

**APPENDIX M**  
**Winter Construction Plan**

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# Appendix M

## Winter Construction Plan

### Mountain Valley Pipeline Project

*Prepared by:*



November 30, 2017

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# Mountain Valley Pipeline Project Winter Construction Plan

## 1.0 INTRODUCTION

Mountain Valley Pipeline, LLC (MVP), a joint venture between EQT Midstream Partners, LP and affiliates of NextEra Energy, Inc.; Con Edison Gas Midstream LLC; WGL Holdings, Inc.; and RGC Midstream, LLC (collectively referred to as MVP), is seeking a Certificate of Public Convenience and Necessity (Certificate) from the Federal Energy Regulatory Commission (FERC) pursuant to Section 7(c) of the Natural Gas Act authorizing it to construct and operate the proposed Mountain Valley Pipeline Project (Project) located in 17 counties in West Virginia and Virginia. MVP plans to construct an approximately 303-mile, 42-inch-diameter natural gas pipeline to provide timely, cost-effective access to the growing demand for natural gas for use by local distribution companies, industrial users, and power generation in the Mid-Atlantic and southeastern markets, as well as potential markets in the Appalachian region. Construction is anticipated to begin in 2017 and conclude in the fourth quarter of 2018. Construction on National Forest System lands will occur in 2018.

The proposed pipeline will extend from the existing Equitrans, L.P. transmission system and other natural gas facilities in Wetzel County, West Virginia to Transcontinental Gas Pipe Line Company, LLC's (Transco) Zone 5 compressor station 165 in Pittsylvania County, Virginia. In addition to the pipeline, the Project will include approximately 171,600 horsepower of compression at three compressor stations currently planned along the route, as well as measurement, regulation, and other ancillary facilities required for the safe and reliable operation of the pipeline. The pipeline is designed to transport up to 2.0 million dekatherms per day of natural gas.

A 3.6-mile long segment of the Project will cross portions of the Jefferson National Forest (JNF) in Monroe County in southern West Virginia and in Giles, Craig, and Montgomery counties in southwestern Virginia. The JNF is managed by the U.S. Forest Service (FS) of the U.S. Department of Agriculture. Another 60-foot segment of the Project will cross the Weston and Gauley Bridge Turnpike Trail (Weston and Gauley Turnpike) in Braxton County, West Virginia, which is administered by the U.S. Army Corps of Engineers (USACE). Approval to cross land managed by two or more federal agencies is the responsibility of the U.S. Department of the Interior, Bureau of Land Management (BLM) through issuance of a Right-of-Way Grant. Project-wide construction environmental compliance will be the responsibility of the FERC. The FS and USACE will also ensure compliance across lands managed or administered by those agencies. Because the majority of federal lands crossed are managed by the FS, this plan focuses on the JNF, noting any additional or different requirements that are specific to the crossing of the Weston and Gauley Turnpike.

The FS will be responsible for enforcement of the terms and conditions of the BLM's right-of-way Grant on National Forest System lands during the term of the right-of-way Grant for the Mountain Valley Pipeline project. Compliance will be monitored on the JNF portion of this project by the FS Project Manager and the Authorized Officer's designated compliance monitors. FS will have stop work authority per terms outlined in the BLM right-of-way grant. FS will also have stop work authority if unsafe work conditions are encountered during construction.

The Project has potential to impact sensitive environmental resources and, as a result, environmental protection measures have been developed to minimize potential impacts on these resources and will be applied, as applicable, to the Project.

Based on the Project construction schedule, MVP anticipates that standard construction will occur through the 2017-2018 winter season and restoration continuing into and through the 2018–2019 winter season. All winter work will be conducted in accordance with the FERC's Plan and Procedures, as well as the Project Erosion and Sedimentation Control Plan and Construction Stormwater Permit (VA). MVP has developed this Winter Construction Plan (WCP) to outline the special procedures and best management practices (BMPs) that will be implemented during the winter season construction period for installation of the Project facilities. These special procedures and BMPs should be considered additions to the other plans as described above, procedures, and BMPs MVP has specified for use on the Project and will be used in conjunction with those plans, procedures, and BMPs, as applicable. Final restoration and reseeded will occur the following spring.

