

DOMINION PIPELINE MONITORING COALITION



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June 2, 2016

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

RE: Supplemental Notice (May 3, 2016); Docket Nos. CP15-554-000, CP15-554-001

Ms. Bose:

The following comments are provided on behalf of the Dominion Pipeline Monitoring Coalition (DPMC) in response to the public notice published by the Federal Energy Regulatory Commission (FERC), dated 5/3/16, and titled:

SUPPLEMENTAL NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED LAND AND RESOURCE PLAN AMENDMENT(S) FOR THE PROPOSED ATLANTIC COAST PIPELINE, REQUEST FOR COMMENTS ON ENVIRONMENTAL ISSUES RELATED TO NEW ROUTE AND FACILITY MODIFICATIONS, AND NOTICE OF PUBLIC SCOPING MEETINGS

The DPMC is an organization of citizen volunteers, conservation groups, and environmental scientists convened in response to Dominion's proposed Atlantic Coast Pipeline (ACP) across the George Washington and Monongahela National Forests and the adjacent mountains and valleys.¹

These comments supplement previous comments submitted to FERC by the DPMC on 4/28/15 in response to FERC's request for comments on environmental issues related to preparation of an Environmental Impact Statement (EIS) for the proposed ACP and Supply Header Project.

Please note, as indicated below, that additional comments will be submitted on behalf of the DPMC at a later date.

¹ Dominion Pipeline Monitoring Coalition, 2016 (<http://pipelineupdate.org/about/>).

GENERAL CONCERNS RELATED TO NEPA REVIEW

1. The ability of the DPMC and other interested stakeholders to provide informed comments to FERC during the scoping period for the EIS is significantly limited by incomplete, inconsistent, and repeatedly changing information concerning the alternate routes under consideration, as well as by lack of access to critical reports and information concerning environmental surveys and mitigation plans.
 - The notice for the current comment period was dated 5/3/16. On 5/6/16 Dominion submitted information to FERC indicating changes or newly selected locations for the pipeline corridor, access roads, work spaces, and other pipeline infrastructure. Dominion spokesmen have subsequently indicated that additional route and infrastructure changes will be forthcoming.
 - Important surveys and analyses have not been completed and/or results have not been made available to the public, including surveys and analyses related to soil properties, geohazards, karst features, water supply recharge areas, and threatened, endangered, and sensitive biota.
 - FERC routinely approves pipeline projects contingent upon later submission of critical plans for construction and mitigation of environmental impacts. For example, erosion and sediment control plans are typically made available to FERC as Implementation Plans that are only provided after project approval, precluding opportunity for public review and comment.

Meaningful implementation the National Environmental Policy Act (NEPA) depends on informed input from all interested and concerned stakeholders, which in turn is dependent on timely access to fundamental project information. In the case of the current comment period, information is incomplete, and even for information that has been provided, insufficient time has been allowed for meaningful review. Accordingly, the DPMC is prepared to submit additional comments as additional information becomes available and additional review is completed. We request that FERC accept and address follow-up submissions for use in the development of the EIS.²

2. The ACP is one of multiple pipelines proposed for transmission of natural gas from western West Virginia, across the central Appalachian Mountains, to Virginia and the southeastern U.S. These pipelines would be the largest ever built in the central Appalachian region and the largest ever built in this type of well-watered, forested mountain, and karst valley environment. The pipeline developers request governmental authority to cross public conservation lands and private property, with resultant effects on and risk to water and other natural resources.

Dominion has specifically requested approval of a project that will require revision of national forest plans that were developed through a long and costly process involving extensive environmental review and public input. An informed and rational approach to these extraordinary request can only be achieved through preparation of an EIS that, in addition to project-specific analysis, involves regional-scale analysis accounting for natural gas needs, cumulative impacts, and appropriate siting. Siting

² Keven Bowman, an Environmental Protection Specialist tasked with managing FERC review of the ACP proposal, stated in a 5/24/16 email to Lewis Freeman, Chair of the Allegheny-Blue Ridge Alliance: “As was the case for previous formal scoping periods, any party that may be scrambling to submit comments by the current requested date may submit comments after the deadline and they will still be accepted. If someone is concerned about whether they will truly be accepted, please note that FERC has had several “formal” scoping periods throughout review of this particular project – with periods in between when there was not an official comment period in place. We received many comments during those times as well, and all of those have been accepted and are being considered by the FERC.”

considerations should include use of existing pipeline corridors, co-location of proposed new pipelines, and objective analysis of options that do not require crossing national forest lands and modification of established forest management plans.

