

**Mountain Valley Pipeline Project**

**Docket No. CP16-10-000**

**Attachment DR5 Land Use 1**



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## **Traffic and Transportation Management Plan**

Updated March 2017

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## 1.0 Introduction

Mountain Valley Pipeline, LLC (MVP) has developed this Traffic and Transportation Management Plan to describe the measures MVP and their Contractors will take to minimize potential impacts on federal, state and local roadways during the construction of the Project. This plan outlines traffic impact minimization measures, noxious weed control measures, and dust control methods that will be used on the Project to reduce impacts to the traveling public during construction.

**Note:** The operations and maintenance activities will be conducted with light, passenger-type vehicles, to minimize the impact to roadways and traffic once the project is in-service.

## 2.0 Traffic Impacts

Prior to construction, MVP will obtain the applicable Federal, State/Commonwealth and local road use and crossing permits as required. MVP personnel will comply with all permit requirements and conditions to provide for public safety and minimize impacts on public roads. A copy of the *Traffic and Transportation Management Plan* and applicable road use and crossing permits will be provided to the appropriate personnel and maintained at each Contractors' field office.

A designated MVP traffic coordinator will consult with State/Commonwealth and local agencies regarding detour routes, speed/load limits, and other use limitations, conditions or restrictions on the roads that will be utilized during construction. A Temporary Traffic Control (TTC) plan shall be submitted for review and approval at each location to the appropriate State/Commonwealth office. Prior to the start of construction, MVP will work with these agencies to obtain the most up-to-date traffic information for the roadways in the MVP Project area as well as ongoing road reconstruction or improvement projects in the vicinity of the pipeline route and facilities area. Where local and private roadways will be affected, MVP will coordinate with landowners and lessees of properties to mitigate potential impacts on those roads. Similarly, where roads on public lands will be affected, MVP will coordinate with the appropriate managing agency to mitigate potential impacts on roads and/or implement a traffic and transportation procedure. As discussed further in the following sections, MVP will place and maintain traffic control measures such as flag persons, warning lights, signs, and/or other barriers, per the applicable West Virginia Division of Highways Manual on Temporary Traffic Control for Streets and Highways (WVDOH-MTTC), the Virginia Work Area Protection Manual (WARM), the Virginia Supplement to the MUTCD, and also in accordance with any Local, State and Federal Regulations and Laws to minimize traffic congestion, and ultimately to ensure the safety of the construction workers and the public. MVP will maintain traffic flow and emergency vehicle access on roadways with traffic control personnel or appropriate detour signs where necessary. MVP's Traffic Coordinator will work with local law enforcement, fire departments, and emergency medical services to coordinate access for effective emergency response during construction. Contractors will be directed to comply with local weight limitations and restrictions on area roadways.

MVP strives to mitigate the increase in construction-related truck traffic on local roads shared with community and school buses in suburban and more densely populated rural areas. Key components to a successful community partnership **are listed below:**

- Central point of command for construction traffic route plan.
  - MVP will have a **designated** Traffic Coordinator reporting to the Safety Program Manager responsible for maintaining traffic related plans, procedures, records and all related documents.
- School bus curfews.
  - Often times construction vehicles can pose concern when school buses are traveling their established routes. The community expects for their children to have safe and timely travel to and from school. MVP will work with the governing School Districts or the **County** Transportation **Departments** in the project **areas** to identify the bus routes and times. Construction traffic will be limited or refrained during the bus route times with a published **school bus route curfew time period.**
- Speed enforcement.
  - In **increasingly** rural areas, law enforcement is often not **sufficiently** staffed to handle a sudden increase in traffic. Establishing a third-party contractor to assist in monitoring the speed on the route not only keeps the contractor and the public safe, but lends accountability to MVP. Inevitably, contractors will end up off of bonded or **preapproved haul** routes **in the project areas.** The Traffic Coordinator will be able to actively monitor these issues and reduce unbonded travel that can become costly if/when damage **to the roadway or private property** occurs. The Coordinator can also be useful in diffusing potential hostile situations with neighbors and **adjacent** landowners.
- Communication and compliance.
  - All impacts shall be within the guidelines of all applicable agencies, as well as approval from **adjacent** landowners. A list of state and county contacts is provided in **Table 1, found at the end of this document.** At **the** completion of the Project, MVP will restore all roads back to their original level of service or better, unless MVP is directed otherwise in writing by the landowner or **applicable** regulatory agency. Pre-construction **high definition videos** will be used to document the **existing** roadway **conditions** prior to Project usage.

