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November 30, 2015

Federal Energy Regulatory Commission
ATTENTION: Kimberly D. Bose, Secretary
PO Box 2021
888 First Street NE., Room 1A,
Washington, DC 20426.

Re: Project Docket # PF15-3-000 Potential Issues regarding the proposed Mountain Valley Natural Gas Pipeline. The Mountain Valley Pipeline (MVP) (Docket No. CP16-10-000) and Equitrans (Docket No. CP16-13-000) have filed applications with the Federal Energy Regulatory Commission (FERC) to construct, own and operate the Mountain Valley Pipeline.

The Smith Mountain Lake Association (SMLA) is hereby filing comments regarding potential environmental deficiencies with the proposed Mountain Valley Natural Gas Pipeline Plan, Project Docket # PF15-3-000 and specifically MVP filed applications (Docket No. CP16-10-000 and CP16-13-000). SMLA references our prior filing on June 9, 2015 with our comments on MVP Project Docket # PF15-3-000 environmental concerns.

SMLA is also hereby requesting that our following comments which are late filed by one business day be accepted for reasons explained in the following Comments and Petition.

Thank you,

Peter Lewis

Peter Lewis
SMLA, President

Larry Iceman

Larry Iceman
SMLA Chairman, Water Quality Monitoring

Smith Mountain Lake Association's (SMLA)
Comments on Mountain Valley Pipeline, LLC; Equitrans, LP;
Notice of Applications
FR Doc. 2015-28771
Regarding The Proposed Mountain Valley Pipeline Project

FERC Project Docket # PF15-3-000

November 30, 2015

Mountain Valley Pipeline, LLC

Docket No. CP16-10-000
Docket No. PF15-3-000

Equitrans, LP

Docket No. CP16-13-000
Docket No. PF15-22-000

**SMITH MOUNTAIN LAKE ASSOCIATION COMMENTS AND PETITION TO
ACCEPT LATE FILED COMMENTS**

Smith Mountain Lake Association (SMLA) is a membership organization representing its members on issues that affect Smith Mountain Lake (SML) and its watershed. The Lake sits in Bedford, Franklin and Pittsylvania counties in Virginia, and its watershed extends to other waterways feeding the Lake. SMLA herein expresses its concerns regarding additional analyses required by law preceding the approval of construction of the Mountain Valley Pipeline project in areas affecting the Smith Mountain Lake watershed.

The Federal Energy Regulatory Commission (FERC) released the subject Notice on November 5, 2015, but the Notice did not appear in the Federal Register until November 12, stipulating a comment deadline of November 26, the Thanksgiving holiday. Subsequently FERC released an ERRATA NOTICE, changing the comments deadline to November 27. The ERRATA NOTICE has not appeared yet in the Federal Register. Because of the late notice, and difficulty of interactions with outside sources of information during the holiday period, SMLA requests permission to file today, one business day after the modified deadline.

Background Information

The Smith Mountain Lakes Project (SMLP) is a two-reservoir pumped storage hydroelectric generation project facility near Roanoke, Virginia, completed in the mid-1960s. SMLP is operated by Appalachian Power Company (APCO) which is owned by American Electric Power (AEP). SMLP has 600 miles of shoreline and 25,000 surface acres of water. The project is also used for recreation and a source of potable water for two of the surrounding four counties comprising Bedford, Campbell, Franklin, and Pittsylvania. It is a major tourism attraction for the region and an important source of tax revenue for the surrounding counties.

The SMLP has a larger upper reservoir -- Smith Mountain Lake (SML) -- and a smaller lower reservoir-- Leesville Lake (LVL). Water stored in SML first passes through turbine-generators

in the powerhouse to produce electricity and is discharged into LVL. Much of the water is retained in (LVL) and pumped back into the SML for re-use. A portion of the water goes through the turbine-generators at the Leesville powerhouse to generate additional electricity and to meet the minimum discharge requirements of the project's operating license. Three significant rivers flow into the project. The Roanoke and Blackwater Rivers flow into the SML project above the SML Dam and the Pigg River flows into LVL above the LVL Dam. Via the pump-back feature of the project, some of the water from the Pigg River and LVL also co-mingles with the SML waters.

The MVP as planned will pass the SMLP to the south, mainly in Franklin County, and then into Pittsylvania County where it crosses under the Pigg River and continues to terminate at the existing Transcontinental Gas Pipeline Company LLC's existing Zone 5 Compressor Station 165 in Pittsylvania County, Virginia. The pipeline as planned will pass four miles north of the town of Rocky Mount, Virginia, the Franklin County seat. Franklin County currently has no access to natural gas.

It should be noted that water released from the LVL dam flows into the downstream Virginia Department Game and Inland Fisheries Hatchery and past the Dominion Power Plant then into Lake Gaston and eventually the Albemarle-Pamlico Sounds in North Carolina.