3. We understand that FERC's determination of project need is essentially based on evidence that contracts for the gas have been secured. We contend that this is an insufficient standard, particularly when, as in this case, the large majority of the gas is contracted to subsidiaries or affiliates of the ACP developers. We also understand that much of the self-contracted gas would supply facilities that are already well supplied or can be supplied by other gas providers using existing pipeline infrastructure. The EIS should address the issue of need and objectively determine if FERC approval would facilitate a pipeline that is a true public necessity or if FERC approval would instead facilitate a pipeline that will primarily provide a competitive advantage for private interests.

We further argue that the question of need is an appropriate and necessary issue for consideration by the Forest Service, which must make a determination concerning revision of forest management plans to accommodate the ACP. The Forest Service has repeatedly asked for a more-meaningful analysis of alternatives to building the proposed pipeline on national forest lands. The EIS should evaluate the alternatives, including the no-build alternative, in the context of an actual evaluation of need.

CONCERNS RELATED TO ECOSYSTEM PROTECTION

1. **The effectiveness of required measures for mitigation of water resource impacts associated with pipeline construction is a significant issue that needs to be systematically examined during EIS preparation.**

FERC has adopted Plans³ and Procedures⁴ documents that identify baseline mitigation measures for minimizing construction-related project impacts, including erosion and impacts to wetlands and waterbodies. These documents are generally applicable to the broad range of environmental conditions present across the entire nation. Pipeline construction across the central Appalachian mountain region, however, presents a combination of conditions that is not present elsewhere, including steep, rugged, and unstable slopes, narrow valleys, karst terrain, and high-runoff conditions. The combination of these factors, together with the precedent-setting level of earth disturbance required for pipeline construction on the scale of the proposed ACP, presents a unique erosion and sediment control and stormwater management challenge that is not adequately addressed by the Plans and Procedures requirements.

We note that in previous environmental documents prepared for projects under FERC jurisdiction, concerns about water resource impacts have been dismissed based on (1) presumed adherence to FERC's Plans and Procedures and (2) on FERC's declared experience that any problems that do occur will be minor or temporary. FERC has no experience, however, with construction of 42-inch pipelines across landscape characterized by steep well-watered forested mountains and karst valleys. Moreover, we have found no credible evidence that application of available control technologies or practicable best management practices will effectively and reliably prevent erosion, downstream sedimentation,

³ FERC, 2013. [Upland Erosion Control, Vegetation, and Maintenance Plans](#)

⁴ FERC, 2013. [Wetland and Waterbody Construction and Mitigation Procedures](#)

and long-term alteration of runoff properties —given earth disturbance on the scale of the proposed ACP in the type of landscape that will be crossed.

This issue should be addressed in the EIS, which should identify any scientifically objective and quantitative evidence that the requirements of FERC’s Plans and Procedures are sufficient to prevent water resource impacts during and after construction of the ACP.

2. The EIS should evaluate the implementation of water-related environmental laws and regulations that apply to pipeline construction.

The Dominion Pipeline Monitoring Coalition has conducted a Case Study Project to investigate the implementation of regulatory programs for erosion and sediment control and stormwater management at current and recent pipeline projects in the ACP project region. Although the pipeline projects available for study are small in comparison with the proposed ACP, our initial investigation of these projects shows that the regulatory system cannot be relied on to ensure water resource protection.

For example, we have examined a recent project on National Forest land in Virginia where regulatory oversight was absent and fundamental regulatory requirements were waived or ignored.⁵ Another example involves a series of problems at Dominion pipeline construction sites in West Virginia. A Consent Order issued by the West Virginia Department of Environmental Protection (WVDEP) in October 2014 describes continuing water quality violations related to slope failures in pipeline corridors at 14 separate locations.⁶ Our investigations indicate that these pipeline projects and regulatory system failures represent the rule rather than the exception.

We argue therefore that the EIS should include an analysis of the applicable water-related regulatory programs administered by state and federal agencies, including FERC, the WVDEP, the Virginia Department of Environmental Quality, the U.S. Army Corps of Engineers, and the U.S. Forest Service.

