMENT
4.5.4.1 (4-100)	<p><u>DEIS states:</u> "We assessed interior forests using a dataset produced by the Natural Resource Analysis Center at West Virginia University (Stranger and Maxwell, 2012), which identifies Core Forest Areas (CFA) based upon acreage of contiguous habitat."</p> <p><u>Columbia Comment:</u> Columbia acknowledges that MXP will impact forest conditions and could potentially impact core forest areas. However, FERC's analysis significantly underestimates the current forest fragmented conditions across the MXP project area, likely due to the removal of certain existing corridors deemed as insignificant contributors to forest fragmentation. The attached figures compare FERC's analysis which used Stranger and Maxwell "smoothed" 2011 data and Columbia's analysis which used data based on 2016 aerial interpretation, and includes existing road corridors. Columbia's analysis depicts the area under current conditions as highly fragmented which reduces core forest areas when compared to FERC's analysis. This comparison likely holds across all or at least the majority of the MXP project area. Columbia suggests that the current existing conditions, including roads, be used to compare pre- and post-construction changes to forest conditions. Columbia presents this as an example to identify the inconsistencies between the two data sets and to ensure current conditions are recognized. Concerning forest fragmentation and core forest impacts, Columbia would consider impacts associated with MXP as only a fractional change for this specific example and for a large portion of the project area.</p>
CPG001-18	
4.7.6.1.2 (4-161)	<p><u>DEIS states:</u> "Columbia Gas is continuing consultations with the USFWS regarding the Indiana Bat on non-covered lands. Our determination is that the MXP is likely to adversely affect the Indiana bat."</p> <p><u>Columbia Comment:</u> Columbia generally disagrees with the above determination given the results of completed surveys to date and the absence of Indiana bats. With the appropriate measures implemented and absence of Indiana Bat it is Columbia's opinion that a No Effect Determination from the USFWS will be provided. Upon completion of 2017 surveys and subsequent USFWS consultations an effect determination will be provided to FERC.</p>
CPG001-19	
4.7.6.1.3, (4-163)	<p><u>DEIS states:</u> "Our determination is that MXP activities are likely to adversely affect the NLEB."</p> <p><u>Columbia Comment:</u> Similar to Columbia's previous comment on Indiana bat, Columbia generally disagrees with this statement. With the implementation of the required avoidance and minimization measures found in Columbia's HCP and applicable to those covered lands a no effect determination is provided. For non-covered lands and although NLEB's were detected/identified in applicable surveys, Columbia is proposing avoidance measures that will provide a no effect determination. Upon completion of 2017 surveys and subsequent USFWS consultations an effect determination will be provided to FERC.</p>
CPG001-20	
4.8.1.2.1 (4-192)	<p><u>DEIS states:</u> "Columbia gas has purchased all lands required for construction and operation of the aboveground facilities for the MXP".</p> <p><u>Columbia Comment:</u> The above statement is generally accurate for the greenfield compressor stations; however, Columbia is in the process of negotiating with landowners for some of the additional above ground facilities, such as Ripley Regulating Station and several Main Line Valves.</p>
CPG001-21	

CPG001-18: From a biological perspective, the leading concern with forest fragmentation is the impact on wildlife habitat and associated microhabitats. The Stranger and Maxwell data define Core Forest Areas based primarily upon the locations of closed forest canopy. Because one of the main issues with forest fragmentation is the loss of preferred habitat for breeding birds, the presence of canopy closure should be a key factor in delineating CFAs. Our use of the Stranger and Maxwell data, and subsequent evaluation of CFAs within the MXP area, was done so under the request and guidance of WVDNR. We believe the Stranger and Maxwell data more accurately represent locations of existing canopy closure. However, the impacts on CFAs has been reduced since the draft EIS was issued because the original analysis and classifications included existing private roads, that Columbia Gas is proposing to utilize during construction, as new impacts or new forest fragmentation. We determined that these existing private roads should not contribute to a new impact on CFAs; therefore, those existing roads were removed from the analysis.