This WCP will be considered to be in effect when any of the following conditions occur:

- The ground is frozen and plating of topsoil occurs;
- Equipment slippage occurs from operating on frozen ground or vehicles risk sliding outside established right-of-way clearing limits;
- Road crossings cannot be adequately compacted;
- Backfill material freezes to the extent that adequate compaction becomes difficult; and/or
- Topsoil stockpiles are frozen and cannot be uniformly redistributed across disturbed areas or separated from the sub-grade material.

Final restoration and reseeded will occur the following spring.

## **2.0 STABILIZATION/WINTERIZATION**

The trench will be backfilled to the extent possible using subsoil.

Slope stabilization and stability of cuts and fills will be restored to the extent possible, and water bars will be installed crossing the right-of-way to divert surface run-off away from the construction area.

Equipment mats will be removed from stream areas where destabilization of installed matting could potentially occur due to any unexpected increase in stream water flow caused by increased snow run-off or other natural factors.

Breaks will be cut into spoil piles and through the berm across the ditch line to allow proper drainage across the right-of-way.

Wetland areas where mats are removed will be restored to the extent possible.

Disturbed soils adjacent to streams and wetlands will be mulched, where needed.

Water bars, berms and erosion/sediment control measures will be installed to minimize erosion along the right-of-way and disposition of sediments beyond the boundaries of the right-of-way.

In areas where final restoration has not been achieved, the right-of-way will be mulched and left in a roughened condition to reduce potential of erosion during times of snow thaw and/or significant rain accumulation.

### **3.0 EROSION AND SEDIMENT CONTROL MEASURES**

Temporary water bars will be constructed on slopes greater than 5 percent where final clean-up and permanent erosion and sediment control devices have not been installed.

Mulching will be applied to all slopes (actively cultivated cropland exempt) concurrent with or immediately after seeding, where necessary to stabilize the soil surface and to reduce wind and water erosion. Mulch will be uniformly dispersed over the area to cover 100 percent of the ground surface at a rate of 2 tons per acre of straw or its accepted equivalent, unless the local soil conservation authority, landowner, or land managing agency approval make formal request of any alternative action to be taken by MVP in writing.

Temporary mulch will be applied to the right-of-way at a rate of 3 tons per acre on slopes greater than 5 percent and within 100 feet of waterbodies and wetlands where final restoration has not been established to the satisfaction of the Environmental Inspector.

If right-of-way is snow covered, the snow will serve as suitable ground cover. If snow cover recedes, exposed right-of-way will be stabilized utilizing the measures detailed in this plan.

The Environmental Inspector (EI) will suspend final clean-up activities and topsoil placement if topsoil cannot be evenly distributed. If the topsoil is frozen, spreading the topsoil and allowing it to thaw in the sun before spreading may occur. Frozen topsoil will not be returned to the right-of-way if it cannot be graded evenly.

If topsoil placement is suspended due to frozen conditions, normal temporary right-of-way stabilization procedures will be applied as ground conditions permit. The final clean-up schedule will vary, depending on ground conditions and time of construction. Where final clean-up and restoration have not been completed, the right-of-way will be left in a roughened condition to reduce potential for erosion during snowmelt. In upland areas, a slight crown may be left over the pipeline to account for settling as backfilled soils thaw.

Topsoil piles will be left in a stabilized condition and replaced when weather conditions permit proper de-compaction of the areas.

Temporary seeding will be applied as necessary to areas where topsoil has not been restored.

Sediment barriers (i.e., silt fence, straw bales, earthen berms) will be installed and maintained throughout the right-of-way at designated waterbodies, wetlands, and paved road crossings. These structures will be inspected per the permit conditions and adequately maintained during the winter construction season to ensure there are zero control failures. Erosion and sedimentation control measures will be installed and repaired as determined by the on-site environmental inspector. Equipment will be utilized as needed to assist with installations in frozen conditions.

#### 4.0 ACCESS ROAD USAGE

Access roads will be graded where needed. All access roads approved for this Project will remain in use during winter construction. All roads will be monitored and maintained in accordance with applicable permit and landowner requirements.