The analysis provided in the EIS should focus on recent and current pipeline construction projects conducted in mountainous terrain similar to that of the proposed ACP route, and it should evaluate the significance of different factors contributing to water resource protection failure, including:

- 1) Non-adherence to regulatory requirements, standards, and guidelines
- 2) Issuance of waivers or authorization of variance from requirements, standards, and guidelines
- 3) Inadequacy of regulatory requirements, standards, and guidelines

This analysis is critical, given the extreme topographic and hydrologic challenges associated with the proposed pipeline construction.

⁵ DPMC, Regulatory System Investigation, National Forest Pipeline (2015-2016). See: [Dereliction of duty](#); [We do the right thing; always have](#); [Peters Mountain revisited](#); and [Case study number 1](#)

⁶ WVDEP, October 1, 2014, [Consent Order No. 8078](#)

3. The EIS should describe and evaluate provisions for assessment, baseline data collection, and monitoring of the physical and biological condition of streams, wetlands, and groundwater that will be crossed or potentially subject to impact from pipeline right-of-way clearing, construction activity, access roads, and staging areas.

The EIS should specifically address and recommend sampling and analysis protocols, schedules for sampling and analysis, locations of sampling and data collection, and provisions for timely public access to data. Critical baseline data should be required and made available for public analysis during the preparation of the EIS and prior to project approval.

Critical data include:

- Water quality. Dominion has indicated that it will measure the water quality of supply wells and springs but has not provided specific protocols. Dominion has not indicated any plans for measuring the water quality of streams, wetlands, and springs that are not used for water supplies. Dominion should be required to specify protocols for obtaining baseline data and construction-period and post-construction-period data for both surface and groundwater, including methods of data collection and analysis, methods and standards of quality control and quality assurance, and methods that account for temporal variation related to seasonality and hydrologic conditions.
- Water quantity and discharge. A primary threat is loss of water associated with springs, wells, streams, wetlands, and karst systems. The methods for measuring water quantity or discharge, including determination of temporal variation need to be established.
- Biological parameters. Dominion has not indicated plans for monitoring pipeline construction-period and post-construction-period impacts on aquatic biota. Stream, wetland, spring, and karst-system biota need to be inventoried within the spatial extent of possible impact. Particular emphasis should be placed on rare species, threatened and endangered species, species of special conservation concern, and species that are restricted to particular, limited, and sensitive habitats. Methods for determining baselines and monitoring aquatic biota need to be established.

The spatial extent of necessary baseline, construction-period, and post-construction-period physical and biological monitoring of both surface and groundwater resources needs to be objectively determined in the context of EIS preparation. As indicated above, Dominion has not indicated any plans for measuring the water quality of streams, wetlands, and springs that are not used for water supplies.

With respect to water supplies, Dominion has simply indicated that it will monitor the quality and yield of wells and springs within 500 feet of the pipeline in karst and otherwise within 150 feet of the pipeline. These distances are arbitrary and inadequate, especially in karst terrain where groundwater and surface water connectivity is determined by the karst structure and not by distance. Surface water typically enters the subsurface karst system through sink holes, fractures, and sinking streams and often resurges miles away. Surface disturbance and introduction of sediment or chemical contaminants can alter or contaminate flow in karst systems resulting in impacts that are miles away from the causal activity, even when the causal activity is not itself on karst. The Forest Service has experience with these problems.⁷

⁷ Sediment-laden water associated with construction of the Appalachian Scenic Highway on the Monongahela National Forest was transported two miles before reaching springs at a fish hatchery, first by surface water in two sinking streams, then via subsurface flow ([Monongahela National Forest, 1982](#)). In another instance, spilled diesel fuel associated with a

Dominion's preliminary karst surveys and reports provide no indication that recharge areas or sinking streams have been identified or even considered a problem. Dominion resource reports and supplemental submissions limit consideration of groundwater impacts to designated source-water protection areas for public water supplies. Identification of risks and mitigation options requires determination of karst recharge areas and resurgence locations. These determinations must occur prior to approval of the project, and the methodologies and results of the necessary investigations should be made available during the preparation of the EIS.

4. The EIS should identify specific thresholds or objective changes in water quality, quantity, physical habitat structure, and biological community status that will trigger corrective or remedial response.