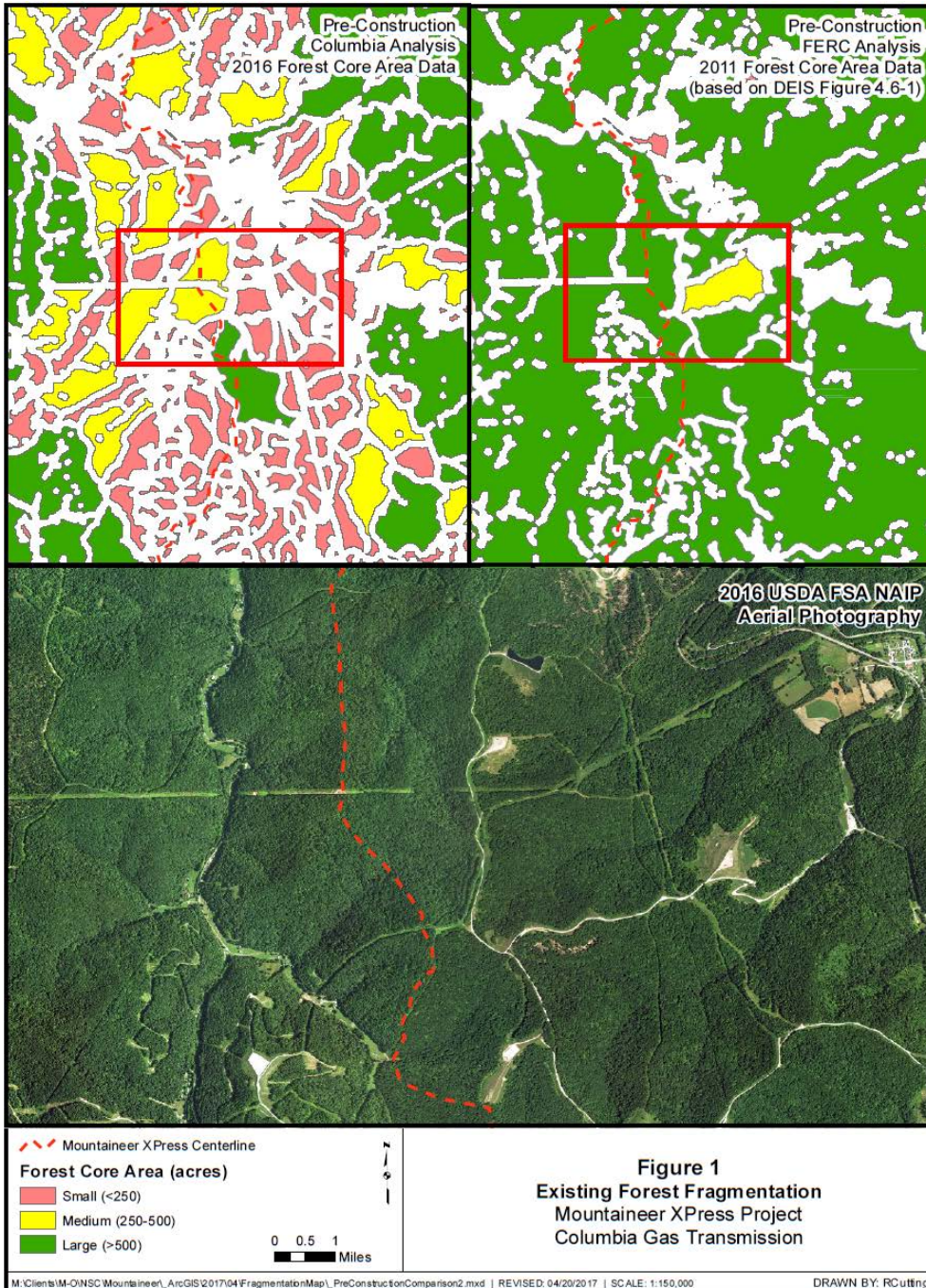
CPG001-19: Based on our communications with the USFWS, we have removed the preliminary determination of *likely to adversely affect* for the Indiana bat and will await the results of surveys and further USFWS consultations.

CPG001-20: Based on our communications with the USFWS, we have removed the preliminary determination of *likely to adversely affect* for the NLEB and will await the results of surveys and further USFWS consultations.