The Smith Mountain Lake Association (SMLA) represents the interests of owners of 1,300 properties around SML. One of SMLA's most important programs is to monitor and improve the water quality of the Smith Mountain Lake.

SMITH MOUNTAIN LAKE ASSOCIATION COMMENTS

Deficiencies in the Mountain Valley Pipeline (MVP) Documents Filed with the Federal Energy Regulatory Committee (FERC)

Introductory Comments and Requested Actions

The Mountain Valley Pipeline (MVP) has filed an application (Docket No. CP16-10-000) with the Federal Energy Regulatory Commission (FERC) to construct, own and operate the Mountain Valley Pipeline. The MVP materials supporting this application have been reviewed to identify any deficiencies that might impact the performance of the SMLP (FERC project number 2210-199) that is operated by the Appalachian Electric Power Company. The major deficiency that was identified was the explicit exclusion in Section 2.1.1 by MVP of any effects from the MVP project on the near-surface groundwater flow in surficial aquifers. As discussed below, this near-surface groundwater flow is the major water inflow to the SMLP and any reduction or redirection in that inflow could adversely affect the economic viability of the SMLP. This primary deficiency directly leads to other deficiencies in Sections 1.10, 2.1.1.3, 2.1.4.1, 2.2.2 and 2.2.2.4 of the MVP filing. Each of these additional deficiencies is also discussed below.

Our request is that each of these areas and our concerns are reflected in the upcoming Environmental Impact Statement so that all parties can comment on them. Our greatest concern

is that a possible problem associated with the MVP pipeline that could adversely affect the economic viability of the SMLP might occur and not be recognized until the pipeline has been installed. At that point, mitigation measures may not be possible.

Specific Areas of Deficiency

The following section identifies the specific portions of the MVP FERC filing where deficiencies exist. The specific section number and section title of the MVP filing are listed in bold, followed by key text from that section in quotation marks. The text following that introductory material describes the deficiency we see, the reasons why it is considered a deficiency, including its potential impact on the SMLP, and any recommendations for resolving the deficiency.

Section 2.1.1 (Aquifers—Geology, Hydrology, Uses and Quality) “Groundwater aquifers used for public and private water sources can be located in unconsolidated units or lithified bedrock units, depending on the location. Unconsolidated surficial deposits, such as alluvium, alluvial fans, and colluvium, are found in all the aquifer systems. These surficial aquifers are discontinuous both in extent and in terms of their aquifer characteristics and are not commonly used in the Project area. As a result, surficial aquifers have not been mapped by state agencies or otherwise documented in the area of the Project. Bedrock aquifers are the primary source of groundwater in the Project area.”

As explained in the following text, the MVP Project risks interrupting the near-surface groundwater flow that constitutes a major fraction of the water flowing into the SMLP. MVP needs to complete and file studies explaining how it will assess this threat and protect against harmful interruptions as appropriate.

The SMLP is fed by the Roanoke, Blackwater and Pigg Rivers, representing drainage from Montgomery, Salem, Roanoke, Franklin and Pittsylvania counties, together with some drainage from Bedford County. The drainage area for the SML/Leesville project below the Niagara dam on the Roanoke River below Roanoke is primarily from Franklin and Pittsylvania counties, about 965 sq. mi or roughly 65% of the total drainage area (Reference 1).

As shown in Figure 1, reproduced from Reference 2, groundwater in this region can be roughly divided into two components: (1) the deep groundwater in the fractured bedrock and (2) the near-surface (or surficial) groundwater lying above the bedrock in the regolith saturated zone. Reference 2 states “Because of the relative high porosity of the regolith, most recharge is stored in this unit and is released slowly to the underlying bedrock fractures. Because fractures and dissolution openings in the bedrock are conduits for ground-water flow, well yields are greatest where wells intersect fractures or dissolution opening that are large, numerous, or both.”

This near-surface groundwater constitutes a major portion of the water flow into the SMLP, primarily through its flow into streams and rivers and through the lake shores. This near-surface groundwater flow also shows a distinct seasonal variability and a strong dependence on winter groundwater recharge. Reference 3 indicates this groundwater flow (also referred to as base

flow) constitutes about 60-70% of the total annual flow into the project. The results of our analyses in References 4 and 5 are consistent with these findings.

In the SML/Leesville drainage areas in Franklin and Pittsylvania counties, the median depth of the bedrock is about 58 ft. below the land surface, with the water table median depth about 12 to 17 ft. above the bedrock (Reference 6). However, Reference 6 also states that minimum depths to the bedrock can be within a meter or so from the land surface. We believe it is reasonable to assume these regions of shallow bedrock have shallow water tables in the saturated regolith that are also nearer the surface.