The EIS should identify specific thresholds or objective changes in water quality, quantity, physical habitat structure, and biological community status that will trigger corrective or remedial response. The options and criteria for corrective and remedial response should be identified during the preparation of the EIS and prior to project approval. The EIS should identify a process, involving independent and qualified experts for determination of threshold exceedance, liability, and supervision of corrective and remedial response. FERC should incorporate these criteria and provisions as conditions of project approval.

5. The EIS should quantitatively compare the terrain of the currently proposed GWNF-6 route with that of other route alternatives that were previously rejected by Dominion as too difficult.

Dominion has rejected co-location with the existing Ni-Source Columbia Gas WB-Xpress pipeline, which connects with the major north-south Transco pipeline corridor east of the Appalachians, which is scheduled for upgraded capacity, and which is located in a designated National Forest Utility Corridor. Selection of an alternative involving co-location with the existing WB-Xpress pipeline corridor would presumably not require revision of national forest management plans.

Dominion also rejected a group of routes designated MNF-3, 4, and 5 due to the presence of additional karst (compared to other routes) and rugged terrain that would create problems during construction and difficulties with slope restoration and stabilization. Spatial analysis conducted by the DPMC, however, indicates that terrain problems associated with the currently proposed GWNF-6 route closely match the problems of the previously rejected MNF-5 route. The following text is excerpted from Dominion's analysis of alternative routes.⁸

. . . disadvantages and challenges associated with MNF 3, 4, and 5. First and foremost is the difficulty of the terrain crossed by these routes, particularly in the areas west, south, and east of

2015 pipeline project on the Jefferson National Forest entered the karst system and contaminated a public water supply serving 4000 customers ([DPMC, 2016](#)).

⁸ Resource Report 10, submitted by Dominion in September 2015 to FERC, beginning on page 10-88.

Snowshoe/Thorny Flats Of particular significance along the southern routes is the jumbled arrangement of ridgetops in the area surrounding Thorny Flats. The mountain ridges in this area . . . have no primary orientation and consist of a jumbled mass of peaks and ridge tops. . . .

Crossing this terrain with a 42-inch-diameter pipeline while attempting to minimize or avoid traversing steep side slopes would result in multiple, steeply graded, up-and-down approaches to ridgetops that would in many instances require heavy equipment winching on both sides of the ridge from single or multiple staging areas on the ridge top. . . .

Because of the narrowness and remoteness of the ridgetops, most of these areas would require the construction of a graded winching platform on top of the ridge, and depending on the slope, could require construction of an access road along the ridge to access the winch platform for delivery of construction equipment and pipe sections. Access to the remote areas crossed by the three southern alternative routes [MNF-3, 4, and 5] would be difficult due to the lack of existing nearby roads. . . , which could require the construction of new roads into these areas. Slope restoration and stabilization would also be difficult to achieve in many of the steep areas crossed

The DPMC has conducted a preliminary analysis comparing critical attributes of the GWNF-6 route with the MNF-5 route in Pocahontas County, West Virginia – which includes the areas “*west, south, and east of Snowshoe/Thorny Flats*” that are described as problematic in the above text from Dominion’s Resource Report 10. The following table, compares some of the factors associated with construction, slope stabilization, and restoration problems.

Comparison of Centerline Physical Characteristics for GWNF-6 and MNF-5 Alternate ACP Routes in Pocahontas County, West Virginia

ROUTE	LENGTH (miles)	SOIL EROSION HAZARD¹	STEEP SLOPES²	SIDE SLOPES³	STEEP SIDE SLOPES⁴	KARST (miles)
MNF-5	26.3	84.3%	45.0%	21.1%	6.5%	17.1
GNWF-6	24.0	88.4%	45.0%	44.9%	18.3%	13.5

¹ Soils in the severe to moderate erodibility class for forest trails and roads as indicated in the USDA SSURGO data set.

² Steep slopes include centerline locations with slopes $\geq 25\%$.

³ Side slopes intersect the pipeline centerline between 45 and 135 degrees.

⁴ Steep side slopes are side slopes $\geq 25\%$.

This preliminary comparison indicates that Dominion’s currently proposed route, GWNF-6, is equally, if not more problematic with respect to construction, runoff management, slope stabilization, and restoration than the MNF-5 route, which Dominion previously rejected as too difficult. As indicated in the table, the percentage of the GWNF-6 route on side slopes is more than twice that of the MNF-5 route, and more significantly, the percentage of GWNF-6 route on steep side slopes is almost three times that of the MNF-5 route. Yet, Dominion has repeatedly asserted the need to avoid construction on side slopes.