CPG001-21: Section 4.8.1.2.1 has been revised in response to this comment.

APPLICANTS

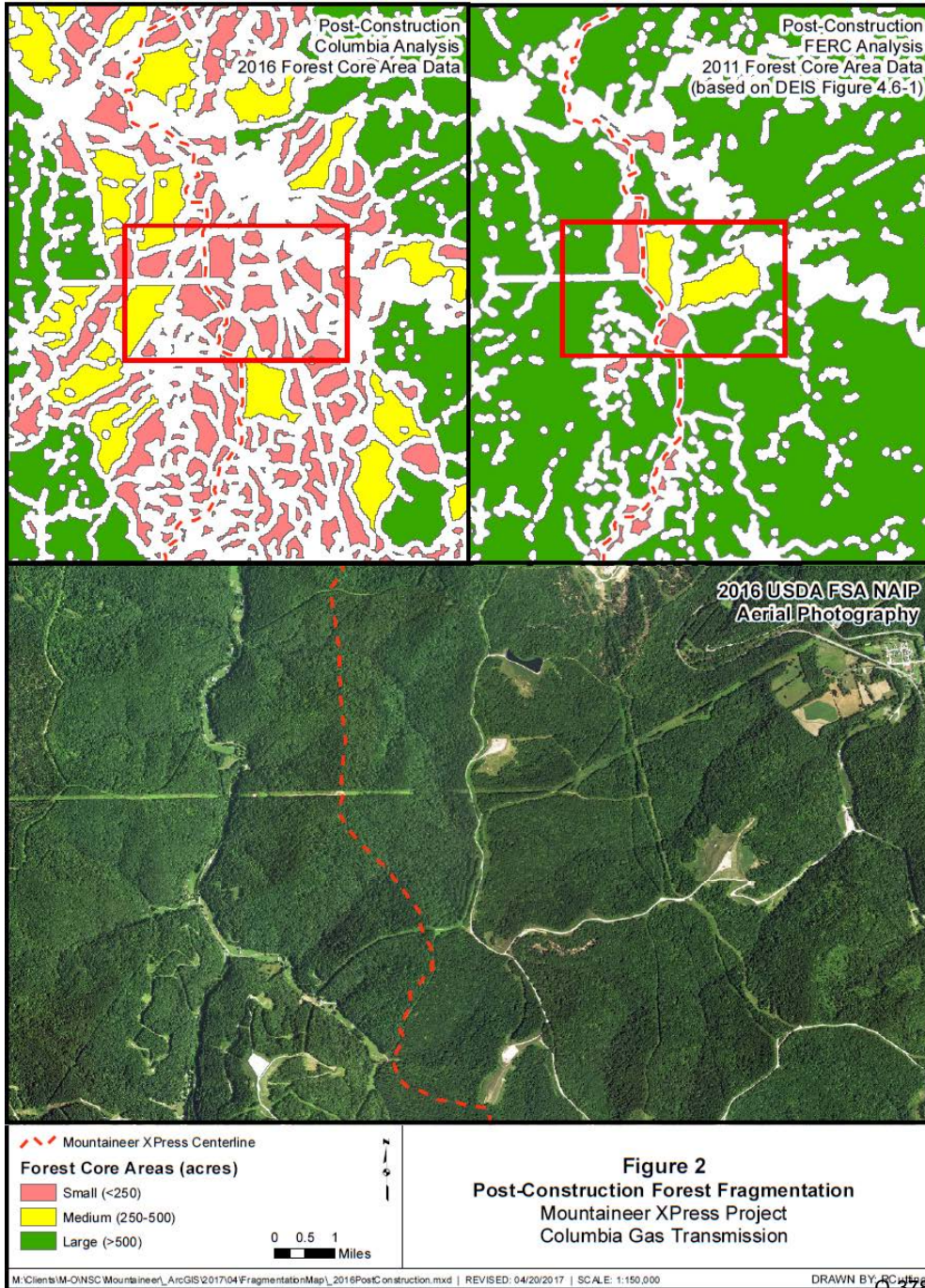
CPG001 - Columbia Gas Transmission, LLC (continued)



This figure was submitted by Columbia Gas in association with the comment labeled as CPG001-18.