Under these conditions and this assumption, anytime the MVP pipeline cuts into the bedrock it will cut into the water table and potentially disrupt the flow of near-surface groundwater. From Appendix 6B of the MVP FERC filing, locations in Franklin County where the bedrock can potentially lie within the depth of the pipeline trench occur 43 times, for a total distance of 15.9 miles, about 44% of the total pipeline 36 mile path through Franklin County.

As a result, the MVP may potentially disrupt the flow of groundwater into the SMLP for a large fraction of Franklin County in at least 3 possible ways:

1. The pipeline trench may block the flow of groundwater into the lakes, reducing that flow and allowing a greater fraction of the near-surface groundwater to enter the deeper bedrock
2. The blasting in areas where the pipeline must cut into the bedrock may create additional fractures in the bedrock, allowing a greater fraction of the near-surface groundwater to enter the deeper bedrock, bypassing the lakes.
3. Since there is a significant vertical drop in the height of the land crossed by the pipeline path in Franklin County, going from about 2700 ft. where it enters the County to about 900 ft. where it exits the County, the pipeline trench may act as a conduit to shift groundwater flow from the Smith Mountain Lake drainage areas to the Leesville Lake drainage areas.

Given that near-surface groundwater flow into the two lakes is a major component of total water flow, all 3 possibilities--- a reduction in groundwater flow into the two lakes in the first two possibilities or a transfer of groundwater flow from Smith Mountain Lake to Leesville Lake in the third possibility--- could have a significant negative impact on the economic feasibility of the SMLP for electrical energy generation. .

Consequently, we believe MVP was incorrect in their decision to ignore surficial aquifers and that this failure represents a major deficiency in their filing. Given the importance of near-surface groundwater to the success of the SMLP, we also believe that MVP should address this near-surface groundwater issue by consulting with a recognized authority on groundwater flows in the Franklin and Pittsylvania counties.

Section 1.10 (Cumulative Impacts) The MVP filing states “The purpose of cumulative impacts analysis is to identify and describe cumulative impacts that would potentially result from implementation of the Project. ... Projects meeting one or more of the criteria listed below will

be considered in this cumulative analysis.....Specifically, the cumulative analysis for MVP will include:

- Minor projects, such as residential development, small commercial development, and small transportation projects within 0.25 mile of the Project area;
- Major projects, such as large commercial, industrial, transportation and energy development projects within a 10-mile corridor of the Project area (5 miles of the Project centerline). This includes natural gas well permitting and development projects;
- Major projects within watersheds crossed by the Project. Watershed boundaries were identified using the HUC-10, of 5th Level Watershed; and”

The MVP filing does not address all of the possible cumulative impacts, failing to assess any possible impact on the SMLP. MVP needs to complete and file studies assessing any cumulative impact on this energy project and identifying mitigation measures as appropriate.

Cumulative effects are defined in the MVP filing as “the impact on the environment which results from the incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions...” The second and third bullets above together indicate cumulative analysis should be conducted for major energy projects that are within watersheds crossed by the Project. The MVP filing states in Table 2.2.1 that the MVP project crosses 7 HUC-10 watersheds that feed the SMLP, with the acronym HUC standing for Hydrographic Unit Code. However, the SML/Leesville project is not included in the list of energy projects addressed in Table 1.10.1, rendering MVP’s cumulative impact assessment complete. Given the importance of near-surface groundwater to both Smith Mountain Lake and Leesville Lake, this Table should be expanded to include the SMLP and appropriate studies conducted to assess the threat and possible mitigation measures.

Section 2.1.1.3 (Water Quality) “The Project is not anticipated to have any impacts to groundwater resources or require additional mitigation measures. This is due to the surficial nature of the disturbance, the relatively short-term nature of the disturbance, and because the aquifers and (sic) typically much deeper than any proposed disturbance area.”

MVP’s conclusion about water quality is premature as a result of their decision in Section 2.1.1 to ignore any significant impact of the MVP Project on the near-surface groundwater flows. Again, MVP should conduct appropriate studies to identify any threats resulting from near-surface water contamination and appropriate mitigation measures.

From the discussion earlier about the importance of near-surface groundwater to both Smith Mountain Lake and Leesville Lake, contamination of the near-surface groundwater caused by spills of various chemicals, oils and fuels in the temporary work areas from pipeline may impair the water quality of the lakes. Moreover, groundwater contamination may last for a long period of time, well past the pipeline construction period. The water from the lakes will be used in the future for public drinking water by the Bedford Regional Water Authority and it is anticipated that other municipal areas will also draw drinking water from the lakes in the future. We feel that some discussion of this contamination possibility and appropriate mitigation measures, if necessary, should be added to the MVP filing.

Section 2.1.4.1 (Construction Activities) The MVP filing states “Surficial aquifers could experience minor disturbances from changes in overland water flow and recharge caused by clearing and grading the right-of-way. The ability of the soil to absorb water can be altered through near-surface compaction by heavy construction vehicles. This minor impact would be temporary and is not expected to significantly impact groundwater resources or quality. It is noted that most groundwater use along the Project alignment taps deeper bedrock aquifers.”