We agree with Dominion that the MNF-5 route presents unacceptable challenges for construction and restoration of the proposed pipeline. Based on the same criteria, we observe that the GWNF-6 route presents challenges that are equally if not more challenging for construction, stabilization, and restoration. We further observe that these same extreme conditions exacerbate problems with erosion and sediment control and stormwater management.

Our preliminary comparison reveals a significant disparity or lack of consistency in Dominion's analysis of alternative routes, and real questions are raised concerning the integrity of the alternatives analysis presented in Dominion's resource reports and supplemental submissions to FERC and the Forest Service.

The EIS should include a description of Dominion's quantitative criteria for selection of a preferred route among alternative routes and should provide an objective examination of previously rejected routes in relation to those criteria.

6. The EIS should evaluate potential impacts of the proposed ACP on high-integrity forests and ecological core areas

The central Appalachian mountain forest region, including the area that would be crossed by the ACP, is notably rich in biological diversity. This is due in large part to the extent of continuous interior-forest habitat. Construction of roads and utility corridors fragments forest habitat and threatens this biodiversity.

Examination of available landscape classification maps indicates that the proposed ACP would cross the greatest concentration of high-integrity forest and ecological core high-scoring areas in both Virginia and West Virginia.^{9,10} The ecological significance of this region, as a repository for natural biodiversity, can only increase in the future, given projected changes in climate. Many species and biological communities are dependent on the relatively cool and moist environment associated with the region's high-elevation forested mountains. As temperatures increase and precipitation patterns change, the range of suitable conditions for many species will diminish or disappear altogether. Red spruce, eastern hemlock, the endemic mountain salamanders, and brook trout are among the plant and animal species at greatest risk.

Analysis of species distribution changes under a range of future climate change scenarios shows dramatically diminished distributions of many species, with remaining distributions concentrated in the higher mountains of the central Appalachian region.¹¹ The reduced range for

⁹ M. Dougherty and E. Byers. 2008. Preliminary Calculation of Landscape Integrity in West Virginia Based on Distance from Weighted Disturbances, Technical Support and Wildlife Diversity Units, Wildlife Resources Section, West Virginia Division of Natural Resources, Elkins, WV.

¹⁰ Natural Heritage Program, Virginia Department of Conservation and Recreation, 2007. [Virginia Natural Landscape Assessment](#).

¹¹ Kane, A., T.C. Burkett, S. Klopfer, and J. Sewall, 2013. Virginia's Climate Modeling and Species Vulnerability Assessment: How Climate Data Can Inform Management and Conservation. National Wildlife Federation, Reston, Virginia.

many species (for example, native brook trout) will be bisected by the proposed ACP. Construction of the ACP would increase the potential for regional species extirpation associated with climate change by further fragmenting and degrading the remaining refugia.

In conclusion, we call your attention to the fact that many of the issues and concerns addressed in these comments were also presented in our comments submitted to FERC on 4/28/15 during the initial EIS scoping period for the proposed ACP project. Most of our comments, however, were not addressed in the responses to scoping comments provided by Dominion, nor in FERC information requests to Dominion, nor in Dominion's resource reports or supplemental submissions to FERC.

It thus appears that our previously submitted comments have not been considered in the EIS development process. We hope that FERC will take the opportunity provided by the current comment period to correct this failure and ensure that our comments and concerns are explicitly addressed in Dominion's responses to scoping comments and in the draft EIS.

Finally, we emphasize again that critical information necessary for meaningful and well-informed environmental review has not been obtained by FERC or made available to the public. Dominion has asked FERC to expedite review of the proposed ACP by waiving FERC regulations and proceeding with the review process in the absence of required information.¹² Rational and effective implementation of NEPA cannot proceed on this basis, and we contend that FERC and the Forest Service must reject Dominion's request.

As stated above, we intend to provide additional comments as missing project information becomes available and further analysis is completed.

Thank you for the opportunity to provide comments on this important matter.

Sincerely,



Rick Webb, Coordinator
Dominion Pipeline Monitoring Coalition

cc: Kevin Bowman, FERC
Clyde Thompson, USDA Forest Service
Joby Timm, USDA Forest Service
Jennifer Adams, USDA Forest Service

¹² Amendment to Application, submitted by Dominion to FERC on 3/11/16.