APPLICANTS

CPG001 - Columbia Gas Transmission, LLC (continued)



This figure was submitted by Columbia Gas in association with the comment labeled as CPG001-18.

APPLICANTS

CPG002 - Columbia Gulf Transmission, LLC



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April 21, 2017

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Via Electronic Filing

Re: Columbia Gulf Transmission, LLC
Docket No. CP16-361-000
Gulf XPress Project
Comments on the Commission's Draft Environmental Impact Statement

Dear Ms. Bose:

On April 29, 2016, Columbia Gulf Transmission, LLC ("Columbia Gulf") filed the above-referenced application with the Federal Energy Regulatory Commission ("Commission") in Docket No. CP16-361-000. Columbia Gulf is seeking authorization for construction, modification, operation, and maintenance of compressor facilities, as well as other appurtenant facilities, located in Kentucky, Tennessee, and Mississippi.

On February 27, 2017, the Commission issued a Draft Environmental Impact Statement ("DEIS") in the above-referenced proceeding. Attached for filing with the Commission are Columbia Gulf's comments on the DEIS.

Columbia Gulf is e-filing this information in accordance with the Commission's Order No. 703, *Filing Via the Internet* guidelines, issued in Docket No. RM07-16-000 on November 15, 2007. Pursuant to § 385.2010 of the Commission's regulations, copies of this cover letter are being served to each person whose name appears on the official service list for this proceeding.

Pursuant to § 385.2005 of the Commission's regulations, the undersigned states that he has read or someone on his behalf has read this filing and knows its contents, and the contents are true as stated, to the best of his knowledge, information and belief based on representations by Columbia Gulf personnel.

Please direct any general questions with respect to this filing. Additionally, specific questions regarding this filing's contents may be directed to David Wymond at (713) 386-3554.

Respectfully submitted,

/s/ Robert D. Jackson

Robert D. Jackson
Manager, Certificates & Regulatory Administration

CPG002 comments and responses begin on the next page.

APPLICANTS

CPG002 - Columbia Gulf Transmission, LLC (continued)

Federal Energy Regulatory Commission
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Page 2

CPG002-1 [Attachments

Cc: Julia Yuan – FERC
All Parties of record (cover letter only)

CPG002-1:

Columbia Gulf’s comment letter included four Attachments:

Attachment 1 – NRCS Consultations

Attachment 2 – Environmental Construction Standards (April 2017)

Attachment 3 – USFWS Consultations

Attachment 4 – Kentucky Department of Fish and Wildlife Consultations

Columbia Gulf’s comment submission, including the four above-listed attachments, are available for viewing in their entirety on the FERC’s eLibrary at <http://www.ferc.gov>. Using the “eLibrary” link, select “Advanced Search” from the eLibrary menu and enter 201704241-5224 in the “Numbers: Accession Number” field.

APPLICANTS

CPG002 - Columbia Gulf Transmission, LLC (continued)

Comments on Draft EIS:
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Columbia Gulf Transmission, LLC
Gulf XPress Project
Docket No. CP16-361-000

**COLUMBIA GULF TRANSMISSION, LLC
GULF XPRESS PROJECT
DOCKET NO. CP16-361-000**

**COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT
APRIL 21, 2017**

Section 1.0, Introduction, Page 1-2

FERC staff prepared a single EIS for the two projects because GXP is interconnected with and dependent upon MXP (MXP would deliver a portion of its proposed volumes to an interconnection with Columbia Gulf in Leach, Kentucky, that is the primary receipt point for GXP), and because the environmental review for the two projects would have been conducted within the same general timeframe.

COMMENT:

CPG002-2 [Columbia disagrees with this statement and requests it be revised to indicate that MXP and GXP could proceed independently of each other. The two projects are unique and distinct with different business cases and should be referred to as independent projects in the FERC documents relating to them, including the DEIS/FEIS.

Section 3.6.1 Kentucky Site Alternatives, Page 3-24

The Morehead Compressor Station is proposed for construction on a 44.2-acre site in Rowan County, Kentucky.