### 3.0 Pipeline Road Crossings

MVP will construct road and highway crossings in accordance with the permit requirements and the construction drawings for the crossing. No work on any such crossing shall be started before obtaining all applicable permits from the regulatory agencies. At a minimum, MVP will maintain single lane traffic on all roads and shall provide **flag persons**, road signs and any other signaling required by the governing authority to **manage** the flow of traffic. MVP will provide barricades, warning signs, flares, lanterns, **flag persons**, and other such protective measures required to

safeguard the public at all times, in accordance with the applicable WVDOH-MTTC, WARM and the pre-approved TTC plan for each location.

Any damage to paved or blacktop roads shall be repaired per specifications provided by the regulatory agencies. Road surfaces other than hard-surfaced roads (i.e., paved, blacktop or concrete) shall be backfilled in compacted 6-inch layers and shall be finished with a compacted surface matching the existing road. If flowable backfill is used, it will be in accordance with the appropriate mix design per agency specifications. For all types of crossings, additional or other limitations may be provided by the governing municipality and must prevail.

At the end of each workday, MVP will make passable any open-cut driveways for ingress and egress; this may be accomplished using steel plates. Any and all steel plates used for such purposes shall be securely pinned (i.e. properly attached to the roadway in place) and ramped on each approach to allow traffic flow. The backfilling of the road crossings shall be performed immediately after the pipe is installed and in accordance with any requirements established by the applicable permit.

## 4.0 Construction Traffic

An increase in traffic to local and state roads will be expected throughout the day, however MVP will work with all local entities listed in Table 1 to establish a site-specific TTC plan. The temporary traffic will include transportation for construction workers in light and heavy duty trucks, as well as tractor trailers hauling machinery and materials. Impacts are expected to be minor and short term since construction spreads and personnel will be geographically dispersed. MVP personnel will commute to and from the work areas in early morning and late evening during nonpeak traffic hours. Construction traffic will be entering and leaving off-site locations such as laydown yards, pipeline rights of way and additional temporary workspace for the purpose of normal pipeline construction, hauling material and roadway maintenance. Once the material and heavy equipment are placed onto the pipeline right of way, construction equipment will move in a linear manner along the pipeline right of way as work progresses, in an effort to minimize traffic on local roads. The amount of equipment moved by hauling from site to site will be reduced due to the accessibility created by the construction right of way.

MVP intends to make road improvements in areas that are not conducive to heavy hauling and large traffic volumes, in addition to maintaining all bonded and pre-approved haul routes during construction. Post construction, MVP intends to return the roads back to their original or better level of service, meaning their original width and length unless directed otherwise in writing by the adjacent landowner or state/commonwealth agency.

## 5.0 Noxious Weeds

To prevent noxious weeds from transporting along roadways, MVP has developed the following plan of action:

- Minimize any soil disturbance wherever possible.
- The prompt seeding and revegetation of areas of disturbed soils with a certified weed-free seed mixture meeting the applicable regulatory agency's specifications.
- Encourage the cleaning of equipment and vehicles prior to entering or leaving each management area. Pressure washing will be performed in designated areas only.
- Use certified weed-free mulch/straw for erosion control.
- Mowing of weeds in newly revegetated areas during the first season of establishment is to be performed prior to seed formation. However, care will be taken to encourage seed formation and growth of new native vegetation to impede any noxious weed growth.

## 6.0 Fugitive Dust Control

Dirt and gravel during construction periods in dry weather can create an inhospitable environment for neighbors and workers. MVP has developed the Fugitive Dust Control Plan to address this issue. Highlights of that Plan are discussed below.

Implementation of construction and restoration best management practices and operational controls will be used to mitigate fugitive dust emissions. The earth disturbance permit for this Project will outline specific practices that control fugitive dust; including a construction sequence, use of rock construction entrances, and temporary soil stabilization methods. Operational controls will also be used, including a self-imposed reduction of speed for MVP traffic on unpaved roads as well as sweeping/vacuuming paved roadways when Project-related soils are tracked out onto the road surfaces.