Snow removal by equipment will not be performed beyond the road surface to prevent mixing soil with snow.

#### 5.0 RIGHT-OF-WAY SNOW REMOVAL

If a snow event is followed immediately by a period of melting and runoff, the typical erosion and sedimentation control BMPs specified in MVP's Erosion and Sedimentation Control Plans (E&CPs) for stormwater management will apply, and no special measures will be necessary. If a significant (greater than 6 inches) snowfall event occurs and is followed by an extended period of freeze, the following procedures will be implemented:

- All snow removed from the right-of-way will be in compliance with the footprint laid out for the MVP Project. No equipment will be permitted beyond the limits of disturbance for the Project;
- MVP's contractor will work with the MVP's Environmental Inspectors to designate stockpile areas within the 125-foot construction right-of-way. Breaks in windrowed snow will be placed at drainage crossings and as requested by the affected landowner;
- Snow will be removed from topsoil or spoil storage areas prior to using;
- The use of snow removal equipment will be restricted to use within the limits of disturbance and approved access roads;
- Snow will only be removed from active work areas at the direction of MVP's Environmental Inspector;
- All snow and ice will be removed from pipe joints prior to being mobilized to position for alignment and welding. Plowing equipment used for snow removal operations will be equipped with 6-inch shoes to ensure blades do not remove topsoil or vegetation;
- Snow removal equipment will consist mainly of plowing equipment, such as bulldozers, loaders, utility trucks, dump trucks, or any construction vehicle that can be equipped with a plow and 6-inch shoes, and may include but is not limited to other equipment, such as snow blowers and hand shovels;
- Rather than blade as low as possible, snow removal operators will blade no lower than a height sufficient for construction vehicles to safely navigate the right-of-way;
- Snow removal operators will adjust blade height in areas of slope changes to ensure that contact with the ground is minimized to the greatest extent practical; and
- Pickup trucks with front mounted blades will plow all access roads. Intersections, driveways and other private roads will not be blocked by plowed or stockpiled snow. Removed snow will not mix with sidecast stored soils. No additional temporary work space has been identified for snow storage.

## **6.0 SOIL HANDLING**

Frozen topsoil stripping activities will be limited to the equipment capable of accurately stripping variable depths of topsoil; rippers mounted on a machine may be necessary to achieve depth penetration. If segregation of subsoil and topsoil cannot be accomplished without mixing, the topsoil salvage operation will cease until soil conditions improve and segregation requirements can be met.

MVP will minimize the amount of open trench to reduce the amount of snow that will have to be removed.

MVP will install highly visible construction fence around any open trenches in areas where the pipeline intersects known paths used for snowmobiling, hiking or other such activities.

The trench may be crowned to allow for more compaction and settling issues to occur in freezing and thawing conditions.

## **7.0 INSPECTION AND MAINTENANCE**

MVP will monitor and maintain erosion and sedimentation controls as specified in the FERC Plan and State E&SCP Permit Approvals. Erosion and sedimentation controls will be monitored daily in active construction areas and weekly in areas with no construction or equipment operation during the winter period.

When snow melts or the ground thaws, the frequency of inspections will increase as determined necessary by the environmental inspector to an extent necessary to confirm the integrity and effectiveness of all erosion and sediment control devices.

The contractor and MVP will continuously evaluate the condition of construction areas in an effort to determine if a need exists for additional temporary erosion and sediment control measures, and, as conditions allow, where these corrective measures should be taken.

The contractor shall have the proper equipment available at all times to allow access to the right-of-way under soft soil conditions.

## **8.0 SPRING AND SUMMER RESTORATION**

MVP and its contractor will identify any storm or winter damage that may have occurred on the right-of-way.

The contractor and MVP will evaluate the condition of the right-of-way and will determine if a need exists for additional temporary erosion and sediment control measures.

Trench compaction will be facilitated by back dragging, walking in backfill material with heavy equipment, and obtaining optimum moisture for the backfill material.

The Contractor will continue final restoration, which may require disking or tilling of the right-of-way to create a seed bed for germination.

Restoration of topsoil will occur, where practicable, after both the stockpiled topsoil and-exposed subsoil have thawed, and the ground has dried following the spring melt.