COMMENT:

CPG002-3 [The Morehead Compressor Station is proposed for construction on a 17.2-acre site. Columbia Gulf purchased additional property to the south as a buffer from noise sensitive receptors and against future encroachment that could result from outside development. Columbia Gulf has no plans to develop this land beyond construction of the proposed station.

Section 4.1.4.5.2, Steep Slopes, Page 4-12

Steep slopes are not present in the Gulf XPress Project work areas.

COMMENT:

CPG002-4 [Resource Report 6, page 6-32, states that steep slopes are present at Cane Ridge and Clifton Junction Compressor Stations, and at Leach C Meter Station. Columbia Gulf's July 7, 2016, Data Request Response Number 23 to FERC's June 17, 2016 Data Request provides additional detail.

CPG002-2: Given the information on the record, FERC staff determined that the MXP and GXP have similar timelines and other interrelated aspects, and as such, the projects were considered in one EIS. Section 1.0 has been updated in response to this comment.

CPG002-3: This information has been incorporated into section 3.6.1.

CPG002-4: Section 4.1.4.5.2 has been updated to reflect this information.

APPLICANTS

CPG002 - Columbia Gulf Transmission, LLC (continued)

Comments on Draft EIS:
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GULF XPRESS PROJECT
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**COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT
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Section 4.2.3.2, Revegetation Potential, Page 4-27

Columbia Gulf has initiated consultations with the NRCS District Conservationists for each of the GXP facilities. These consultations are ongoing; final correspondence would be filed with the Commission upon receipt.

COMMENT:

CPG002-5 Columbia Gulf completed consultations with the NRCS District Conservationists. Consultations with the Grenada County Field Office in Mississippi and the Gallatin Field Office in Tennessee are included in Attachment 1 (Natural Resources Conservation Service Consultations).

CPG002-5: Comment noted and corresponding updates have been made to section 4.2.3.2.

Section 4.2.6.2, Stony and Rocky Soils, Page 4-29

Prior to construction, Columbia Gulf should file with the Secretary, for review and approval by the Director of OEP, a modified version of its ECS (section II.I.1) that is consistent with the 2013 version of FERC's Plan at section V.A.4.

COMMENT:

CPG002-6 Columbia Gulf has modified section II.I.1 of its ECS, included as Attachment 2 (Environmental Construction Standards, April 2017), to reflect provisions contained in FERC's Upland Erosion Control, Revegetation, and Maintenance Plan (Plan) at section V.A.4. Specifically, the revised ECS section states that excess rock will be removed from at least the top 12 inches of soil to the extent practicable in all cultivated or rotated agricultural land, hayfields, pastures, residential areas, and other areas at the landowner's request. The size, density and distribution of rock on the construction work area should be similar to adjacent areas not disturbed by construction.

CPG002-6: Comment noted. This recommendation has been removed. The revised ECS is included as appendix D-2.

Section 4.3.1.3.2, Water Supply Wells and Springs, Page 4-45

However, we recommend prior to construction that the Columbia Gulf should offer to conduct testing of water quality and yield at all wells within 150 feet of construction workspaces and if testing results indicate any decline in water quality, Columbia Gulf should provide a temporary water source until a permanent source is available.

COMMENT:

CPG002-7 Columbia Gulf will offer private landowners pre- and post-construction testing of wells identified within 150 feet of construction workspaces. If testing results indicate a decline in water quality between initial testing and post-construction as a result of Columbia Gulf's construction activities, Columbia Gulf will provide the affected landowners with a temporary water source until a permanent source is available. However, no wells have been identified within 150 feet of

CPG002-7: This recommendation has been removed and the text in section 4.3.1.3.2 has been updated accordingly.

APPLICANTS

CPG002 - Columbia Gulf Transmission, LLC (continued)

Comments on Draft EIS:
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**COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT
APRIL 21, 2017**

CPG002-7
(cont.) any construction workspace.

Section 4.3.2.3.2. Flood Hazard Zones, Page 4-61

Because Columbia Gulf selected sites for its compressor stations to avoid flood hazard zones, there would be no floodplain impacts from construction of the GXP.