Wet suppression, using water, is the predominate method of fugitive dust control on unpaved roads and gravel pads, as it causes finer materials to adhere together and form larger particles. Increasing the moisture content of the finer materials may be accomplished either naturally or mechanically. Moisture content of unpaved road surfaces can be naturally increased through rainfall, or mechanically increased by the application of water from a construction vehicle. The amount of water required to sufficiently control fugitive dust emissions is dependent on the characteristics of materials (i.e. existing surface moisture content), ambient conditions (i.e. rainfall, humidity, temperature), and other activities occurring in the area (i.e. vehicle traffic, vehicle speeds, etc.).

The following actions will be taken to reduce fugitive dust from our operations:

- Pipeline Construction Activities and Other Earth Disturbances.
  - Fugitive dust emissions from vegetation removal, clearing and grading, cutting and filling, topsoil removal, trenching, backfilling and stockpile storage will be controlled to great extent by following the construction sequencing of disturbing limited areas at a time. If sustained visible dust plumes occur, dust suppression can be achieved by applying water along the travel lane and disturbed land via water truck. Spoil piles left undisturbed for four or more days should be temporarily stabilized with seed and mulch to prevent wind and water erosion.
- Unpaved Roads.
  - Fugitive dust emissions generated by motorized equipment and miscellaneous vehicle traffic will be controlled by wet suppression as necessary. Fugitive dust emissions from active access roads will be controlled by periodic surface wetting using a water truck. During periods of high truck traffic, road surfaces will be wetted more frequently to minimize dust emissions, however, this may be adjusted depending on the current weather conditions. On unpaved roads, MVP will reduce the speed of construction traffic to minimize the potential of fugitive dust emissions.
- Paved Roads.
  - Fugitive dust emissions from paved roads will be controlled with a combination of water trucks, power washers, sweeping and/or vacuuming as appropriate to minimize the amount of dust that is generated and built up on the road surface.
- Track-out onto Roads.
  - Track-out of loose materials will be controlled using rock construction entrances on access roads that begin at a junction with paved roads; this is done to prevent tracking of mud onto public roadways. In the event that loose material goes beyond the rock construction entrance, sweeping and/or vacuuming will be used to remove the material.
- Deposition on Other Premises.
  - MVP will take all appropriate precautions to prevent the deposition of solid or liquid materials onto any other premises from the Project sites and access roads that may cause or contribute to visible dust emissions. Preventative actions may include wet suppression; the operation of a sweeper truck on paved roadways equipped with water suppression; or the operation of a vacuum truck.
- Tackifiers.
  - The Contractor may propose the use of tackifiers to reduce fugitive dust, provided that the product to be utilized has been previously approved by the appropriate federal or state/commonwealth agencies. The Contractor will detail the proposed usage of any such substance in their dust control plan and provide copies of the Safety Data Sheets (SDS) and recommended application procedures. Typical tackifiers that may be used would include DustFloc, RoadFloc and Kodiak Super TACKMixes.

## 7.0 Inspection, Monitoring and Record Keeping

The construction contractor will implement the dust control measures specified in this plan. All construction personnel will be informed of the measures included in this plan. Environmental inspectors will have primary responsibility for monitoring and enforcing the implementation of dust control measures by the construction contractor. The inspectors will also be responsible for ensuring that these measures are effective and proper documentation is maintained. When environmental conditions are dry, inspection of dust control measures will be conducted daily, and the environmental inspectors will be responsible for recording the following information:

- **Weather** conditions, including temperature, wind speed and wind direction.
- **Number** of water trucks in use.
- **Incidents** where dust concentration is such that special abatement measures must be implemented.
- **Condition** of soils (i.e. damp, crusted, unstable, other) on access roads.
- **Condition** of track-out pads.
- **Overall** status of dust control compliance.

This information will be incorporated into the environmental inspector’s daily report, and significant **occurrences** of non-compliance with the plan will be reported to the Construction Manager as soon as they are discovered.

## 8.0 Transportation Management on Federal Lands

### 8.1 Jefferson National Forest

The MVP will cross roads and utilize access roads on US Forest Service (USFS) lands **within** the Jefferson National Forest (JNF) in West Virginia and Virginia. Traffic and transportation management activities on these lands will conform to the standards and guidelines contained within the Land and Resource Management Plan (LRMP) of the JNF for road use, maintenance and construction. Applicable standards and guidelines, as well as site-specific requirements for traffic and transportation management activities, will be addressed in the *Plan of Development or Construction, Operations and Maintenance Plans* prepared for the USFS lands crossed by the MVP. Potentially applicable standards and guidelines are listed below:

- Roads shall be designed and constructed to the standard necessary to provide access and manage resources according to management **prescriptions**’ desired conditions and public safety (JNF LRMP FW-230).
- All new and reconstructed roads will blend into the landscape to the extent practical (JNF LRMP FW-232).