MVP’s conclusion in this section is premature for the same reason cited in section 2.1.1.3--- ignoring the importance of near-surface groundwater to both Smith Mountain Lake and Leesville Lake.

As shown by our earlier comments under section 2.1.1, near-surface groundwater is a major contributor to the Smith Mountain and Leesville Lakes, at variance to the MVP statement above about most groundwater use coming from the deeper bedrock aquifers. In particular, near-surface compaction along the pipeline trench in the areas where the trench cuts into bedrock in Franklin County may act to block the flow of groundwater into the two lakes, with adverse effects on the economic viability of the SMLP. MVP needs to document how it will protect this near-surface groundwater flow during construction.

Section 2.2.2 (Sensitive Waterbodies) The MVP filing states “Sensitive surface waters include the following:

- Waters that support fisheries of specific concern (including trout streams).

Several waterbodies crossed by the Project possess one or more of the above characteristics of sensitive surface waters.”

MVP fails to include either Smith Mountain Lake or Leesville Lake in its analysis of sensitive waters that support fish hatcheries.

The Brookneal hatchery below the Leesville dam requires minimum flows during some months of the year to support fish hatcheries. If the MVP pipeline causes near-surface groundwater inflows to the lakes to decrease, the reduced lake levels may not be able to satisfy the required discharges for the Brookneal fish hatcheries. Since the MVP Project crosses many of the streams and rivers that feed the lakes supporting the Brookneal hatchery, the Smith Mountain Lake and Leesville Lake should be included in the discussion of sensitive waters. If there is a possible impact on the Brookneal hatchery, appropriate mitigation measures should be developed by the MVP.

Section 2.2.2.4 (Surface Water Protection Areas and Public surface Water Supplies) The MVP filing has a list of public water supplies along the MVP Project in Table 2.2.8 and their distance to them. This Table needs to be expanded to include the Bedford Regional Water Authority (BRWA) which is now constructing water intakes to take drinking water from Smith Mountain Lake.

The BRWA's plan to withdraw drinking water from Smith Mountain Lake can be adversely affected by low lake levels. If the MVP disrupts the flow of near-surface groundwater to the lakes sufficiently, lake levels may drop low enough to limit BRWA's ability to withdraw water from Smith Mountain Lake. The BRWA should be included in Table 2.2.8 of the MVP filing and, depending on the results of the analysis of a knowledgeable hydrologist on the MVP pipeline's impact on groundwater flow to the lakes, appropriate mitigation measures should be developed.

Summary

The explicit exclusion in Section 2.1.1 by MVP of any effects from the project on the near-surface (or surficial) groundwater flow is the primary deficiency in the MVP filing with FERC. As discussed above, this near-surface groundwater flow is known to be a major fraction of the water inflow to the SMLP and any reduction or redirection in that inflow could adversely affect the economic viability of the SMLP. Several other deficiencies are also discussed, but these are seen as a consequence of this primary deficiency. It is felt that a hydrologist familiar with groundwater flow in the Franklin/Pittsylvania counties should be consulted in the resolution of these issues and concerns. In addition, appropriate long-term monitoring of near-surface groundwater flows in the Franklin/Pittsylvania counties should be part of the MVP Project to monitor any impact of the MVP on the SMLP.

References:

1. Current Conditions for Virginia Stream Flow, USGS website at <http://waterdata.usgs.gov/va/nwis/current/?type=flow>, (drainage areas are listed in the Map/Location section for each USGS gage)
2. Summary of the Hydrogeology of the Valley and Ridge, Blue Ridge, and Piedmont Physiographic Provinces in the Eastern United States, L.A. Swain, T.O. Mesko and E.F. Hollyday, IS Geological Survey Professional Paper 1422-A, 2004
3. Estimated Hydrologic Characteristics of Shallow Aquifer Systems in the Valley and Ridge, the Blue ridge, and the Piedmont Physiographic Provinces Based on Analysis of Streamflow Recession and Base Flow, A.T. Rutledge and T.O. Mesko, U.S. Geologic Survey Professional Paper 1422-B, 1996
4. The Role of Groundwater in the Roanoke River Streamflow, Dr. Charles Sinex, presented at the Roanoke Rivers Currents Conference at Ferrum College, October 2013
5. Study of Water Level and Release Issues at Smith Mountain and Leesville Lakes, Smith Mountain Lake Association Board Water Management Committee, February 2015, public comments provided to Appalachian Electric Power Company
6. Groundwater Resources of the Blue Ridge Geologic Province, Virginia, B.A White, Virginia Department of Environmental Quality Technical Bulletin 12-01

Figure 1: Groundwater Components of the Regolith and Bedrock