COMMENT:

CPG002-8 Portions of temporary workspace at the Grayson, New Albany, and Holcomb Compressor Stations occur within a 100-year floodplain. Prior to construction, Columbia Gulf will submit permit applications to the Carter County Floodplain Administrator for coverage under its floodplain permit and to the Holcomb County Floodplain Administrator certifying that no permanent structures will be located within the floodplain. No floodplain permit is required for Union County. Columbia Gulf's Environmental Construction Standards (ECS), which complies with the 2013 FERC Upland Erosion Control Revegetation and Maintenance Plan, addresses the measures Columbia Gulf will implement to protect from flooding during construction. Columbia Gulf's July 7, 2016 Response #5 to FERC's June 17, 2016 Data Request provides additional details.

Section 4.4.1.2. Existing Wetlands, Page 4-78

Surveys were conducted in July 2015 at eight locations involving multiple sites in three states.

COMMENT:

CPG002-9 Additional wetland and waterbody surveys were conducted in August, September, and November 2015, and March 2016. The results of these surveys were included in the wetland and waterbody delineation report submitted with Columbia Gulf's application.

Section 4.7.3.2. Federally Listed Species, Page 4-146

Therefore, we recommend that prior to the end on the draft EIS comment period, Columbia Gulf should file with the Secretary, the USFWS' determination for the Gulf XPress Project impacts on the snuffbox mussel.

COMMENT:

CPG002-10 Columbia Gulf sent a letter dated March 20, 2017 to the U.S. Fish and Wildlife Service requesting concurrence that the Project will have no effect on the snuffbox mussel because suitable no suitable habitat occurs in the action area at the Grayson Compressor Station. In an email dated April 7, 2017, the U.S. Fish and Wildlife Service indicated that in a forthcoming

CPG002-8: Section 4.3.2.3.2 has been revised to reflect the correct information.

CPG002-9: Survey dates have been updated in section 4.4.1.2.

CPG002-10: Section 4.7.3.2 has been revised to indicate consultations are complete for the snuffbox mussel.

APPLICANTS

CPG002 - Columbia Gulf Transmission, LLC (continued)

Comments on Draft EIS:
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GULF XPRESS PROJECT
DOCKET NO. CP16-361-000**

**COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT
APRIL 21, 2017**

CPG002-10
(cont.)

letter that they do not anticipate Project impacts to the snuffbox mussel. Copies of this correspondence are included in Attachment 3 (U.S. Fish and Wildlife Service Consultations).

Section 4.7.10.2, State-Listed Species, Page 4-173

Prior to construction, Columbia Gulf should file with the Secretary updated consultations with the KDFWR regarding the state-listed species noted as "consultation still ongoing" in appendix K of the Commission staff's EIS.

COMMENT:

CPG002-11

Columbia Gulf sent a letter dated March 31, 2017, to the Kentucky Department of Fish and Wildlife Resources stating that suitable habitat was not identified for the 19 state-listed avian species during the desktop review and during the field habitat survey of the proposed, approved, and existing Project sites in Kentucky, and no further consultation is required. In a letter dated April 3, 2017, the Kentucky Department of Fish and Wildlife Resources commented that the Project is not expected to significantly impact the state-listed avian species or any associated nesting and/or roosting habitats. Copies of this correspondence are included in Attachment 4 (Kentucky Department of Fish and Wildlife Resources Consultations).

Section 4.8.1.1.2, Page 4-191

There is also an abandoned shed and former residence in the temporary workspace proposed at the Morehead Compressor Station, which is on land purchased by Columbia Gulf.

COMMENT:

CPG002-12

Columbia Gulf purchased the land where the abandoned shed and former residence are located. However, this land is located outside of the permanent and temporary workspace for the Morehead Compressor Station (see Appendix 1A of Resource Report 1 for copies of the proposed compressor station plot plans). This additional property will be used to buffer the compressor station from neighbors in the vicinity.

CPG002-11: Section 4.7.10.2 has been updated to reflect this consultation and concurrence from the Kentucky Department of Fish and Wildlife Resources.

CPG002-12: Section 4.8.1.1.2 has been revised to address this discrepancy.