- Apply the level of maintenance needed to protect the investment, facilitate resource management and provide for user safety (JNF LRMP FW-234).
- Closed system roads are planted with native or desirable non-native wildflowers, forbs, shrubs, and/or grasses (JNF LRMP FW-235).
- Specify management requirements for permittee access roads in the designated use permit, where roads are included in the authorization (JNF LRMP FW-248).

## 8.2 National Park Service

The MVP will cross National Park Service (NPS) lands along the Blue Ridge Parkway in Virginia. MVP will use the conventional bore drill construction method to install the proposed pipeline under the Parkway, which will avoid direct impacts on the Parkway. No impacts to any pedestrian or vehicular traffic along the Blue Ridge Parkway are anticipated.

## 9.0 Reference Documentation

The MVP has used many documents in reference for the preparation of this Traffic and Transportation Management Plan. This list below is not all inclusive, but will be utilized to comply with applicable Local, State/Commonwealth and Federal Agencies.

### 9.1 West Virginia Division of Highways (WVDOH)

Manual on Rules and Regulations for Constructing Driveways on State Highway Rights of Way  
Accommodation of Utilities on Highway Right of Way and Adjustment and Relocation of Utility Facilities on Highway Projects  
Accessible Rights of Way Design Guide  
Design Directives  
Traffic Engineering Directives  
Design Manual  
Construction Manual  
2010 Standards for Roads and Bridges, and Addenda  
Manual on Temporary Traffic Control for Streets and Highways  
Supplemental Documentation & Memoranda

## 9.2 Virginia Department of Transportation (VDOT)

- Right of Way Manual
- Roadway Design Manual
- Traffic Engineering Design Manual
- Road and Bridge Standards
- CADD Manual
- Work Area Protection Manual
- Virginia Supplement to the MUTCD
- Temporary Traffic Control
- Supplemental Documentation & Memoranda

## 9.3 Other

- Manual on Traffic Control for Streets and Highways (MUTCD)
- AASHTO Policy on Geometric Design of Highways and Streets
- FHWA Design Standards

**Table 1**

<b>West Virginia State and County Contact Information</b>			
	<b>Phone</b>	<b>Website</b>	<b>Contact Name, Position</b>
<b>State Agency</b>			
West Virginia Department of Transportation (WVDOT)	(304) 558-0384	<a href="http://www.transportation.wv.gov">http://www.transportation.wv.gov</a>	Wayne Kessinger, Permits Section Administrator
WVDOT	(304) 842-1500	<a href="http://www.transportation.wv.gov">http://www.transportation.wv.gov</a>	Gary Clayton, P.E., Statewide Oil and Gas Coordinator
<b>West Virginia County</b>			
Wetzel	(304) 455-8217	<a href="http://www.wetzelcounty.wv.gov/">http://www.wetzelcounty.wv.gov/</a>	Larry Lemon, County Commissioner
Harrison	(304) 624-8690	<a href="http://www.harrisoncountywv.com/">http://www.harrisoncountywv.com/</a>	Linda Cross, Deputy Director of Planning Commission
Doddridge	(304) 873-2631	<a href="http://www.doddridgecounty.wv.gov/">http://www.doddridgecounty.wv.gov/</a>	George Eidel, OES Manager
Lewis	(304) 269-8200	<a href="http://www.lewiscountywv.org/">http://www.lewiscountywv.org/</a>	Cindy Whetsell, County Administrator
Braxton	(304) 765-2835	<a href="http://www.braxtoncounty.wv.gov/">http://www.braxtoncounty.wv.gov/</a>	Edie Tichner, Administrative Assistant
Webster	(304) 847-7600	<a href="http://www.webstercounty.wv.gov/">http://www.webstercounty.wv.gov/</a>	Traci Dean, County Administrator/Floodplain Manager
Nicholas	(304) 872-0811	<a href="http://www.nicholascountywv.org/">http://www.nicholascountywv.org/</a>	David Brown, County Maintenance Assistant Supervisor
Greenbrier	(304) 647-6689	<a href="http://www.greenbriercounty.net/">http://www.greenbriercounty.net/</a>	Kelly Banton, Commission Assistant
Fayette	(304) 574-4273	<a href="http://www.fayettecounty.wv.gov/">http://www.fayettecounty.wv.gov/</a>	Tim Richardson, Zoning Enforcement Officer
Summers	(304) 466-7126	<a href="http://www.summerscountywv.org/">http://www.summerscountywv.org/</a>	Greg Bandall, County Assessor
Monroe	(304) 772-3096	<a href="http://www.monroecountywv.net/">http://www.monroecountywv.net/</a>	Donald Evans, County Clerk
<b>West Virginia Community</b>			
Smithfield (town)	(304) 334-5641	N/A	
Salem (city)	(304) 838-3635	<a href="http://www.local.wv.gov/salem/">http://www.local.wv.gov/salem/</a>	Ronnie Davis, City Manager
Cowen (town)	(304) 226-3101	<a href="http://www.local.wv.gov/cowen/">http://www.local.wv.gov/cowen/</a>	Tammy Crue, Mayor
Camden-on-Gauley (town)	(304) 226-8667	<a href="http://www.local.wv.gov/camdenongauley/">http://www.local.wv.gov/camdenongauley/</a>	Lisa Cutlip, Mayor
Quinwood (town)	(304) 438-6658	N/A	Cassandra Childers, Town Clerk
Rainelle (town)	(304) 438-7191	<a href="http://www.rainelle-wv.com/">http://www.rainelle-wv.com/</a>	Eddie Midkiff, Town Recorder