APPLICANTS

CPG002 - Columbia Gulf Transmission, LLC (continued)

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**COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT
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Section 4.8.1.2.2. Aboveground Facilities. Page 4-192

Columbia Gulf has purchased all lands required for construction and operation of the Gulf XPress aboveground facilities, including additional properties surrounding compressor station sites that are not part of the construction work areas but would be used to “buffer” or further separate the stations from neighbors in the vicinity. Some of these additional properties include existing residences, which Columbia Gulf now owns. These residences are currently vacant, and Columbia Gulf has no plans to use or rent these structures to other parties.

COMMENT:

CPG002-13 Approximately 5.1 acres of the temporary workspace shown on the plot plan for the Goodluck Compressor Station (included in Resource Report 1, Appendix 1C of Columbia Gulf’s application) is not owned by Columbia Gulf. Columbia Gulf secured an agreement with the landowner to lease this temporary workspace (located southeast of the compressor station) during construction of the compressor station. Also, Columbia Gulf does not own but retains an easement for the 0.14-acre access road designated as temporary workspace on the plot for the Leach C Meter Station (included in Resource Report 1, Appendix 1C of Columbia Gulf’s application). All other lands required for construction and operation of the Gulf XPress aboveground facilities, including additional properties surrounding compressor station sites that are not part of the construction work areas, have been purchased by Columbia Gulf.

Section 4.8.3.2. Visual Resources. Page 4-211

Columbia Gulf should file with the Secretary a site-specific report for the Leach C Meter Station describing existing and proposed visual impacts from nighttime lighting, proposed mitigation including lighting controls, or justification for why no such mitigation measures are required.

COMMENT:

CPG002-14 The existing outdoor lighting system for the Leach C Meter Station will remain and there are no additional yard lights proposed for this Project; therefore, we believe a site-specific report is unnecessary. The existing yard lights are controlled with a hand operated switch that will only be turned on when personnel are on site so that the station lighting will only illuminate if maintenance work is being performed after hours or in the event of certain unanticipated conditions. The outdoor lighting system is designed to ensure that minimal stray light leaves the site.

There will be emergency lighting at each entrance/exit to the buildings and overhead lights contained within the envelope of the building. The emergency lighting will provide for fit-for-

CPG002-13: Section 4.8.1.2.2 has been revised based on this comment.

CPG002-14: This recommendation has been revised.

APPLICANTS

CPG002 - Columbia Gulf Transmission, LLC (continued)

Comments on Draft EIS:
OEP/DG2E/Gas Branch 4
Columbia Gulf Transmission, LLC
Gulf XPress Project
Docket No. CP16-361-000

**COLUMBIA GULF TRANSMISSION, LLC
GULF XPRESS PROJECT
DOCKET NO. CP16-361-000**

**COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT
APRIL 21, 2017**

CPG002-14
(cont.)

purpose safety needs resulting from a loss of power to the facility due to weather events or interrupted service from the electricity provider.

Section 4.9.5.2. Transportation and Traffic. Page 4-234

Impacts on the local transportation network would be temporary, as the facility would be unmanned, and would only require a few vehicle trips per month once it is operational.

COMMENT:

CPG002-15

Two permanent workers will man each compressor station site and therefore, about four vehicle trips per day are anticipated. Other technical specialists (e.g., electrical or mechanical) may visit the compressor station sites on an as needed basis. Therefore, impacts on the transportation network would be negligible.

Section 4.9.5.2. Transportation and Traffic. Page 4-235

Impacts on the local transportation network would be temporary, as the facility would be unmanned, and would only require a few vehicle trips per month once it is operational.

COMMENT:

CPG002-16

Two permanent workers will man each compressor station site and therefore, about four vehicle trips per day are anticipated. Other technical specialists (e.g., electrical or mechanical) may visit the compressor station sites on an as needed basis. Therefore, impacts on the transportation network would be negligible.

CPG002-15: Section 4.9.5.2, among other locations in the EIS, has been revised to indicate that this compressor station would employ two full-time workers.

CPG002-16: See response to comment CPG002-15.

FEDERAL ENERGY REGULATORY COMMISSION

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