Rupert (town)	(304) 392-5682	<a href="http://www.local.wv.gov/rupert/">http://www.local.wv.gov/rupert/</a>	Jim Nichols, Mayor
<b>Commonwealth of Virginia and County Contact Information</b>			
	<b>Phone</b>	<b>Website</b>	<b>Contact Name/Position</b>
<b>State Agency</b>			
Virginia Department of Transportation (VDOT)	(540) 387-5423	<a href="http://www.virginia DOT.org/">http://www.virginia DOT.org/</a>	Ashley Smith, P.E., Area Land Use Engineer
<b>Virginia County</b>			
Giles	(540) 921-2525	<a href="http://www.gilescounty.org/">http://www.gilescounty.org/</a>	Bryan Reed, Subdivision Agent/VDOT Project Administrator
Montgomery	(540) 394-2148	<a href="http://www.montgomerycountyva.gov/">http://www.montgomerycountyva.gov/</a>	Emily Gibson, Planning Director
Craig	(540) 864-5010	<a href="http://www.craigcountyva.gov">http://www.craigcountyva.gov</a>	Clay Goodman, County Administrator
Roanoke	(540) 776-7190	<a href="http://www.roanokecountyva.gov/">http://www.roanokecountyva.gov/</a>	Richard Caywood, Assistant County Administrator
Franklin	(540) 483-3030	<a href="http://www.franklincountyva.gov/">http://www.franklincountyva.gov/</a>	Neil Holthouser, Director of Planning/Community Development
Pittsylvania	(434) 432-7974	<a href="http://pittsylvaniacountyva.gov/">http://pittsylvaniacountyva.gov/</a>	Greg Sides, Assistant County Administrator
<b>Virginia Community</b>			
Pearisburg (town)	(540) 921-0340	<a href="http://www.pearisburg.org/">http://www.pearisburg.org/</a>	Rick Tawney, Town Engineer/Director of Public Works
Pembroke (town)	(540) 626-7191	<a href="http://www.pembrokeva.org/">http://www.pembrokeva.org/</a>	Stanley Lucas, Utility Director
Newport (village)	(540) 544-6822	<a href="http://www.newportrecreation.com/">http://www.newportrecreation.com/</a>	Ava Howard, Community Action Committee Marketing Director
Blacksburg (town)	(540) 961-1100	<a href="http://www.blacksburg.gov/">http://www.blacksburg.gov/</a>	Randy Formica, Construction Engineer
Boones Mill (town)	(540) 334-5404	<a href="http://www.townofboonesmill.org/">http://www.townofboonesmill.org/</a>	Jane Campbell, Town Treasurer
Rocky Mount (town)	(540) 483-0907	<a href="http://www.rockymountva.org/">http://www.rockymountva.org/</a>	Josh Gibson, Town Planner
Chatham (town)	(434) 432-8153	<a href="http://www.chatham-va.gov/">http://www.chatham-va.gov/</a>	Bob Hanson, Director of Public Works